Medication Assisted Treatment: Medical Perspective

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Objectives

- What is Medication Assisted Treatment (MAT)?
- What is the Evidence for MAT Effectiveness for Opioid Addiction?
- Gaps and Barriers
- Steps Taken and Potential Solutions

WHAT IS MAT AND WHY IS IT IMPORTANT ?

- Unintentional opioid overdose deaths currently exceed deaths due to MVAs
- Deaths from Rx opioids have quadrupled since 1999
- Injection heroin use has quadrupled in past 4 years
- 80% of young adult IV heroin users were first addicted to Rx opioids…most started as adolescents

WHAT IS MAT AND WHY IS IT IMPORTANT?

- Drug abuse changes the way the brain works resulting in predominant preoccupation /compulsive behavior focused on drug seeking and drug use

- Opioids act on specific receptors in the brain and body

- Individuals who are opioid dependent experience opioid withdrawal symptoms which may be severe (pain, diarrhea, nausea, vomiting) w/ extreme craving

WHAT IS MAT AND WHY IS IT IMPORTANT?

AMPLE RESEARCH has established that MAT is effective for opioid addiction

- Reduced morbidity, mortality
- Reduces drug use, infectious disease (HIV, HCV)
- Reduces drug related crime
- Methadone treatment begun in prison and continued in the community upon release
  - Extended time parolees remained in treatment
  - Reduced further drug use
  - Produced 3x reduction in criminal activity

- Cost /effectiveness ---every $1 invested in treatment generates $4-$5 return

WHAT IS MAT?

- **Agonists (activate opioid receptors)**
  - **Methadone** (Dolophine) –slow-acting opioid agonist, taken orally (slow onset dampening the "high")
  - Used since 1960s to treat heroin addiction and still excellent treatment dispensed on daily basis at certified/licensed facilities

- **Partial Agonists (activate opioid receptors but produce diminished response)**
  - Buprenorphine (Suboxone, Subutex) partial opioid agonist relieves drug cravings without producing a "high" or dangerous side effects of other opioids.

  - Suboxone novel formulation taken orally combines buprenorphine with naloxone (antagonist) to ward off attempts to get high by injecting the medication (if injected, produces withdrawal) FDA approved 2002 prescribed by certified physicians eliminates the need to visit specialized treatment clinics expanding treatment access

WHAT IS MAT?

- **Antagonists, which block receptor and prevent rewarding effects**

NALTREXONE (Depade, Revia, VIVITROL-long acting formulation) opioid antagonist blocks or eliminates effects of opioids

- Not addictive or sedating and does not result in physical dependence.
- Poor patient compliance has limited its effectiveness; long acting formulation (Vivitrol) injected monthly addresses poor patient compliance with short acting formulations
- Effective alternative for individuals unable to engage in agonist assisted tx
- More effective for alcohol dependence longer term treatment opioid dependence

NALOXONE (NARCAN)

- Opioid antagonist blocks eliminates, reverses effects of opiates (e.g. OD)
- Acts faster and remains longer (up to 24 hours)than naltrexone
- Used in ER settings

EVIDENCE FOR MAT EFFECTIVENESS

METHADONE

MARSCH, L. META-ANALYSIS The efficacy of methadone maintenance interventions in reducing illicit opiate use, HIV risk behavior and criminality: a meta-analysis ***Addiction , 2002***

METHADONE V BUPRENORPHINE

PINTO THE SUMMIT TRIAL DAD 2010

Methadone :

