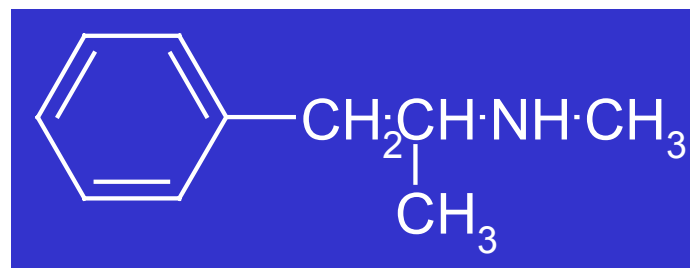
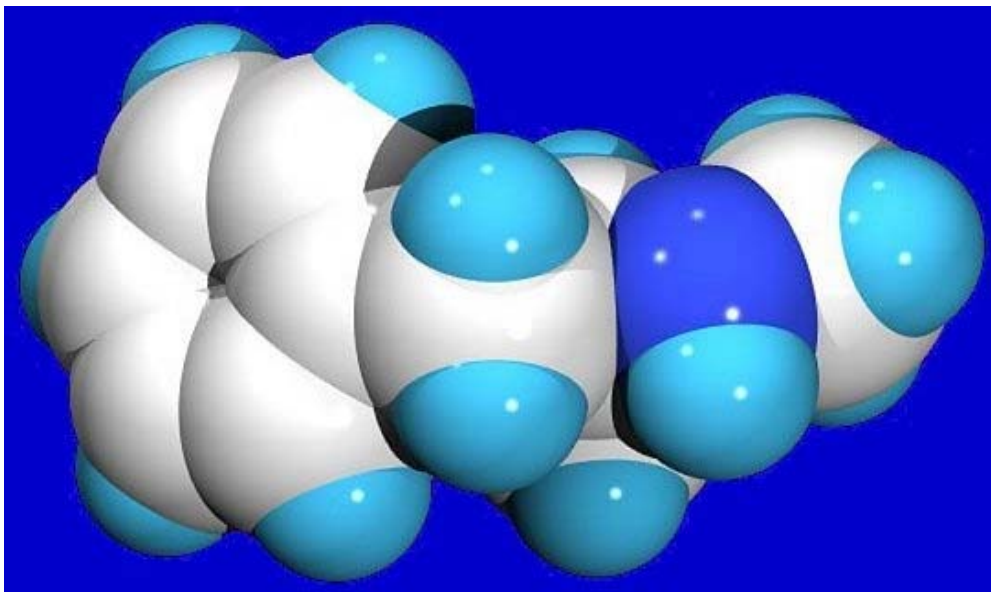


Methamphetamine: The Current Status of Treatment Knowledge

- **Richard Rawson, Ph.D.**
- **UCLA Integrated Substance Abuse Programs**
- **Supported by NIDA Clinical Trials Network Grant and Clinical Trials Operations Contract and by a CSAT Cooperative Agreement.**

Methamphetamine



What Is Methamphetamine?

