

CLINICAL TRIALS NETWORK

Continuing  
Buprenorphine/Naloxone With  
Counseling Is More Effective Than  
Detoxification With Counseling for  
15-21 Year Old Opioid Addicts

University of Pennsylvania  
And the  
National Institute on Drug Abuse

Lead Investigator:

George Woody, M.D.

Dept. of Psychiatry,

University of Pennsylvania

Project Director

Sabrina Poole

Penn Collaborators

Robert Forman, PhD

Laura McNicholas, MD

Cynthia Clark, RNP

Howard Moss, MD

Paul Fudala, PhD

NIDA Project

Collaborator:

Jack Blaine, M.D.

Data Manager:

Chris Petro, B.S.

Biostatisticians:

Kevin Lynch, PhD

Karen Dugosh, PhD

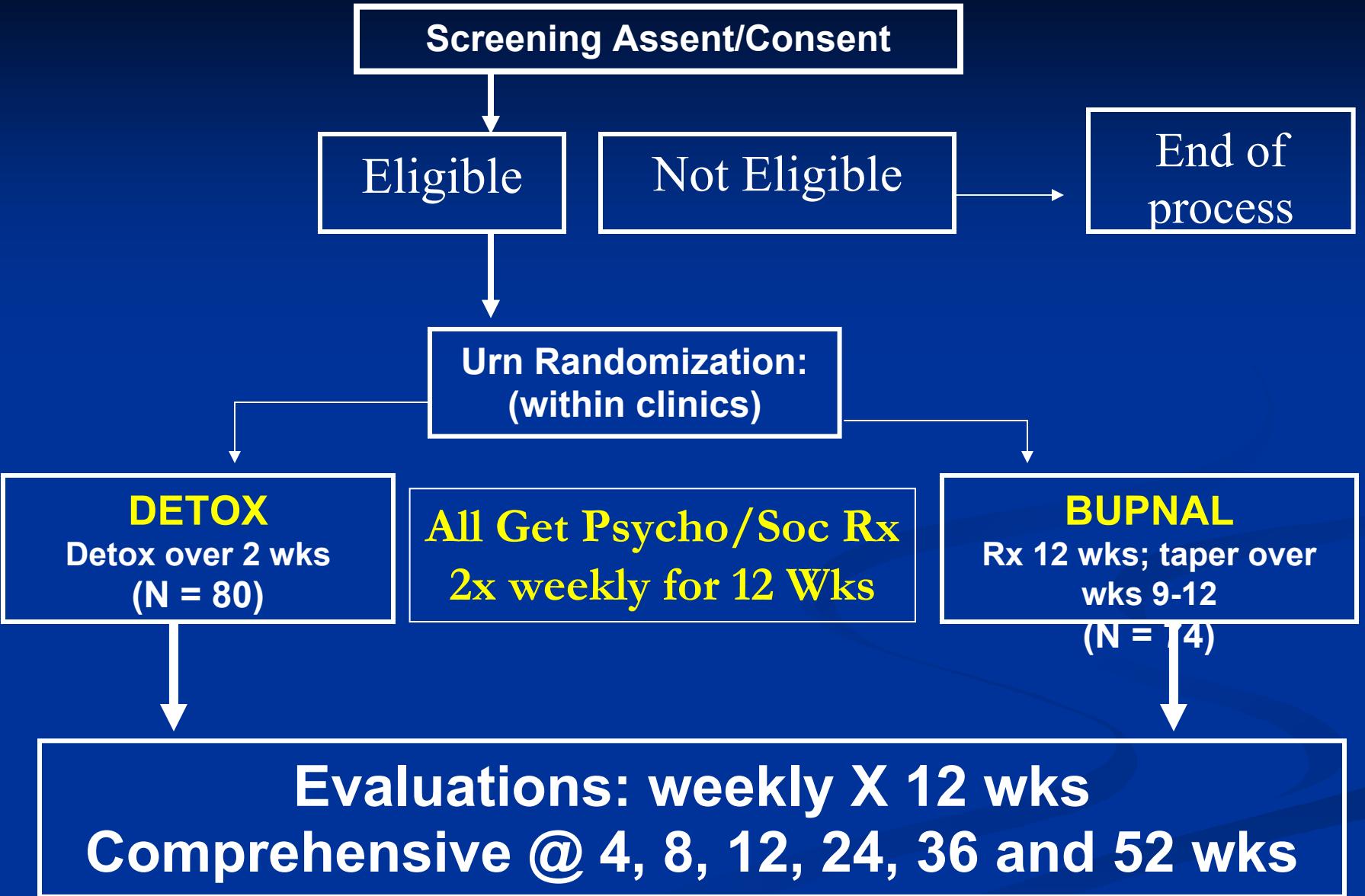
Dept. of Psychiatry,  
University of  
Pennsylvania

