

Treating Addiction and HIV
Under One Roof:
Integrating Buprenorphine into
HIV Care

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Overview

- **Opioid dependence**
 - Epidemiology
 - Neurobiology
- Treatment for opioid dependence
 - Opioid agonist treatment
 - Clinical support
- Office-based treatment with buprenorphine
- Integrated buprenorphine and HIV care
 - HRSA SPNS project

Epidemiology

- Prescription opioids
 - National Survey on Drug Use and Health, 2003
 - 13.7 million with non-medical use of prescription opioids
- Heroin
 - National Household Survey on Drug Abuse, 1997
 - 2.4 million Americans used heroin at least once
 - Office of National Drug Control Policy, 1999
 - 810,000 – 1 million dependent
 - 170,000-200,000 receiving medication treatment

What is it like to be opioid
dependent?

Overview

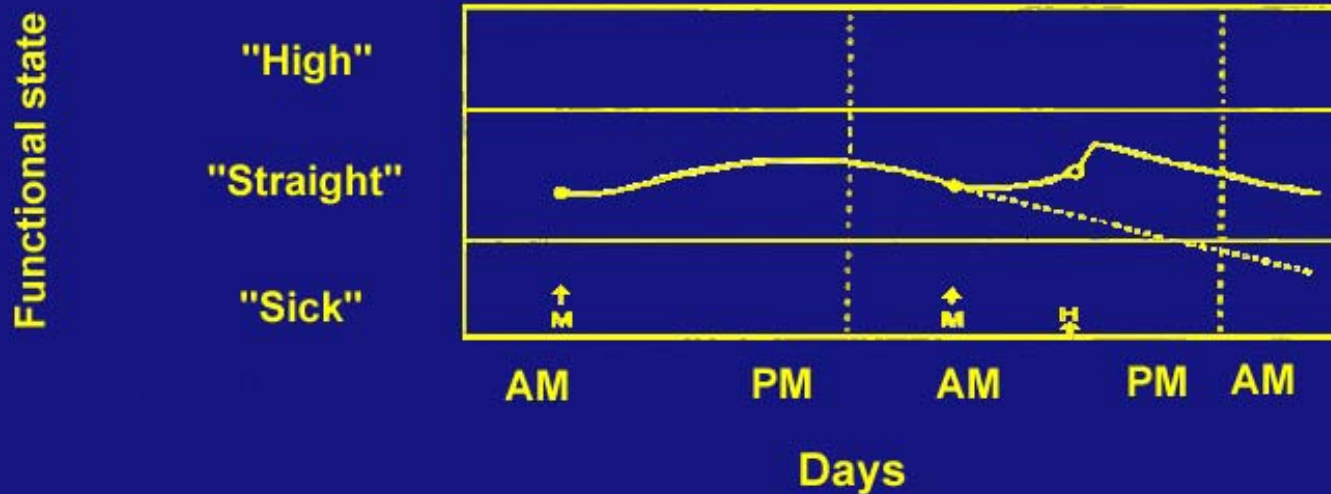
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Pharmacologic Treatment of Opioid Dependence

- Pharmacologic withdrawal - “detoxification”
- Opioid antagonist treatment
 - Naltrexone
- Opioid agonist treatment
 - Methadone
 - Buprenorphine

Opioid Agonist Treatment

- Rationale
 - Cross-tolerance
 - prevent withdrawal
 - relieve craving for opioids
 - Narcotic blockade
 - block or attenuate euphoric effect of exogenous opioids



Stabilization of patient in state of normal function by blockade treatment.
A single daily oral dose of methadone prevents him from feeling symptoms of abstinence ("sick") or euphoria ("high"), even if he takes a shot of heroin.
Dotted line indicates course if methadone is omitted.

From "Narcotic Blockade," by V. P. Dole, M. E. Nyswander, and M. J. Kreek, 1966, Archives of Internal Medicine, 118, p. 305.

