

Stimulant Abuse Treatments as HIV Prevention Strategies

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Los Angeles City: PEP Project (Shoptaw & Reback)

Key Points



Epidemiology Defends a
Case Study on
Methamphetamine
Rationale/Approaches
Findings
Where to from here?

Methamphetamine



Methamphetamine Powder

Users' Description: Beige/yellowy/off-white powder



Base / Paste Methamphetamine

Users' Description: 'Oily', 'gunky', 'gluggy' gel, moist, waxy



Crystal Methamphetamine

Users' Description: White/clear crystals/rocks; 'crushed glass' / 'rock salt'

Epidemiology

Methamphetamine

Meth Use in the United States

Figure 2.10 Past Year Methamphetamine Use among Persons Aged 12 or Older, by Geographic Region: 2006

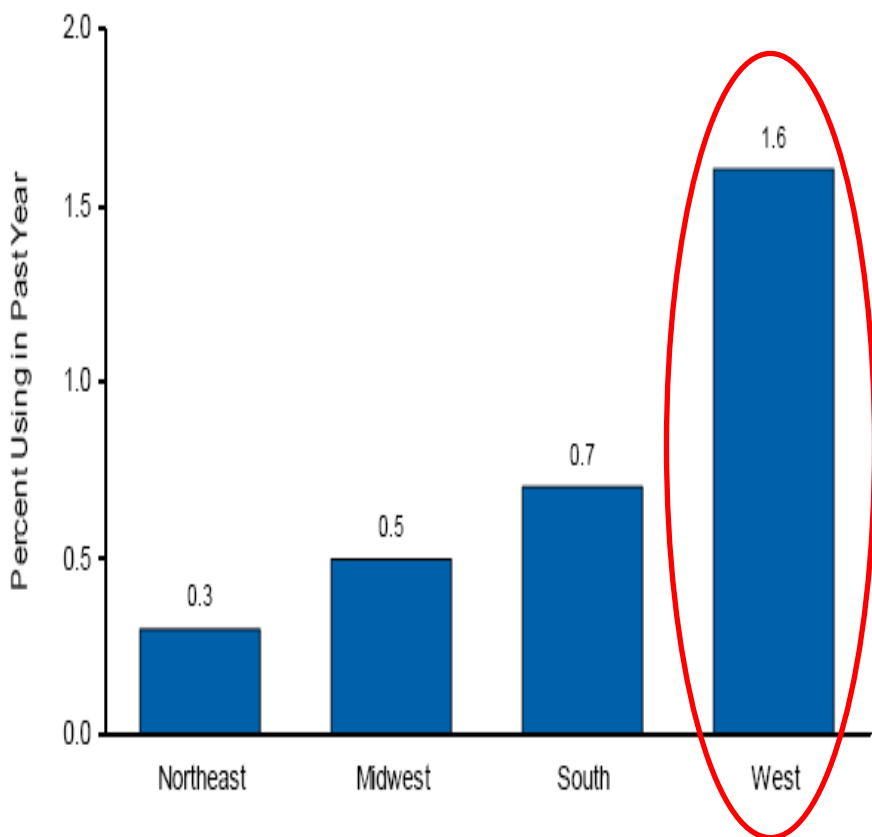
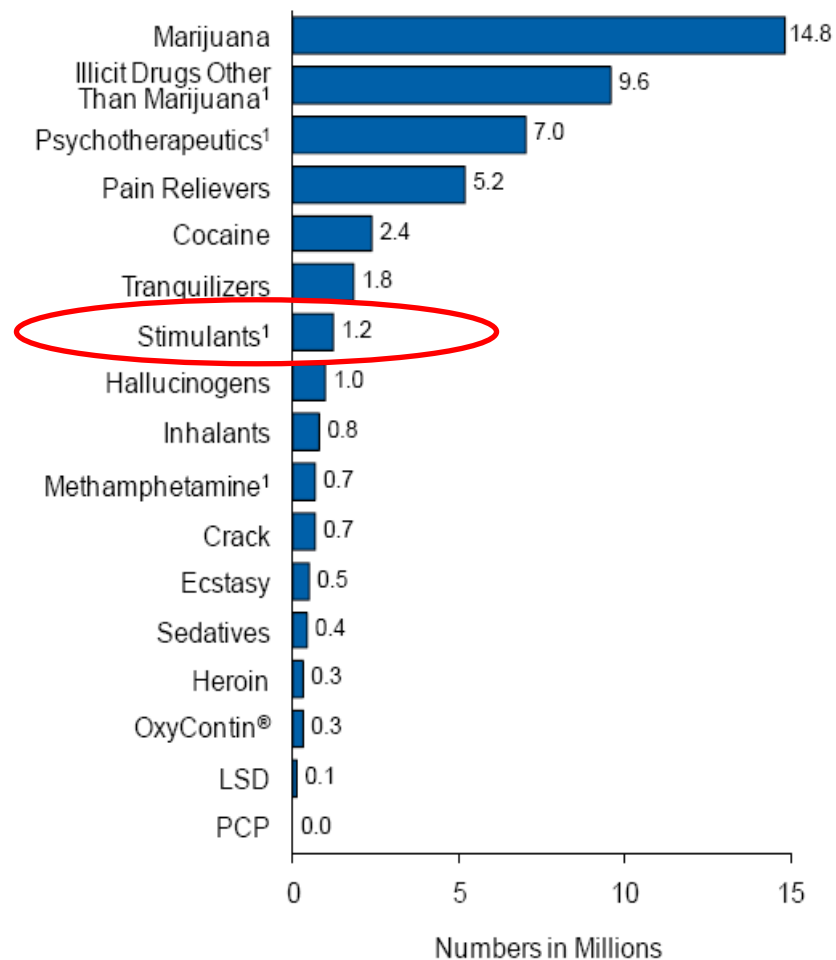
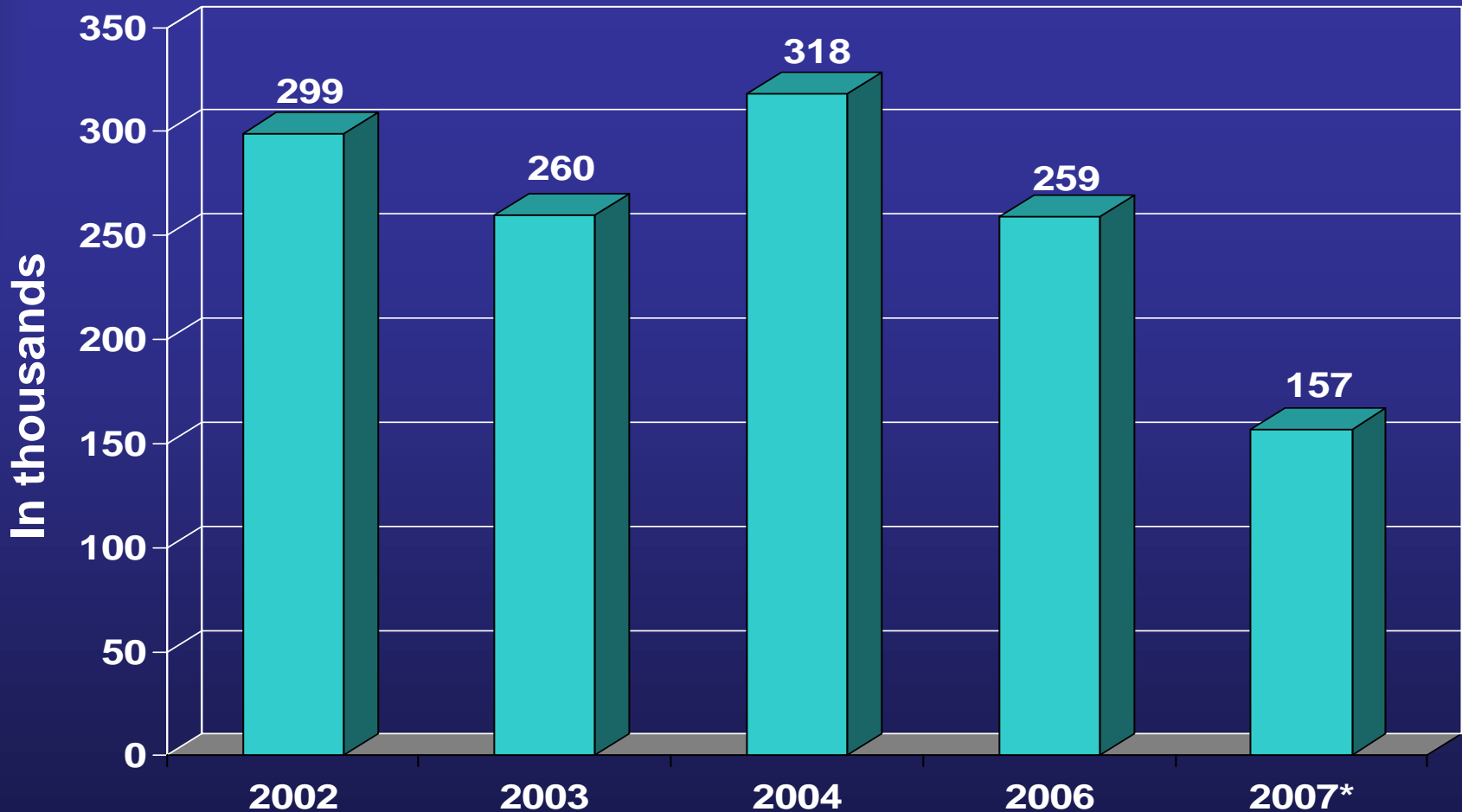