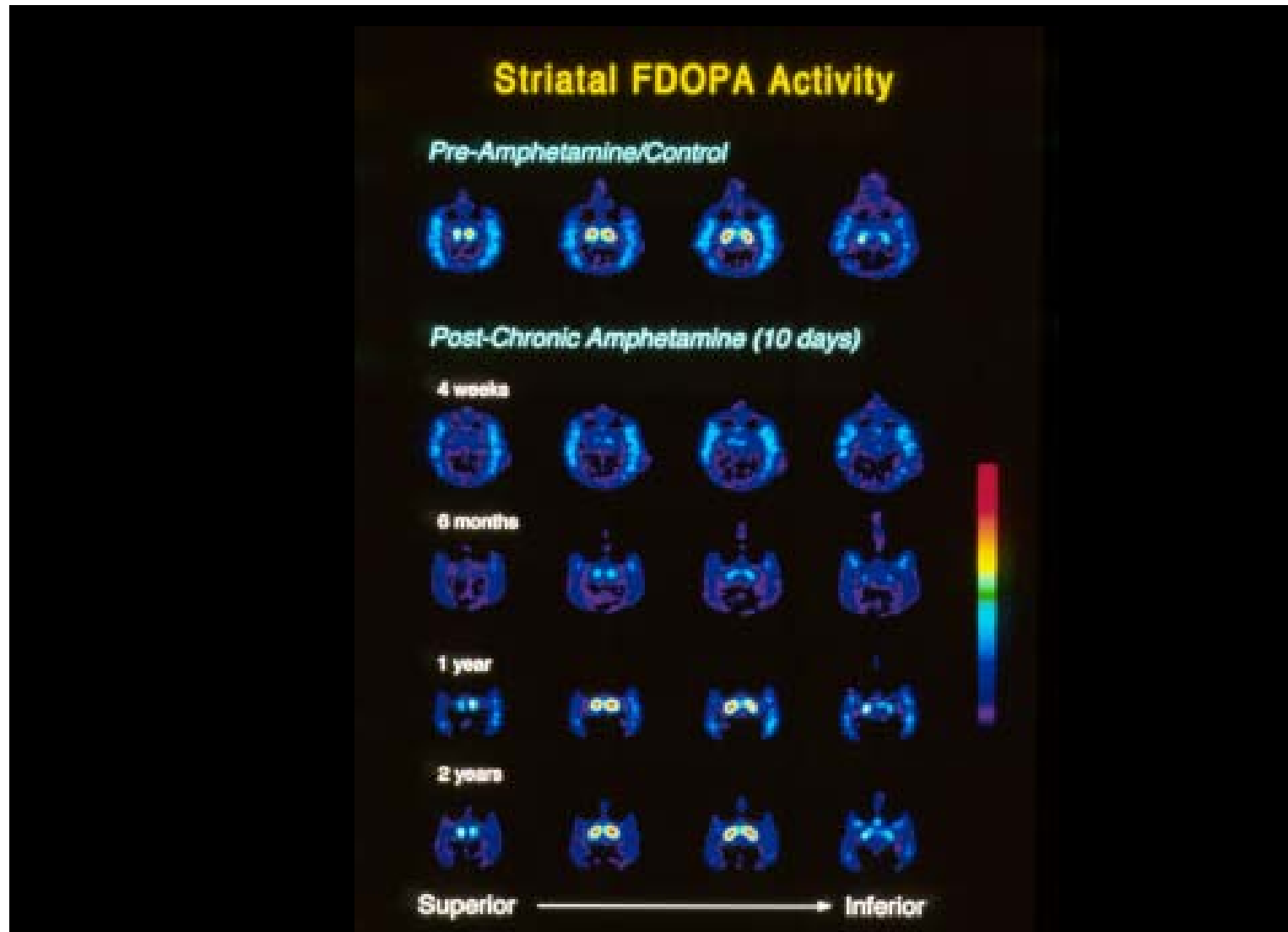
- Powerfully addictive stimulant that dramatically affects the central nervous system
- Made easily in clandestine labs with OTC ingredients

Copyright Publishers Group

Methamphetamine Addiction

The brains of people
addicted
to Methamphetamine
are
different than those of

Chronic Amphetamine Causes Lasting Changes



MA Treatment Issues

- Acute MA Overdose
- Acute MA Psychosis
- MA “Withdrawal”
- Initiating MA Abstinence
- MA Relapse Prevention
- Protracted Cognitive Impairment and Symptoms of Paranoia

Acute MA Overdose

- Slowing of Cardiac Conduction
- Ventricular Irritability
- Hypertensive Episode
- Hyperpyrexia Episode
- CNS Seizures and Anoxia

Acute MA Psychosis

- Extreme Paranoid Ideation
- Well Formed Delusions
- Hypersensitivity to Environmental Stimuli
- Stereotyped Behavior “Tweaking”
- Panic, Extreme Fearfulness
- High Potential for Violence

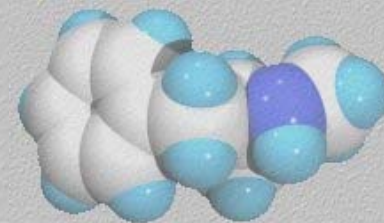
Treatment of MA Psychosis

- Typical ER Protocol for MA Psychosis
 - **Haloperidol - 5mg**
 - **Clonazepam - 1 mg**
 - **Cogentin - 1 mg**
 - **Quiet, Dimly Lit Room**
 - **Restraints**

MA “Withdrawal”

- Depression
 - Fatigue
 - Anxiety
 - Anergia
 - Paranoia
 - Cognitive Impairment
 - Agitation
 - Confusion
- Duration: 2 Days - 2 Weeks

Methamphetamine Clinical Trials Group (MCTG)



Los Angeles, CA

UCLA Coordinating Center

Richard Rawson, Steve Shoptaw

Walter Ling & Thomas Newton, PIs

Costa Mesa, CA

Friends Research Institute

Roger Donovan, PI

Honolulu, HI

John A. Burns School of

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William Haning, PI

Des Moines, IA

Powell Chemical Dependency Center

Dennis Weis, PI

Kansas City, MO

University of Missouri, Kansas City & Comprehensive Mental Health

Services, Inc.