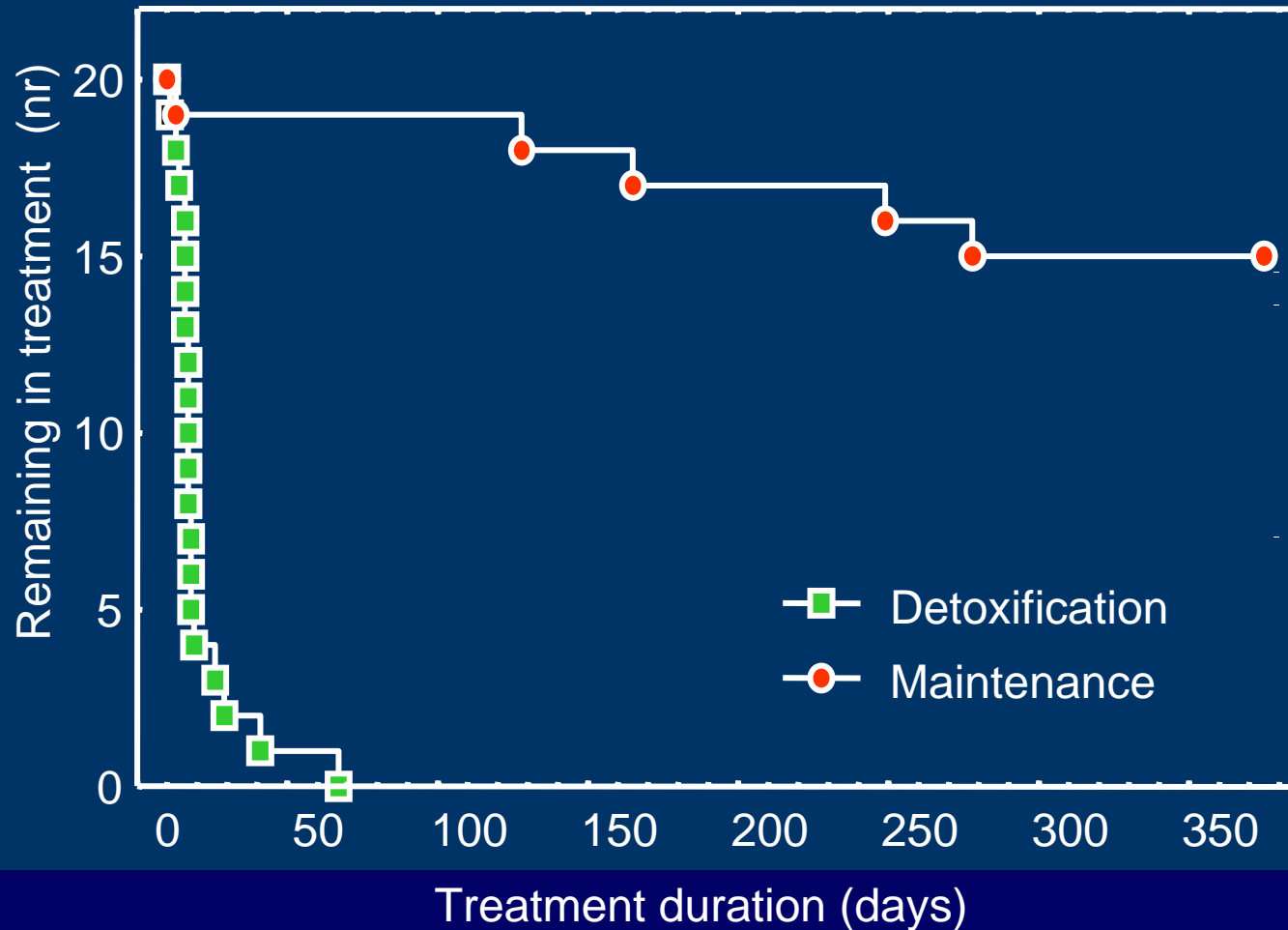
How effective is opioid agonist treatment?