Figure 2.1 Past Month Use of Specific Illicit Drugs among Persons Aged 12 or Older: 2006



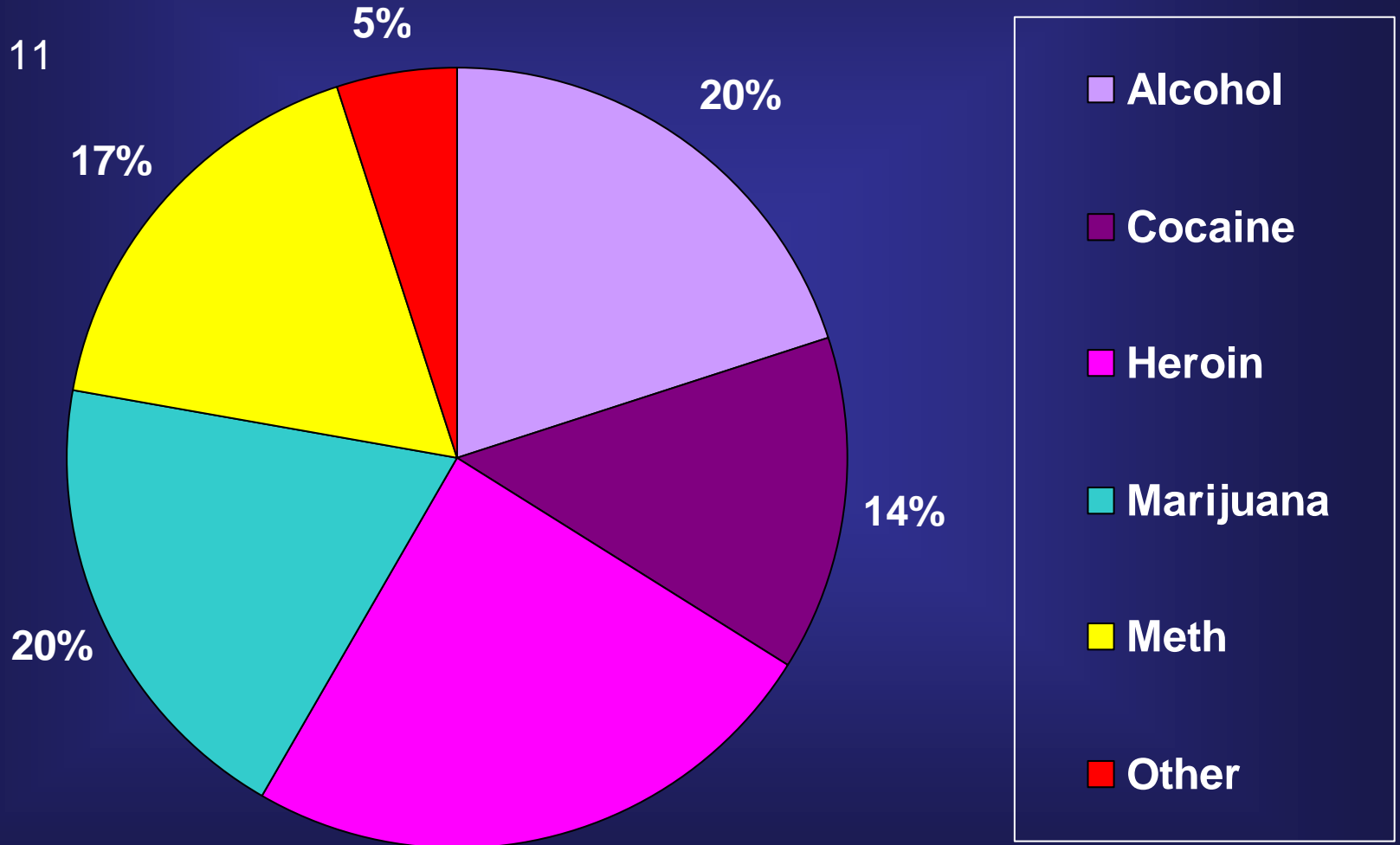
New Initiates by Year, 12 and older



*P < .05 for 2007 compared with 2006

Los Angeles County Treatment Admissions by Primary Drug of Choice: Fiscal Year 2008-2009

n = 74,111



Source: Los Angeles County Participant Reporting System (LACPRS), State Alcohol and Drug Programs Data Reporting System, 2008/2009

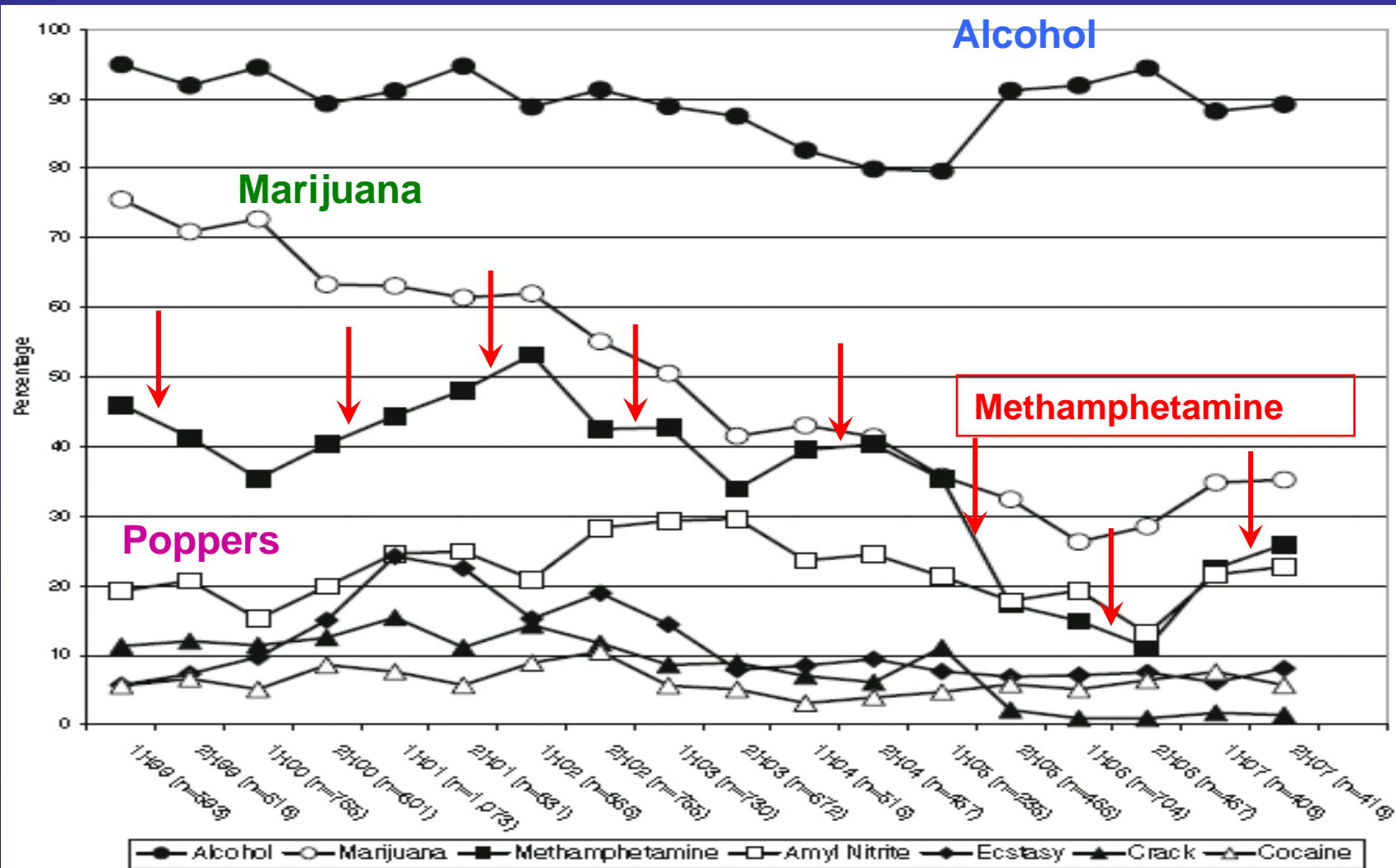
Methamphetamine Use in MSM

Prevalence:






- Los Angeles (11%) of adult MSM used meth in past 6 months^[1]
- MSM aged 15-22 (20.1%) used meth in past 6 months^[2]
 - Los Angeles site (32.0%)
- Twice as many MSM (14.4%) used meth in 1996 NHSDA as MSW (7.3%)^[3]



