

# ORGANIZATION OF AMERICAN STATES

INTER-AMERICAN DRUG ABUSE CONTROL COMMISSION

cicad

**FORTY-THIRD REGULAR SESSION**  
**April 30 - May 2, 2008**  
**Washington, DC**

**OEA/Ser.L/XIV.2.43**  
**CICAD/doc.1643/08**  
**16 April 2008**  
**Original: English**

## **DRUG ABUSE TREATMENT CONCEPTS AND OUTCOMES**

Wallace Mandell, PhD  
The Johns Hopkins  
Bloomberg School of Public Health

United States

# Drug Abuse Treatment Concepts and Outcomes

Wallace Mandell, PhD

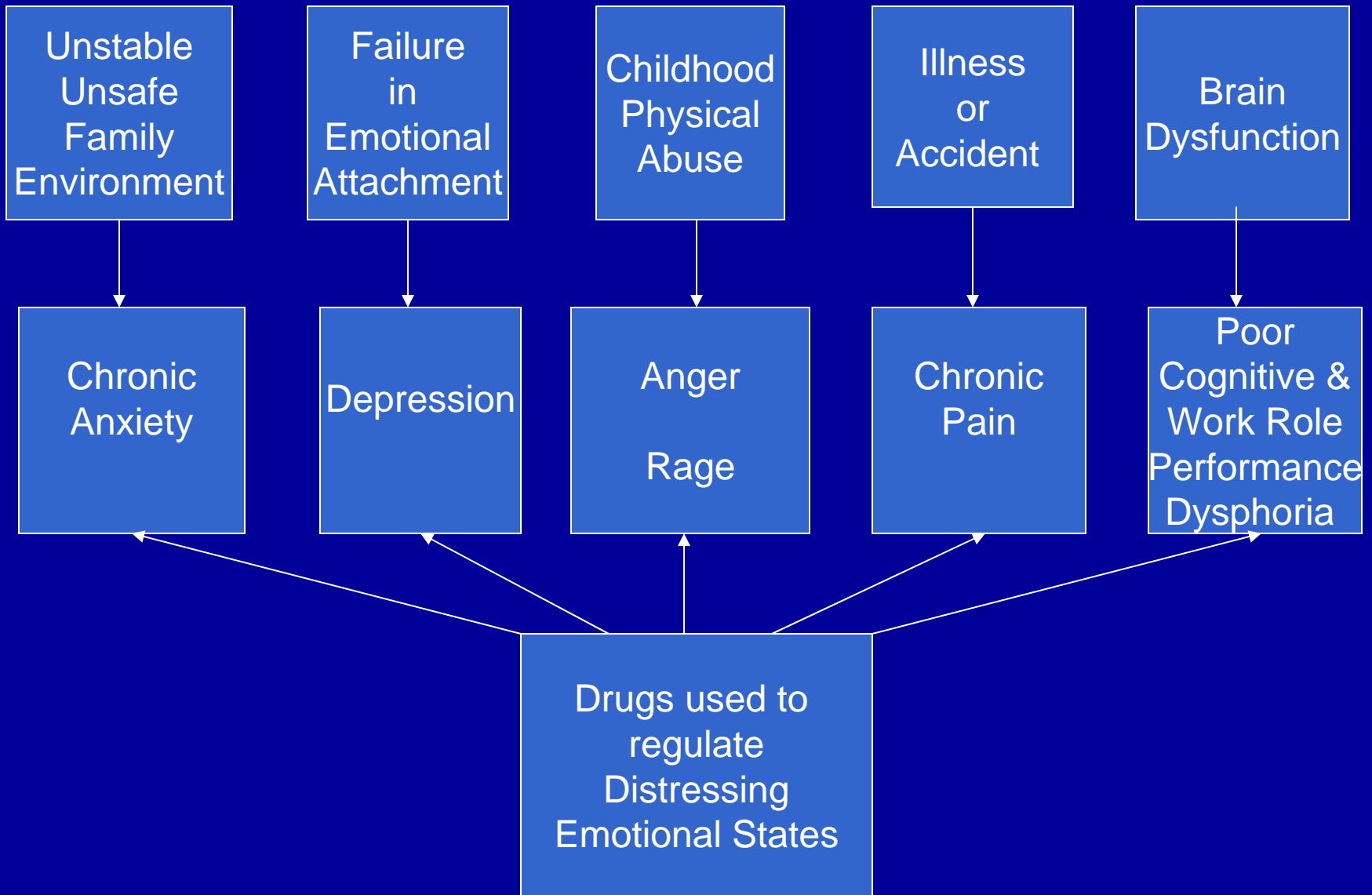
The Johns Hopkins

Bloomberg School of Public  
Health

# **Intended Outcomes of Drug Abuse Treatment**

- **Non-criminal life style**
- **Non-drug using lifestyle**
- **Gainful legal employment**
- **Responsible family participation**

# Current Models of Vulnerability for Drug Abuse



# Current Drug Abuse Treatment Strategies

1. Treatment is designed to teach psychosocial controls for emotional distress states that trigger drug use and criminal behavior.
2. Treatment is designed to provide legal medications to control emotional distress states that trigger drug craving and criminal behavior.
3. Treatment/rehabilitation is designed to provide a rewarding lifestyle leading to positive experiences that reduce emotional distress states, drug use and criminal behavior.

# Psychiatric Treatment Model

- Illegal drug use is considered a self-medication response to untreated psychiatric illness.
- Psychiatric illnesses can be controlled by legal psychotropic medications that reduce emotional distress and thereby illegal drug use.
- Counseling and social support services are used to increase medication compliance.
- Rehabilitation services are used to support a lower stress lifestyle to prevent psychiatric relapse.

# Models of Treatment For Drug Abuse and Dependence

- Chronic disease recovery models use peer led self-help groups, e.g. AA & NA to teach and support avoiding drug use.
- Counseling/psychotherapy models use cognitive-behavioral training, to teach control of emotional states that trigger drug use
- Rehabilitation models use long-term residence in a therapeutic environment to develop prosocial values and a drug-free lifestyle
- Drug court models use judicial authority to motivate participation in community or in-prison treatment to develop a noncriminal lifestyle

# Brain Disease Treatment Model

- Illegal drug use is considered to be the result of brain disorders arising from neurotransmitter imbalances sometimes caused by drug use.
- Brain disorders can be controlled by legal medications that rebalance neurotransmitters and reduce distress.
- Reward and punishment contingencies can be used to motivate participation and compliance with treatment.
- Social and rehabilitation services provided are used to increase medication compliance.



# Psychological Treatment Model

- Illegal drug use develops because of inadequate cognitive and behavioral skills that control emotional distress states.
- Drug users can be taught cognitive and behavioral skills for managing emotional distress states that induce drug craving.
- Individual and group counseling can be used to teach interpersonal relationship skills and thereby reduce emotional distress states.

# Medical Model

- Drug use is conceived as a self-medication response to psychiatric illness, unbalanced brain neurotransmitters and drug habituation.
- Medical models use psychotropic medications to control psychiatric illness and drug replacement medications to control brain disorders and related drug habituation. Relief of symptoms reinforces treatment compliance.
- Counseling and social support services support medication compliance.
- Rehabilitation services facilitate lower stress lifestyle reducing psychiatric relapses.

# Therapeutic Community Rehabilitation Model

- Illegal drug use develops as part of an antisocial lifestyle.
- The antisocial lifestyle can be replaced by a prosocial lifestyle under judicial, family or health crisis pressure.
- A prosocial lifestyle can be learned by modeling on respected peers in a drug-free supportive community.
- Confrontation of antisocial thinking and behavior by peer therapeutic community residents reinforces control of impulsive drug use.
- Working in peer led teams teaches prosocial cooperation, acceptance of authority and skills.

# Self-Help Recovery Model (AA/NA)

- Drug addiction is a chronic brain illness from which there is no “complete” recovery.
- Persistent participation in Fellowship meetings with recovering individuals is essential to recovery.
- Individuals can work toward recovery by following steps that prevent slipping back into drug use.
- Individuals working longer on their recovery can serve as helping models, sponsors and mentors for individuals earlier in recovery.