HIV Seroconversion

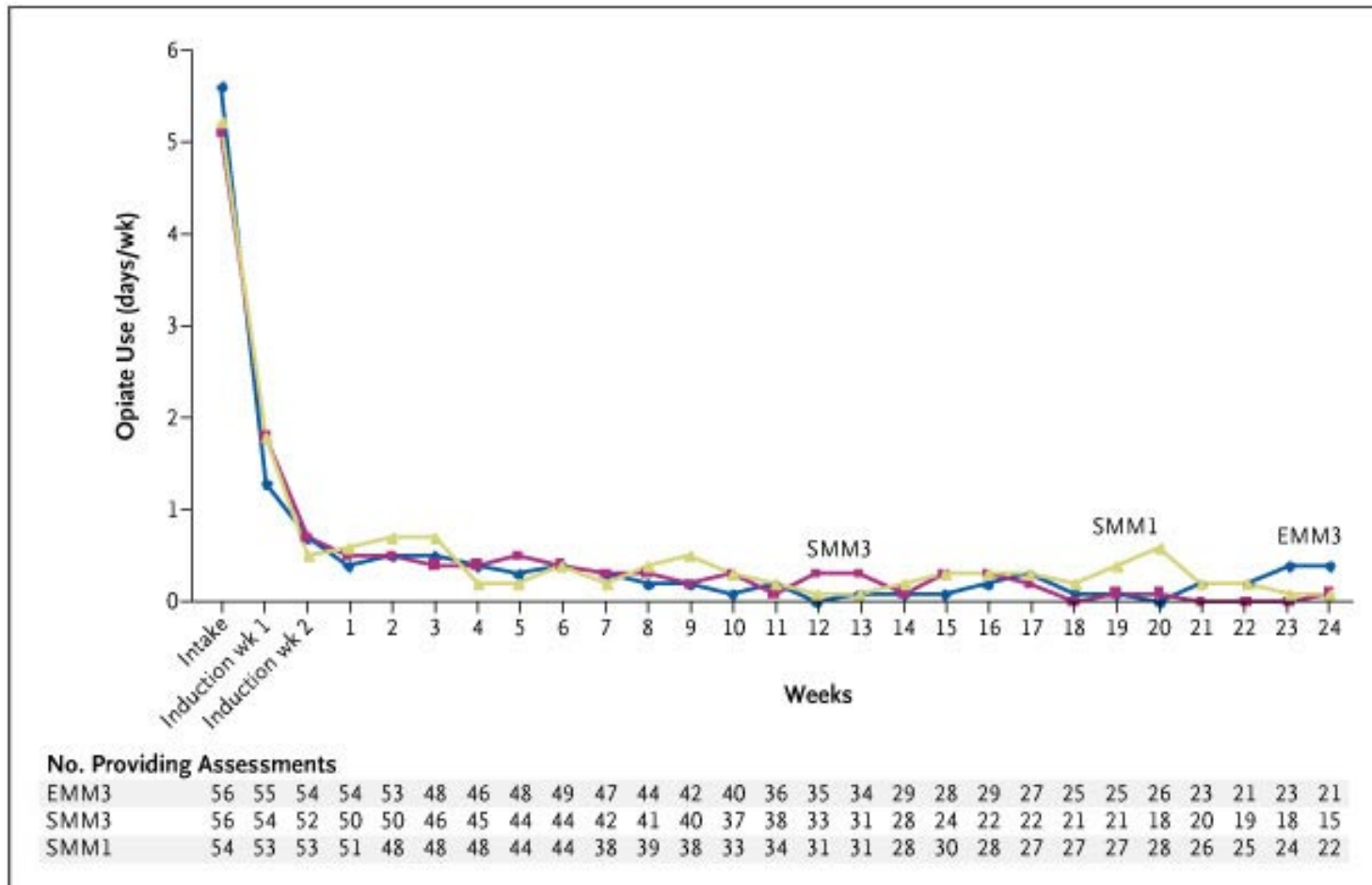
- Metzger, 1993:
 - 2 cohorts of patients
 - 103 out-of-treatment intravenous opiate users
 - 152 subjects receiving methadone treatment
 - HIV antibody conversion, 18-months
 - 22% of those out-of-treatment
 - 3.5% of those receiving methadone treatment

Poor results with detoxification

Kakko, Lancet 2003



Self-Reported Frequency of Illicit Opioid Use in Opioid-Dependent Patients Receiving Buprenorphine-Naloxone in Primary Care



Fiellin D et al. N Engl J Med 2006;355:365-374



The NEW ENGLAND
JOURNAL of MEDICINE

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Federal Efforts to Increase Access

