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Improving Treatment of OUD in Youth

December 18th, 2020 12:30 – 1:30 PM

Marc Fishman, M.D.

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855-MD-BHIPP (632-4477)
www.mdbhipp.org
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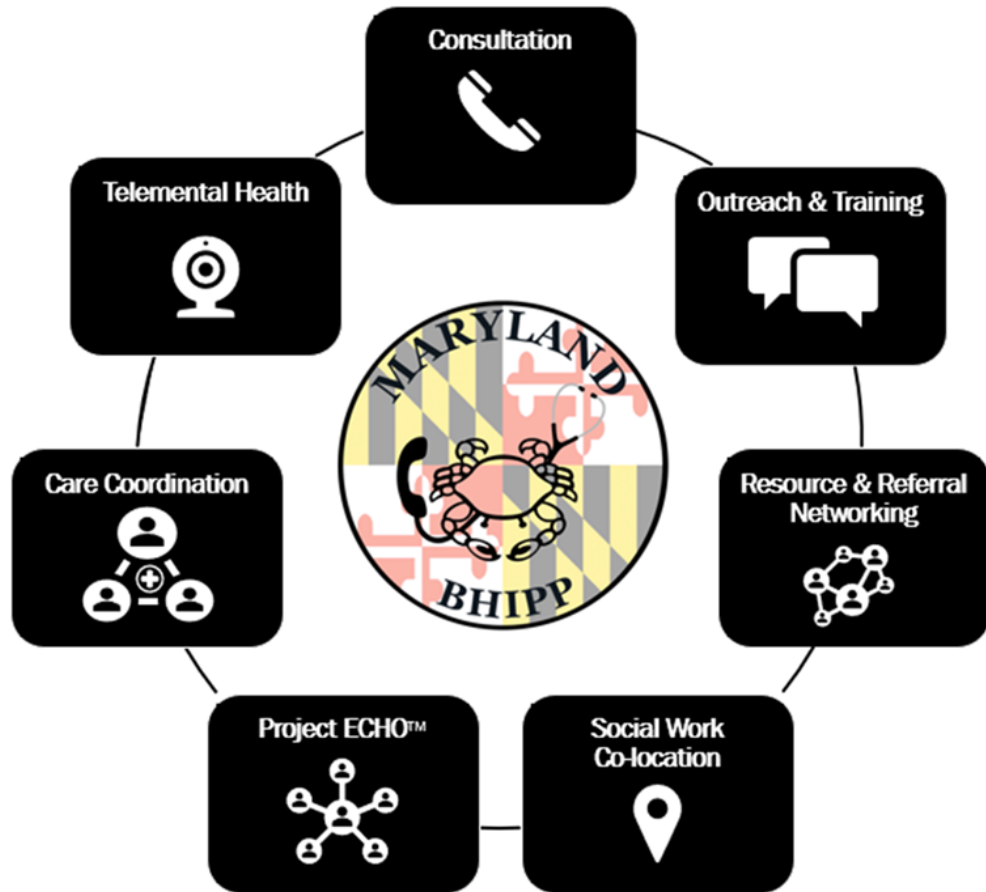
www.MarylandMACS.org

Meet The Presenter

Mark Fishman, M.D.

Marc Fishman, MD, is an addiction psychiatrist, Medical Director of Maryland Treatment Centers, and a member of the Psychiatry faculty of the Johns Hopkins University School of Medicine. Dr Fishman leads Maryland Treatment Centers, a regional behavioral health care provider, which includes Mountain Manor Treatment Centers in Baltimore and Emmitsburg as well as several other inpatient and outpatient programs. In that role he has been involved in development and implementation of innovative programming in addiction and co-occurring disorder treatment. His clinical specialties include treatment of drug-involved and dual-diagnosis youth, opioid addiction in adolescents and adults, and addiction with co-occurring psychiatric disorders. His research work has focused on medication treatment for SUDs as well as, models of care and treatment outcomes in youth, in particular opioid addiction. He has been a president of the MD Society of Addiction Medicine and is currently a member of its Board.

Who We Are – Maryland BHIPP



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- Training & education
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Coming soon!

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- BHIPP is supported by funding from the **Maryland Department of Health, Behavioral Health Administration** and operates as a collaboration between the **University of Maryland School of Medicine**, the **Johns Hopkins University School of Medicine**, **Salisbury University** and **Morgan State University**.

- *This program is supported by the **Health Resources and Services Administration (HRSA)** of the U.S. Department of Health and Human Services (HHS) as part of an award totaling $433,296 with approximately 20% financed by non-governmental sources. The contents of this presentation are those of the author(s) and do not necessarily represent the official views of, nor an endorsement, by HRSA, HHS or the U.S. Government. For more information, visit www.hrsa.gov.*

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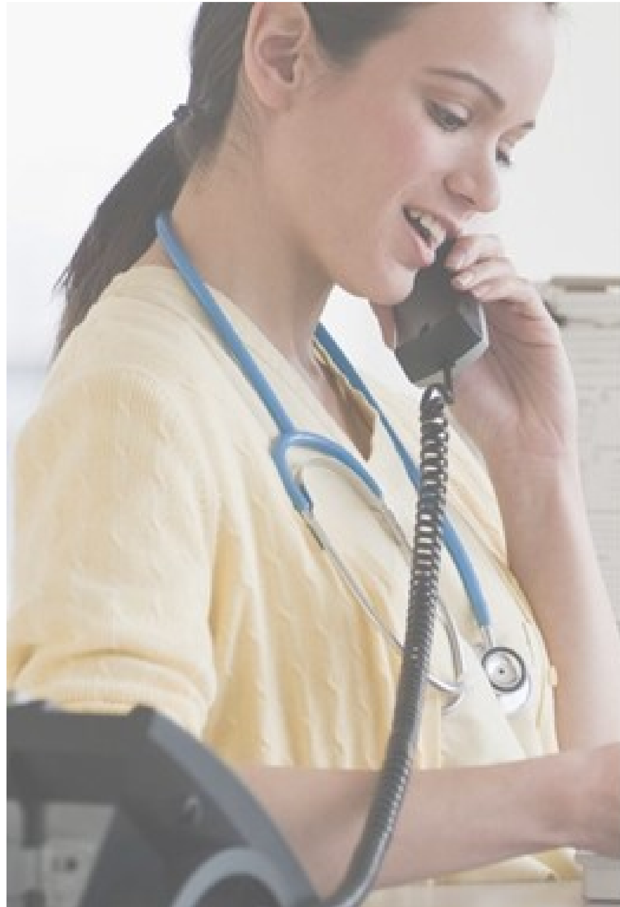

BHIPP is open.

The BHIPP phone line remains open during this challenging time to support primary care clinicians in assessing and managing the mental health needs of their patients.

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(1-855-632-4477)

www.mdbhipp.org

Ways to Connect:

- **Visit our COVID-19 Resource Page:** www.mdbhipp.org
- **Sign up for our newsletter:** https://mdbhipp.org/contact.html
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Disclosures

Consultant for Alkermes, US World Meds, Drug Delivey LLC, Verily Life Sciences, Danya, ASAM

Research funding from Alkermes, US World Meds, NIH, Arnold Foundation, University of MD

Outline

- Background and scope of the problem
- Barriers to success along the OUD treatment cascade
- Treatment: Survey of current evidence and emerging models of care
- New directions:
  - Engaging families and home delivery
  - Primary care integration
  - Recovery housing
- Conclusions

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Background

- Opioid use disorder (OUD) is an advanced, malignant form of substance use disorder (SUD), usually beginning in **youth**
- Young adults are disproportionately affected by the opioid epidemic
- There is evidence and consensus for **medications in OUD** (MOUD) in youth, but dissemination is poor due to problems with capacity, misinformation, and prejudice
- Developmental vulnerability in youth is prominent
- Youth have **worse outcomes** than mature adults
- Improved, developmentally-informed strategies that target engagement, retention and medication adherence could help
- The Youth Opioid Recovery Support (YORS) intervention and others have promise as innovative approaches

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Intervention for youth substance use is **Prevention** for youth OUD

- Addiction – a developmental disorder of pediatric onset
- The vast majority of youth who initiate opioids have problems with other substances first
- Earlier onset associated with worse outcomes
- Earlier intervention associated with better outcomes
- Opioid addiction as an advanced stage in progression of illness
- Prevention of OUD by treatment of non-opioid SUD prior to opioid initiation – cannabis, alcohol, nicotine