# Drug Court Change Model

1. Drug courts, together with prosecutors and defense counsel, can use a non-adversarial approach to integrate treatment with case processing.
2. Drug courts can provide access to treatment and rehabilitation services while monitoring drug use by frequent alcohol and other drug testing.
3. Drug using eligibles can be quickly identified and offered treatment under court supervision in place of incarceration.
4. Drug court can maintain ongoing judicial interaction with each participant and coordinate responses to participants' compliance.
5. The drug court can monitor and evaluate the program's effectiveness.
6. Drug courts can partner with public and community organizations to provide Interdisciplinary, continuing education to promote planning, implementation and support for the program.

# In Prison Treatment Model

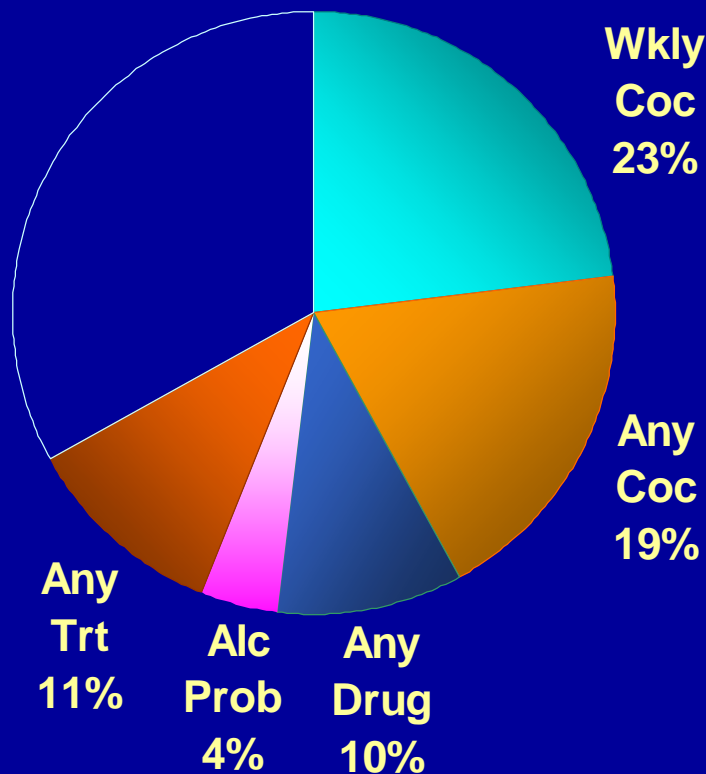
- Dedicated prisons can provide incentives that motivate drug involved prisoners to participate in drug treatment.
- A prison unit can be dedicated to operate as a therapeutic environment using a highly structured regimen and encounter group therapy to overcome criminal lifestyle values and distorted thinking.
- Participation in post prison treatment can be actively monitored to reinforce a non-drug using lifestyle.

# Research on Treatment Modality Outcomes

- Treatment programs, called a modality, supplement a core treatment strategy with elements from other treatment strategies,
- Outcome studies compare the year before and year after treatment changes in: *drug use, criminality, health status and economic productivity.*
- Studies have been carried out on; Methadone Substitution Therapy, Outpatient Drug-Free Counseling, Therapeutic Community Treatment, In-Prison Drug Abuse Treatment and Drug Court supervised treatment.

# Cocaine Treatment Outcomes (in Year After Discharge in DATOS)

Cumulative Outcome Criteria  
(N=1605)

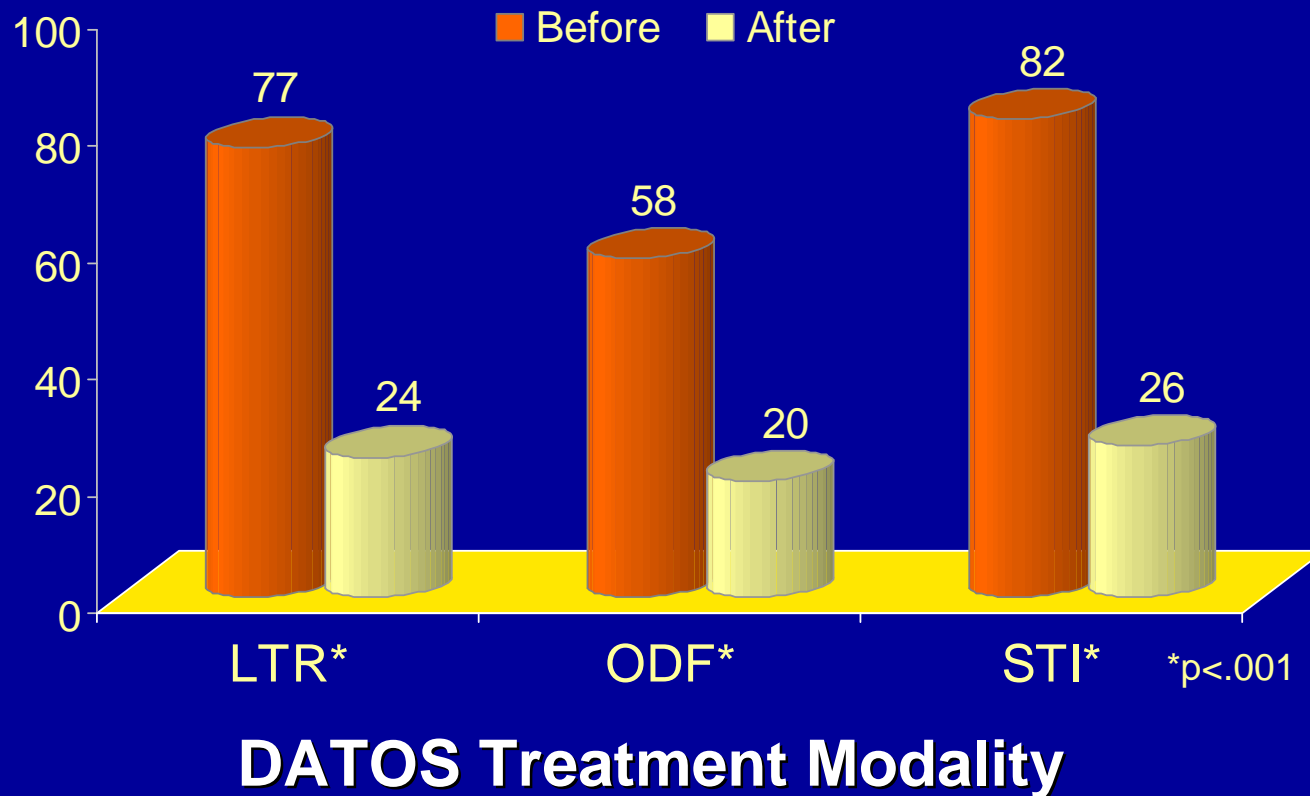


- Half (52%) had relapses to drug use:
  - ☉ 23% to “weekly” cocaine use
  - ☉ 19% to “occasional” cocaine
  - ☉ 10% to “other drugs”
- 4% had alcohol problems
- 11% reentered treatment (without relapse)