# Site Investigators

- **Mountain Manor:** Geetha Subramaniam, MD
- **Duke Addictions Program:** Len Handlesman, MD/Ashwin Patkar, MD
- **University of New Mexico:** Michael Bogenschutz, MD (2 sites: Albuquerque & Ayundantes)
- **Brandywine Counseling:** Joseph Glick, MD
- **Mercy Hospital/Portland ME:** Marc Publicker, MD

# Background

- Increase in adolescent/young adult opioid use and addiction
- 2006 national survey showed Rx opioids first drugs used illicitly, followed by marijuana
- Most rx options for young, recently-addicted patients are abstinence-oriented (including abstinence from prescribed meds)
  - Entire rx system shifted to outpatient
  - Little availability of residential care



# Outcomes

- Primary: opioid + urines at weeks 4, 8, 12
- Secondary:
  - Dropout from assigned rx condition
  - Received methadone, bup, detoxification or rehab outside assigned rx condition
  - HIV risk reduction
  - Opioid + urines at 6, 9 & 12 months
  - Other drug use; overall adjustment

# Number Consented/Number Randomized

- Consented: 229
- Randomized: 154; Analysis 152
- 2 ss dropped (WPW & screen failure)

## Notes:

- Approximately 7 <18 yrs of age interested but declined when told parents had to consent
- Others could not arrange transportation for 5-7 days/week dosing