Jan Campbell, PI

San Diego, CA

South Bay Treatment Center

Joseph Mawhinney, PI

Pharmacotherapies Planned for Clinical Trials

- Ondansetron
- Olanzapine
- Bupropion
- Selegline
- Sertraline

Treatment of MA “Withdrawal”

- **Intensive Outpatient Treatment**
 - **No Pharmacotherapy Available**
 - **Positive, Reassuring Context**
 - **Directive, Behavioral Intervention**
 - **Educate Regarding Time Course of Symptom Remission**
 - **Recommend Sleep and Nutrition**
 - **Low Stimulation**
 - **Acknowledge Paranoia, Depression**

Initiating MA Abstinence

- Key Clinical Issues
 - **Depression**
 - **Cognitive Impairment**
 - **Continuing Paranoia**
 - **Anhedonia**
 - **Behavioral/Functional Impairment**
 - **Hypersexuality**
 - **Conditioned Cues**
 - **Irritability/Violence**

Initiating MA Abstinence

- Key Elements of Treatment
 - **Structure**
 - **Information in Understandable Form**
 - **Family Support**
 - **Positive Reinforcement**
 - **12-Step Participation**
- No Pharmacologic Agent Currently Available

The CSAT Methamphetamine Treatment Project



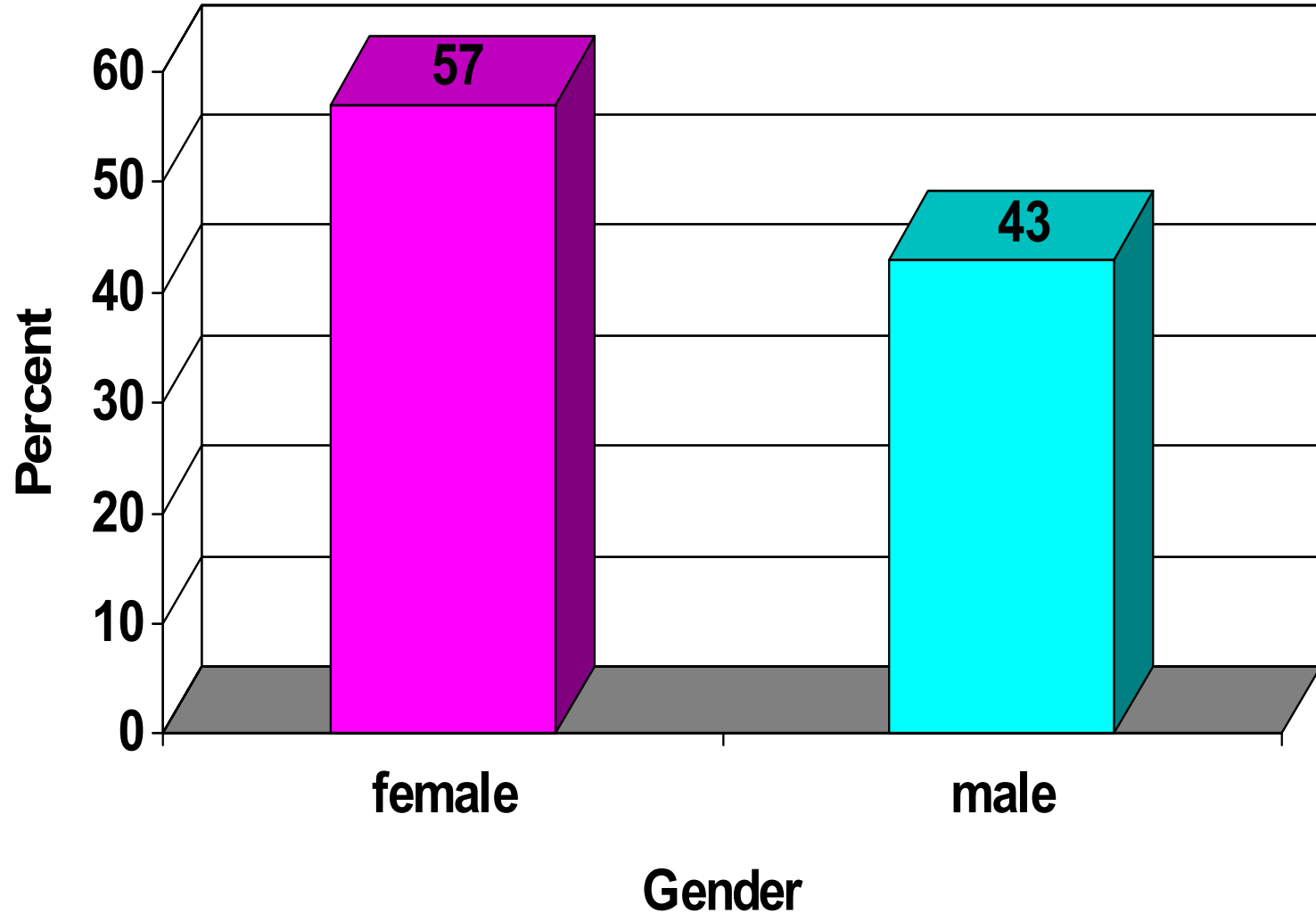
Project Goals:

- ✦ **To study the clinical effectiveness of the Matrix Model**
- ✦ **To compare the effectiveness of the Matrix model to other locally available outpatient treatments**
- ✦ **To establish the cost and cost effectiveness of the Matrix model compared to other outpatient treatments**
- ✦ **To explore the replicability of the Matrix model and challenges involved in technology transfer**