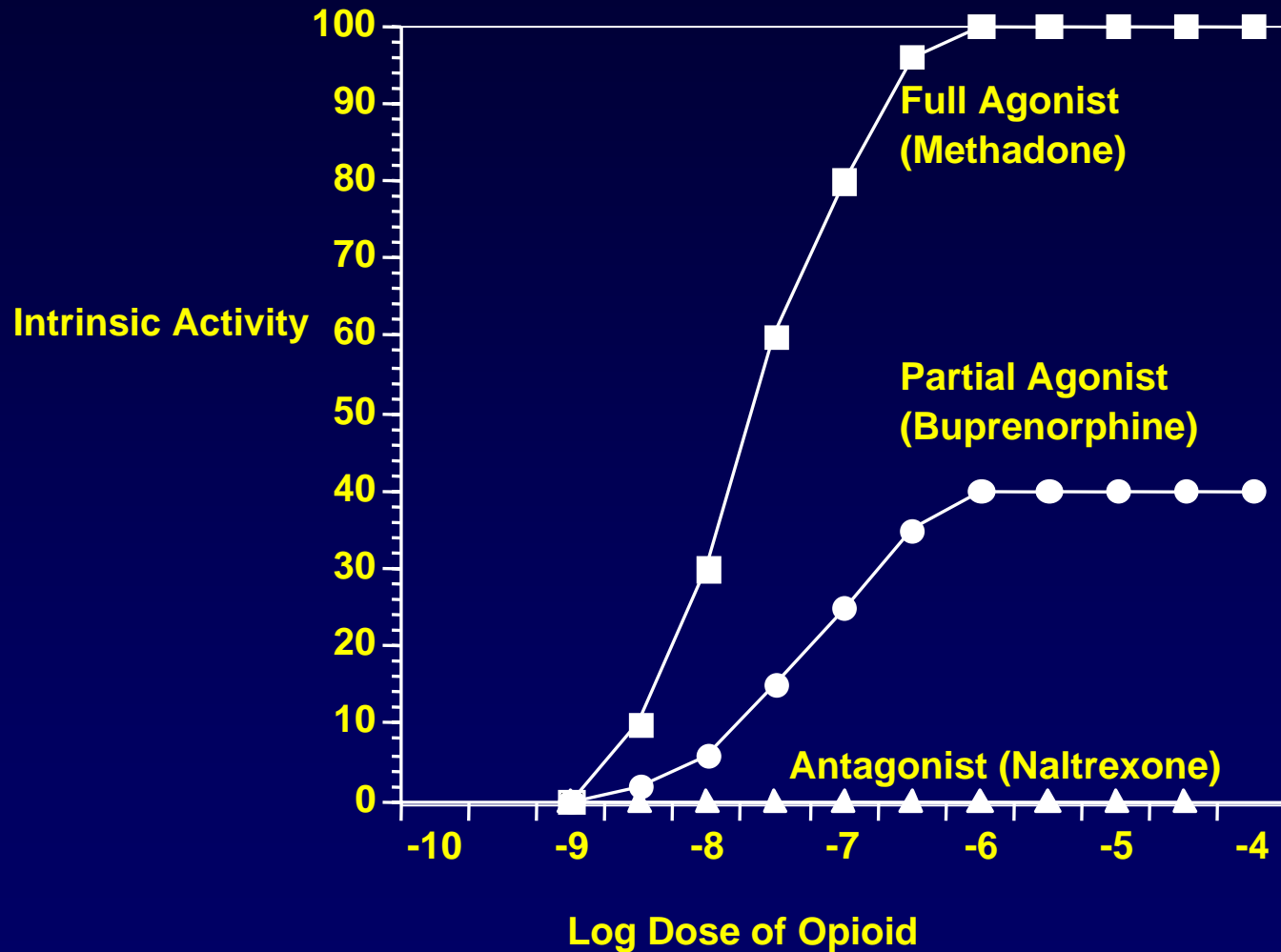
Fiellin and O'Connor, NEJM 2002

- Congress (2000)
 - Drug Addiction Treatment Act
 - Allows qualifying physicians to use approved schedule III-V medications
 - Qualifying physician either certified in Addiction Medicine/Psychiatry or complete 8 hour training
- FDA and DEA (2002)
 - Approves buprenorphine and buprenorphine/naloxone for treatment of opioid dependence, schedule III

Buprenorphine

- Partial agonist at mu receptor
- Low abuse and diversion potential, especially when combined with naloxone
- Sub-lingual tablet
- Daily or thrice weekly dosing
- Limited medication interactions with HAART

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



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Impact of Untreated Opioid Dependence on HIV

- Twenty-five percent of 40,000 new HIV infections/year are secondary to injection drug use
- Heroin is immunosuppressive and promotes replication of the HIV virus
- Injection drug users with HIV are less likely to receive antiretroviral treatment
- Injection drug users less adherent to antiretroviral therapy

Buprenorphine Treatment in HIV+ Injection Drug Users

MANIF 2000 cohort– continued, risk for HAART non-adherence:

	Non-adherent	Adherent	OR (adusted)
Buprenorphine	7(21%)	25 (78%)	1.00
No current IDU	39(35%)	74 (65%)	2.32 (0.8-6.5)
Active IDU	11(58%)	8 (42%)	5.1 (1.3-20.1)

Prescription of buprenorphine may increase adherence to HAART among HIV+ opioid dependent patients

Moatti, AIDS 2000, 14:151-5

Buprenorphine Treatment in HIV+ Injection Drug Users

MANIF 2000 cohort, 6 month follow up, Median values :

	Buprenorphine _(n=20)	Ex-IDU _(n=83)	P
Age	32	34	.04
CD4 (pre)	287	347	.16
CD4 (post)	344	457	.17
Viral Load (pre)	4.8	4.4	.17
Viral Load (post)	2.7	3.3	.91
Months on HAART	3.7	4.0	.34
Months Buprenorphine	10	NA	NA

Buprenorphine does not have any major short-term impact on HIV viral load measurements following treatment with HAART

Carrieri, Drug and Alcohol Dependence 2000, 60:51-4

HRSA SPNS



- About HIV/AIDS Bureau
- Ryan White CARE Act
Law & Policy
Programs
- Special Initiatives
- Reports & Studies
- Tools for Grantees
- Grant Opportunities
- News & Events
- Education & Training
- Publications
- Links

Special Initiatives: **An Evaluation of Innovative Methods for Integrating Buprenorphine Opioid Abuse Treatment in HIV Primary Care**

Based on new legislation and the availability of buprenorphine treatment, the Buprenorphine Initiative was designed to determine the effectiveness of integrating buprenorphine opioid abuse treatment into HIV primary care settings. This initiative, which began in September 2004, is comprised of 10 demonstration sites coordinated by a technical assistance/evaluation center.