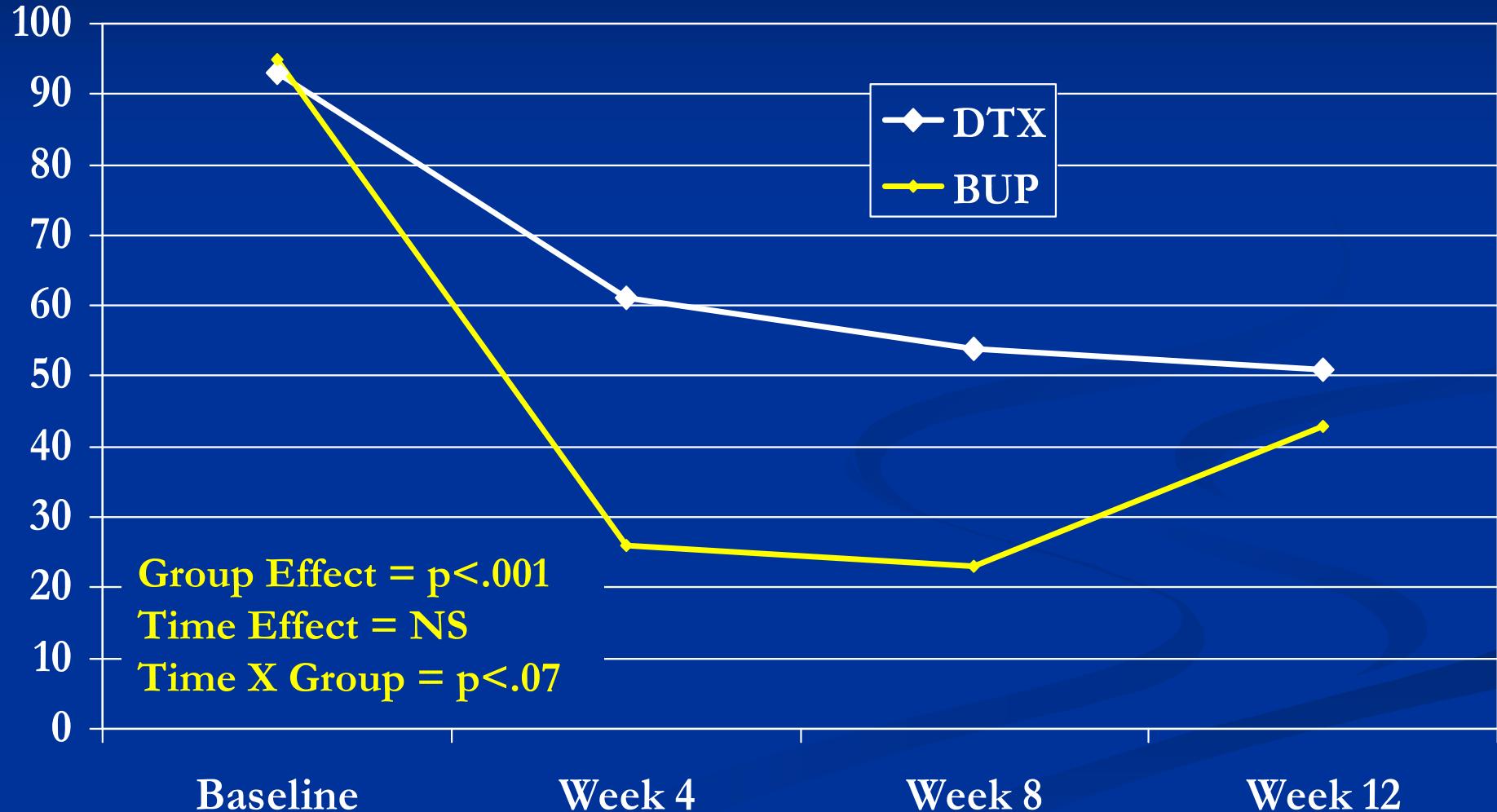
# Demographics: No Sig Grp Dffs

■ Male	90 (58%)
■ Race	
■ Caucasian	114 (74%)
■ African-American	3 (2%)
■ Hispanic	38 (25%)
■ Empl/School	(Past 6 months)
■ School	28%
■ Working/worked	72%
■ Hepatitis C +	29 (19%)