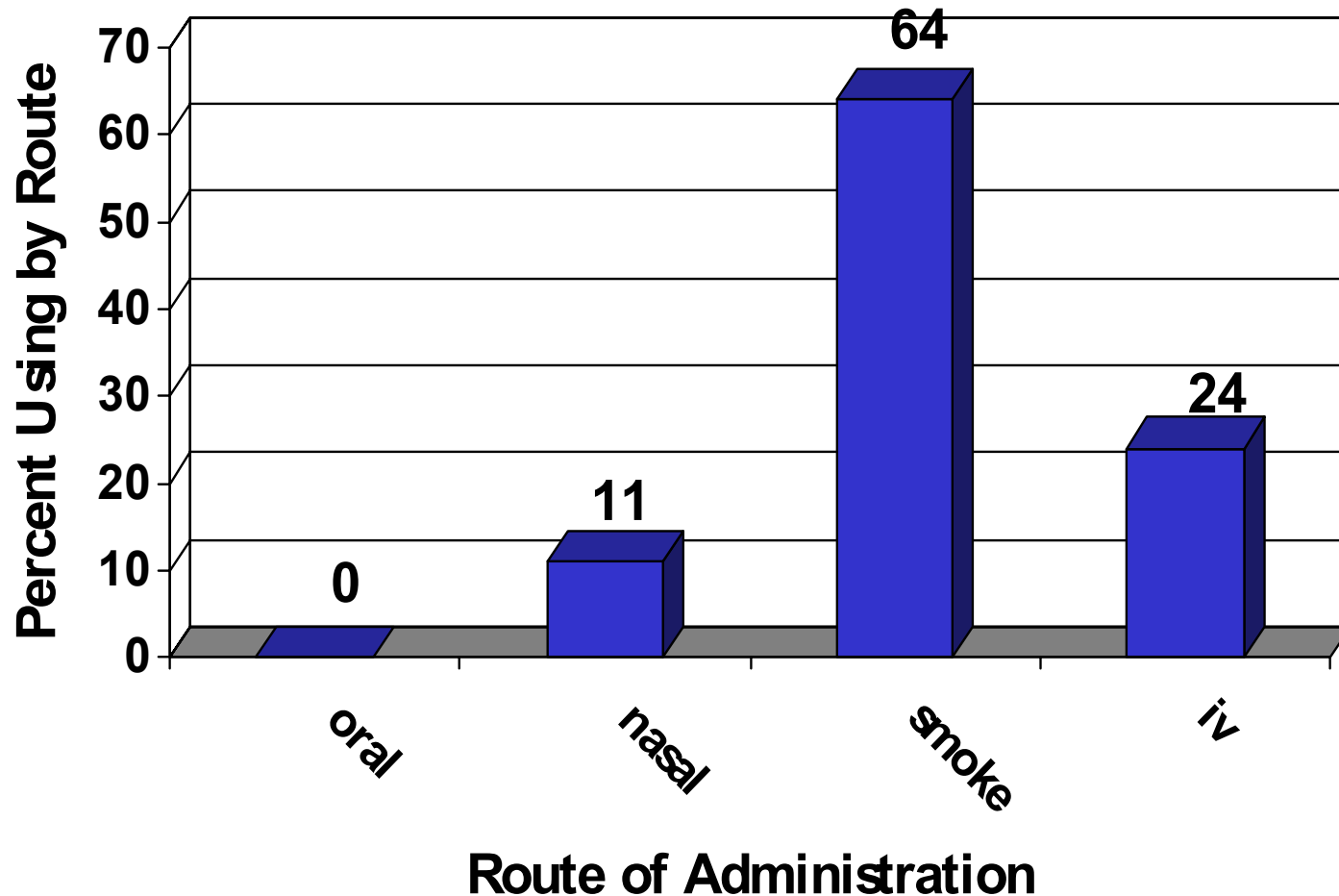
Baseline Demographics (April 1999 – April 2001)

Sample size (n)	931
Age (mean)	32.8 years
Education (mean)	12.2 years
Monthly income (mean)	\$ 1024
Years of Meth use (mean)	7.7 years