Overall, 67% had “problems” during follow-up period



# Weekly Cocaine Use in Past Year Changes from Before to After Treatment

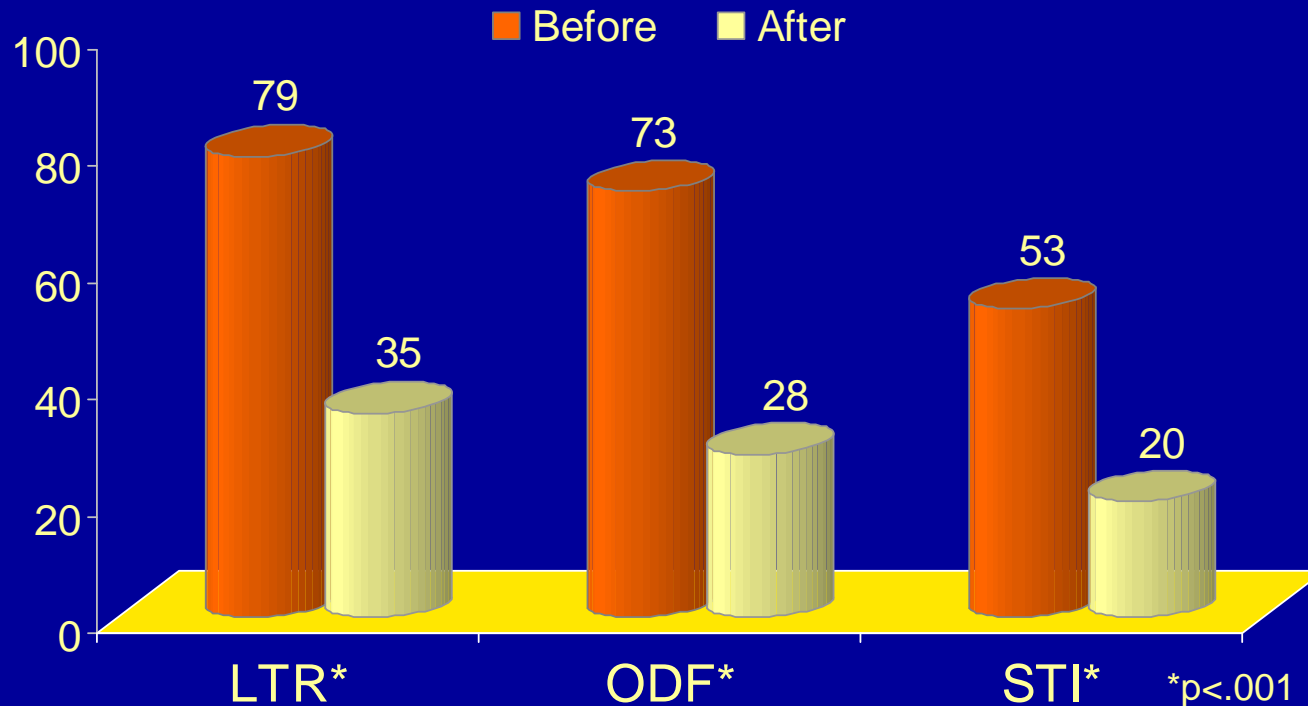


# Weekly Cocaine Use in Past Year Changes from Before to After Treatment

	Before	After	P-value
Long term residential	77%	24%	.001
Outpatient drug free	58%	20%	.001
Short term inpatient	82%	26%	.001

# Any Jail in Past Year

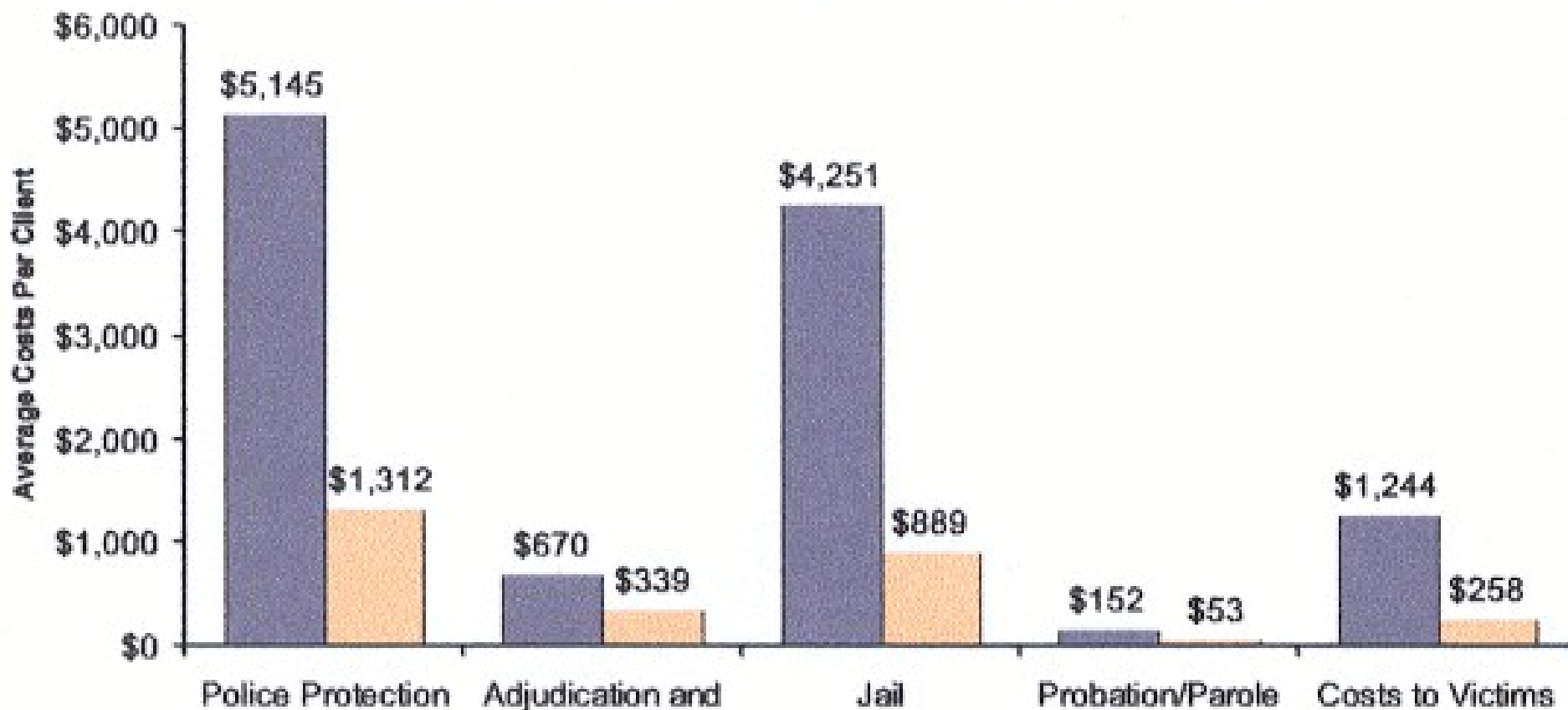
## Changes from Before to After Treatment