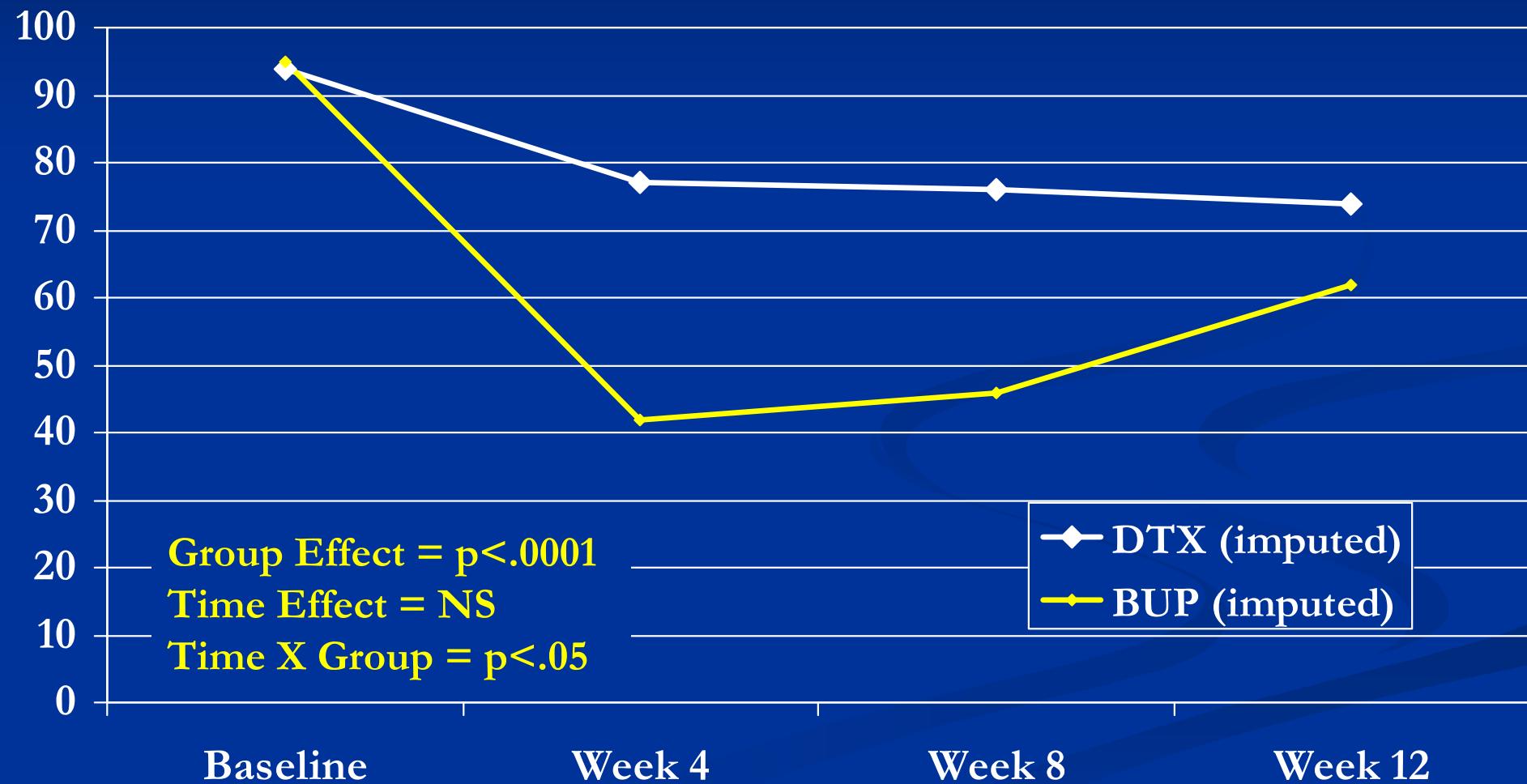
# Demographics (overall/cont.)

- Major problem
  - Heroin 84 (55%)
  - Opiates/analgesics 53 (35%)
  - Polydrug 16 (10%)
- Average Years Addicted 2
- Mean age 19.1 (SD: 1.49)
- <18 yrs: 27 ss (1 was 15)

# Opioid Positive Urines: Missing = Missing



# Opioid Positive Urines: Missing = Positive



# Remaining In Assigned Treatment Condition at Week 12

- Definition: not having period of 14 days or more when failed to see individual or group counsel, or enrolled in non-study treatment
- About 4 times more retained in BUP (50% vs. 12%)