The initiative is directed towards persons with HIV in the primary care setting who also have substance abuse issues. As a demonstration project, this initiative seeks to determine the feasibility and/or effectiveness of integrating buprenorphine opioid abuse treatment into HIV primary care settings. The ultimate goal is to improve the health of HIV substance abusers.

- [Overview of Initiative](#)
- [Grant Sites](#)
- [Initiative Website](#)
- [View All Initiatives](#)



HRSA SPNS: Buprenorphine Integration into HIV Care

- 10 Demonstration sites
- 1 Evaluation and Support Center
- 5 years
- To date, 270 participants

Evaluation and Support Center

New York Academy of Medicine
and Yale University

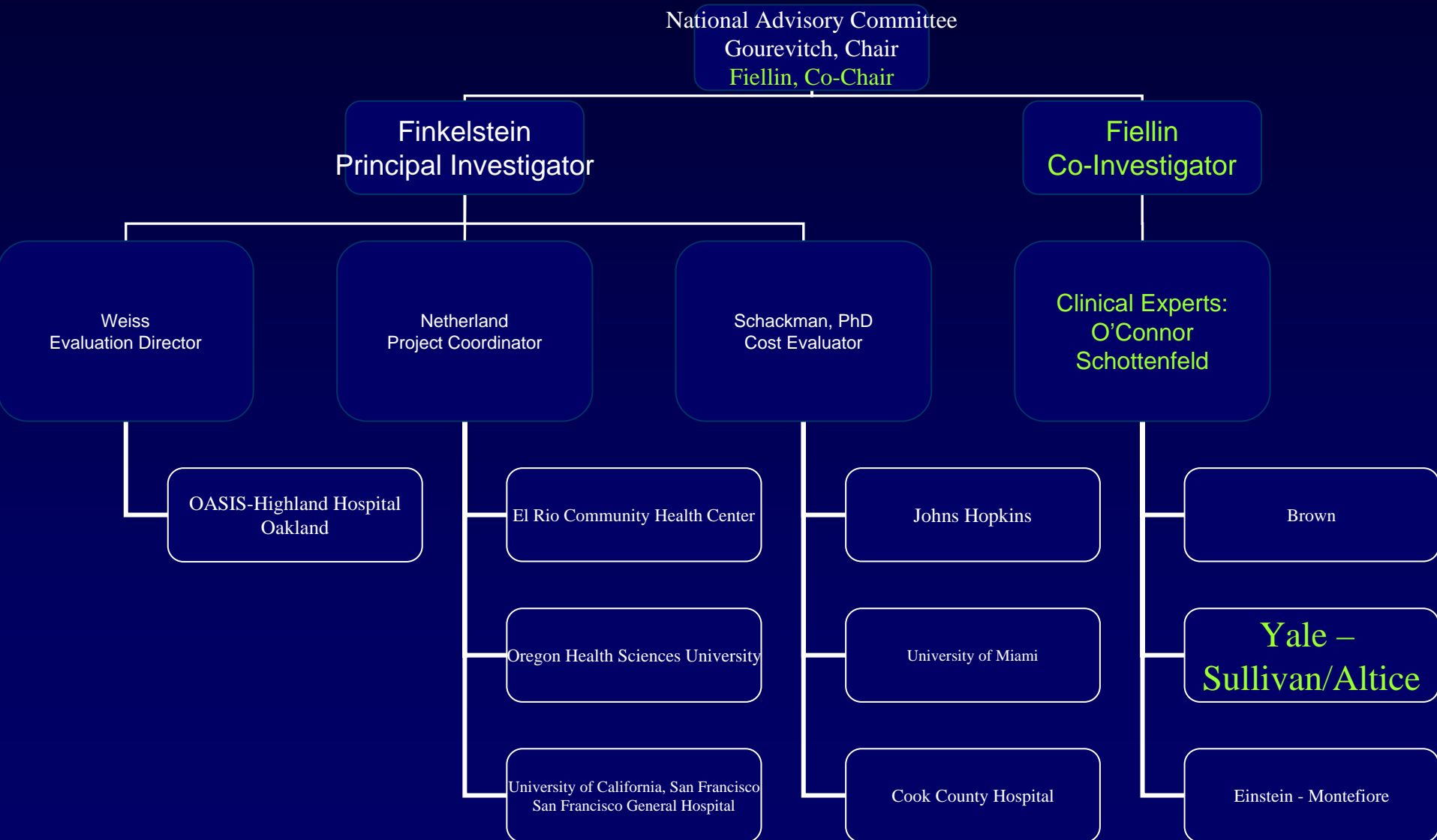
Support to:

- Design and implement effective programs
- Assess their effectiveness
- Disseminate findings



HRSA-SPNS

Evaluation and Support Center



Models of Integration

- On-site addiction specialist
 - Psychiatrist or other physician certified in Addiction Medicine
- HIV physician
- Mid-level care provider coordinate care and case management

Yale BUP/HIV Pilot Study

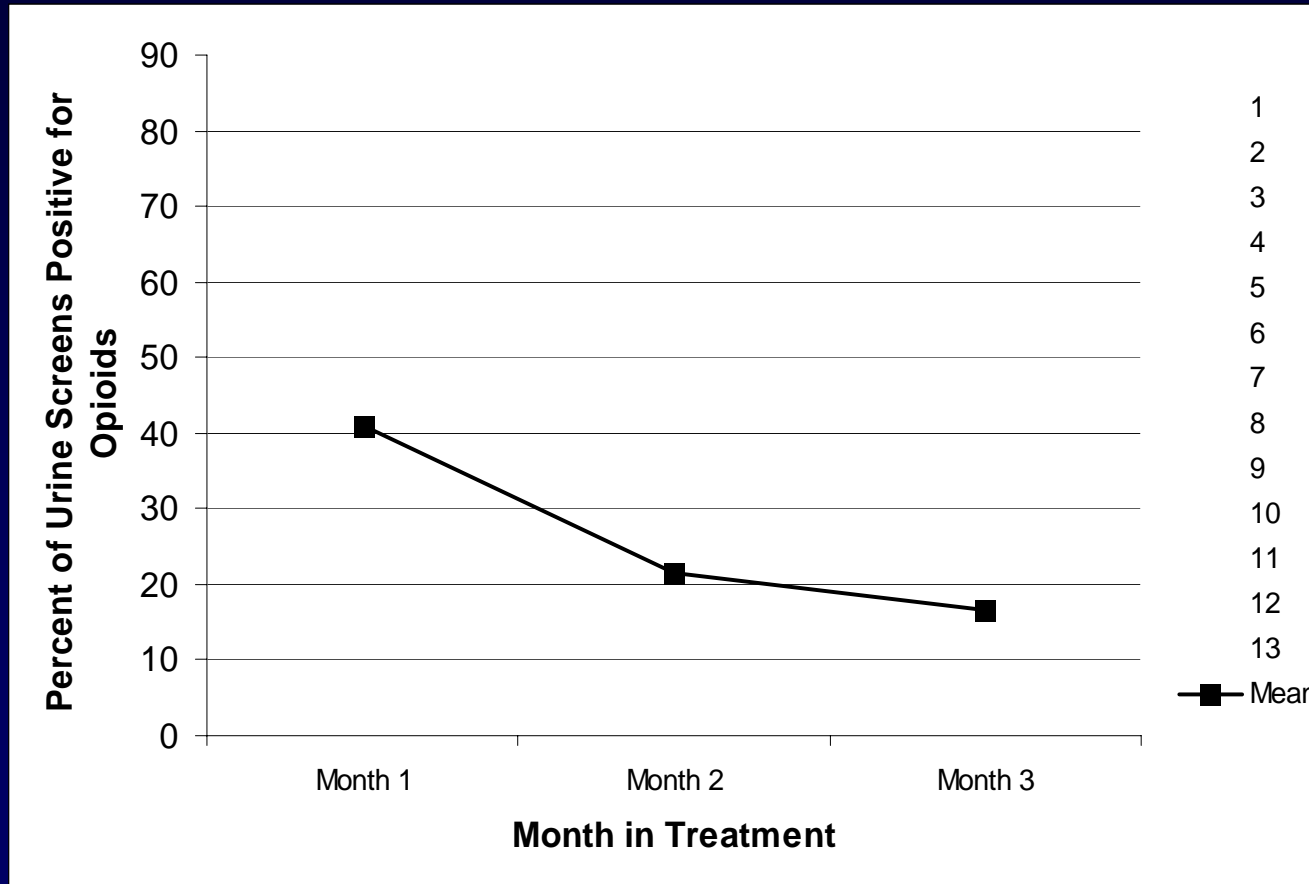
(Sullivan et al, CID 2006)