### DATOS Treatment Modality

# Crime-Related Costs Per Client Before and After Treatment by Type of Crime (n=5,264)

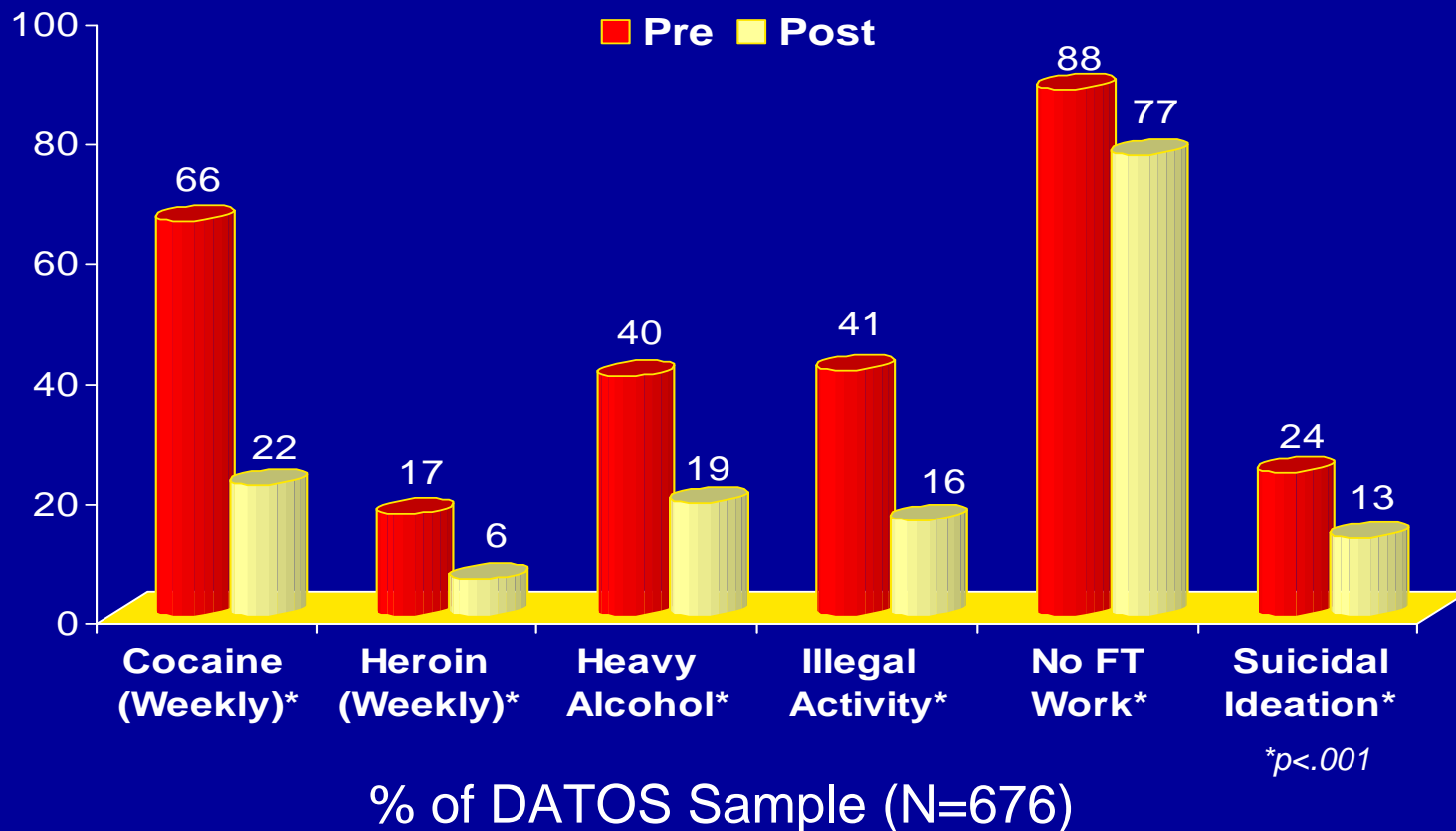
■ 12 Months Before Treatment ■ 12 Months After Treatment



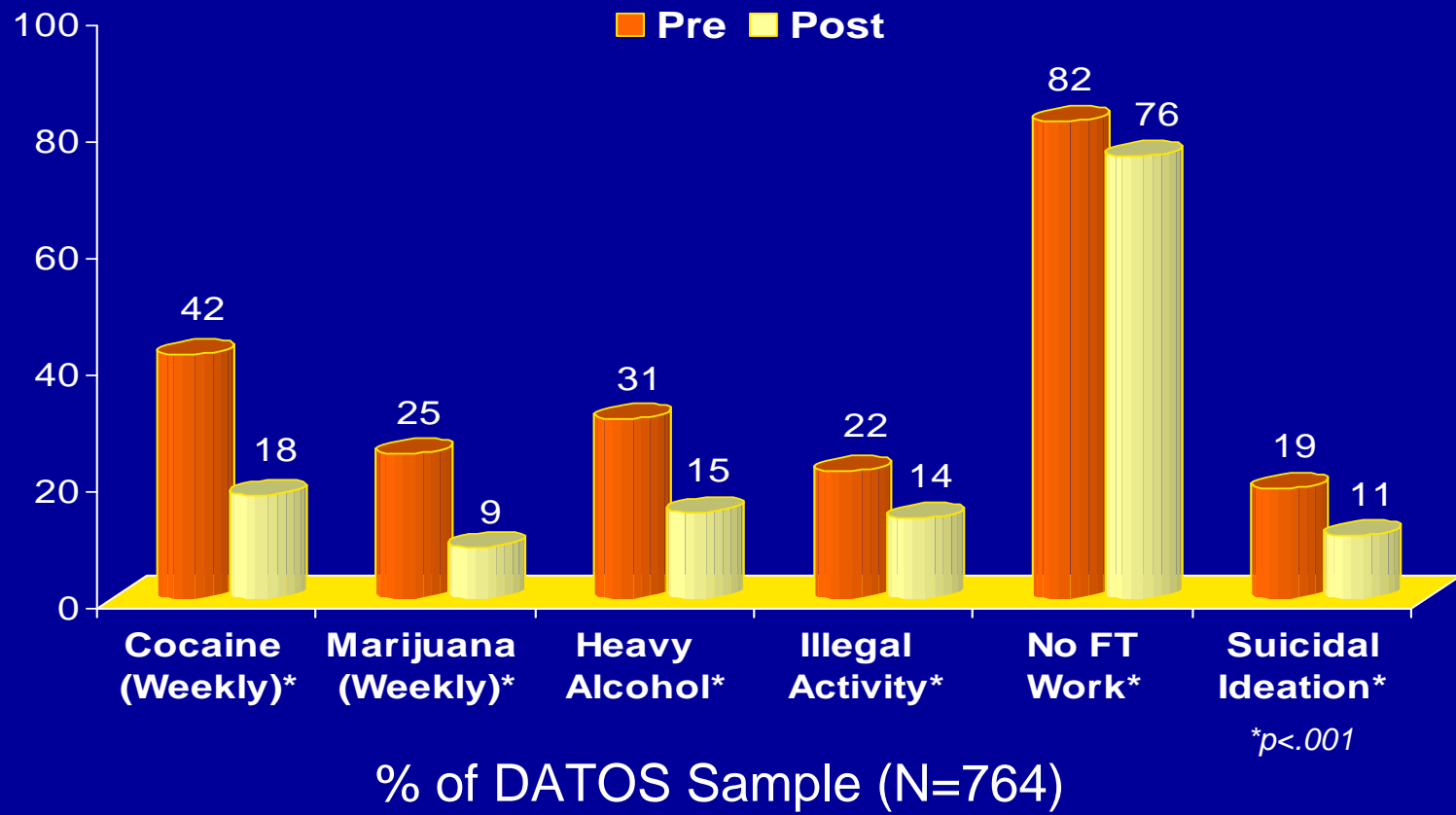
# Long-Term Residential (LTR)