# HIV Risk : Injecting drug use

	Wk 4	Wk 8	Wk 12
DTX	37%	26%	33%
BUP	21%	13%	16%

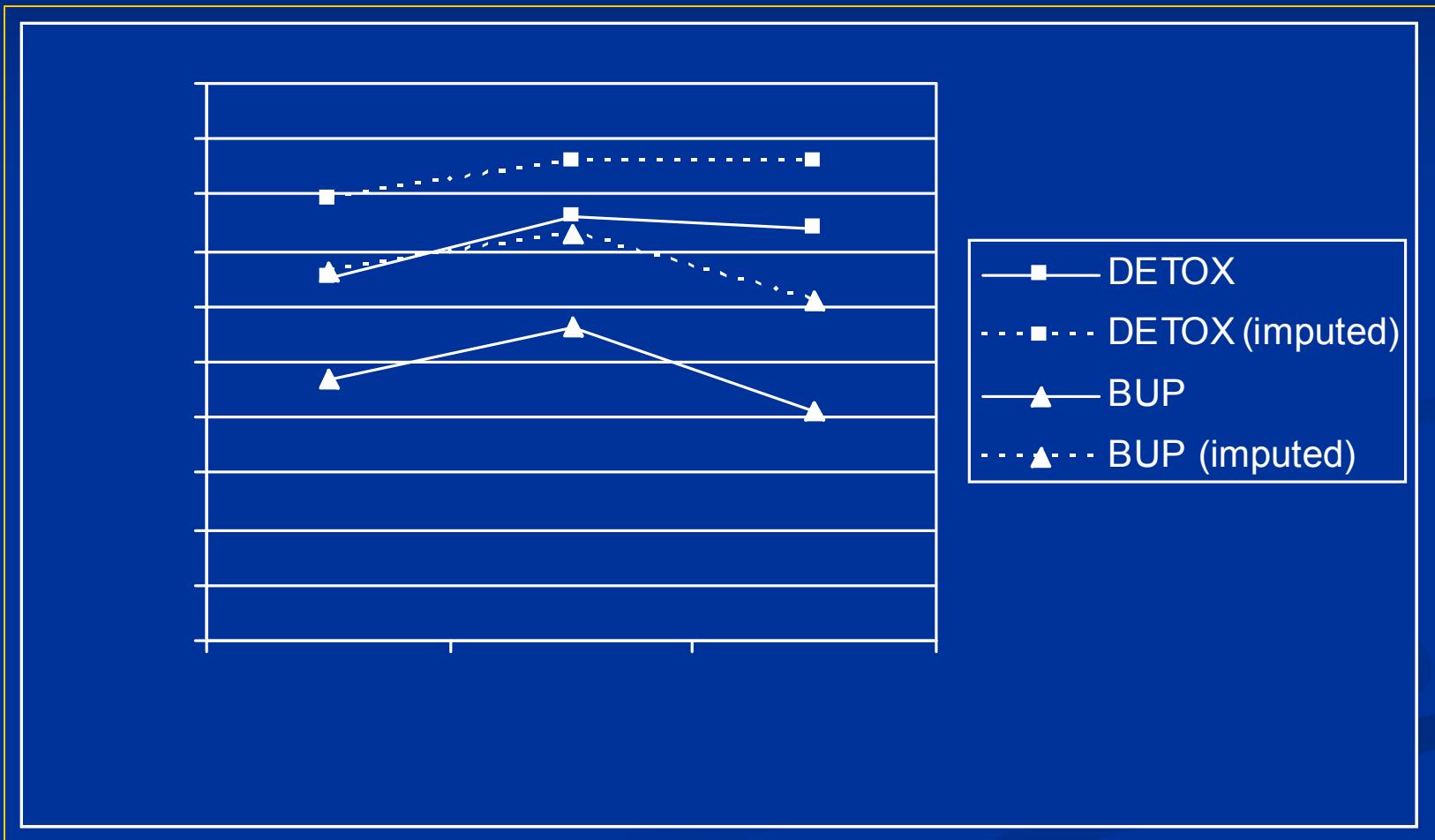
---

# Patients Treated Outside Study In Weeks 1-12

DTX = 27

BUP = 3

# Opioid Positive Urine at Months 6, 9, 12



# % Reporting possible drug-related side effects

- Headaches most common (20-23%)
- All other AE's less than 10%
- 4/83 who were hepatitis C - at baseline, became + at wk 12
  - 4.8% conversion in 12 wks
- No ECG or liver changes clearly attributable to bup