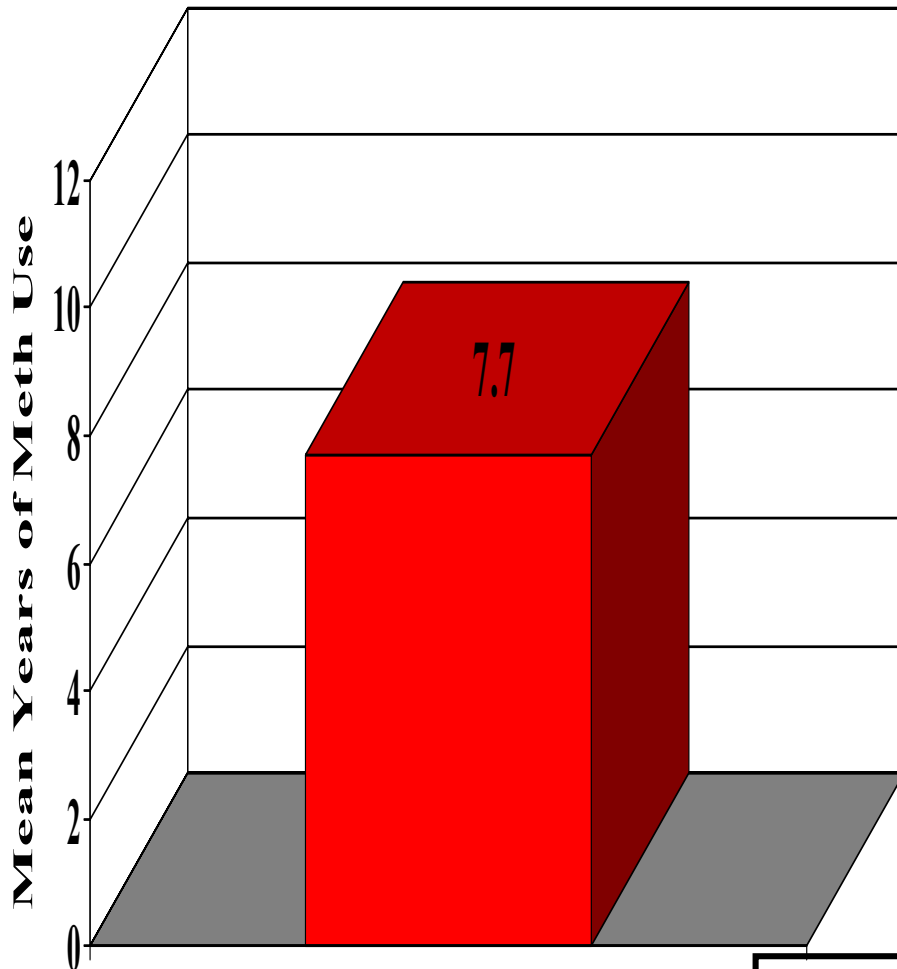
Gender Distribution of Participants



Route of Methamphetamine Administration



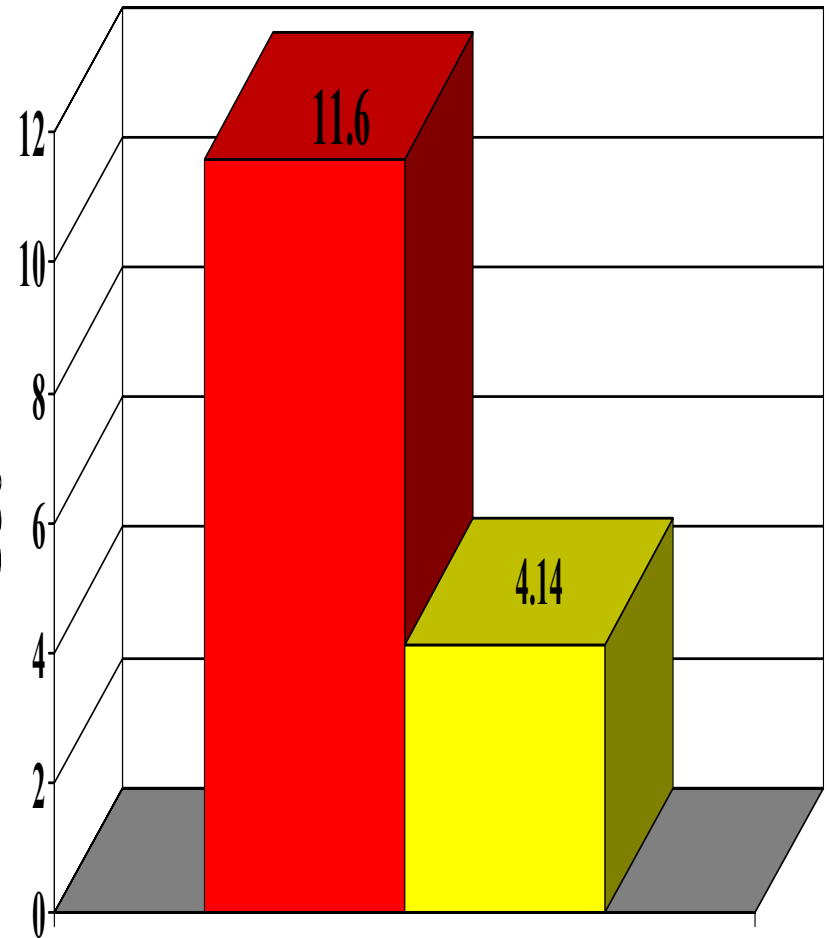