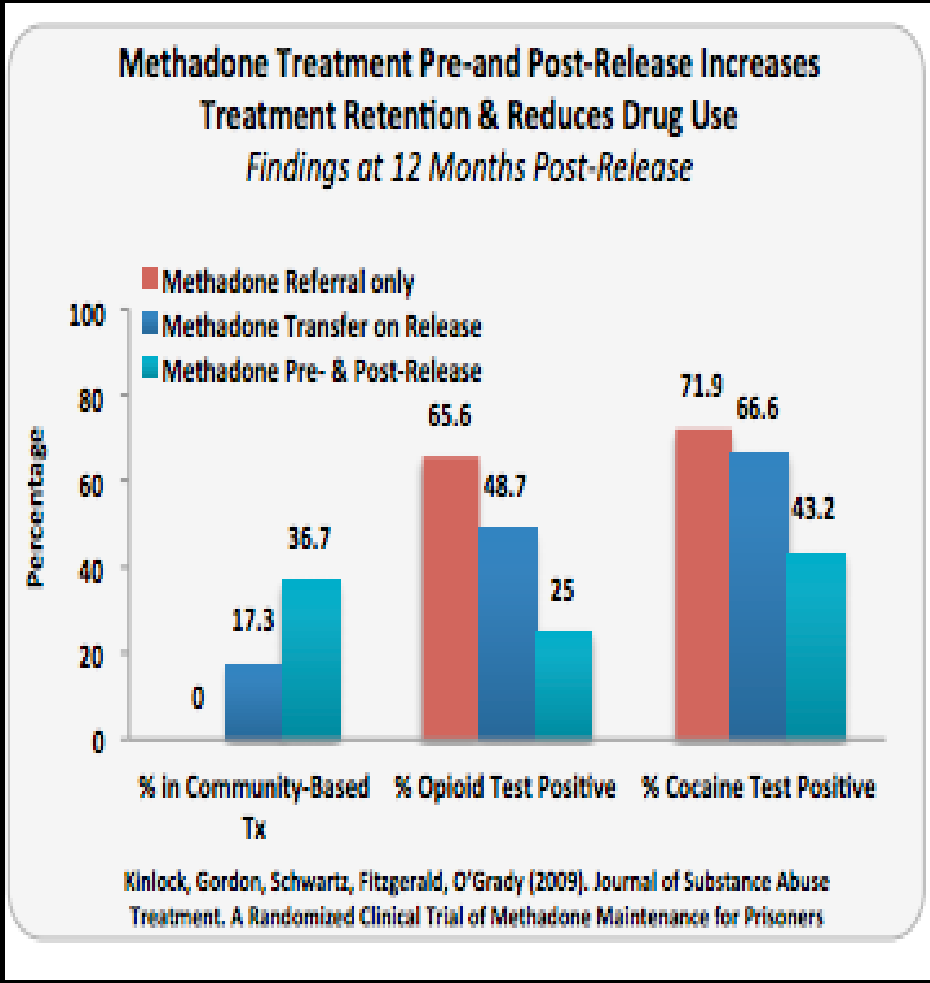
- Participants choosing methadone had more severe substance abuse and psychiatric and physical problems but were more likely to remain in treatment

- 2x as likely to be retained in treatment , suppress opiate use, achieve detoxification

Buprenorphine:

- May recruit more individuals to treatment
- 10% of the total sample stated they would not have accessed treatment with methadone.
- Ok adolescents

EFFECTIVENESS OF MAT TREATMENT METHADONE IN COMMUNITY CORRECTIONS



Major federal /national initiatives (e.g. NIDA MATICCE study) to integrate MAT in community corrections and coordinate with substance treatment systems of care

Currently only Denver County jail maintains methadone

MAT EFFECTIVENESS
BUPRENORPHINE

A randomized, double-blind evaluation of buprenorphine taper duration in primary prescription opioid abusers.

Sigmon SC1, Dunn KE, Saulsgiver K, Patrick ME, Badger GJ, Heil SH, Brooklyn JR, Higgins ST.
JAMA Psychiatry. 2013

DESIGN, SETTING, AND PARTICIPANTS:

A double-blind, 12-week randomized clinical trial was conducted in an outpatient research clinic. Following a brief period of buprenorphine stabilization, 70 Rx/PO-dependent adults were randomized to receive 1-, 2-, or 4-week tapers followed by naltrexone therapy.

