#### Methadone

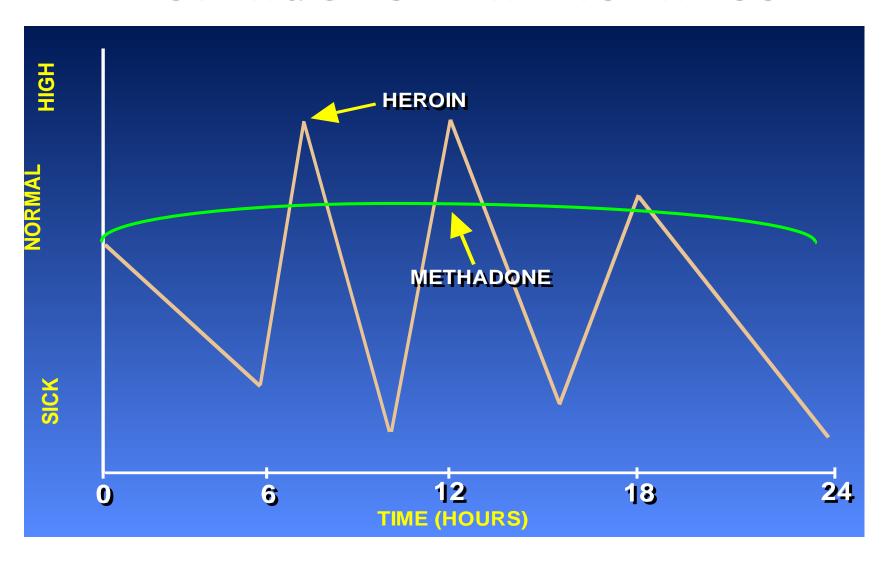
- •Available since 1960's BUT confined to special programs, under federal and state controls.
- •Primary care and other private physicians unable to treat patients with methadone

### Methadone

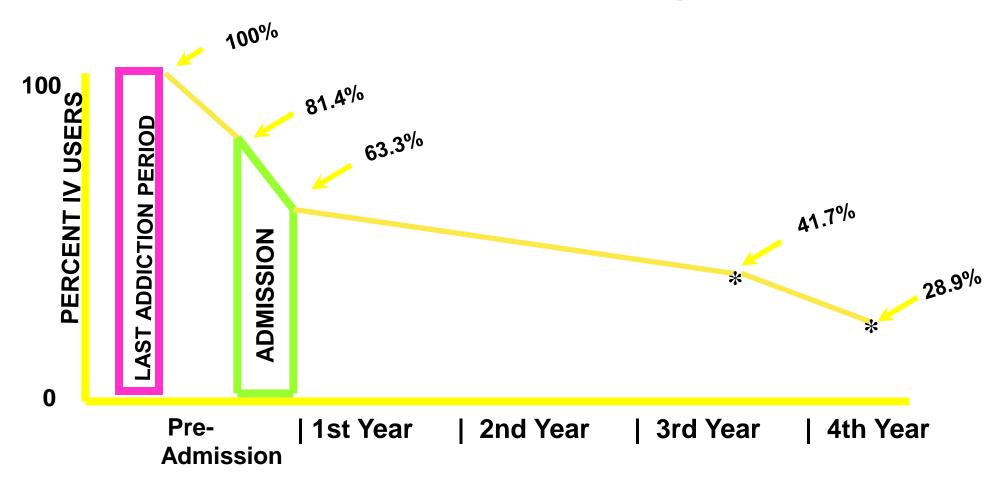
#### Several, valuable benefits:

- oral, long-acting and cheap
- "blocking dose"
- Eliminate injection risks
- Normalization of body; health
- Life not centered around heroin
- Reduced crime
- Employment