Methamphetamine Use



■ BL

Lifetime Years

Mean Days of Meth Use,
P30



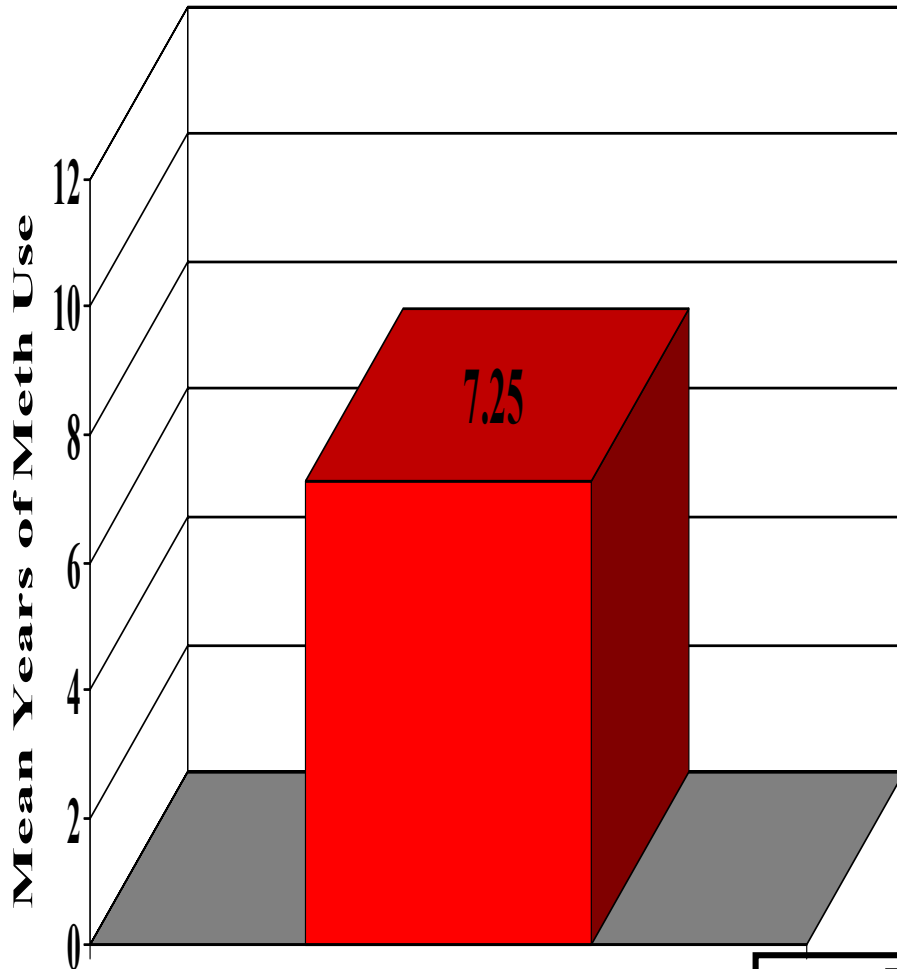
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Days in Past 30