RESULTS:

> Abstinence w/ 4 week taper followed by naltrexone maintenance for individuals with Rx opiate dependence

GAPS AND BARRIERS

- Less than half of suboxone-licensed physicians in practice/prescribing and only about 6% of these accept patients with Medicaid

- Science has shown beyond a reasonable doubt that addiction is a neurobiologically based medical illness
  - Medicaid/insurance benefits for substance treatment continue to fall significantly below mental health and medical benefits
  - Economic incentives are not aligned or consistent with increasing clinical workforce or treatment access/availability

GAPS AND BARRIERS

- SBIRT in primary care medical settings doesn't work for adults (except alcohol, tobacco) and especially for adolescents (only tobacco) due to lack of sufficient empirical support (illicit , Rx drug abuse) and fragmented system of care *(USPSTF 2015)*
- Critical Shortage
  - Adequately trained clinical workforce
  - Treatment Access and Availability
  - Effective (Evidence-based) Prevention, early intervention, and treatment especially for ADOLESCENTS
  - Integrated mental health and substance treatment
  - Lack of coordination or integration with primary medical care
  - Medicaid/Insurance benefits for addiction tx not consistent with Affordable Care Act ; Mental Health Parity and Addiction Equity Act
- Lack of consistent standard of care/treatment (MAT) in DOC

In other words—
Shortage of MAT and the TREATMENT that medication assists

ACA aligns the incentives supporting integration

DIABETES BENEFIT

- Physician Visits – 100%
- Clinic Visits – 100%
- Home Health Visits – 100%
- LABS-Glucose Tests, Monitors, Supplies – 100%
- HgA1C, eye, foot exams 4x/yr – 100%
- MEDS-Insulin and 4 other Meds – 100%
- Smoking Cessation – 100%
- Personal Care Visits – 100%
- Language Interpreter – Negotiated

NEW SUD BENEFIT

- Physician Visits – 100%
  - Screening, Brief Intervention, Assessment
  - Evaluation, medication – Tele monitoring
- Clinic Visits – 100%
- Home Health Visits – 100%
  - Family Counseling
- LABS- Alcohol and Drug Testing – 100%
- Monitoring Tests (urine, saliva, other)
- MEDS --Maintenance and Anti-Craving Meds – 100%
- Smoking Cessation – 100%

Slide adapted from A. T. McLellan

Subspecialty treatment sector WILL shrink giving way to substantial EXPANSION OF SUBSTANCE TREATMENT in MAINSTREAM HEALTHCARE

. Thomas McLellan PhD., Former Deputy Director ONDCP, founder and former xecutive Director Treatment Research Institute

40 billion /yr

80 billion /yr

'Harmful – 40,000,000 Use"

Lit Use

Prevention

SCREENING

BRIEF INTERVENTIONS

ONLY 3 substance prevention interventions have been deemed effective based on recent Cochrane and Plos One Meta-analyses/reviews

Slide adapted from A. McLellan

Potential Solutions

PROMISING STEPS TAKEN

Colorado SBIRT supplemental guidelines for Rx opiate screening
Project Echo
Rx Consortium
Standardized Opiate Prescribing Guidelines
PDMP
Naloxone legislation

- Treatment Access and Availability
- Effective (Evidence-based) Prevention, early intervention, and treatment for Adults and Adolescents
- Integrated mental health and substance treatment
- Lack of coordination or integration with primary medical care and reimbursements not consistent with Affordable Care Act or Mental Health Parity and Addiction Equity Act

- 3. Lack of MAT and psychosocial treatment for prisoners and coordinated care pre-release