Meth-use Trends on the Street for Gay Men in Los Angeles: 1999-2007



Weekend Warrior

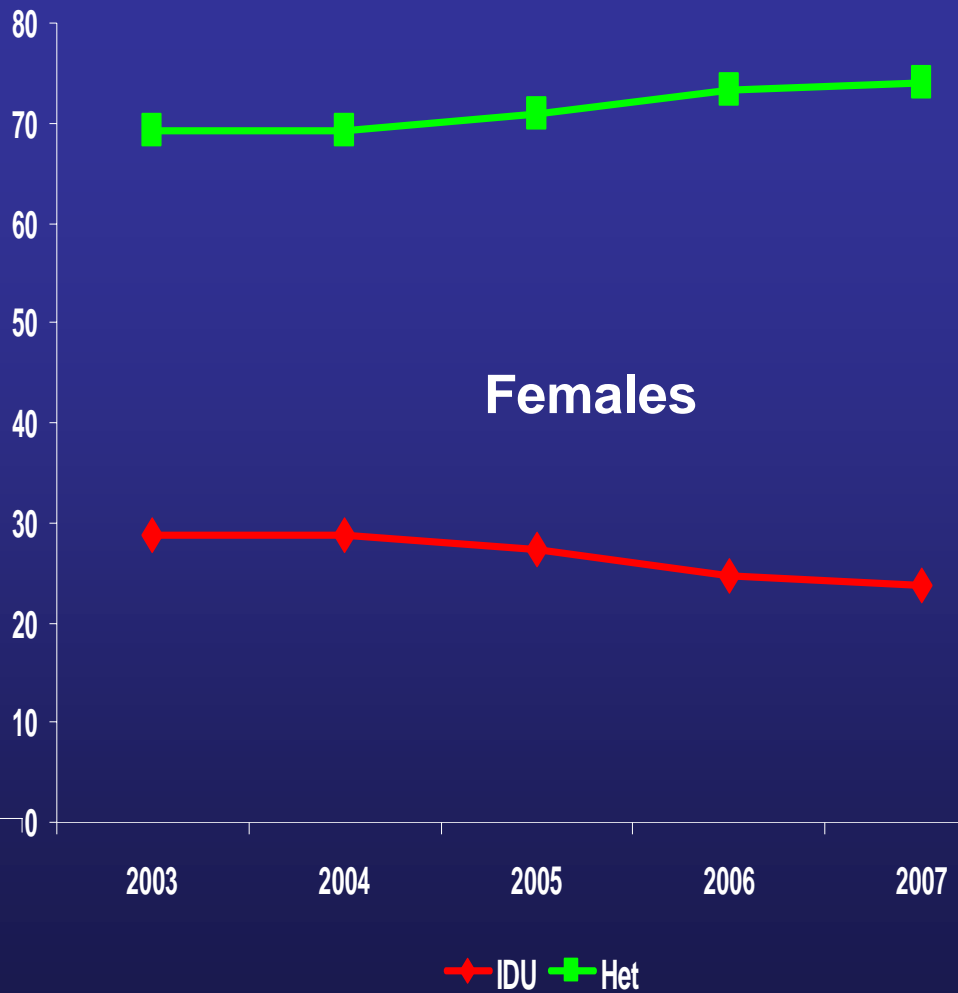
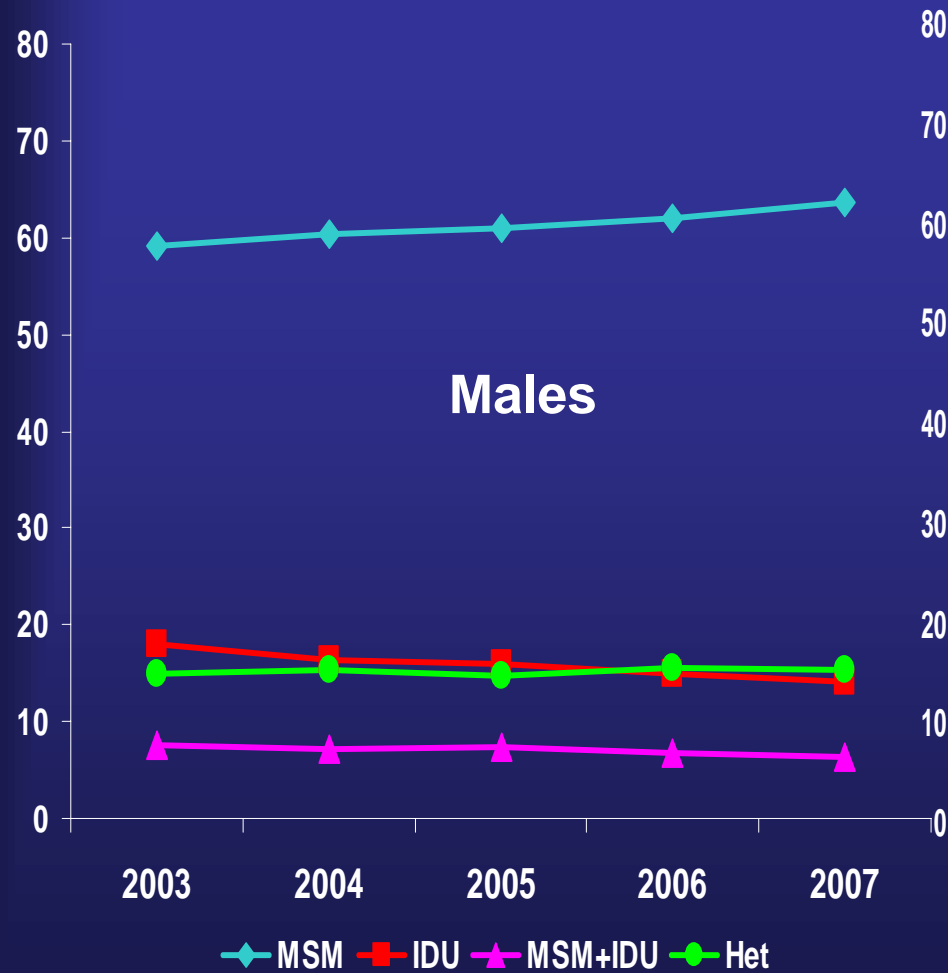
Sun	Mon	Tues	Weds	Thur	Fri	Sat
						
						

\$115-\$230 for the weekend (excluding cover charges)