64%

**decrease in
days using**

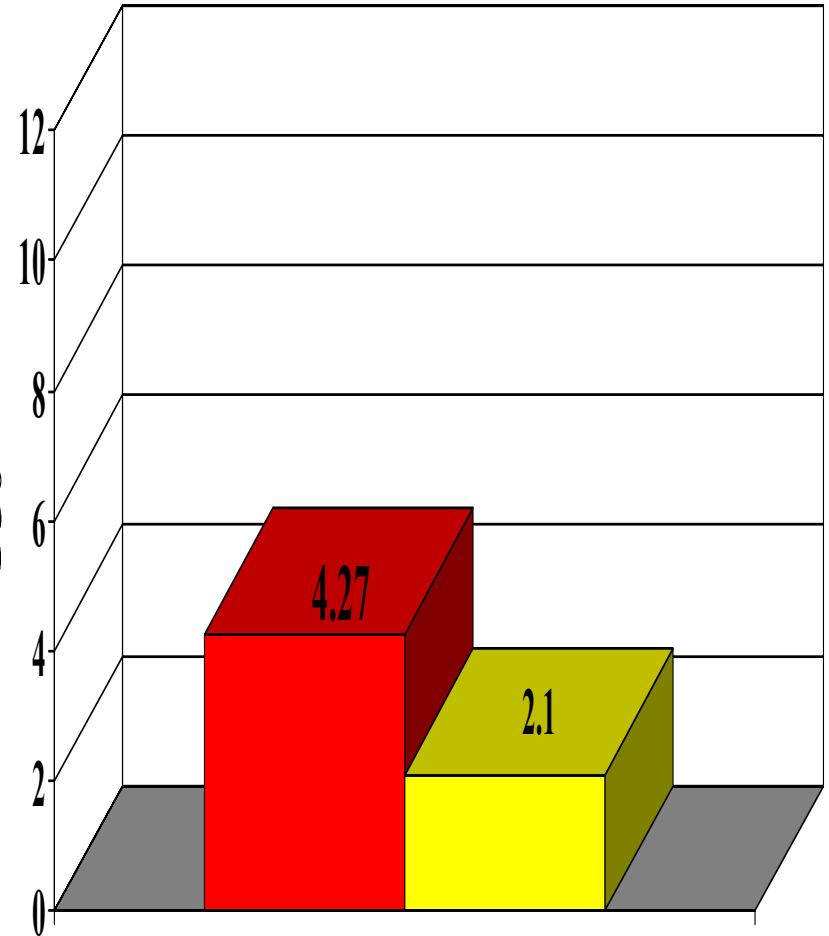
Marijuana Use



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Lifetime Years

Mean Days of Meth Use,
P30

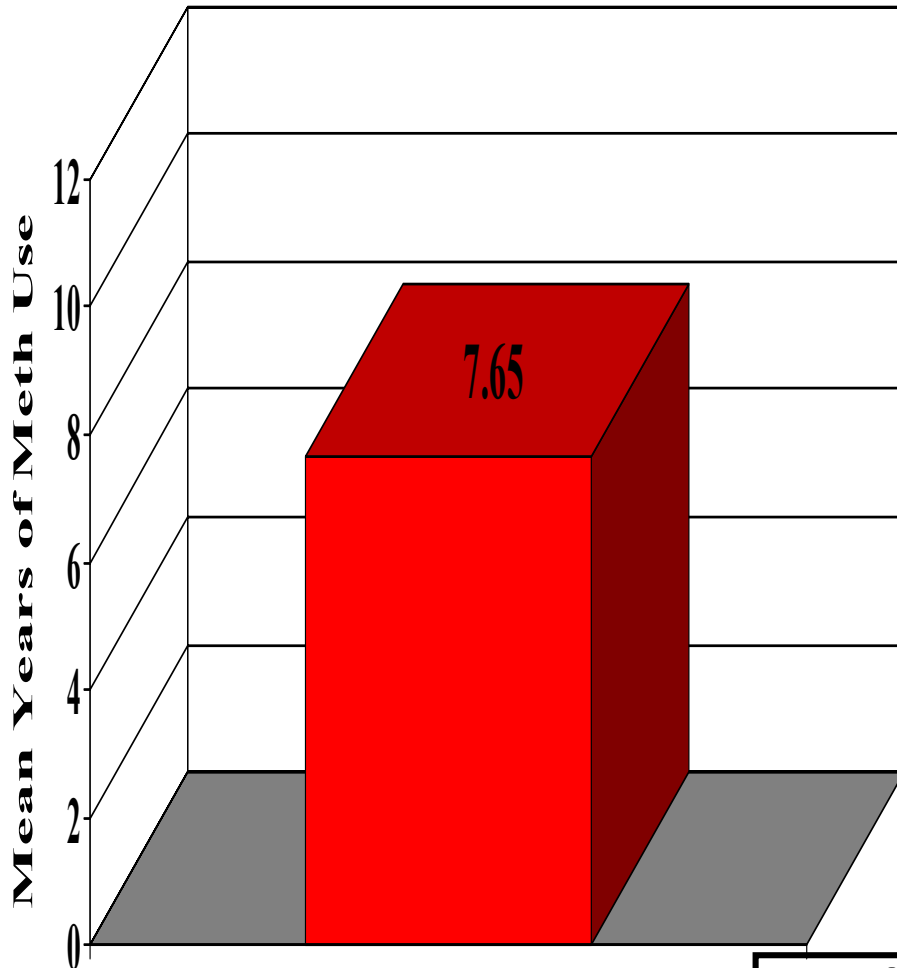


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Days in Past 30

**51%
decrease in