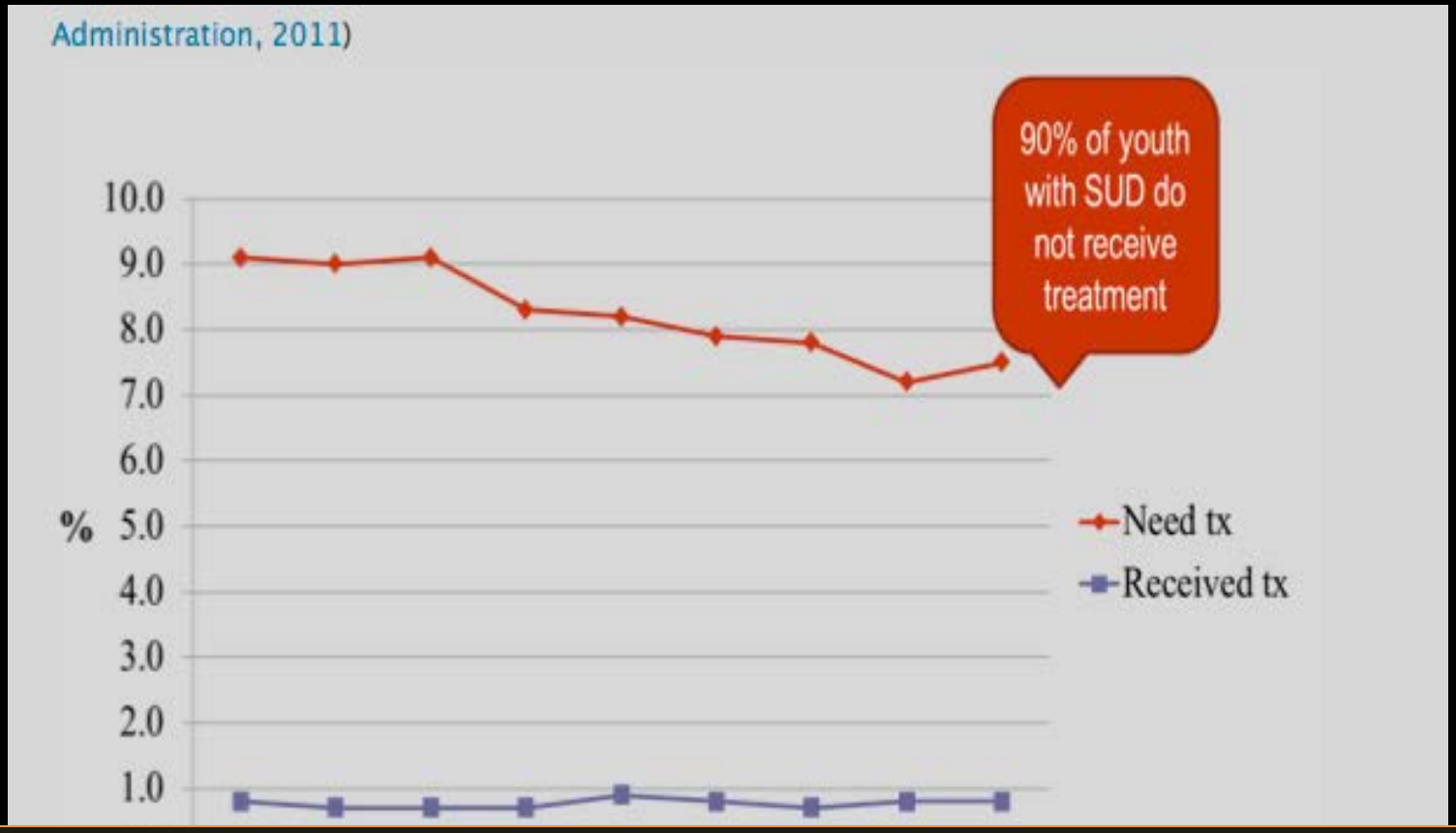
SOLUTIONS

1. School-based substance screening and treatment

2. Medicaid /Insurance benefits for substance screening, prevention, and treatment should be consistent with benefits for other chronic medical diseases (e.g. diabetes)