### Methadone Maintenance

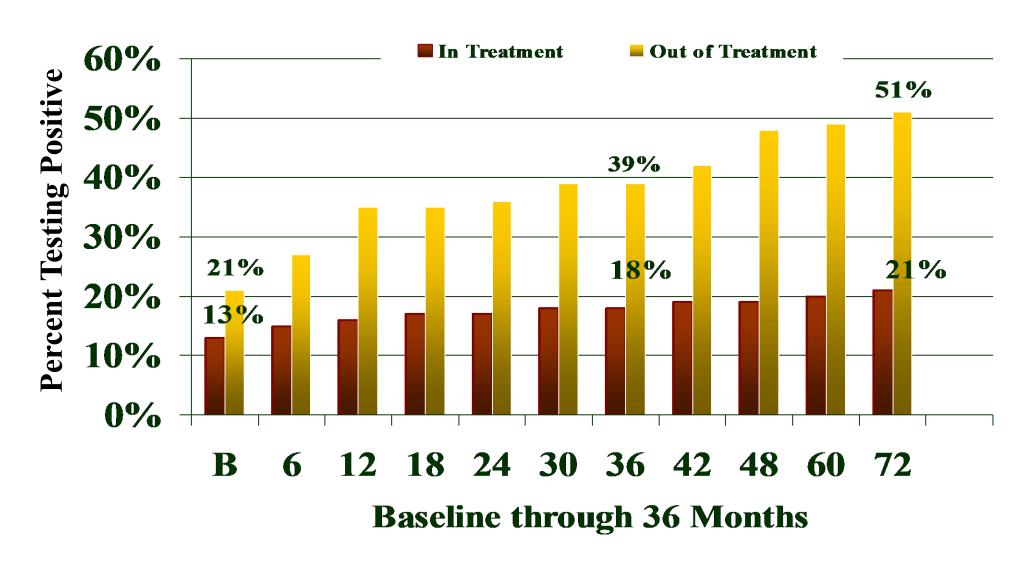


# Impact of MMT on IV Drug Use for 388 Male MMT Patients in 6 Programs

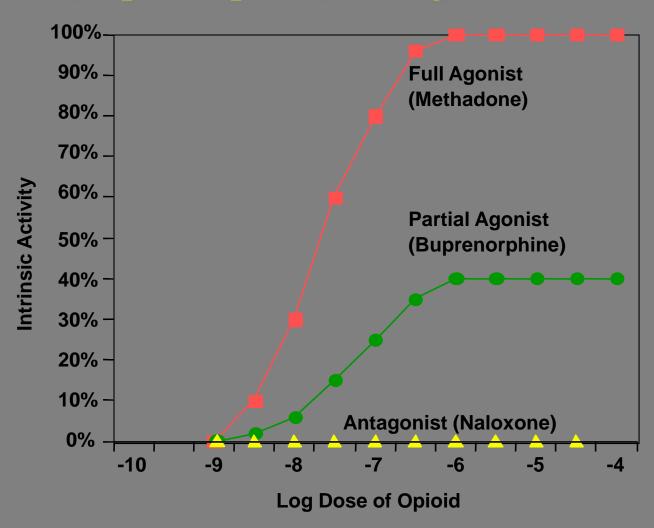


Adapted from Ball & Ross - The Effectiveness of Methadone Maintenance Treatment, 1991

## HIV Infection Rates by Treatment Status at Time of Enrollment



## Intrinsic Activity: Full Agonist (Methadone), Partial Agonist (Buprenorphine), Antagonist (Naloxone)



#### **Abuse Potential**

- Buprenorphine is abusable (epidemiological, human laboratory studies show)
- Diversion and illicit use (by injection) of both of analgesic and substitution forms
- Relatively low abuse potential compared to other opioids

# Combination of Buprenorphine plus Naloxone

Combination tablet containing buprenorphine with naloxone – if taken under tongue, predominant buprenorphine effect

If opioid dependent person dissolves and injects buprenorphine/naloxone tablet – predominant naloxone effect (and precipitated withdrawal)

#### **Naltrexone**

FDA approved in 1984

pharmacologic effects

few studies

**Indications** 

opioid - relapse prevention, detoxification alcohol (1995) - relapse prevention 'anticraving'

## Naltrexone (continued)

Specific antagonism of opiate mu
Competitive antagonism but very tight
Very few AEs (HA, GI, dysphoria)
Oral, relatively long-acting
Non-addicting (no diversion)

#### **Shortened Procedures**

Rapid Opiate Detoxification (ROD)
Ultra-Rapid (UROD)

#### **Buprenorphine**

Scientific point - no proven overall advantage

#### Penn

Inpt detox (little methadone) naltrexone before discharge

#### Track Record - very poor acceptance

3% treated

<10% willing to try

many stop drug early

Medication Compliance is a major problem

## Subpopulations

**Opioid dependent professionals** 

doctors, pharmacists, lawyers, pilots, etc.

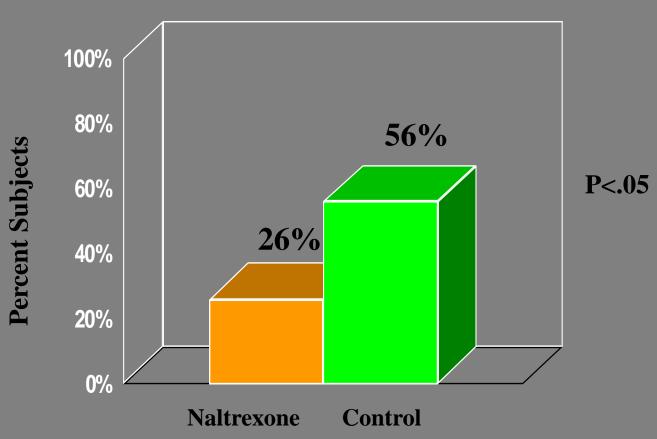
\*\* something to loose

Opioid dependent parole clients

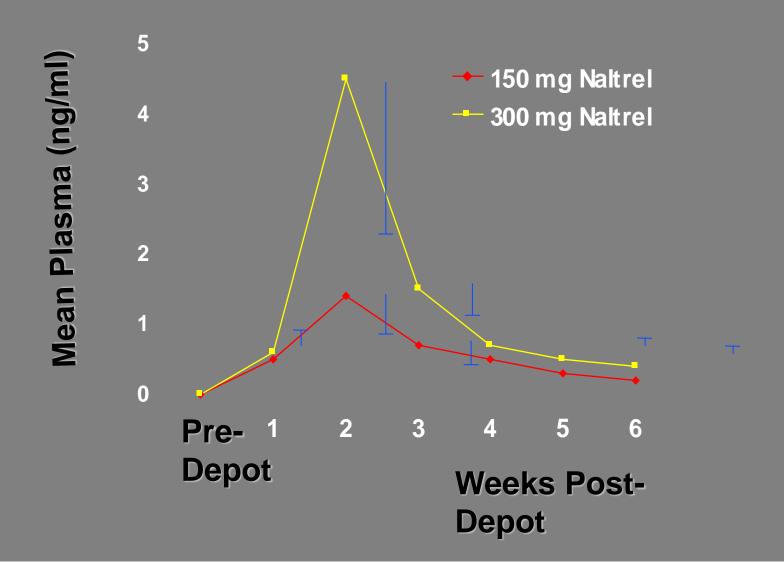
\*\* leverage of the courts

## Subject Re-Incarceration





## Plasma Levels of Depot Naltrexone



## Co-Morbidity Mood Disorders/ SA

- Co-morbidity when presenting for treatment is the "norm"
- Huge literature >3,500 articles, Medline
- Treatment determined by pharmacology
  - + co-morbid condition
- Goal: Practical Guide