## Treatment

### Changes from Before to After Treatment

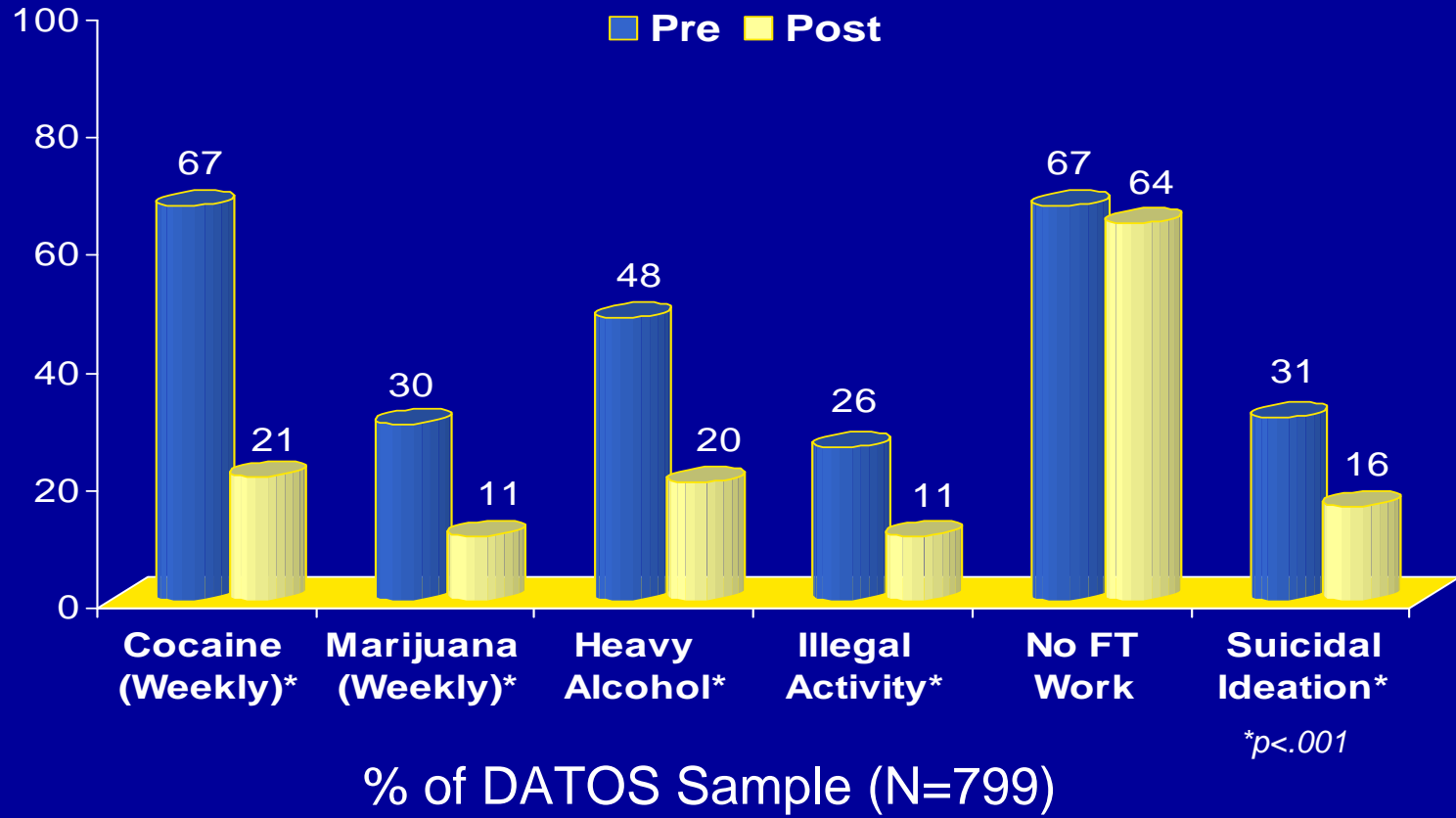


# Outpatient Drug-Free (ODF) Treatment Changes from Before to After Treatment

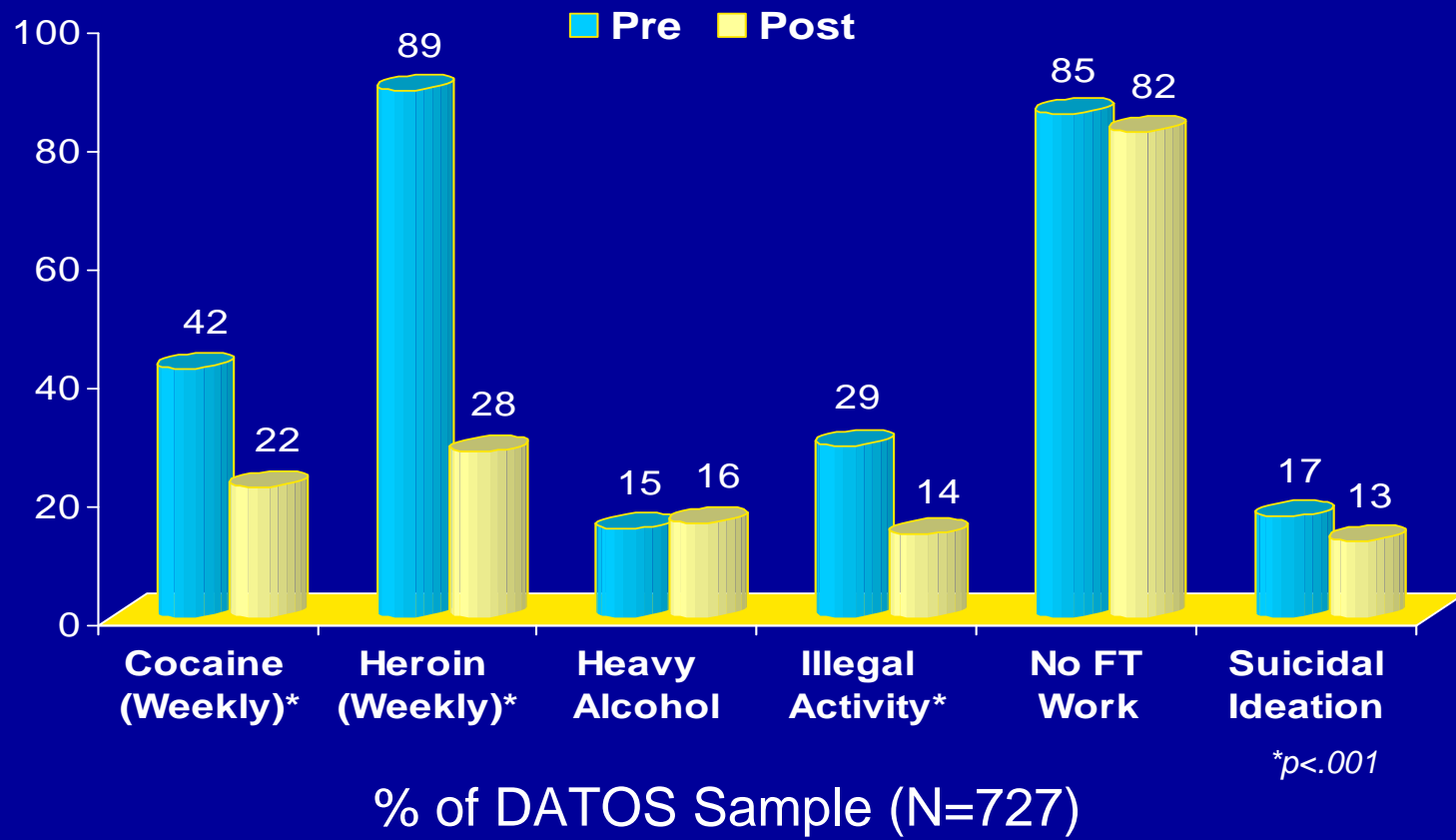


Hubbard, Craddock, Flynn, Anderson, & Etheridge, 1997,  
PAB

# Short-Term Inpatient (STI) Treatment Changes from Before to After Treatment

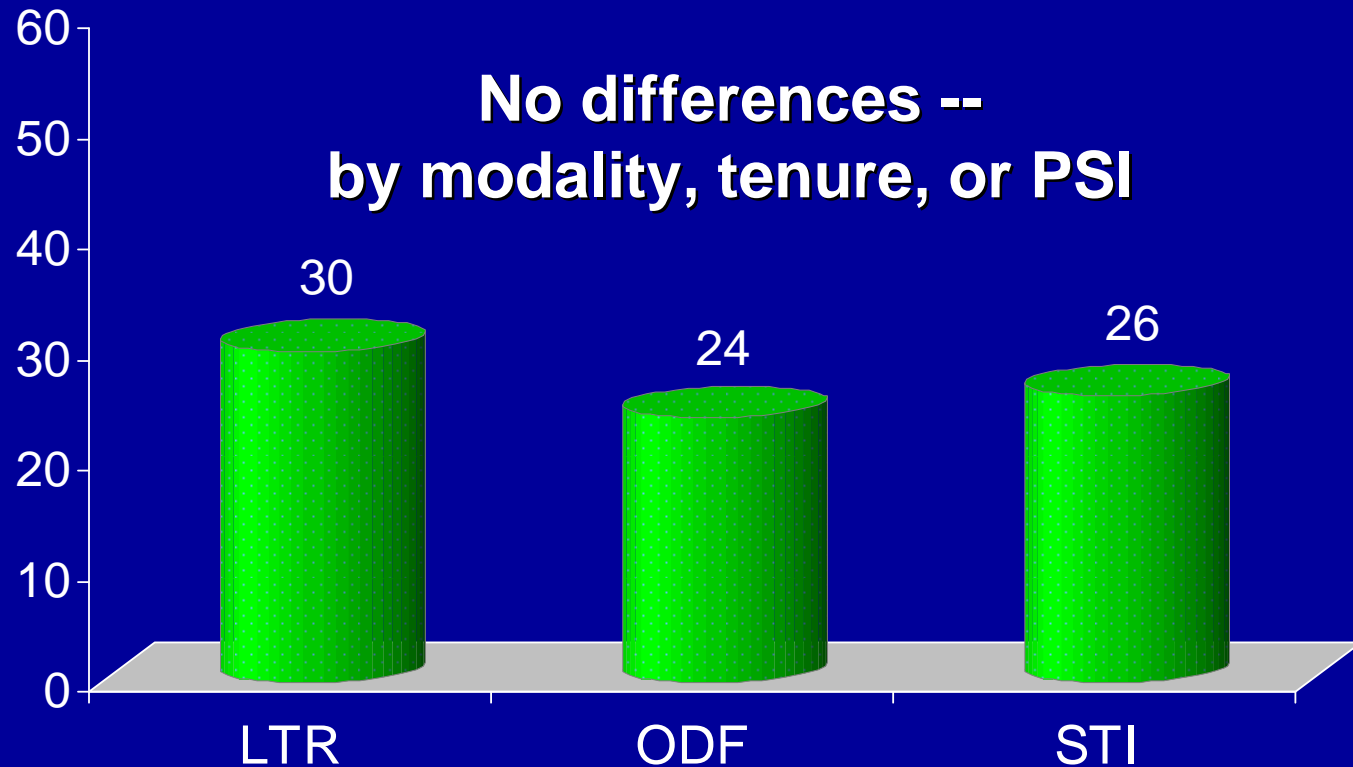


# Outpatient Methadone Treatment (OMT) Changes from Before to After Treatment

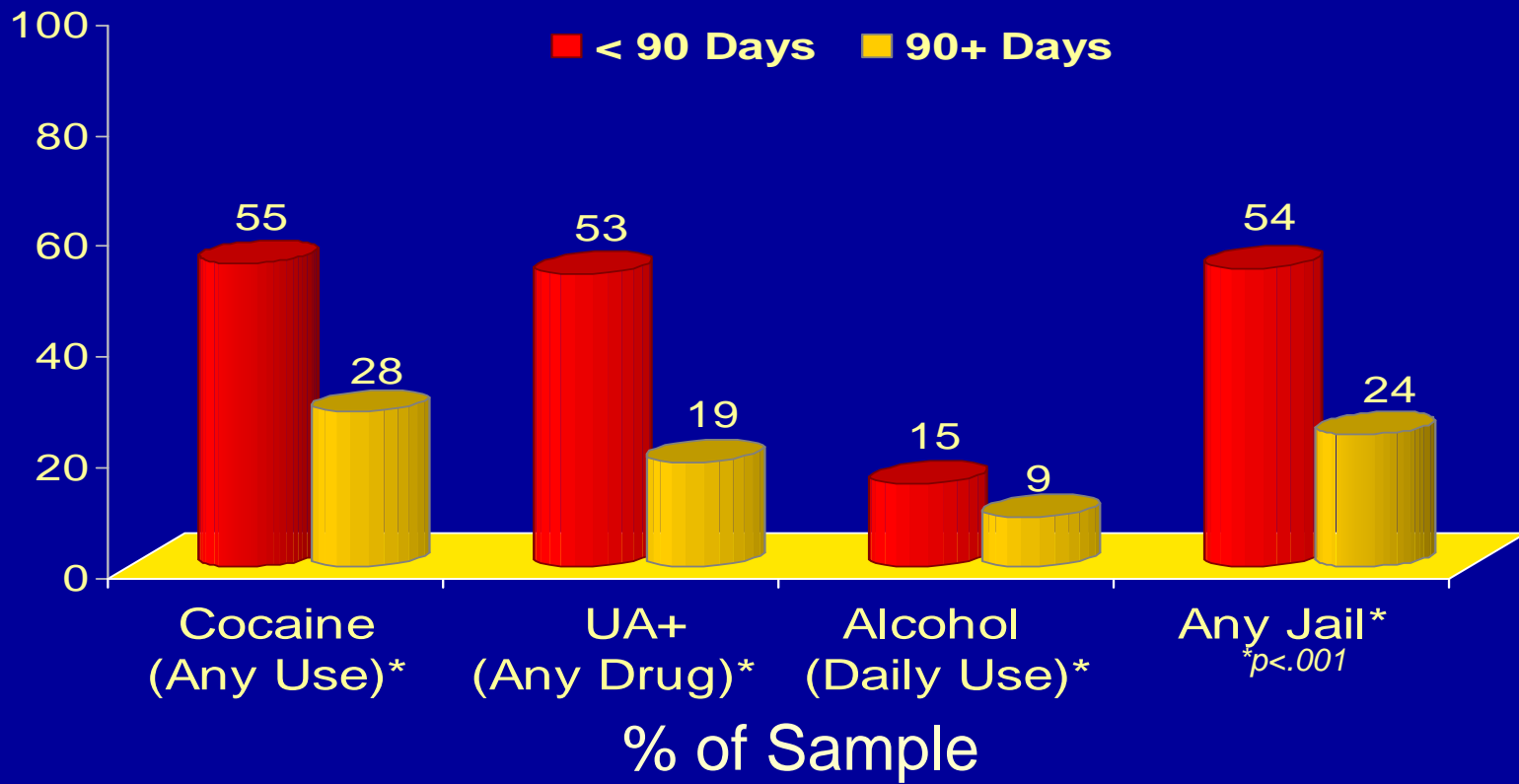




# Return to Treatment During 1-Year Follow-up

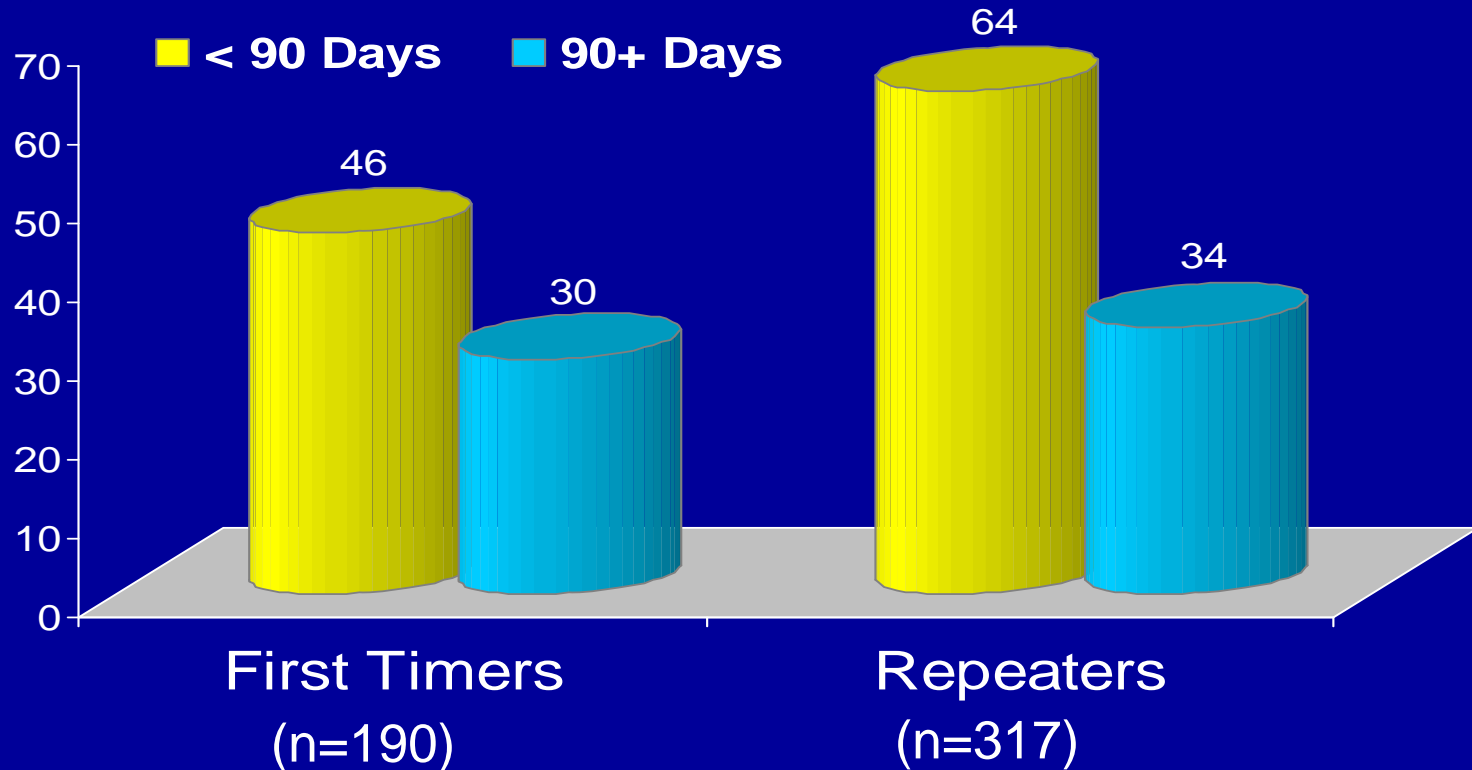