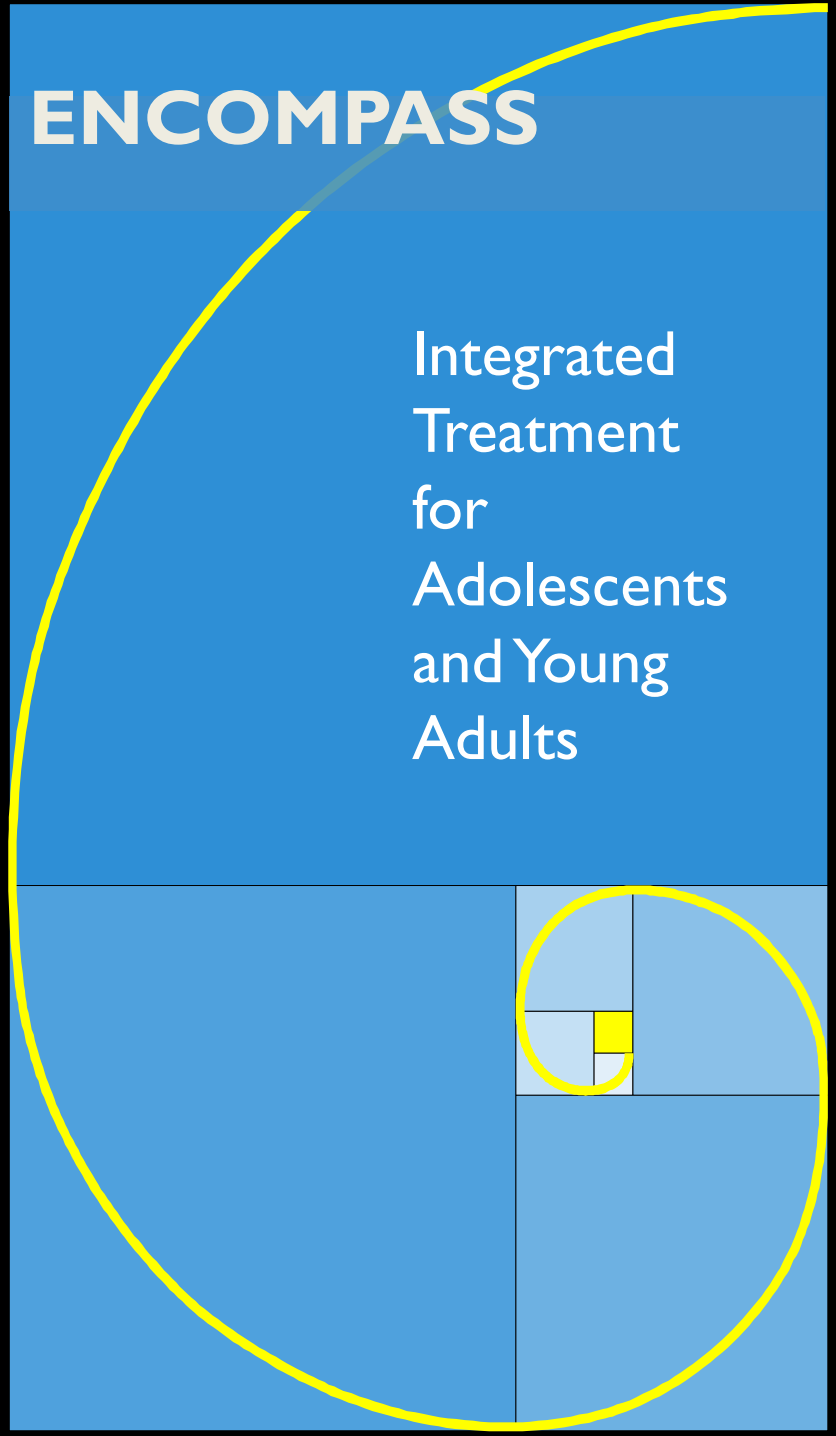
3. Provide standard of care (MAT/psychosocial tx) for prisoners with opiate use disorders including pre-release coordinated care

Only About 10% of Adolescents Who Could Benefit, Receive Substance Treatment



ADAPTED A BRIEFER 8 – SESSION VERSION OF ENCOMPASS AS SCHOOL-BASESD INTERVENTION

Recovery Research Institute, SAMHSA 2011



OUTCOMES

Three Community-based sites

and

One school-based site

Compared to 16 week community-based *Encompass*, HS students referred to school-based *Encompass*:

- About 1 year younger
- 4x less psychopathology/psychiatric comorbidity
- ½ as many SUD diagnoses
- …but all met dx criteria for cannabis use disorder (CUD) and were using as many days at baseline
-