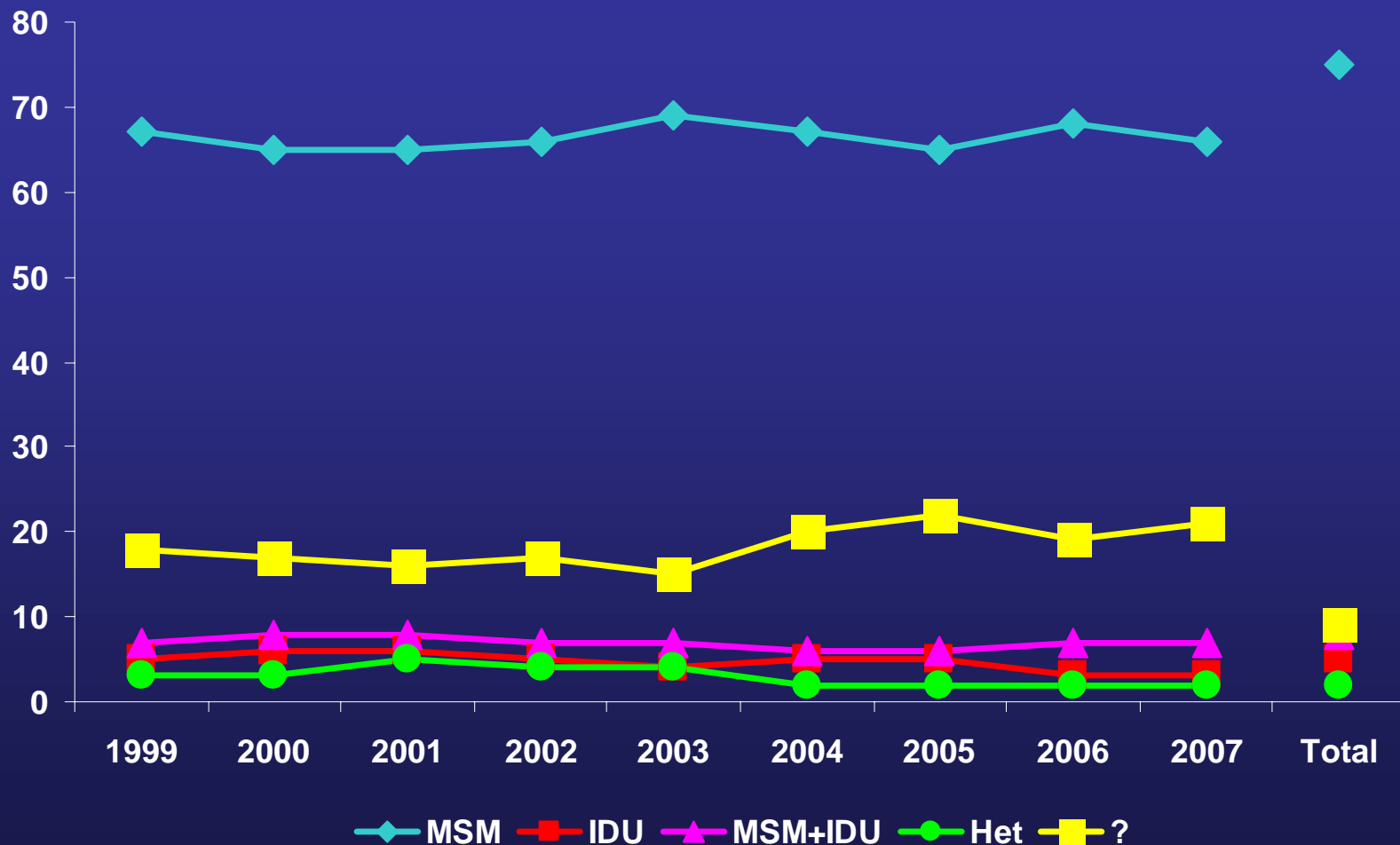
Epidemiology

HIV

Risk Behaviors by New Diagnosis of AIDS in the U.S.; 2003-2007



New Diagnosis of AIDS, 1999-2007 by Risk Behaviors LA County, Males



¹LAC HIV/AIDS Surveillance Report, 2008, Table 5. Total males = 49266

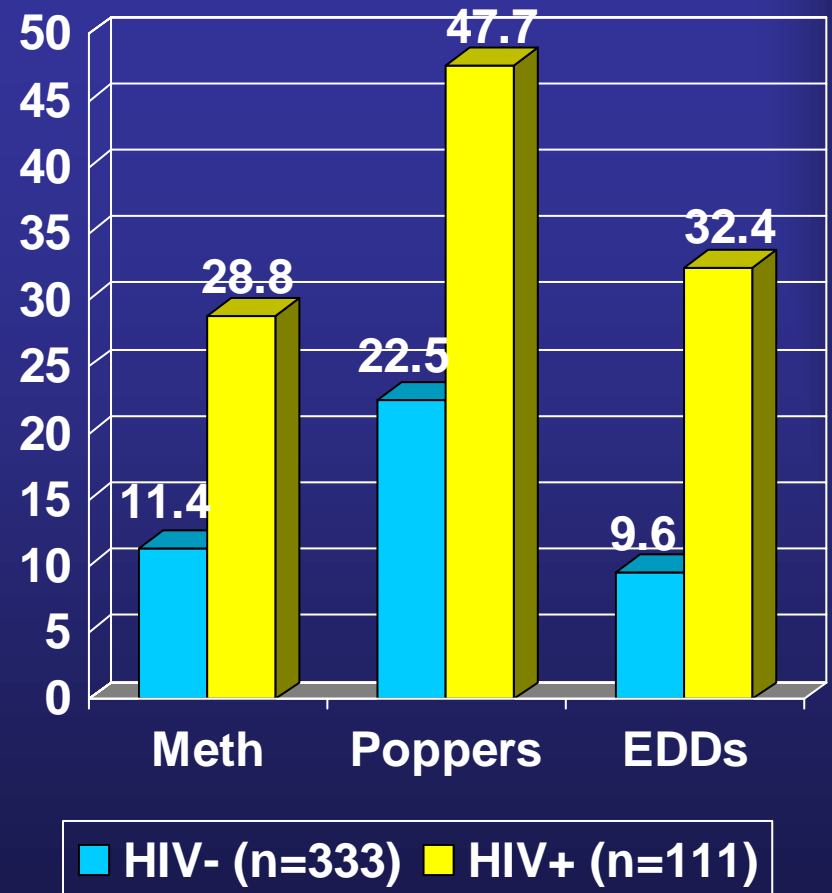
Sexual Risks and Non-Injection Drug Use

Methamphetamine

Meth Use and HIV Transmission

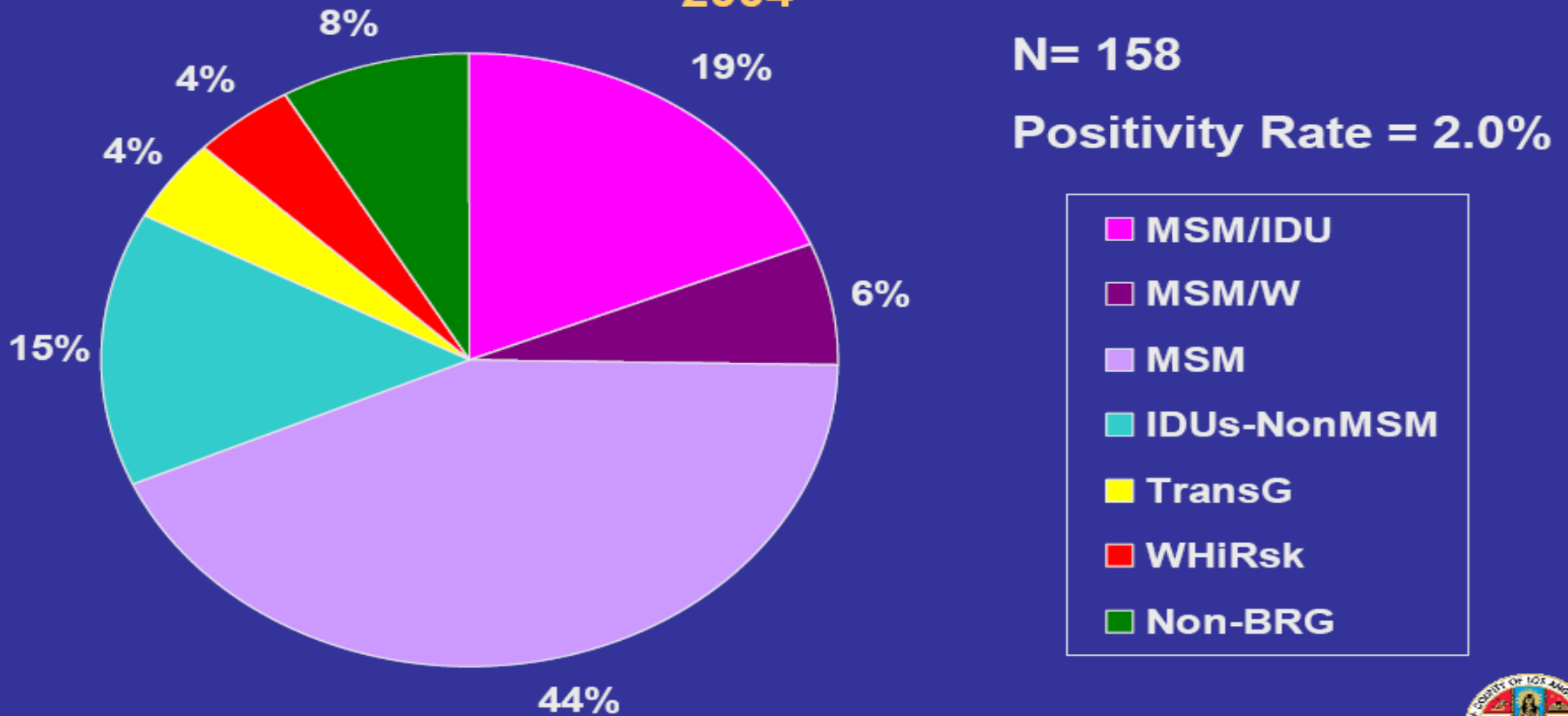
Meth use correlates with 2-4 fold increases in risk for HIV transmission in:

- Cohort Studies (Plankey et al., 2007)
- New Infections (Drumright et al., 2007; 2009)
- STI settings (Buchacz et al., 2005; Buchbinder et al., 2005)