days using**

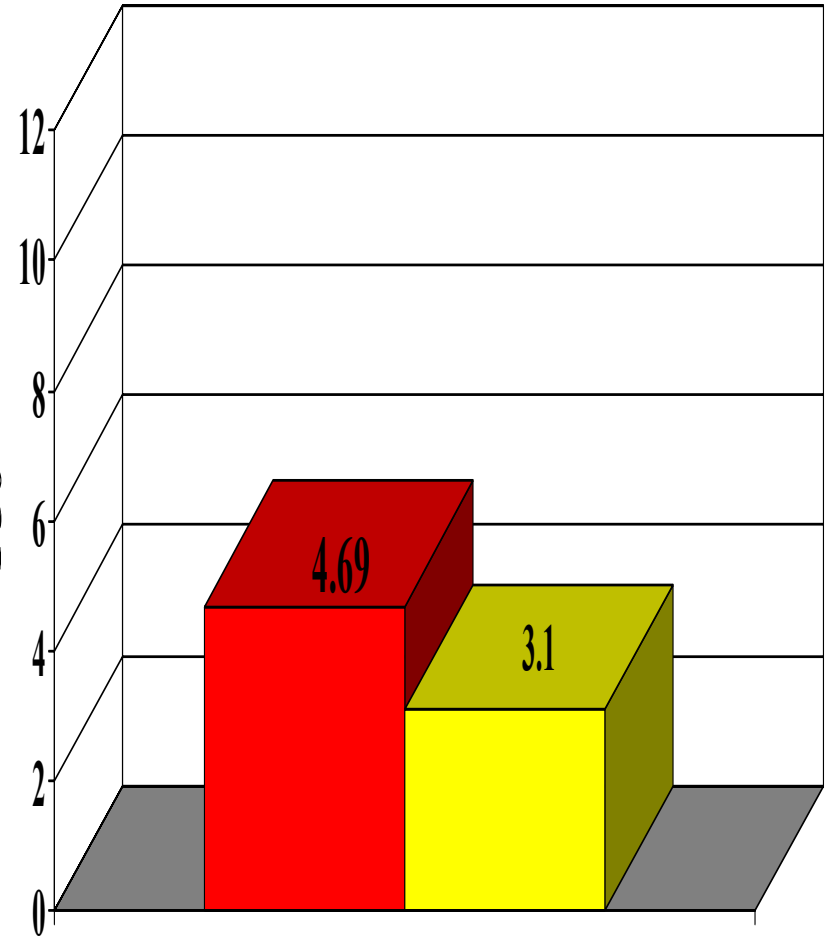
Alcohol Use



■ BL

Lifetime Years

Mean Days of Meth Use,
P 30

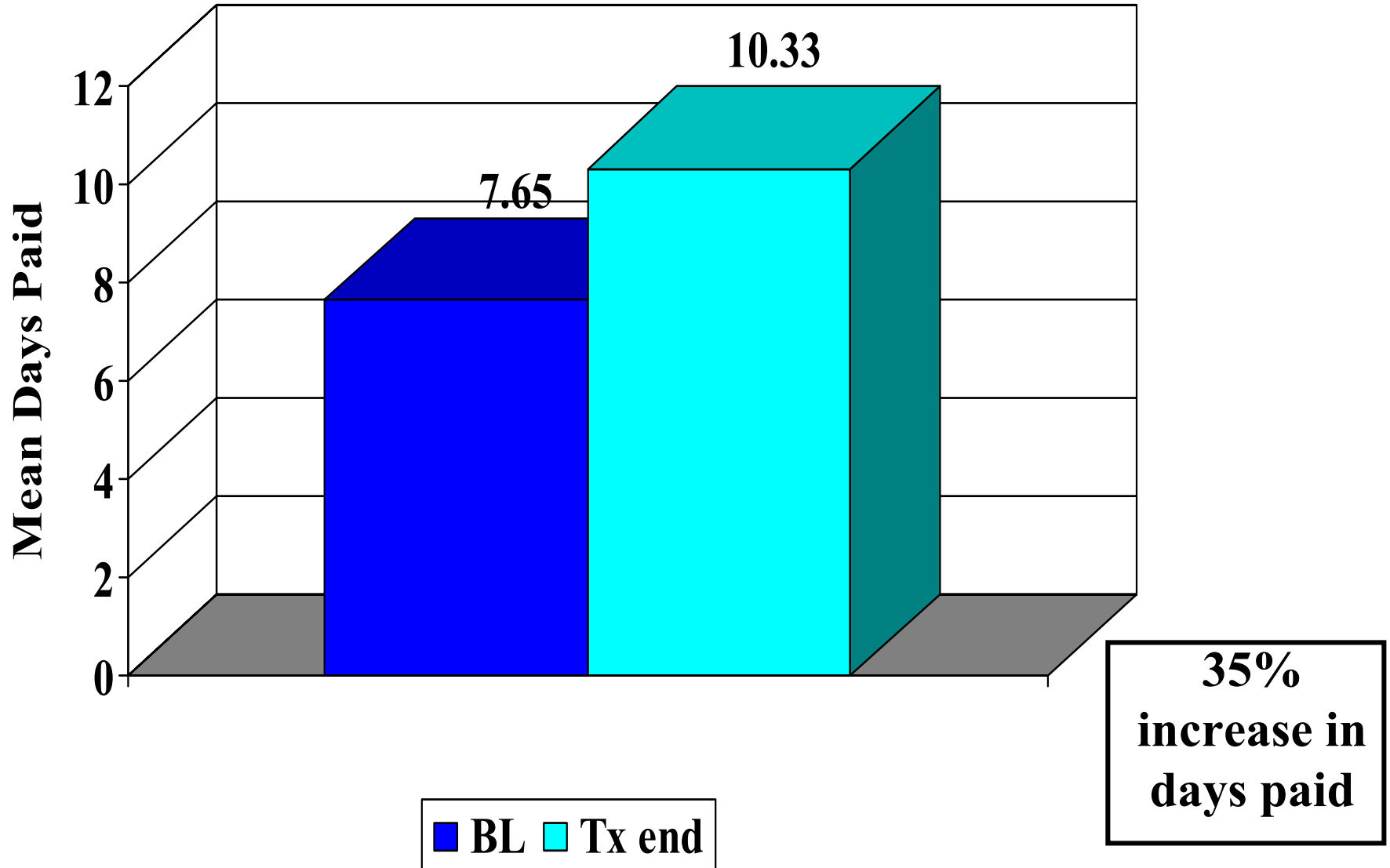


■ BL ■ Tx end

Days in Past 30

**34%
decrease in
days using**

Days Paid for Work in Past 30



Total Income (Past 30 days) of Participants