- 12-week randomized clinical trial conducted in the Nathan Smith Clinic, Yale-New Haven Hospital
 - Followed by on-going maintenance
- Buprenorphine/naloxone daily
- Opioid dependent patients randomized to one of two arms:
 - 1) Physician Management (PM) vs.
 - 2) Physician Management (PM) enhanced with Drug and HIV risk Counseling (DC) plus Adherence Management (AM)

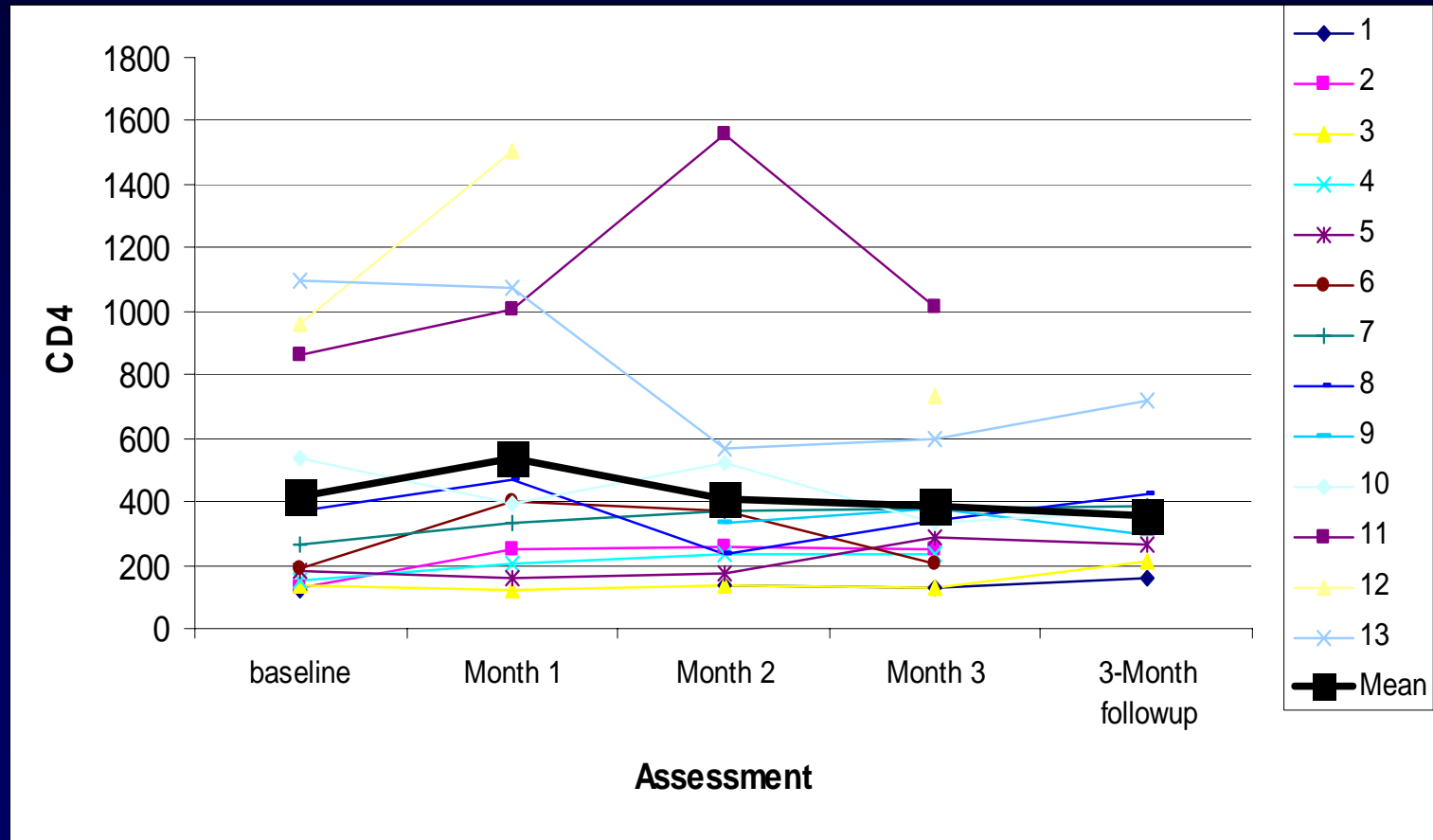
Results: Baseline Characteristics

	n = 16
Age, years, mean	47
Male	94%
White	31%
Full-time employment	19%
High school education or greater	81%
Years opioid dependent, mean	17.4
Primary heroin use	81%
Injection drug use	56%
Years of HIV diagnosis, mean	13.3
Baseline CD4, mean	367
Baseline HIV log RNA, mean	3.85
Current antiretroviral treatment	63%
Anti-HCV Ab	87%