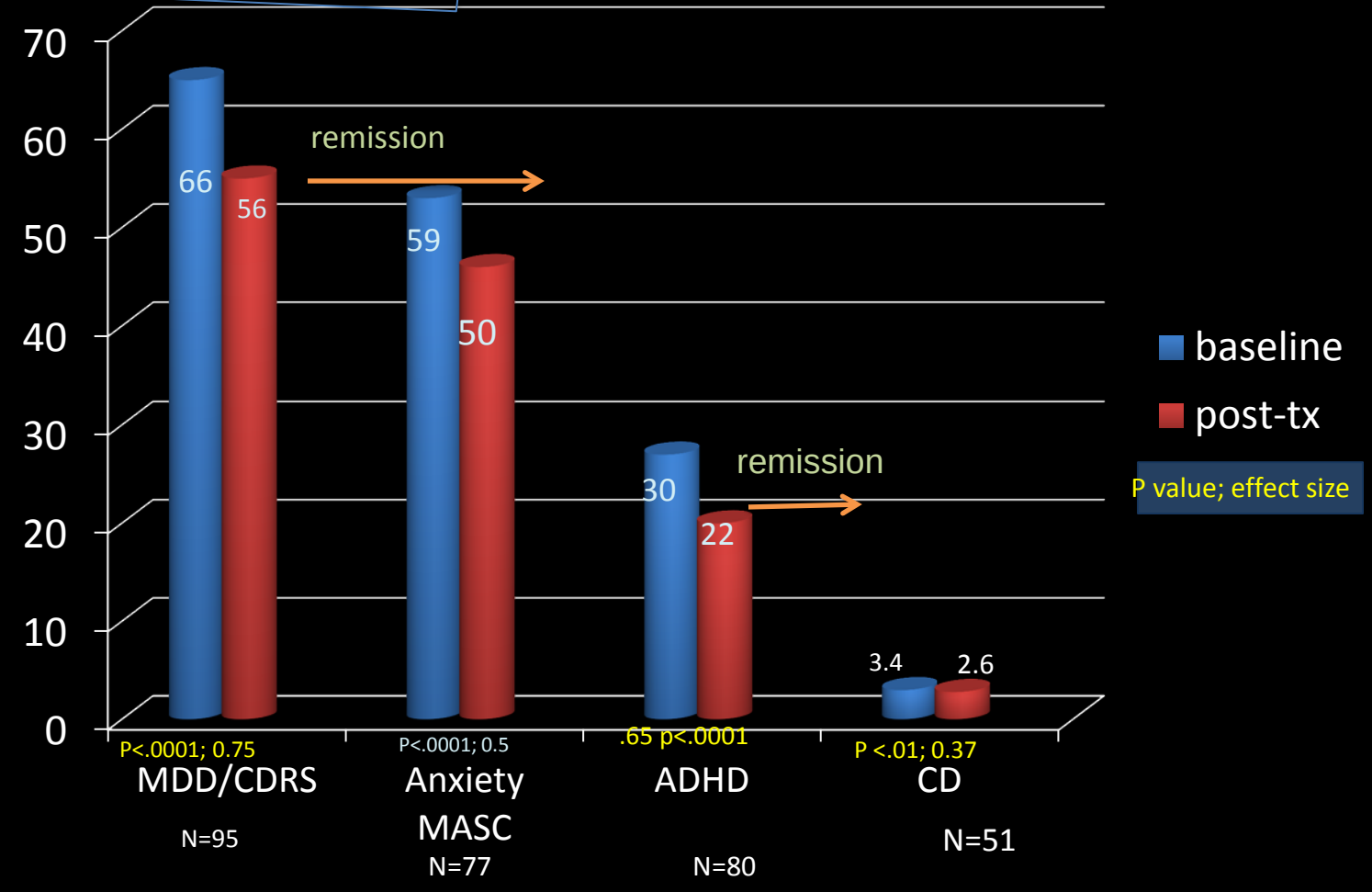
	16 week, N=240	School-Based 8 session, N=13
	16.9	15.46
	16.6 (66%)	15.38 (62%)
	17.5	15.6
	232 (97%)	5 (38%)
	2.3	0.54
	240(100%)	13 (100%)
	2.7 incl tob 2.4 w/o tob	1.3 incl tob 1.2 w/o tob
	11/28	12/28

TREATMENT COMPLETION
CBT COMPLIANCE*

	Encompass 16 week N=180	School -based 8 session N=13
Tx Completion	65%	70%)
CBT Compliance	90%	94%
% achieving at Least 1 month Sustained abstinence (UDS)	46%	56%

Reductions in Psychiatric Symptom Severity 16 week sites (completers/non-completers)

Most achieve clinical remission of co-occurring psychiatric disorders



Combined completers/non-completers