# Comparison of Year 1 Outcomes by Length of Stay in LTR



N=342; Simpson, Joe, & Brown, 1997, PAB

# Longer Length of Stay Improves Outcomes of “Treatment Repeaters”



% Using Any Cocaine in Follow-up

N=507; Hser, Joshi, Anglin, & Fletcher, 1999, AJPH

# Return to Prison by New York State Offenders in Phoenix House

Phase 1 TC in-prison Phase 2 TC after-prison

	<u>Interviewed at</u>	
	<u>18 Months</u>	<u>30 Months</u>
<b>General prison population</b>	<b>25%</b>	<b>37%</b>
<b>Addicts not completing Phase 1</b>	<b>29%</b>	<b>45%</b>
<b>Addicts completing Phases 1&amp;2</b>	<b>16%</b>	<b>31%</b>
<b>Difference</b>	<b>-13%</b>	<b>-14%</b>
<b>Percent improvement</b>	<b>45%</b>	<b>31%</b>

# Re-Addiction of non treated Prisoners after Prison

Vaillant	447 opiate addicts	91%
Maddux & Desmond	594 opiate addicts	98%
Nurco & Hanlon	355 opiate addicts	88%
Hanlon & Nurco	237 mixed addicts	70%

---

Many Other Studies Including:  
(Simpson, Wexler, Inciardi, Hubbard, Anglin)

# Re-Incarceration of non treated Prisoners after Prison

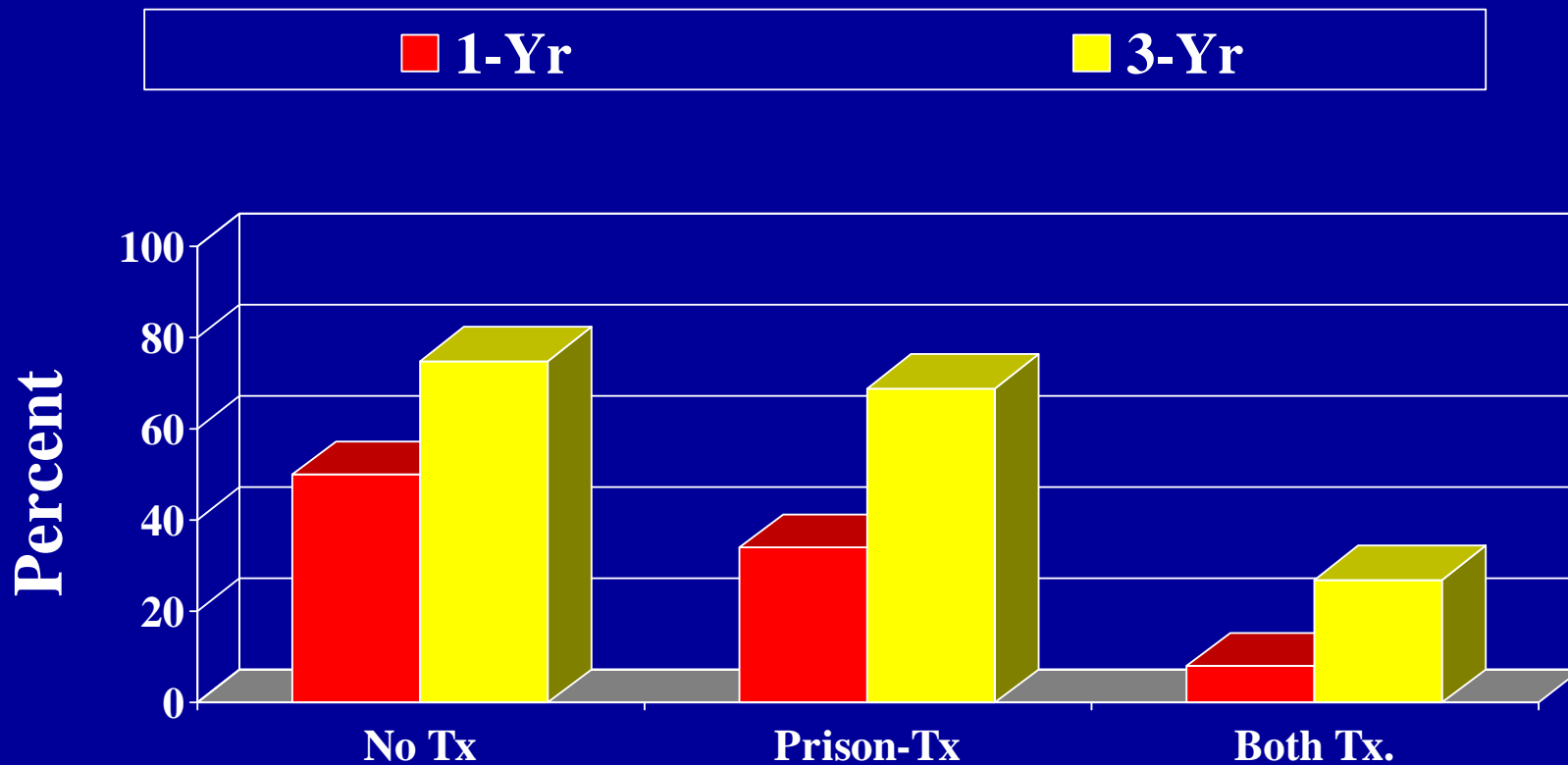
Nurco & Hanlon 355 opiate addicts 58%  
Beck & Shipley 100,000 addicts, 11 states 41%

Many Other Studies Including:

(Simpson, Wexler, Inciardi, Hubbard, Anglin)