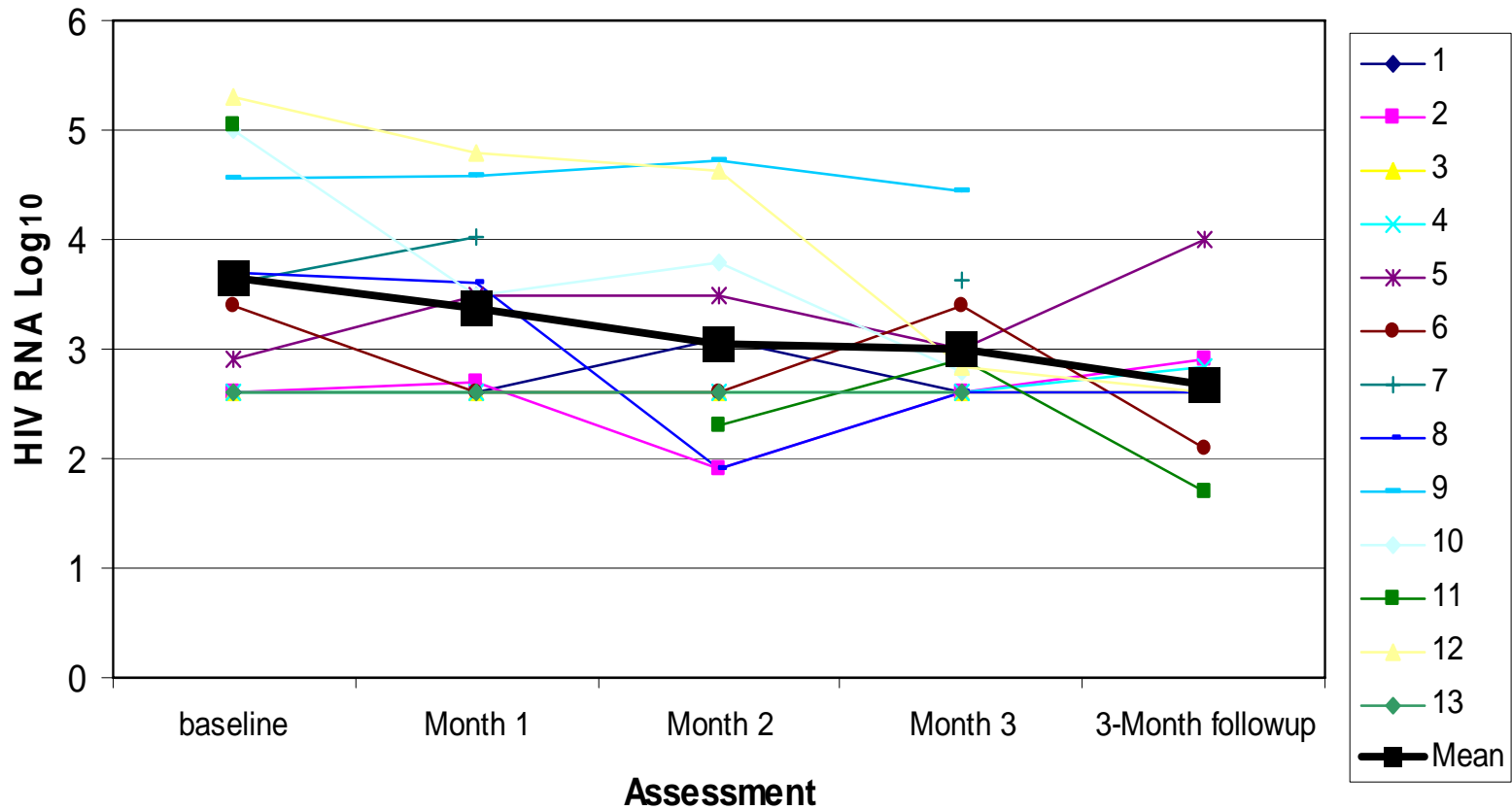
Urine Toxicology Results (N=13)



CD4 Lymphocyte Counts (N=13)



HIV RNA Log₁₀ (N=13)



Clinician Concerns

- Too busy
- Iatrogenic addiction
- Inappropriate prescribing
- Clinical review
- Clinical instability (e.g. interactions)
- Pandora's box

Patient Concerns

- Disclosure – MD, nursing, staff
- Ambivalence regarding treatment
- Loss of control
- Clinical instability (e.g. interactions)
- Pain management

Summary

- Opioid dependence often a chronic relapsing medical condition
- Profound neurobiologic changes accompany the transition from opioid abuse to dependence
- Buprenorphine and counseling are effective in decreasing illicit opioid use, medical and social complications
- Data from 10 HRSA sites may help inform the appropriate model for integrating buprenorphine into HIV clinics