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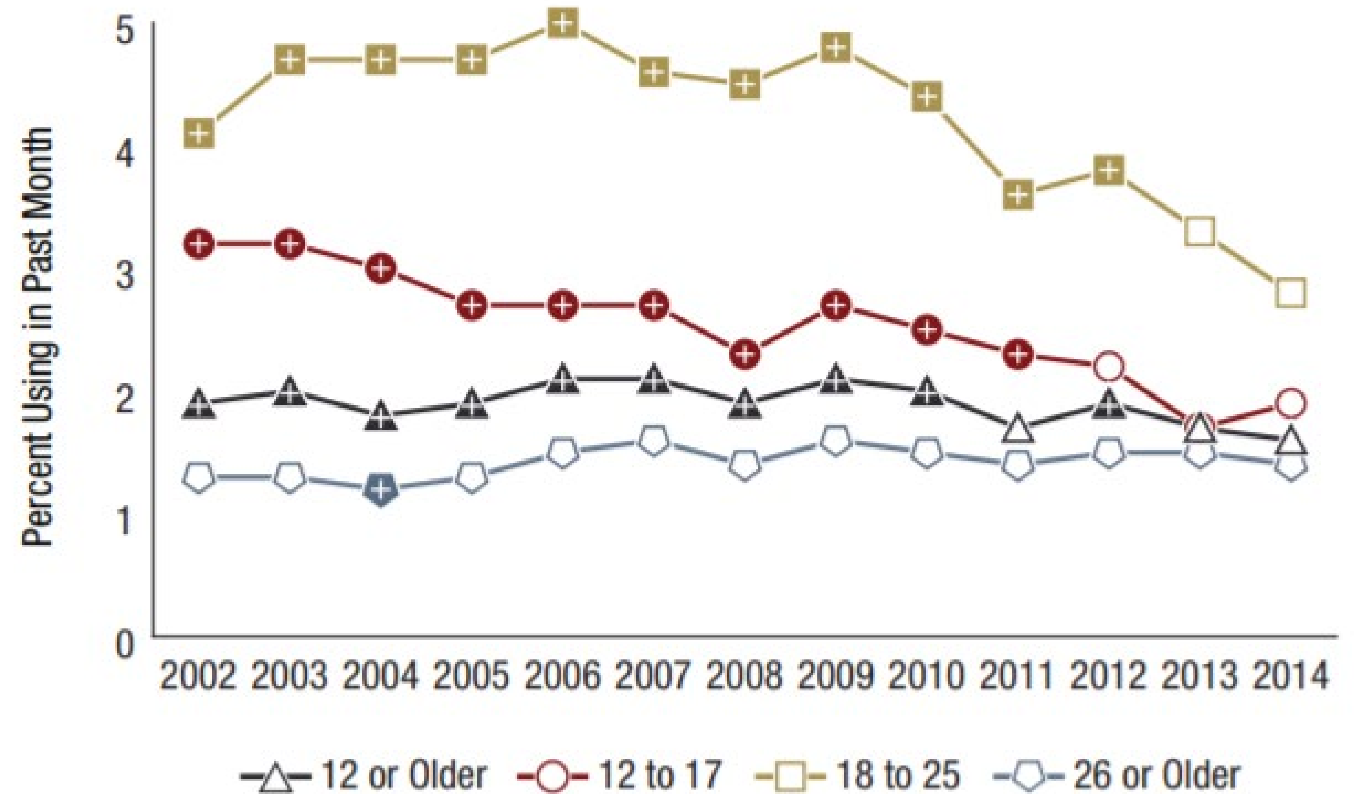
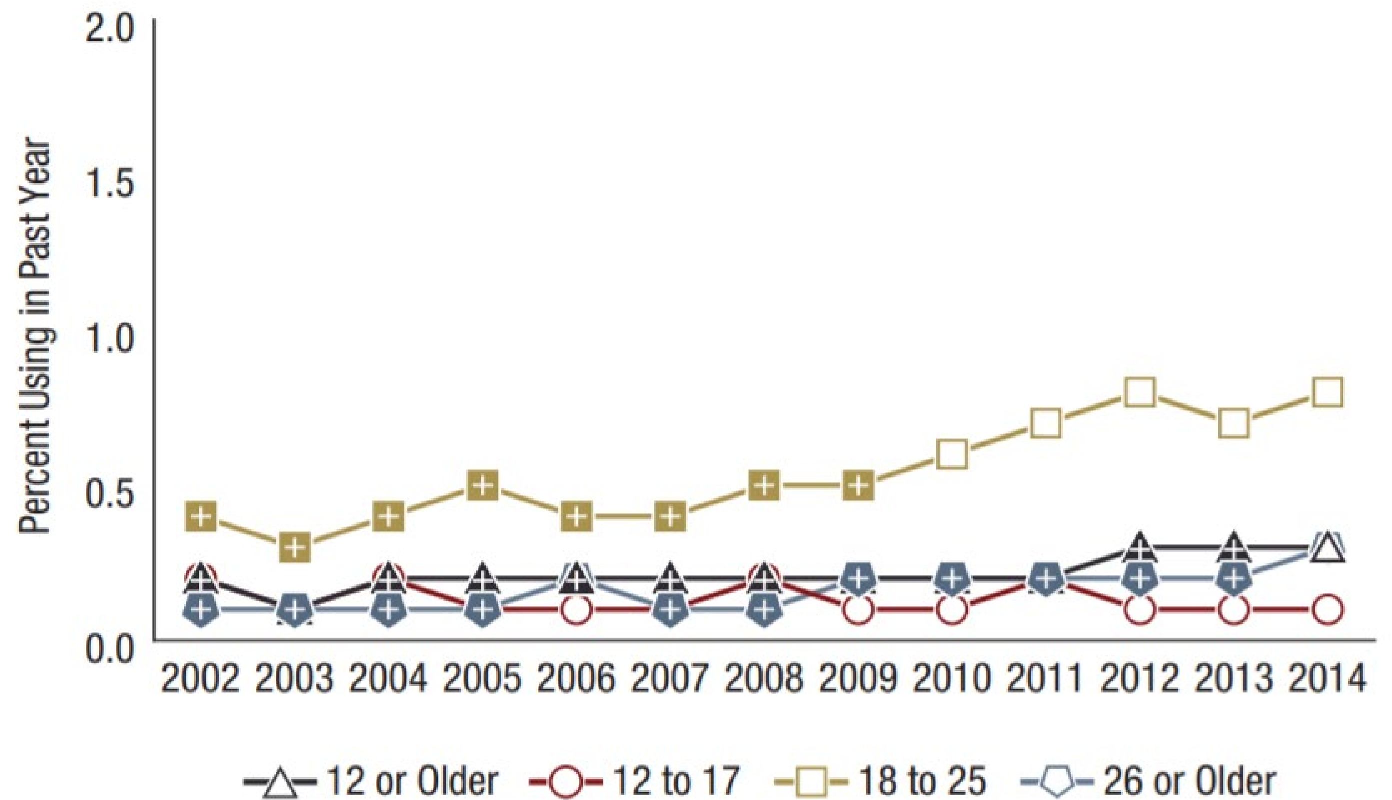
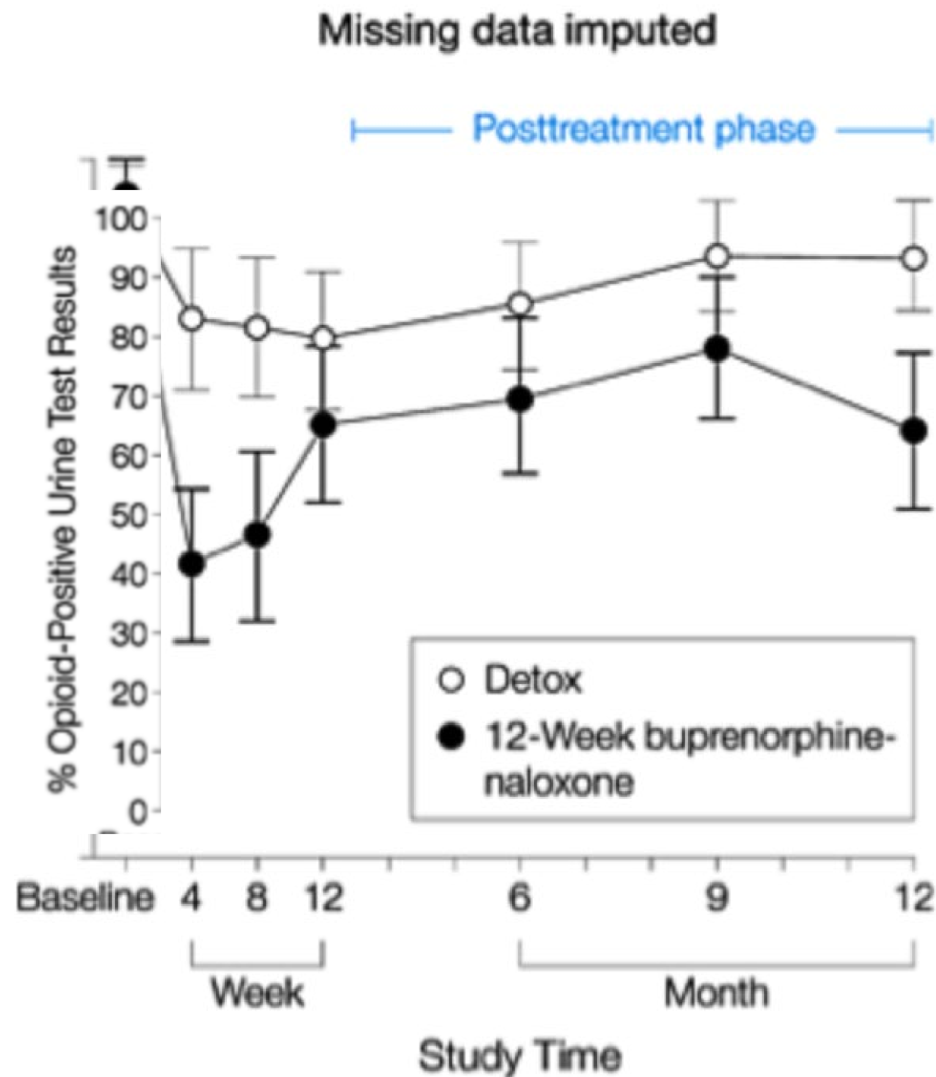
Young adults have the highest prevalence of use of non-medical prescription opioids.