# Cost Effectiveness (Addiction, in press)

- 12-week study outpatient rx \$1514 ( $p<0.001$ )  
higher for BUP
- 1-yr total medical costs \$83 higher for BUP  
( $p=0.97$ )
- 1-year cost per QALY was \$1,376 for BUP
- Cost per opioid-free year \$308 for BUP

# Cost Effectiveness (cont.)

- From output rx perspective, cost-effectiveness ratios \$25,049 (95% CI: 11,616 to dominated) per QALY & \$5,610 per opioid-free yr
- Net costs from the societal perspective were \$31,264 ( $p=0.20$ ) lower for BUP.
- Extended buprenorphine-naloxone treatment versus brief detoxification is cost effective.

# Summary

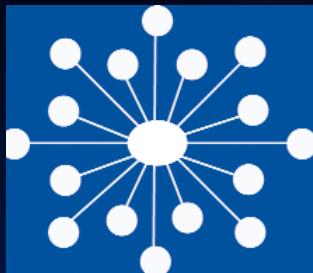
- Longer-term bup use was safe & effective
- Difficult to recruit, but conditions more stringent than usual practice
  - Dosing 5-7 days/wk = transportation problems
  - Parental consent if <18 caused some to decline
  - Multiple assessments
  - Probably easier to enroll and retain under non-research/usual practice conditions

# Summary (cont)

- DETOX:
  - Higher dropout;
  - More opioid+ urines
- Bup ends = opioid use increases
- Though mean age 19.1, addicted 2 years, course appeared similar to adults

# Treatment Implications (cont.)

- Potentially life-saving as data from France, Finland, Czech Republic show marked reduction in overdose deaths associated with use of bup
- Patients can enter abstinence-oriented rx any time if indicated and possible
- Resistance expected from specialty programs (like doing cognitive therapy in a psychoanalytic institute)



CLINICAL TRIALS NETWORK

**BUPRENORPHINE/NALOXONE-  
FACILITATED REHABILITATION  
FOR OPIOID DEPENDENT  
ADOLESCENTS/YOUNG ADULTS**

**Thanks to NIDA and  
Participating Program Staff for  
Sustained Effort Over 4 Years!**

# Acknowledgements

Cindy Voss, Angie Wu, Haley Brown, Paul Harrell, Tina Brown, Shannon Garrett, Peter Chodinicki, Phillip Clemmey, Marc Fishman, MD, Maxine Stitzer, PhD (Mid-Atlantic Node; Mountain Manor Treatment Center); Edward McCarthy, MD, Burma Wilkins, Thomas Allan, Elizabeth Clay, Christine Evans, Sarah Braun, Christopher Coose, Sally Van Snepson, Lisa DiPietro, Hilary Smith Connery, MD, Jennifer Sharpe Potter, PhD, MPH, Scott E. Provost, MSW, Jennifer Wilson, David Erickson, Roger Weiss, MD (Northern New England Node; Mercy Hospital); Karen McCain, NP, Tammy Day, BSN (North Carolina Node; Duke University Addictions Program); Patrick Abbott, MD, Robert Kushner, MD, Wendy Johnson, Roberta Chavez, Craig Pacheco, Meredith Pampell, Adam Rosen, Kim Romero, Jafed Gonzalez, Leonard Pena, Rena Treacher, Robert Hyde, Violanda Nunez, Cynthia Duchesne, Paolo Guidici, Amber Martinez, William Miller, PhD (Southwest Node; Albuquerque and Ayundantes Addiction Treatment Programs); Janice Sneed, RN, Sally Allshouse (Delaware Valley Node; Brandywine Counseling).

NIDA grants #U10-DA 13043 and K05-DA 17009 (Dr. Woody); U10 DA13034 Dr. Stitzer); K12 DA 000357 (Dr. Subramaniam); U10 DA15831 (Dr. Weiss)