Meth and HIV: LA County HIV C&T

New HIV Positives Among Meth Users by BRG, 2004



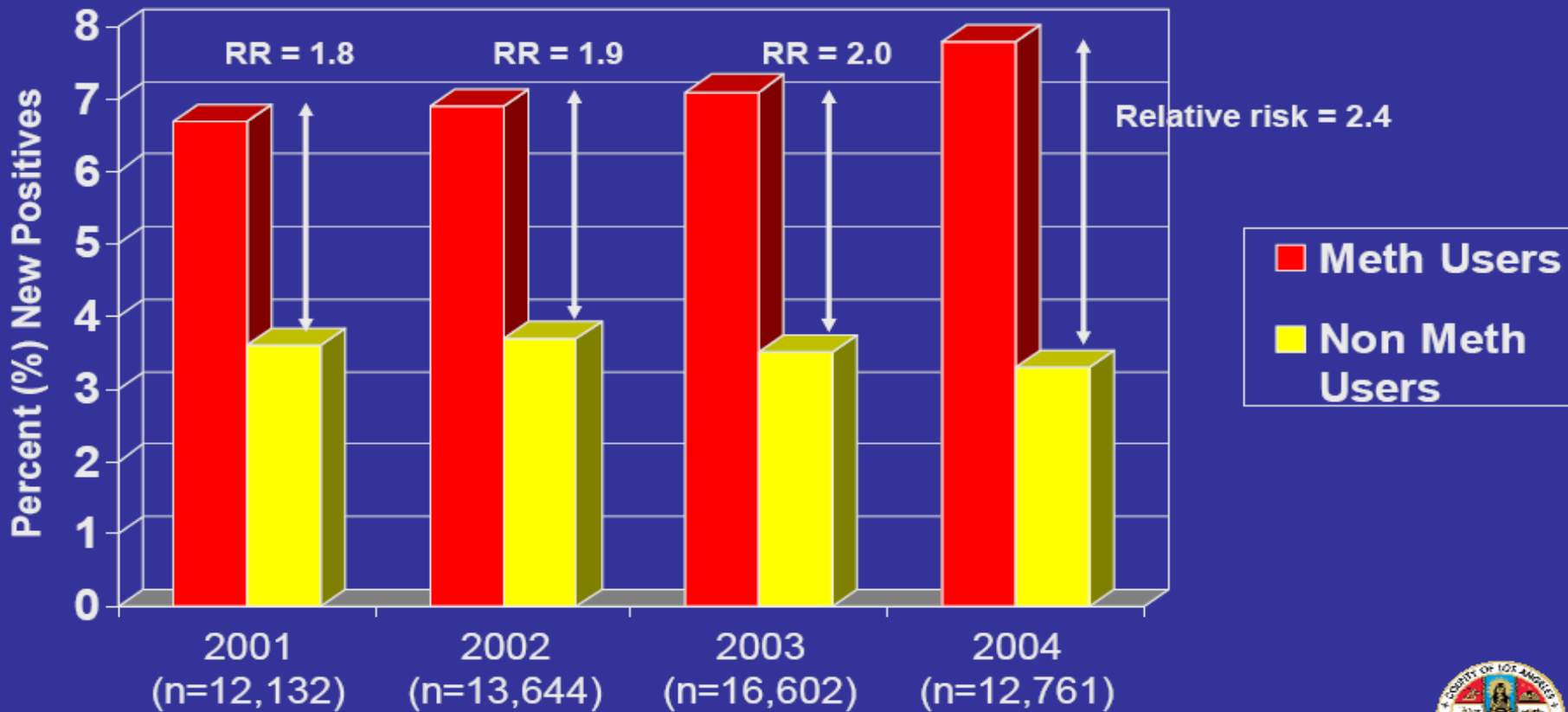
Source: 2004 LAC HCT Data

10



LA County HIV C&T

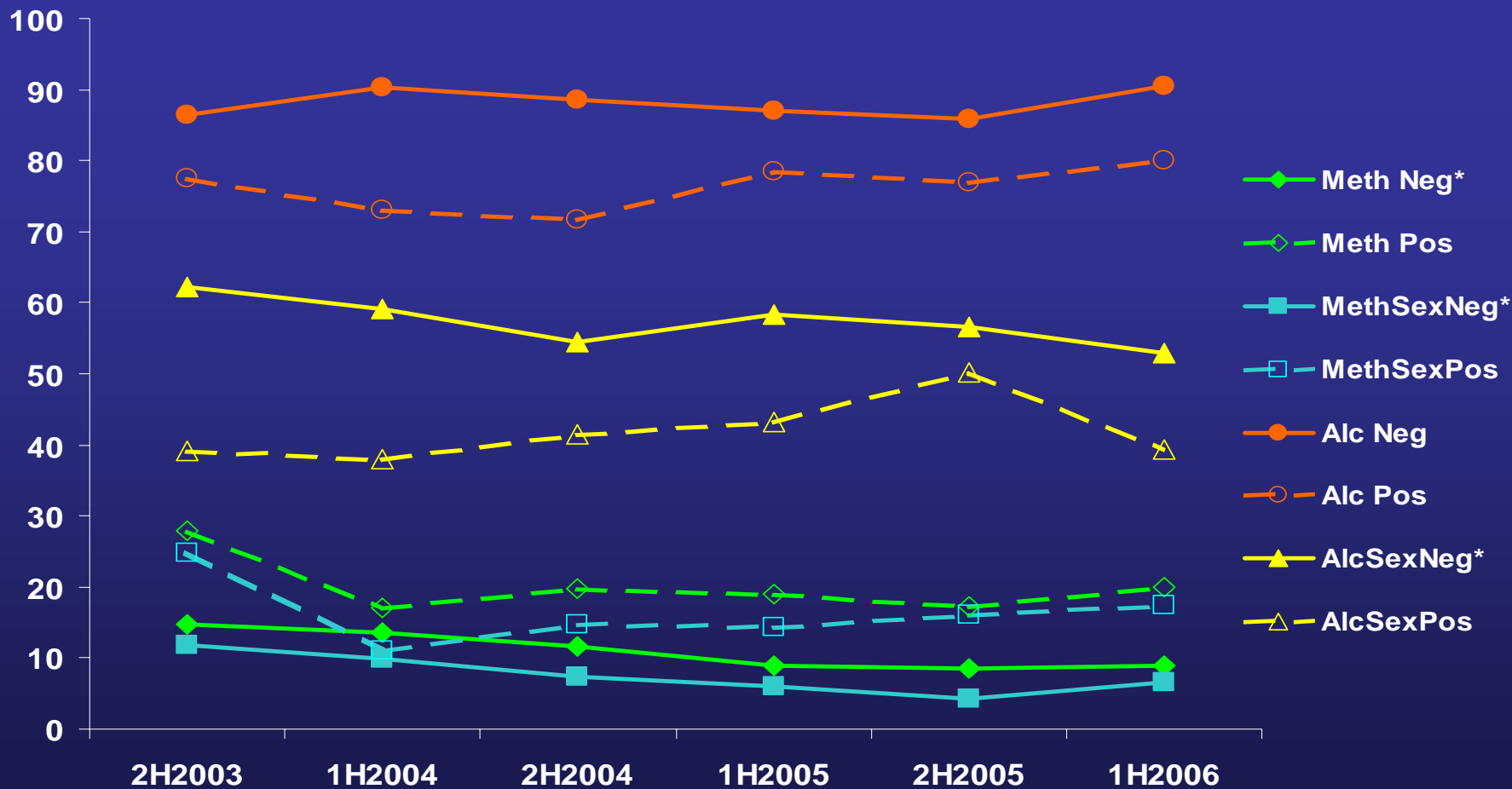
All MSM New HIV Positive Meth Users vs. New HIV Positive Non-Meth Users



Source: 2001-2004 LAC HCT Data



Substance Use and Sex in MSM San Francisco: 2003-2006



* $p < 0.05$

Functional Uses for Meth in MSM

- Issues of identity (gay, drug user, HIV status)^[1,2,3]
- Enhance sexual functioning^[2,3]
- Boosts self confidence^[2,3]
- Increases productivity^[2]
- Weight loss/strong body experiences^[2,3]
- Brightens mood, esp if abused^[2,3]
- Aging/living with AIDS/disability^[3,4]

HIV Transmission

A Probabilistic Event Determined by:

- Characteristics of the behavior ←
 - Unprotected anal (↑ receptive; ↓ insertive)
 - Unprotected vaginal (↑ receptive; ↓ insertive)
 - Oral behaviors
- Characteristics of the individual ←
 - Other STIs
 - Bruised/bleeding mucosa
 - Viral load
 - Concurrency
- Characteristics of the event ←
 - Single; multiple sources of virus