Young adults have the highest prevalence of use of heroin.



CTN Youth Buprenorphine Study
Opioid Positive Urines: 12 weeks Bup vs Detox



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Woody et al JAMA. 2008.

Addiction

CASE REPORT

doi:10.1111/j.1360-0443.2010.03015.x

Treatment of opioid dependence in adolescents and young adults with extended release naltrexone: preliminary case-series and feasibility

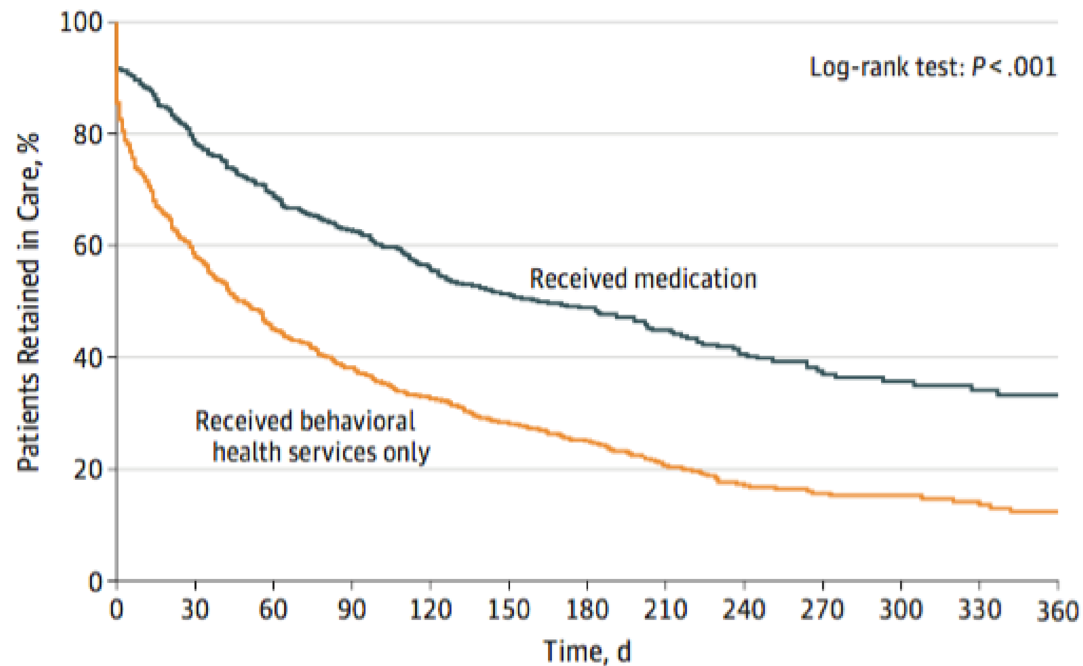
Marc J. Fishman[1,2], Erin L. Winstanley[3,4], Erin Curran[1,2], Shannon Garrett[2] & Geetha Subramaniam[1,2]

Johns Hopkins University School of Medicine, Department of Psychiatry and Behavioral Sciences, MD, USA,[1] Mountain Manor Treatment Center, MD, USA,[2] University of Cincinnati College of Medicine, Department of Psychiatry, OH, USA[3] and Lindner Center of HOPE, OH, USA[4]

- 20 youth received extended release naltrexone
- 16 youth initiated outpatient treatment
- 10 youth retained at 4 months
- 9 youth “good outcome”

Medications promote retention for youth (But poor uptake)

- Medicaid claims datasets, 11 states, ages 13-22
- N = 4837 youths dx OUD (out of 2.4M, 0.2%)
- 76% received *any* treatment within 3 months of dx
- 52% received psychosocial services only
- 26% received any medication (5% for age <18 yrs).



Hadland et al. JAMA Pediatrics 2018

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Duration of Treatment

Impact of Treatment Delivery

No. Days Retained

70
60
50
40
30
20
10
0

10
25
43
51

= Mean # Days Retained
= Individual Study Participant

28-Day (n=9)
56-Day (n=11)
28-Day (n=19)
56-Day (n=14)

Daily Attendance Required

2-3 Days per Week Attendance Required

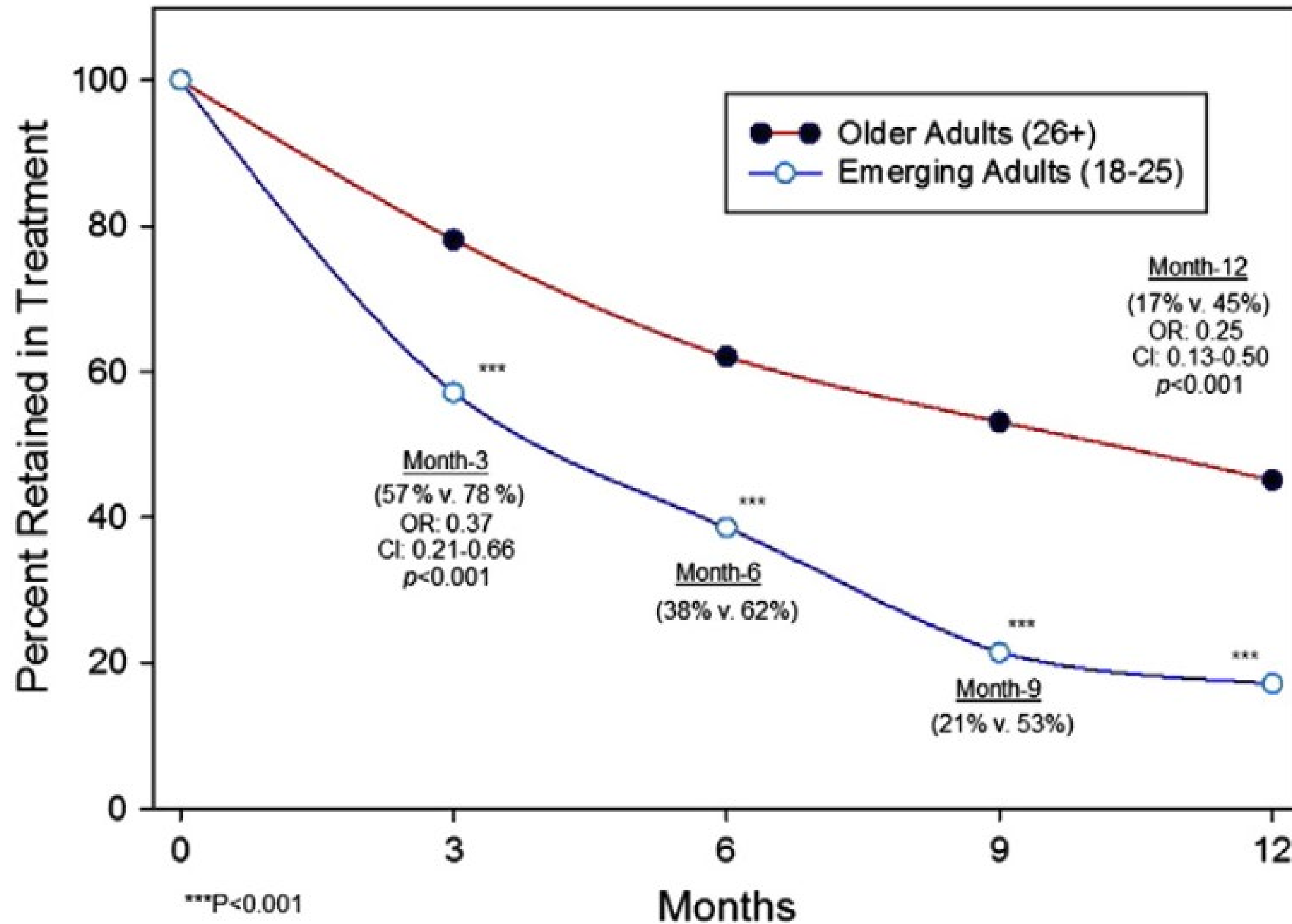
Treatment Condition

Marsch et al. (2016): Addiction: 111(8): 1406-1415

Participants who received 56-day buprenorphine were retained in treatment **significantly longer** than participants who received 28-day buprenorphine

