

# The Use of Buprenorphine in the Treatment of Opioid Use Disorders

ECHO

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# Medication Assisted Treatment

- In 2015 ~2.4 million Americans had Opioid Use Disorder.<sup>1</sup>  
~80% did not receive treatment!<sup>2</sup>
- MAT is a safe and effective strategy for decreasing the frequency and quantity of opioid use and reducing the risk of overdose and death.<sup>3,4</sup>
- Although MAT has significant evidence to support it as an effective treatment, it remains highly underutilized.<sup>5,6</sup>

1. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. (2016). *Key substance use and mental health indicators in the United States: Results from the 2015 National Survey on Drug Use and Health* (HHS Publication No. SMA 16-4984, NSDUH Series H-51). Rockville, MD

2. U.S. Department of Health and Human Services, Substance Abuse and Mental Health Services Administration. (2016). *Prescription drug use and misuse in the United States: Results from the 2015 National Survey on Drug Use and Health*. Rockville, MD.

3. Kresina TF, Lubran RL. Improving public health through access to and utilization of medication assisted treatment. *Int J Environ Res Public Health*. 2011;8:4102-4117

4. National Institutes on Drug Abuse. Cost effectiveness of drug treatment. Retrieved from: <http://www.drugabuse.gov/publications/teaching-packets/understanding-drug-abuse-addiction/section/6-costeffectiveness-drug-treatment>

5. Volkow ND, Frieden TR, Hyde PS, Cha SS. Medication-assisted therapies—tackling the opioid-overdose epidemic. *N Engl J Med*. 2014 May 29;370(22):206

6. doi: 10.1056/NEJMp1402780. Epub 2014 Apr 23.

# Buprenorphine

- Over 25 years of research
- Over 5,000 patients exposed during clinical trials
- Proven safe and effective for the treatment of opioid addiction

# Buprenorphine



BUP + NALOXONE  
Suboxone  
Zubsolv  
Bunavail



BUP  
"Subutex"



FILM  
Bup + Naloxone

# Buprenorphine/Naloxone: the basics

- Basic pharmacology, pharmacokinetics, and efficacy are the **same** as buprenorphine alone
- Partial opioid agonist; ceiling effect at higher doses
- Blocks effects of other agonists
- Binds strongly to opioid receptor, long acting

# Buprenorphine

- **Partial Opioid Agonist**
  - Has effects of **typical opioid agonists at lower doses**
  - Produces a **ceiling effect at higher doses**
  - Binds strongly to opioid receptor and is **long-acting**
- **Safe and effective** therapy for opioid maintenance and detoxification in adults
- **Slow to dissociate from receptors** so effects last even if one daily dose is missed (reduced effects may be felt few days after prolonged use).
- **FDA approved** for use with opioid dependent persons age **16** and older

# Buprenorphine: A Science-Based Treatment

Clinical trials have established the effectiveness of buprenorphine for the treatment of heroin addiction. Effectiveness of buprenorphine has been compared to:

- **Placebo** (Johnson et al. 1995; Ling et al. 1998; Kakko et al. 2003)
- **Methadone** (Johnson et al. 1992; Strain et al. 1994a, 1994b; Ling et al. 1996; Schottenfield et al. 1997; Fischer et al. 1999)
- **Methadone and LAAM** (Johnson et al. 2000)

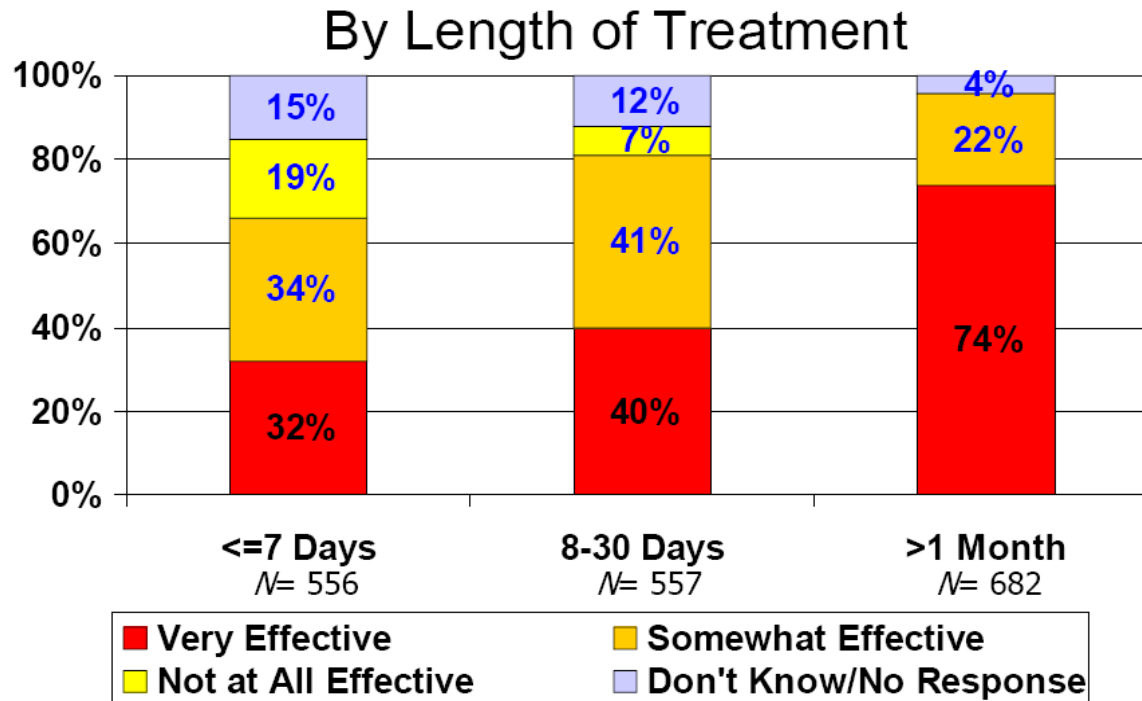
# Buprenorphine Research Outcomes

- Buprenorphine is as effective as **moderate doses of methadone** (Fischer et al., 1999; Johnson, Jaffee, & Fudula, 1992; Ling et al., 1996; Schottenfield et al., 1997; Strain et al., 1994).
- Buprenorphine's partial agonist effects make it **mildly reinforcing**, encouraging medication **compliance** (Ling et al., 1998).
- After a year of buprenorphine plus counseling, **75%** of patients retained in treatment compared to **0%** in a placebo-plus-counseling condition (Kakko et al., 2003).



# Approval of Buprenorphine and Buprenorphine/Naloxone

## Prescribing Physicians'\* Perceptions of BUP Effectiveness, 2005



Waivered Physician Survey

\*Views reported by physicians who also reported experience treating for that length of time  
SAMHSA/CSAT's Evaluation of the Buprenorphine Waiver Program 2002-2005

(SAMHSA, 2006)

# Advantages of Buprenorphine in the Treatment of Opioid Addiction

1. Patient can participate fully in treatment activities and other activities of daily living easing their transition into the treatment environment
2. Limited potential for overdose
3. Minimal subjective effects (e.g., sedation) following a dose
4. Enhances retention in treatment

# Advantages of Buprenorphine/Naloxone in the Treatment of Opioid Addiction

5. Reduces relapse rates
6. Prevents withdrawal
7. Blocks euphoric effects of opioids
8. Available for use in an office setting
9. Discourages IV use
10. Allows for take-home dosing

# Disadvantages of Buprenorphine in the Treatment of Opioid Addiction

1. Greater medication cost
2. Patient remains physically dependent
3. Detectable on in specific urine toxicology screenings
4. Potential for diversion