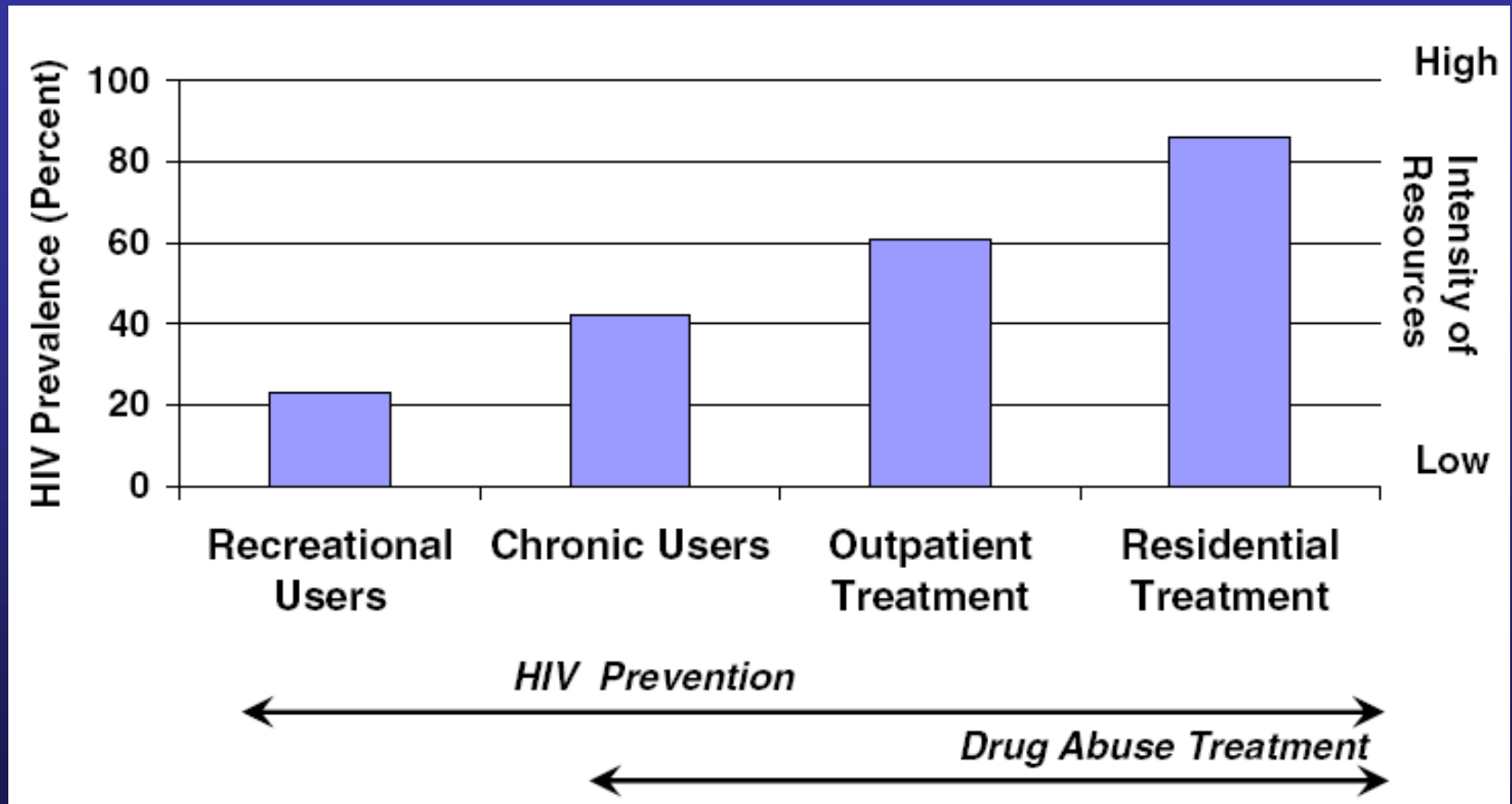
Cohen, 2006

Methamphetamine

A Case Study for HIV Prevention Policy:

Addressing Methamphetamine Use
in MSM Corresponds with Reduction in
HIV Transmission

Policy Model for Methamphetamine Use, HIV Prevalence and Interventions



First Study: Friends Health Center



- ✓ Randomized, controlled trial of 162 gay/bisexual methamphetamine dependent men.
- ✓ Four Conditions –
 - ✓ CM Only (n=42)
 - ✓ CBT Only (n=40)
 - ✓ CM + CBT (n=40)
 - ✓ GCBT (n=40)

FHC Findings

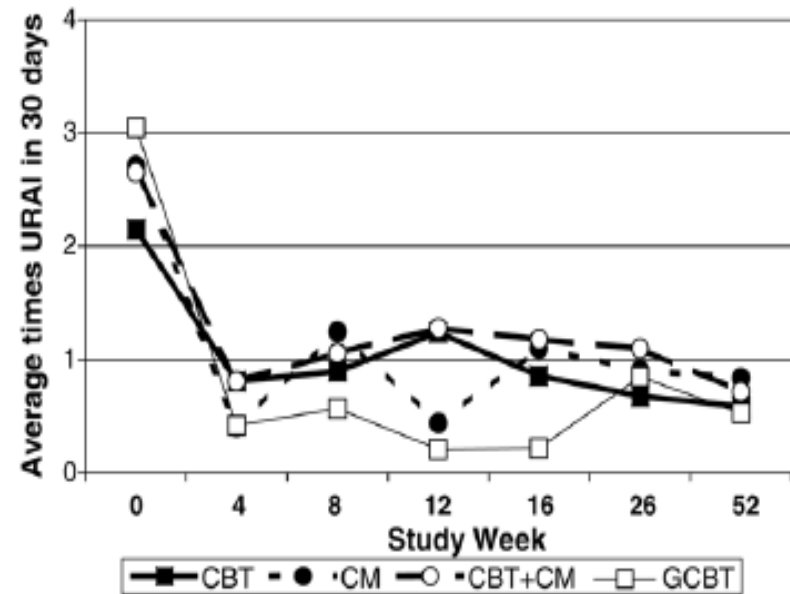
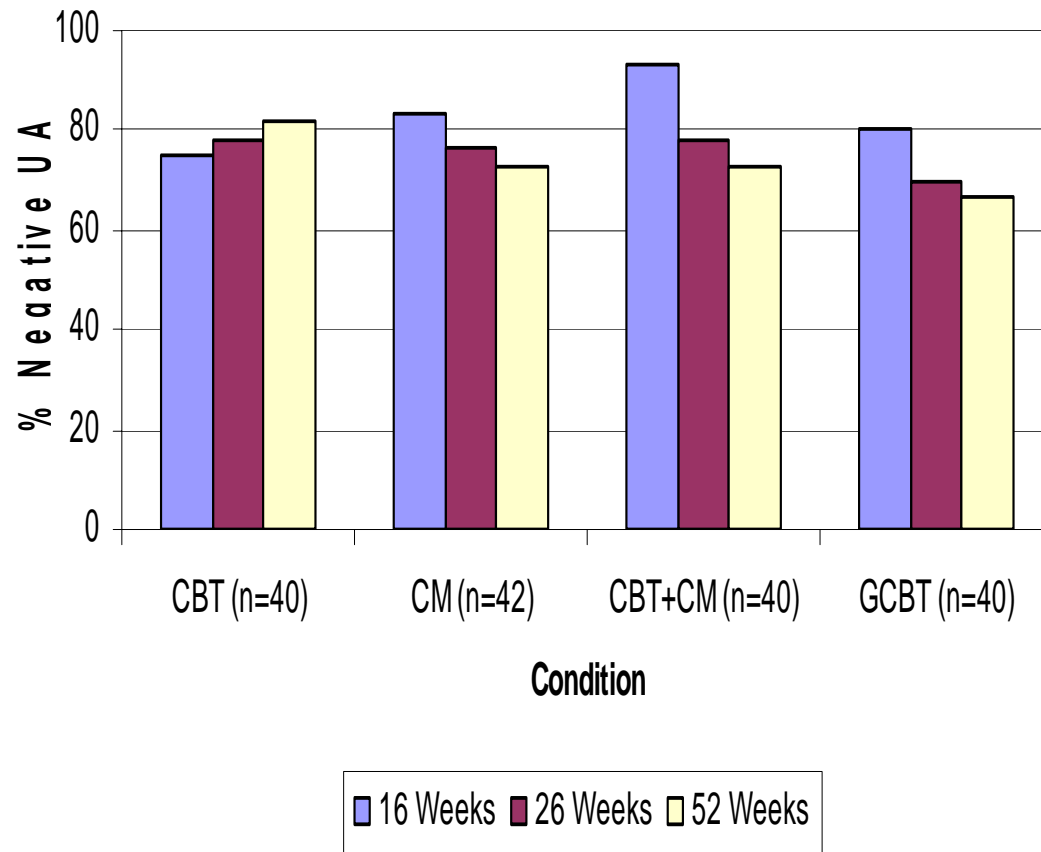
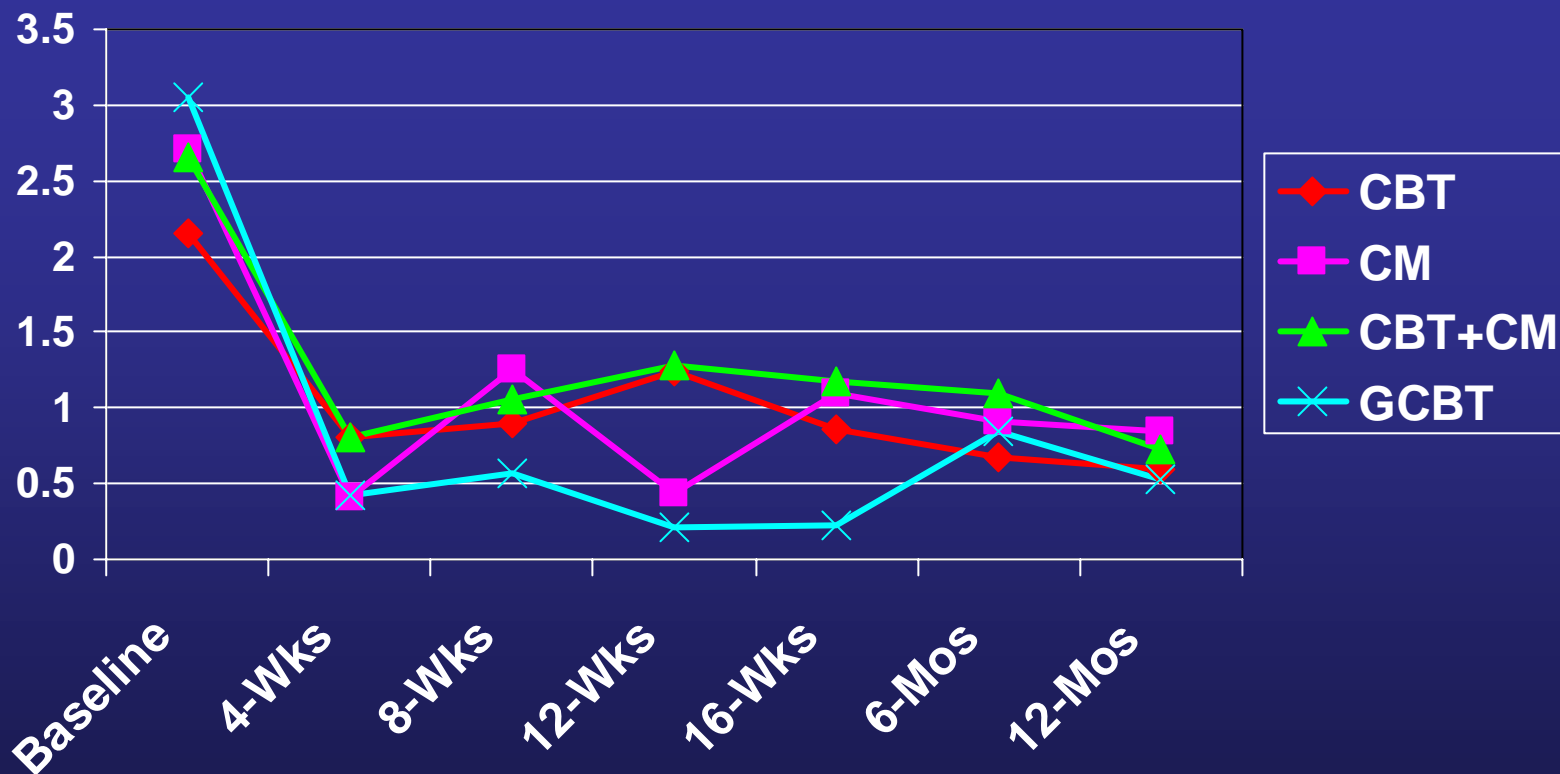