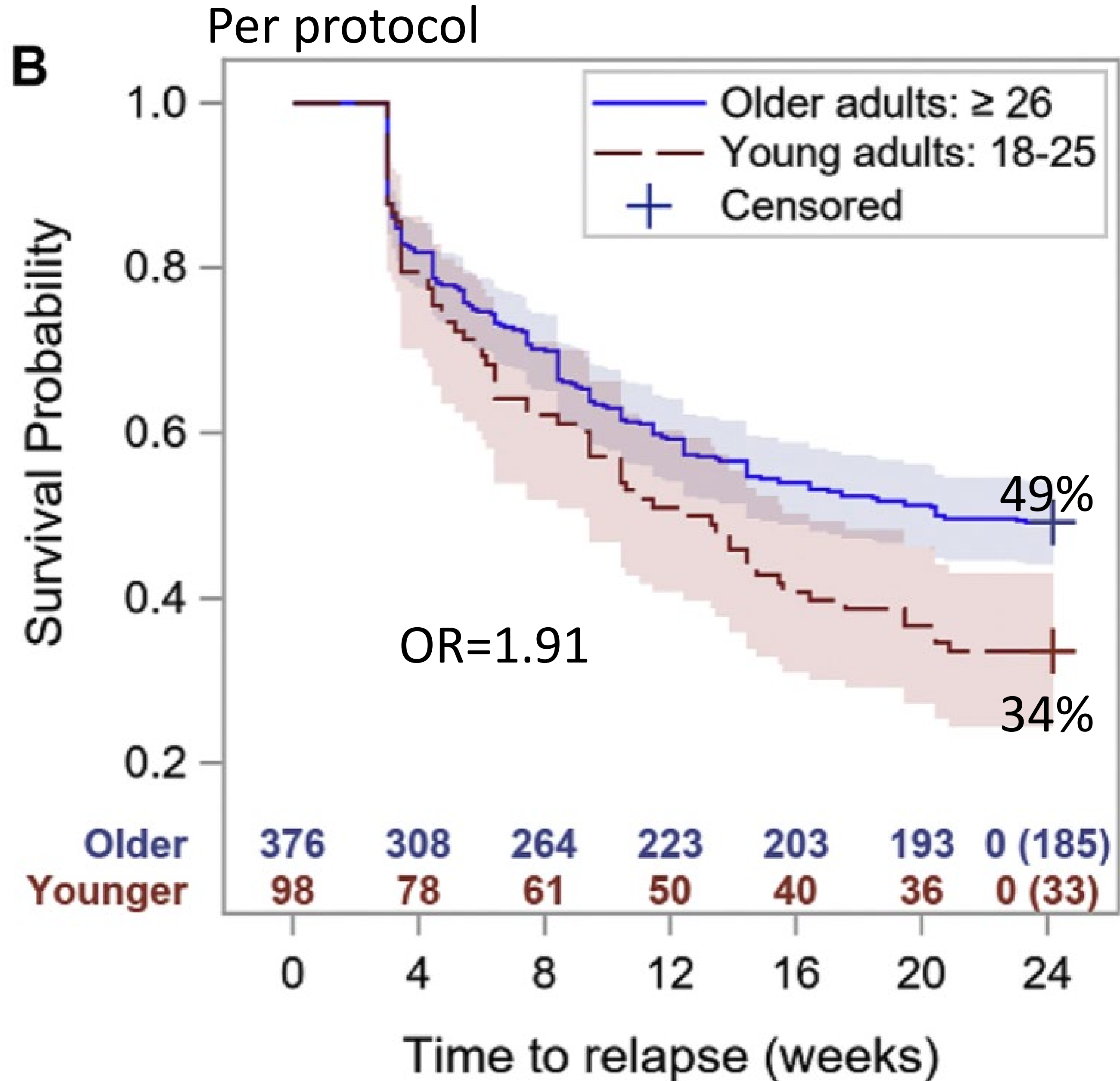
Participants who had intermediate program requirements were retained in treatment **significantly longer** than participants who had very intensive program requirements

Retention bup treatment young adults vs older adults



Z. Schuman-Olivier et al. / *Journal of Substance Abuse Treatment 47 (2014) 202–212*

Young adults have worse outcomes vs older adults: XBOT secondary analysis



Fishman. J Adol Health 2020. In press.

MOUD for adolescents and young adults
Summary of the evidence

- Buprenorphine effective (though outcomes not as good as for older adults)
- Longer is better; no evidence for time limitation
- XR-NTX promising, but little youth-specific research
- MOUD promotes retention in **all** treatment for youth
- No signal for safety problems based on age
- MOUD first line; No evidence for fail-first

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"We found this in your brain."

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How should we help this young person?

- 22 M
- Onset cannabis age 14
- Onset prescription opioids 17, progressing to daily use with withdrawal within 8 months
- Onset nasal heroin 18, injection heroin 6 months later
- 3 episodes residential tx, 2 AMA, 1 completed, but no continuing care
- Buprenorphine treatment (monthly supply Rx x 4), took erratically, sold half
- Presents in crisis seeking detox
  (“Can I be out of here by Friday?”)

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Features of youth opioid treatment

- Developmental barriers to treatment engagement
  - Invincibility
  - Immaturity
  - Motivation and treatment appeal
  - Less salience of consequences
  - Strong salience of burdens of treatment
- Variable effectiveness of family leverage
- Pushback against sense of parental dependence and restriction
- Prominence of co-morbidity

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Young Adults

Enrolled in Specialty Intensive Outpatient (IOP)

Vo et al. Relapse Prevention Medications in Community Treatment for Young Adults with Opioid Addiction. *Substance Abuse.* 2016

MOUD feasible for youth in real world
But poor adherence in community treatment

- Treatment received in acute residential followed by multiple community providers, youth 15-21, N=288
    - XRNTX 28%, Bup 33%, No meds 39%
- Over 6 months following residential discharge **low rates of MOUD** use:
    - XRNTX: mean doses 1.3
        - 41% 1st OP dose
        - 12% 3rd OP dose
        - 2% 6th OP dose
    - Bup: mean days 57

- Currently receiving MOUD **higher for the bup group** than XR-NTX or no medication at 6 months
- Self-reported opioid **use lower for XR-NTX group** than bup and no meds at 3 and 6 months
- Meeting OUD criteria **lower for XR-NTX than** no meds at 3 and 6 months, and than bup at 3 months

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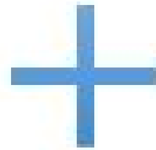
Mitchell et al. Under review JSAT. 2020.

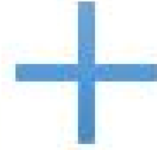
Example of Innovative Intervention

Youth Opioid Recovery Support (YORS)

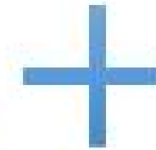
Assertive Outreach



Family Involvement



Medication Home Delivery



Incentives for Medication

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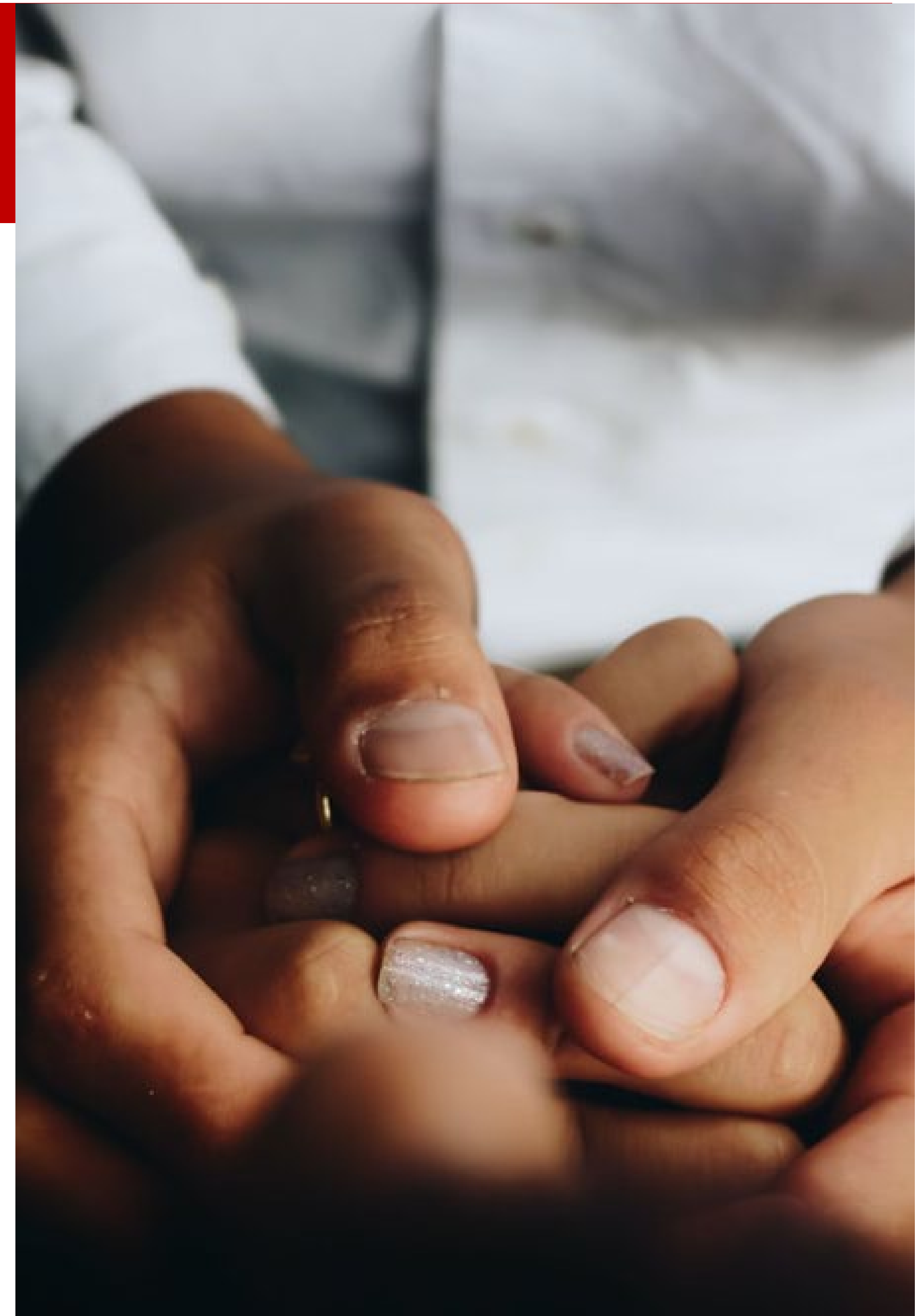
Assertive Treatment