# One & Three year reincarceration of drug related felons with in-prison or both in and post prison

treatment Wexler et al. The Prison Journal - 78(3) 1999

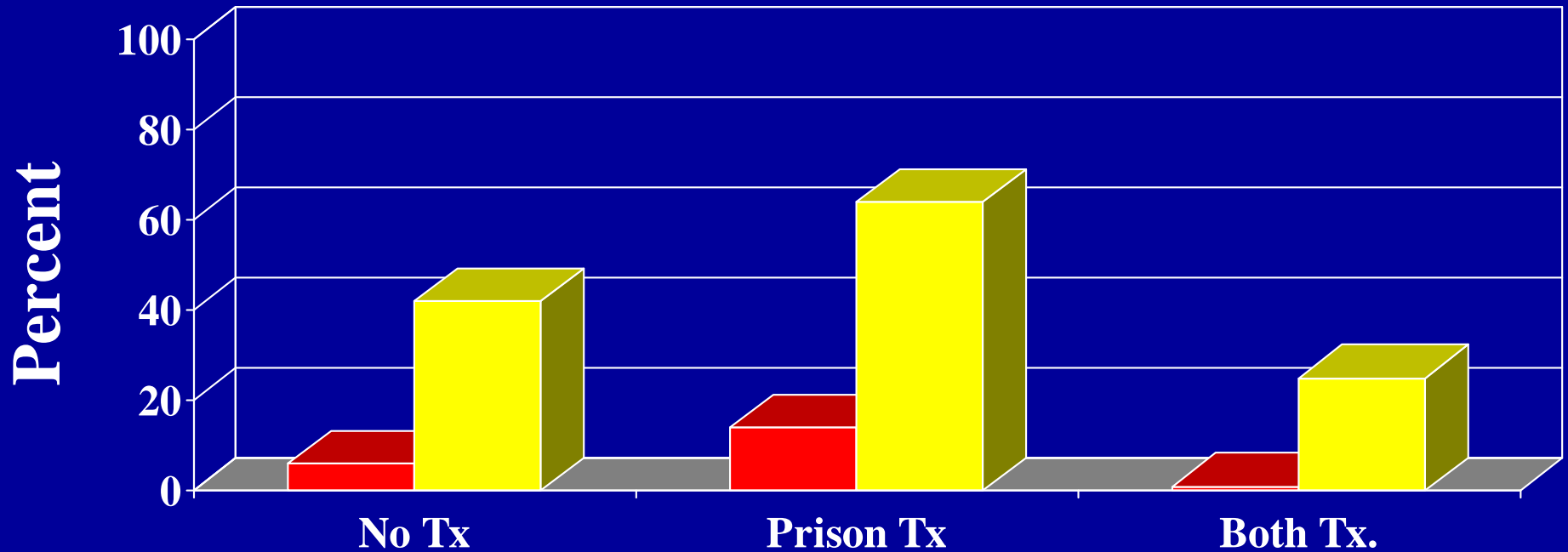


# One & Three year drug use and arrest of drug related felons with in-prison or both in and post prison treatment

Knight, Simpson & Hiller The Prison Journal 78 (3) 1999

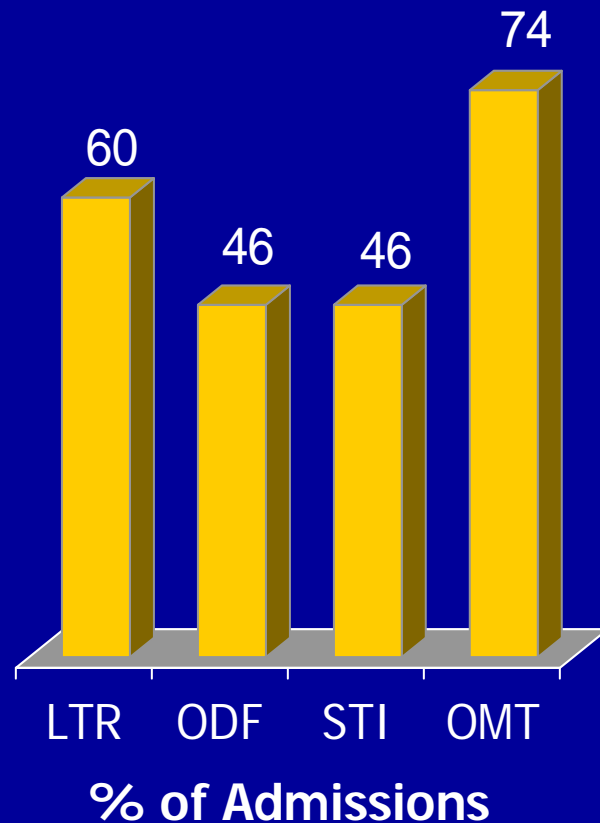
■ Drug Free

■ No Arrest



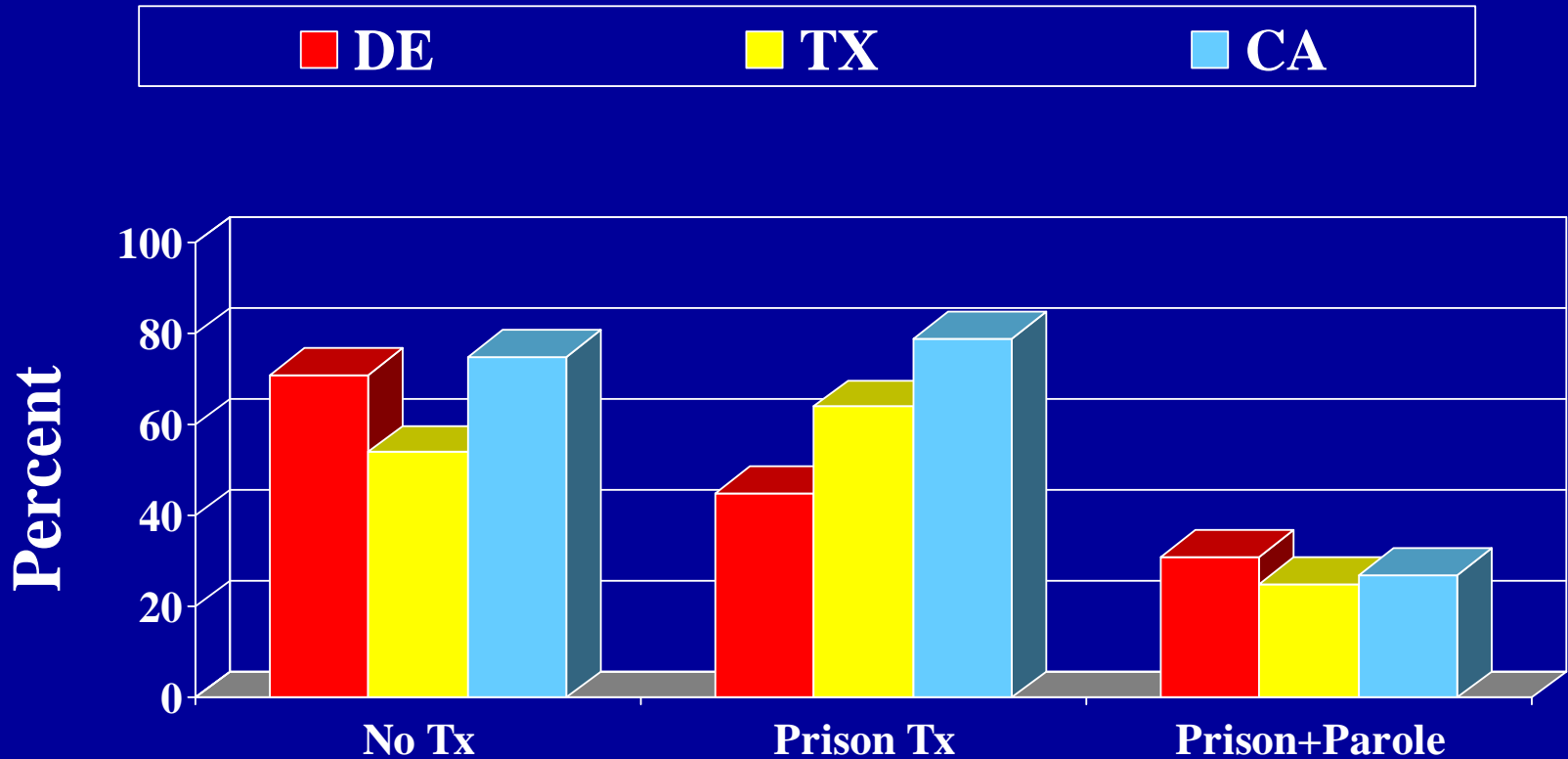


# Patients with Prior Treatment



- Treatment “repeaters”
  - ✓ more problems at intake
  - ✓ need more services
  - ✓ higher relapse rates
- Outcomes improved by
  - ✓ longer retention
  - ✓ more individual sessions

# One & Three year re incarceration of drug related felons with in-prison or both in and post prison treatment and parole



# Drug Court Evaluation

- In the US 1600+ drug courts vary widely in populations served, treatment philosophy, services provided, and effectiveness.
- California Drug Court evaluation found 17% rearrests of graduates, 29% of all participants and 41% of a comparison group.
- Drug Court processing costs were \$1593 per participant slightly less than non-drug court processing.
- Average net savings per participant \$4312, if victimization costs are included \$11,000.

# Summary: Treatment Effectiveness

**All treatment modalities work but effectiveness varies because of:**

**Individual characteristics at intake; extent of addiction. criminality, motivation for treatment**

**Different incentives to participate and remain in treatment**

**Staff ability to engage clients in treatment process & involve them in active participation**

**Program use of cognitive, behavioral & social support services**

**Ability to maintain clients in treatment for an adequate length of time**