Fig. 1. Reported number of times participants had unprotected receptive anal intercourse (URAI) with someone other than a primary partner in the previous 30 days by treatment condition: standard cognitive behavioral therapy (CBT), contingency management (CM), combined cognitive behavioral therapy and contingency management (CBT + CM), and culturally tailored GBM-specific cognitive behavioral therapy (GCBT).

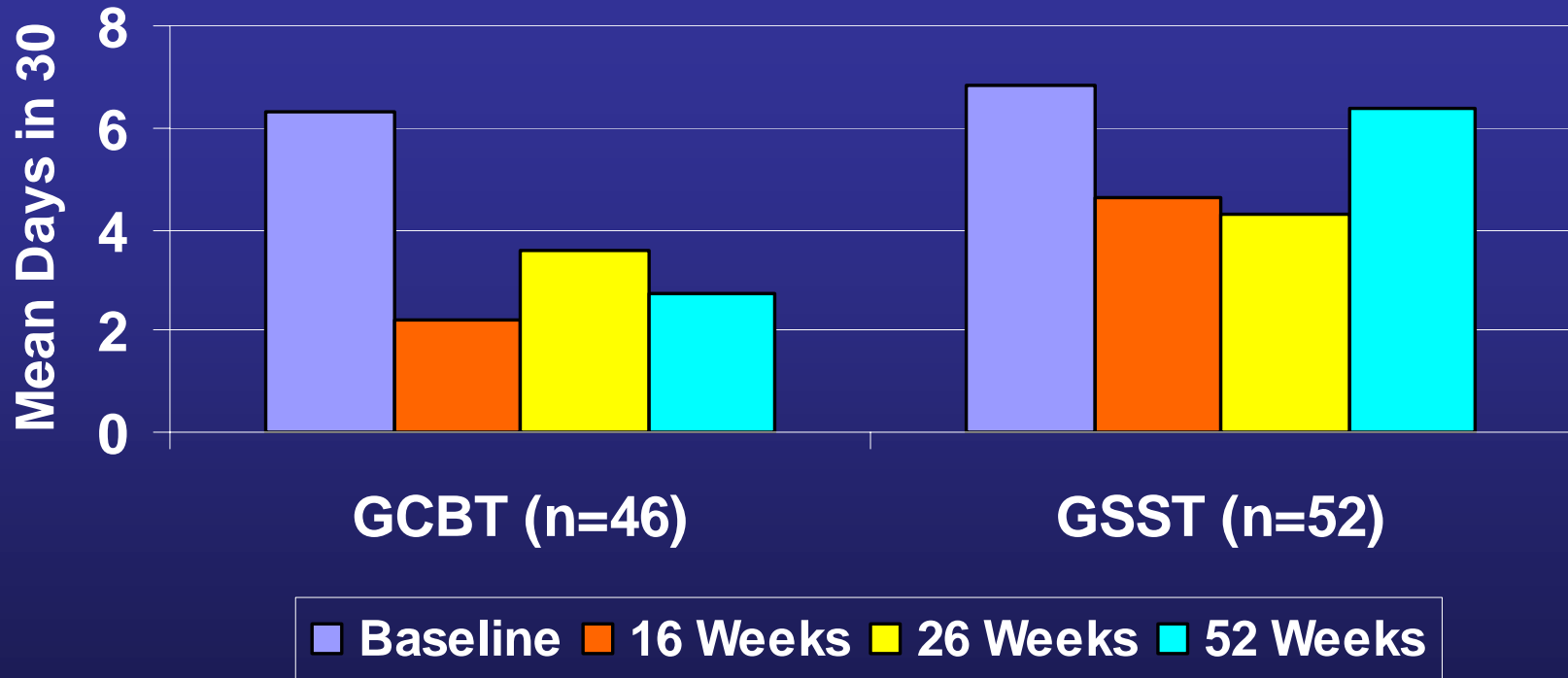
Meth Dependence Treatment and Reductions in UAI