Well established for treatment of **chronic illness** in hard-to-reach populations in which medication adherence is a **major barrier**

- TB, HIV, schizophrenia (ACT)



Family Engagement: Historical Barriers

- Normative pushback against **sense of parental dependence and restriction**
- Clinicians: lack of training, competence, comfort
- Focus on **internal transformation**
- Preoccupying focus on “enabling”
- Over-rigid concern with **confidentiality**

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Rationale

Both **families and youth** need a recipe for treatment, with role definitions, expectations, and responsibilities

Families have **core competence** and natural leverage

Encouragement of emerging youth autonomy and self-efficacy **is compatible** with empowerment of families

Family **mobilization** – "Medicine may help with the receptors, but you still have to parent this difficult young person"

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Family Framework Elements

- Family education
- 3-way treatment plan, collaboration, and contract: youth, family, program
- How will family know about attendance and treatment progress?
- How will family help support attendance and treatment progress?
- How will family help support medications?
- What is the back-up or rescue plan if there is trouble?

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Principles of Family Negotiation

The Art of the Deal

- Pick your battles
- Know your **leverage**
- You gotta give to get
- You have more juice than you realize
- Keep your **eyes on the prize**

Additional Components

Home delivery

- Meet them where they are, literally
- Prioritization of MOUD

Contingency management

- Well established in research but little uptake in real-world care
- Best studied target negative UDS
- Medication adherence as target less well established but perhaps more generalizable?

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Poster Child?

- 21-year-old male injecting heroin
- 5 inpatient detox admissions over 1.5 years, each time got first dose of extended-release naltrexone but never came back for 2nd dose
- Lives with GM, team shows up with dose, he says no thank you, she says no not an option, done deal, gets 6 doses

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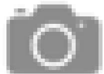
Engagement – monitoring

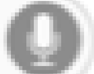
Thu, Feb 7, 2:44 PM

Hey Ms. [redacted], just wanna let you know that Brittany got her shot no problem

Delivered

Great thank you so much





Verizon 5:24 PM 84%

Jeremy >

Sat, Dec 1, 5:30 PM

Hey Dave, you might've already surmised this since you were visiting when we arrived, but just wanna let you know Jeremy is back on the shot

That is great news! Thank you! I think he really needs some mental health support but apparently he hasn't seen anyone yet to start treating his PTSD. But I'm glad he is back on vivitrol.

Ya he told us that was the case. We'll see if we can help with that

Thank you so much.

I can't tell you how much I appreciate it

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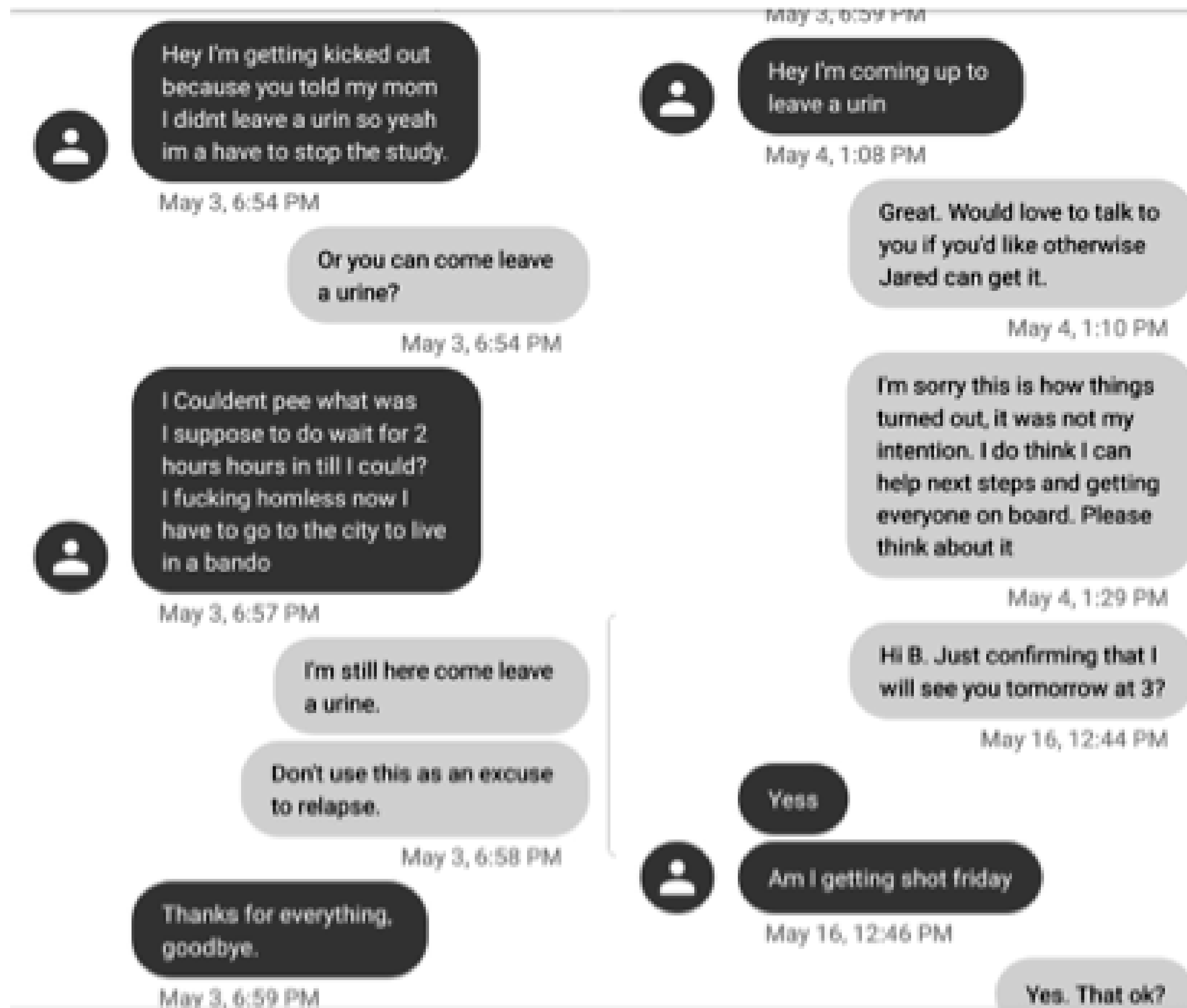
Maintaining therapeutic optimism



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Balancing parental and young adult empowerment

- Patient: “Mom, you can’t be in here when I’m getting the shot…”
- Therapist: “Ma’am I think it’s best if we provide her privacy for the injection.”
- Mother: “Are you kidding me? Of course I am. I’m not leaving this room till I see that medicine go in you…”

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Keep your eyes on the prize

Verizon 1:32 PM 88%

2 People >

Hi Team Roger! Missed y'all today. Since I haven't seen Roger in 3 weeks I want to make sure we are good to meet Thursday at 12?

Roger H Mom

RH

Yes
I thought Roger was coming. Wednesday and Thursday this week

I had him down for Tuesday and thursday. I have some for tomorrow so let's shoot for Thursday.

Tue, Dec 4, 2:21 PM

Roger H New

RH

Wed, Dec 5, 4:49 PM

Hi just double checking we will see you tomorrow at 12?

Mon, Dec 17, 2:04 PM

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Don't take no for an answer

Tue, Apr 3, 6:30 PM

Can u stop calling my mother am done I don't want no more shots

Can you give us a call?

Thanks for sticking with us Eddie, we'll see you tomorrow around 7:30 for the shot. And if your having any problems with vivitrol, we can get you in to see the doctor about it

YORS Pilot RCT

- Ages 18-26, OUD, seeking XR-NTX
- Recruitment through index episode of acute residential treatment, with detox
- Randomization to YORS vs TAU
- 6 months duration
- N = 38
- Outcomes: doses received, opioid relapse (>10d use per 28d, missing imputed pos)

Fishman M, et al. "A pilot randomized controlled trial of assertive treatment including family involvement and home delivery of medication for young adults with opioid use disorder." *Addiction*. In Press. 2020.

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Receipt of Cumulative XR-MOUD Doses

Received all prescribed doses: 44% vs 0%

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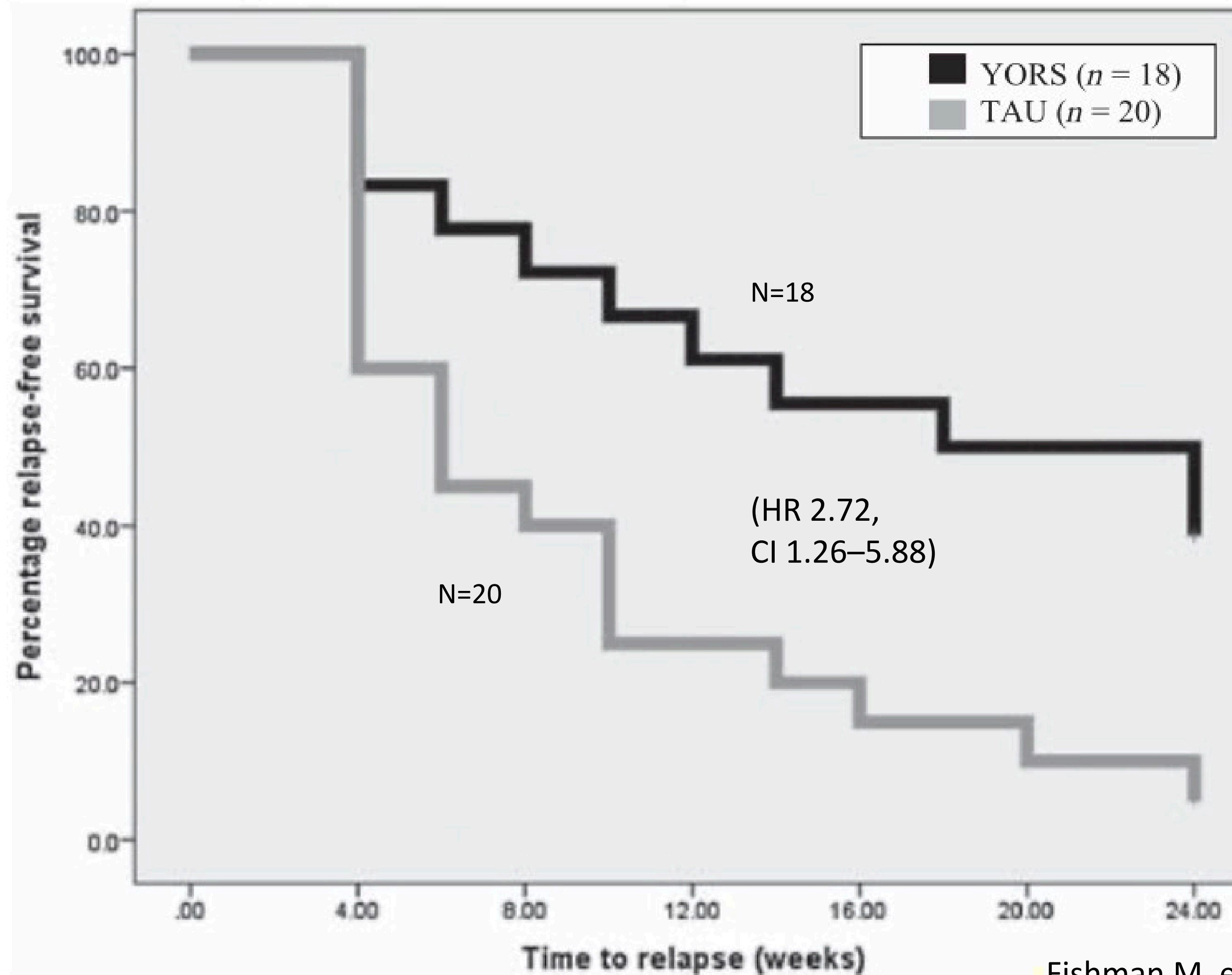
Fishman M, et al. *Addiction*. 2020.

YORS Outcomes: Opiod Relapse-Free Survival



Fishman M, et al. *Addiction*. In Press. 2020.

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YORS pilot Study #2

- Ages 18-26, OUD, seeking XR-MOUD, choice of XR-NTX or XR-Bup
- Recruitment through index episode of acute residential treatment, with detox
- Hgistorical comparison TAU group from study #1
- Variable duration 12-24 wks
- N = 22
- Outcomes: doses received, opioid relapse (>10d use per 28d, missing imputed pos)

Wenzel et al. Choice of extended release medication for OUD in young adults (buprenorphine or naltrexone): a pilot enhancement of the Youth Opioid Recovery Support (YORS) intervention. *JSAT*. Under revision. 2020.

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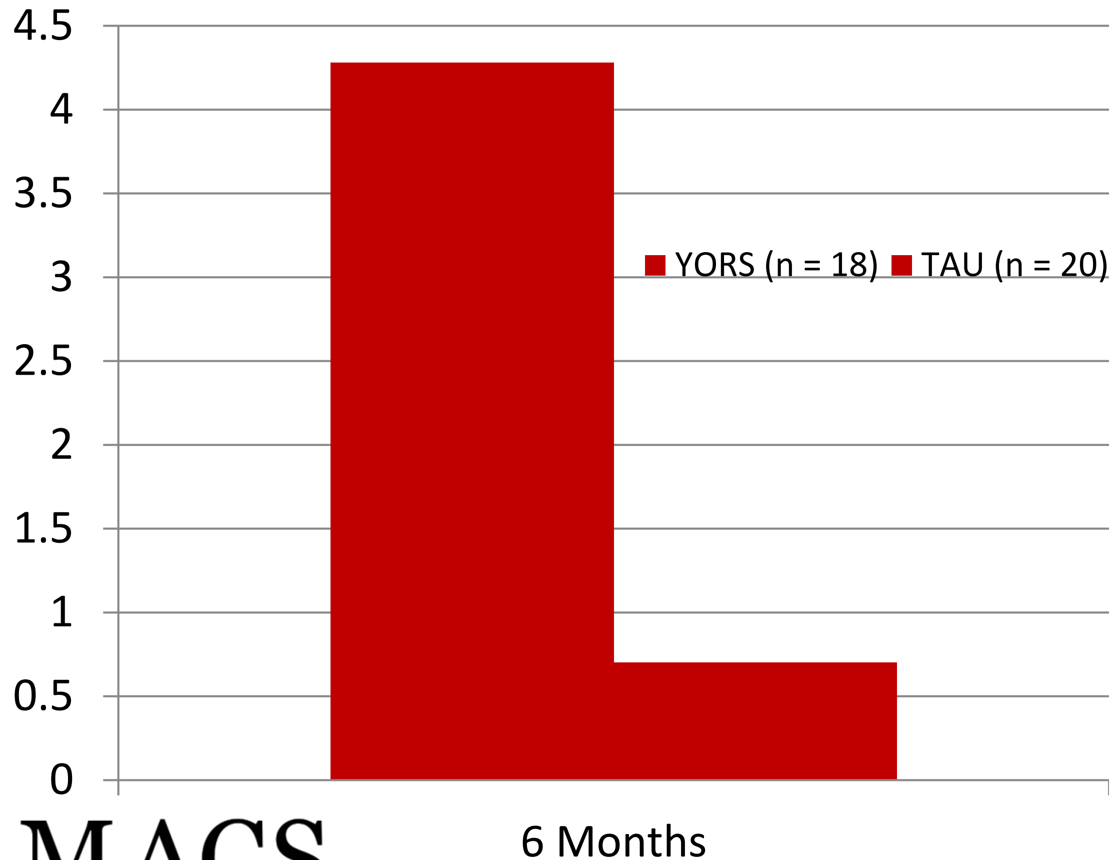
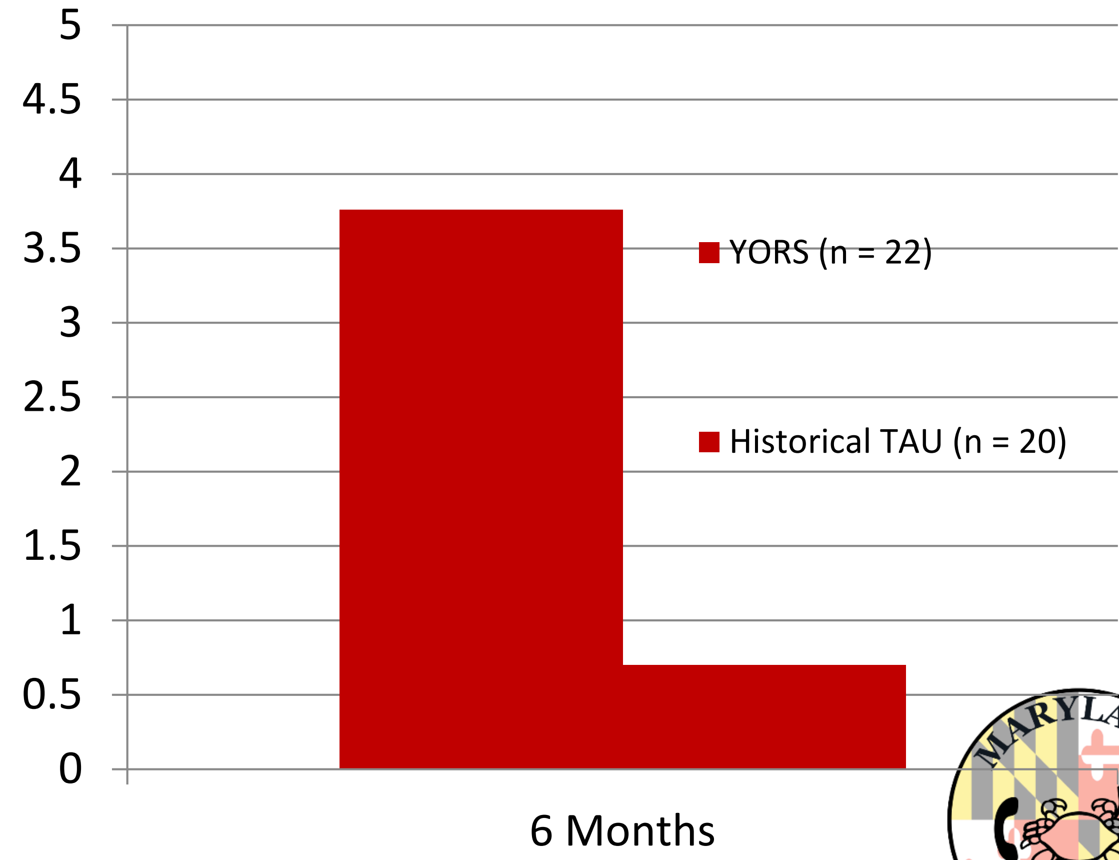
Mean outpatient MOUD doses received