$\chi^2_{(3)}=6.75, p<.01$

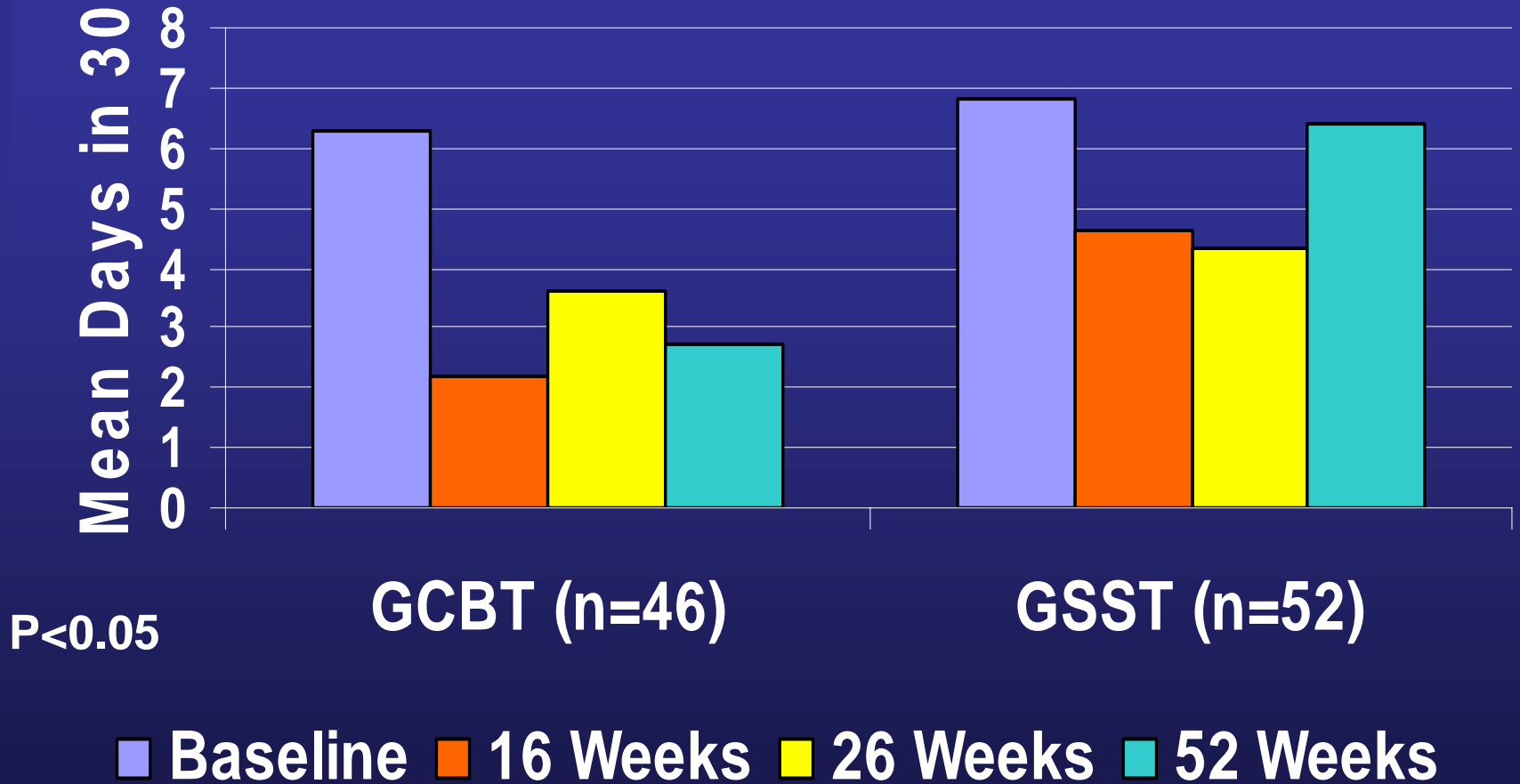
Shoptaw et al., 2005

Second Study of Meth Dependence: Friends La Brea

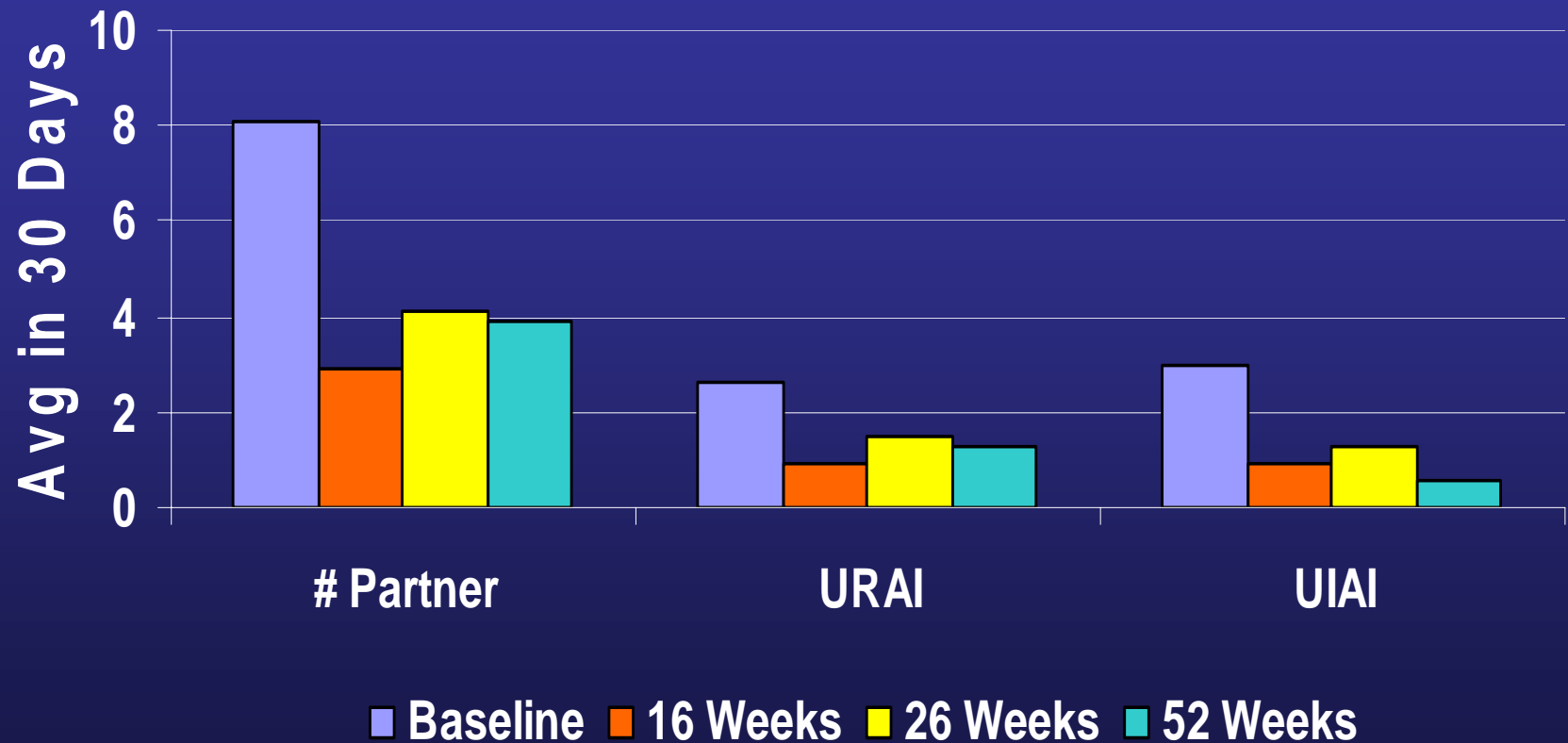


Shoptaw, Reback et al., *J Subst Abuse Treat*, 2008

GCBT Superior to GSST in Days of Meth Use



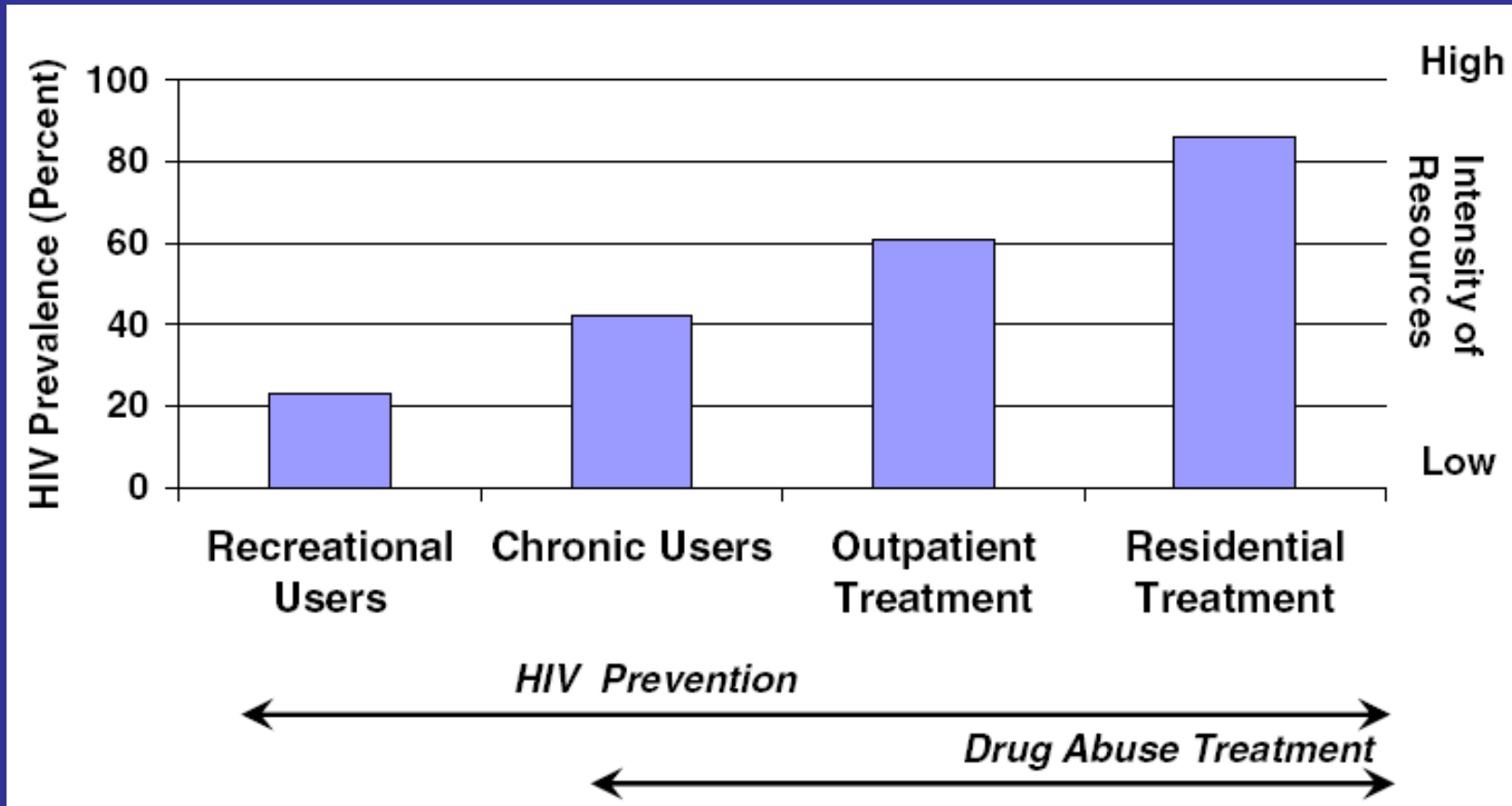
Treatment-Associated Reductions in Risk Behaviors Replicated!



Recap: Meth Treatment Strategies and HIV Prevention

- Replicated studies of specialized CBT approaches (Shoptaw et al., 2008)
 - Open label replication being prepared for publication, with most robust finding being drug treatment corresponds with reduction and sustaining of HIV risk behaviors.
- Four publicly funded CM prevention programs on the West Coast, with two programs in the East in initial stages
- Open label and now controlled trial of CM to optimize outcomes using nPEP with meth using gay and bisexual men
- Reback's group initial CDC sponsored text messaging program with active meth users

Where to From Here?



Why are drug treatments not better embraced as HIV prevention in targeted high risk groups?

Homophobia and Other Strongly Held Beliefs...

HIV prevalence rates are historical among MSM. More, incidence rates among MSM approximate or exceed those measured in Sub-Saharan Africa (Meyer et al., *Lancet*, 2010). Meth plays a strong part in that phenomena. With notable exceptions, the response from policymakers continues to be tepid.

Having dual stigma (sexual minority AND drug addict/drug user) presents real challenges to all involved

Relevant study sections have few drug abuse treatment scientists as standing members

Requires multiple funding streams to sustain a coherent research and services program.

Thank You