Study 1
(XR-NTX only)

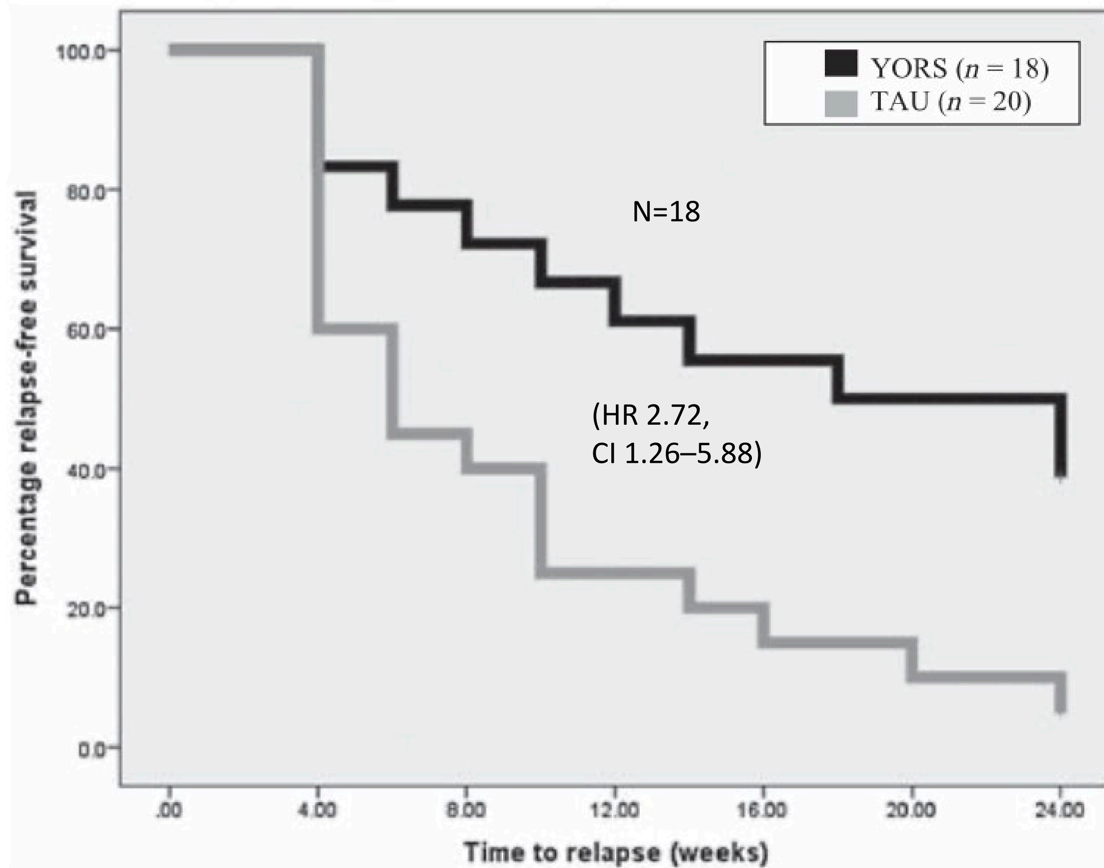


Study 2
(patient choice XR-NTX or XR-BUP)

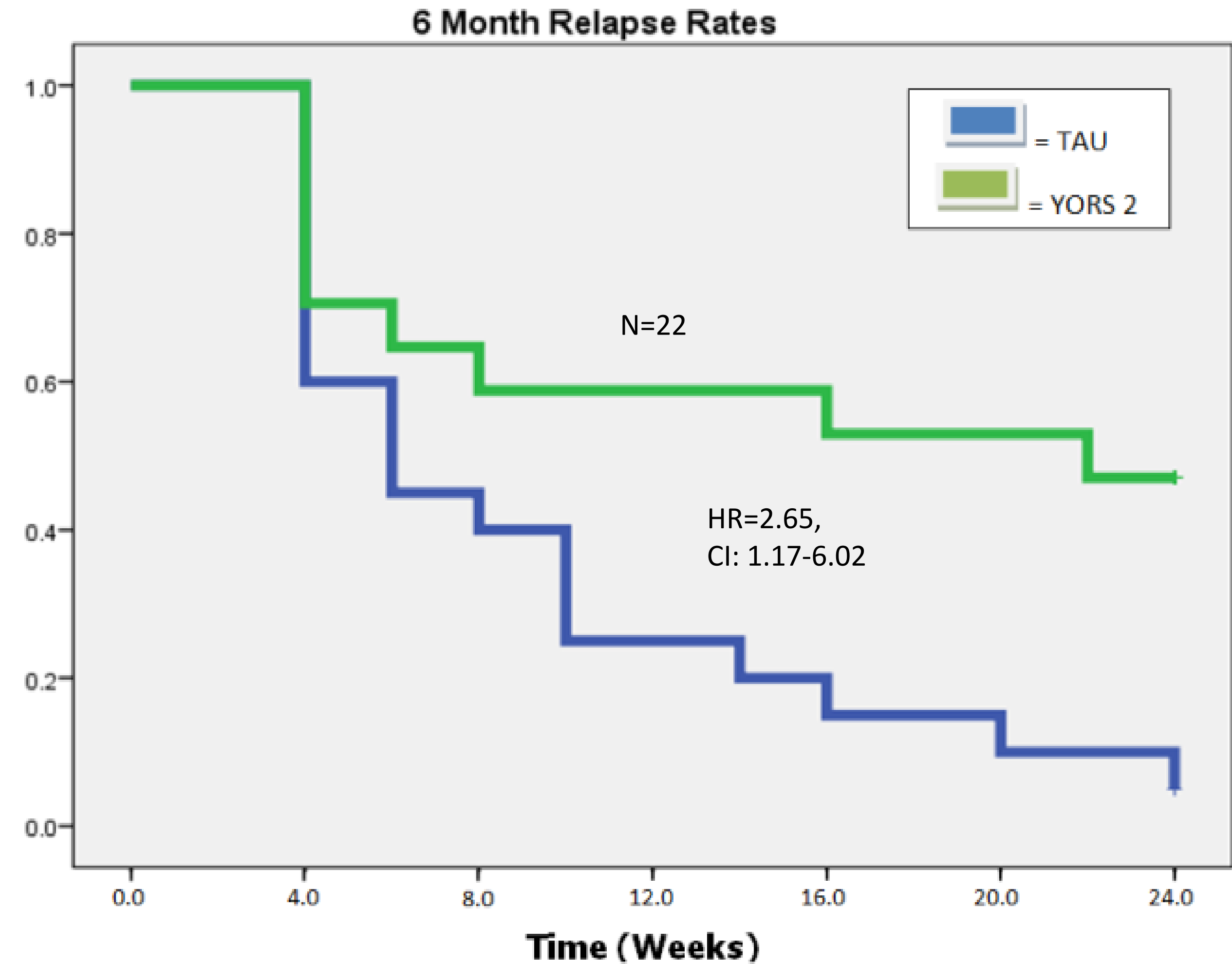


YORS Outcomes: Opiod Relapse-Free Survival

Study 1
(XR-NTX only)



Study 2
(Patient choice XR-NTX or XR-Bup)



YORS HEAL

- Yrs 1-2: intervention enhancement, 3 test cycles
- Yrs 2-5: larger RCT of enhanced YORS

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Enhancement test cycles

- Test cycle #1: Covid adaptations
  - Use of telehealth
  - Mobile van delivery
- Test cycle #2: reSet m-health app
- Future
  - Parent peers?
  - Parent CM?
  - Home (or van) delivered counseling
  - Others?

Wenzel and Fishman. Mobile van delivery of extended-release buprenorphine and extended-release naltrexone for youth with OUD: An adaptation to the COVID-19 emergency. *JSAT*. In press. 2020

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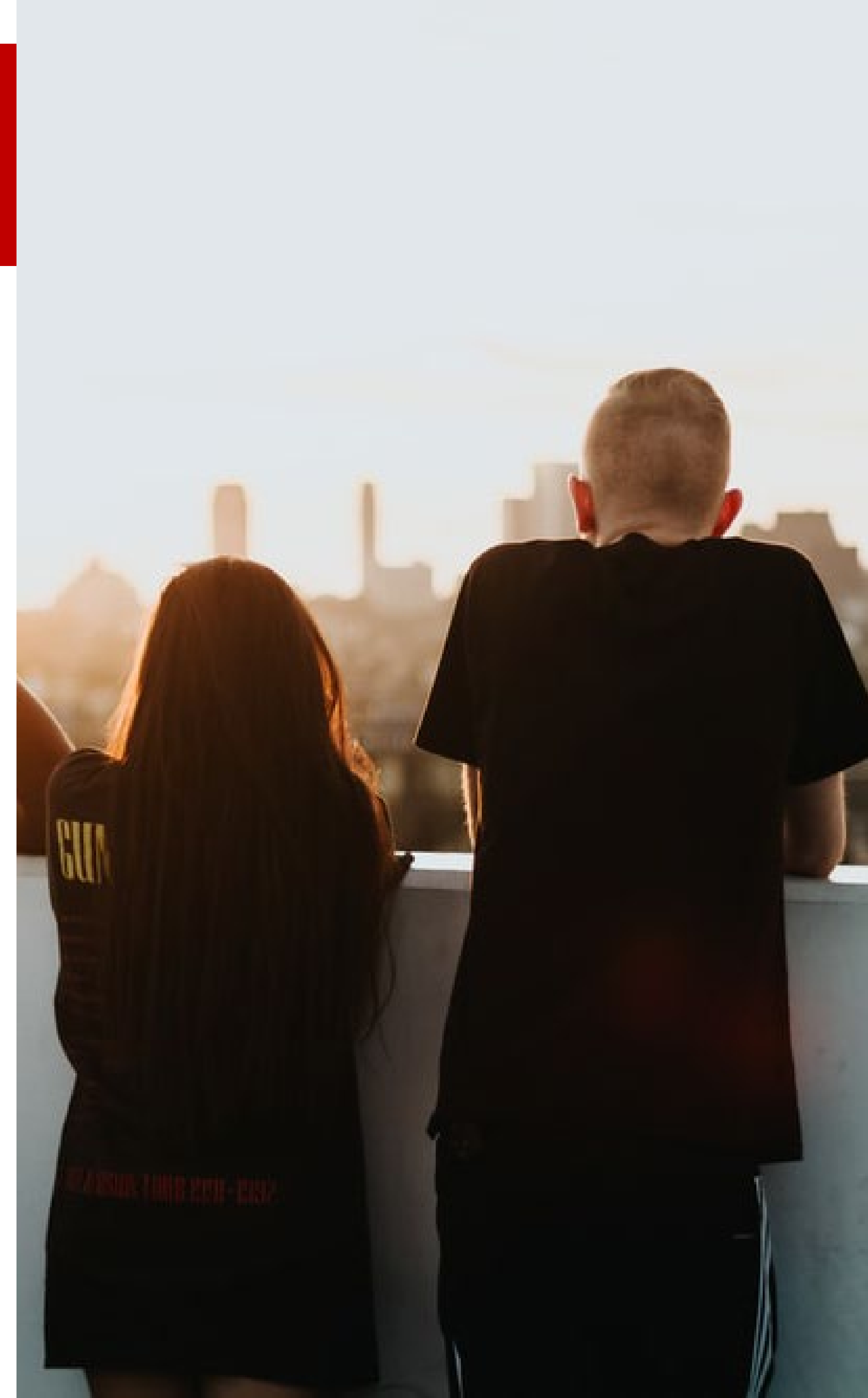
Example of Innovative Intervention

Primary Care Delivery, Hub and Spoke

- MOUD in youth serving primary care (**spokes**)
- Consultation and support from regional special center (**hub**)

Levy S, et al. A Novel Approach to Treating Adolescents with Opioid Use Disorder in Pediatric Primary Care. *Substance Abuse.* 2018



Example of innovative intervention
Youth OUD recovery housing

- Youth-specific
- OUD-specific
- Emphasis on MOUD, co-occurring disorder treatment, and accommodation to youth shenanigans
- Embedded in full continuum of care

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Recommendations
Low hanging fruit

- Youth SUD providers should prioritize OUD treatment including use of MOUD
- Youth serving medical providers should identify OUD cases and treat with MOUD
- Typical upstream touchpoints should trigger assertive treatment outreach – OD, ED, medical hospitalization, psychiatric hosp

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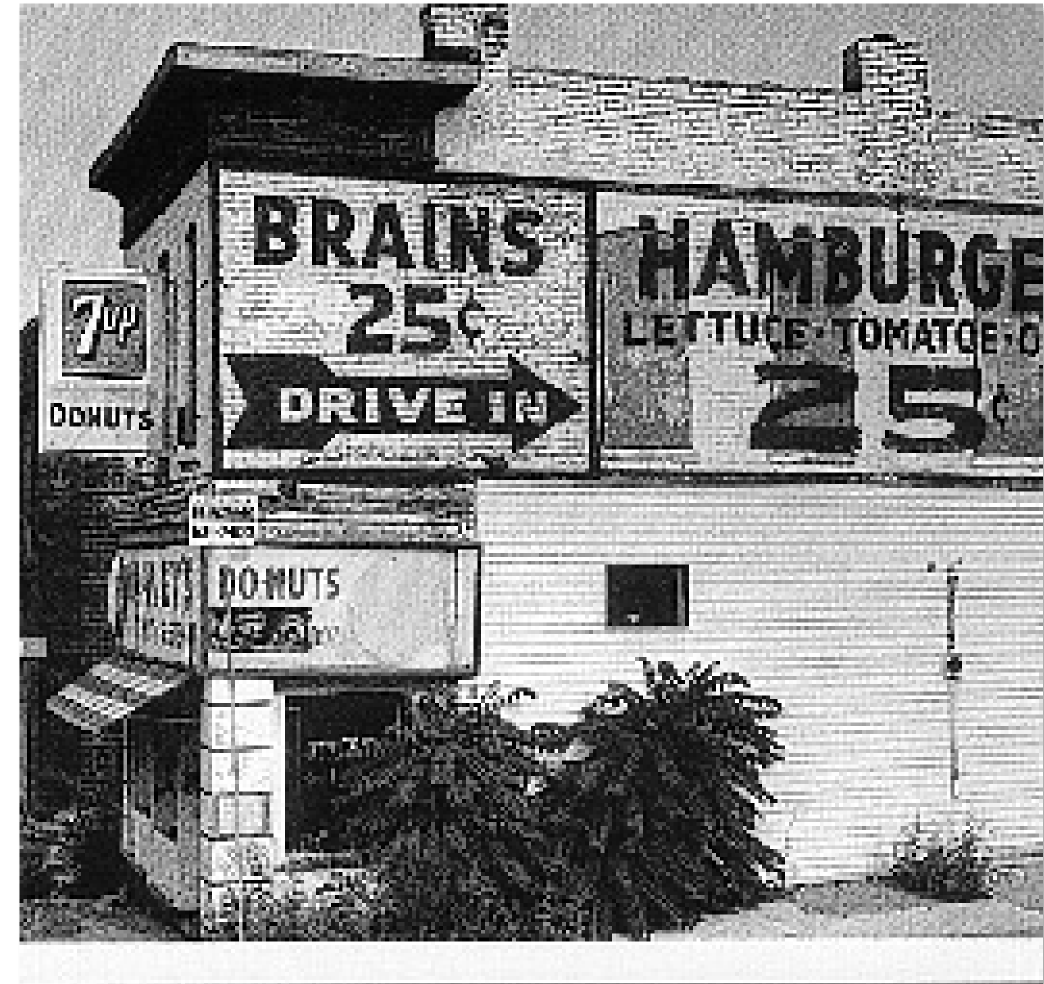
Recommendations
Not-so-low hanging fruit

- Development of innovative approaches needed to improve engagement and retention, esp for high-severity, high-chronicity patients

A Call to Action

- We are at a crossroads
- We have an existing and emerging toolbox but an **alarmingly low level** of adoption and utilization
- Emerging research and clinical consensus support **aggressive treatment of youth** with OUD including MOUD
- Therapeutic optimism remains one of our best tools!
- We are saving lives, but we need to do better
- **Developmentally-informed assertive interventions** might help
- If not now, then when?

Hypothetical miracle cures?



Selected References

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Thank you!

Questions?

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