

# Methamphetamine: Impact on Women/Families, Treatment, & Recovery

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UCLA Integrated Substance Abuse Programs



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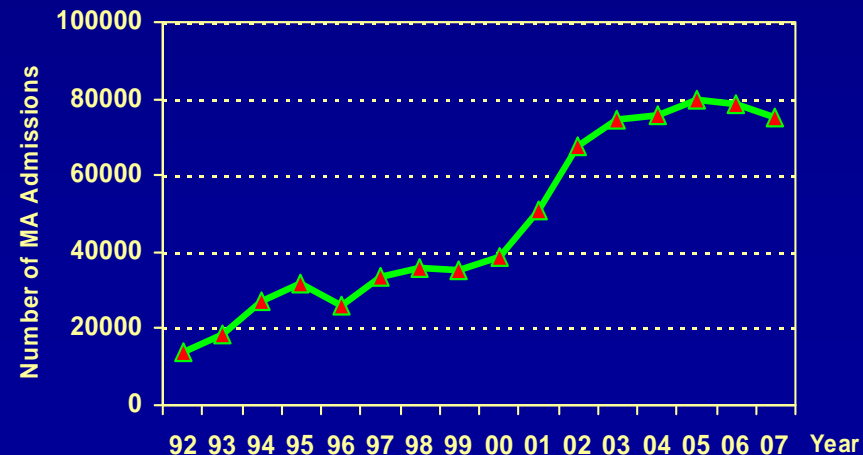


# Today's Topics

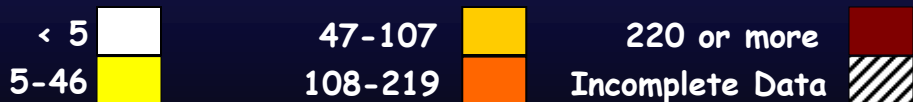
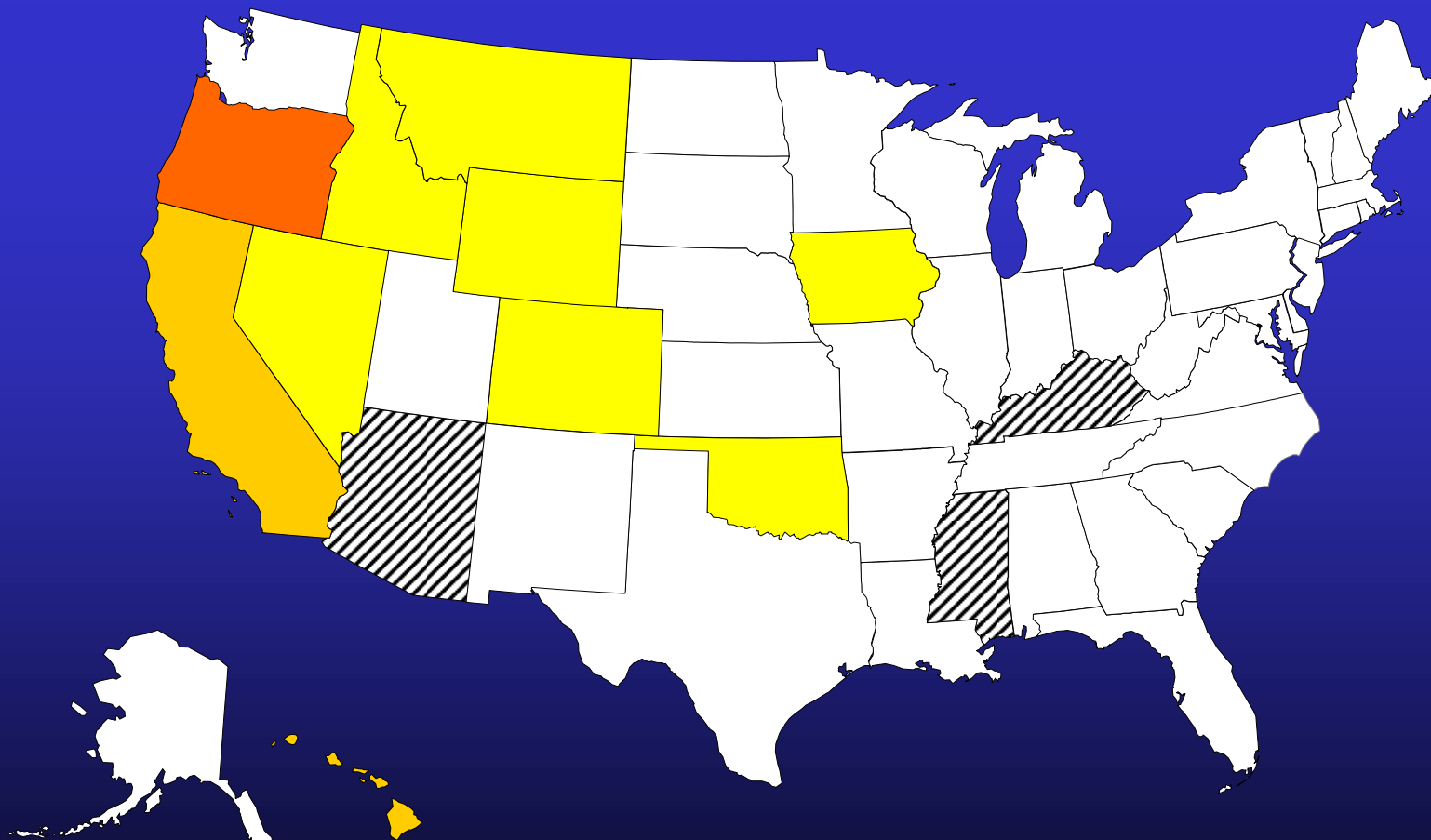
- **What's the problem?**
- **What are physical and psychological effects of meth use?**
- **What types of treatment work for meth dependence?**
- **What's the picture of treatment outcomes for meth users?**
- **What are some issues that women face in treatment and recovery?**

# What's the Problem?

- Meth “epidemic”—spread eastward across U.S
- In Western U.S. most local law enforcement agencies still report meth as the major drug problem; across U.S., 60% ; FL, 13%
- About 2-2.5% of FL treatment admissions are for meth.....but
- Cost of meth dependence in US estimated at \$23.4 billion, nearly \$75,000 per user
- Meth is a world-wide problem
- “Equal opportunity”



# Primary Amphetamine/Methamphetamine TEDS Admission Rates: (per 100,000 aged 12 and over)

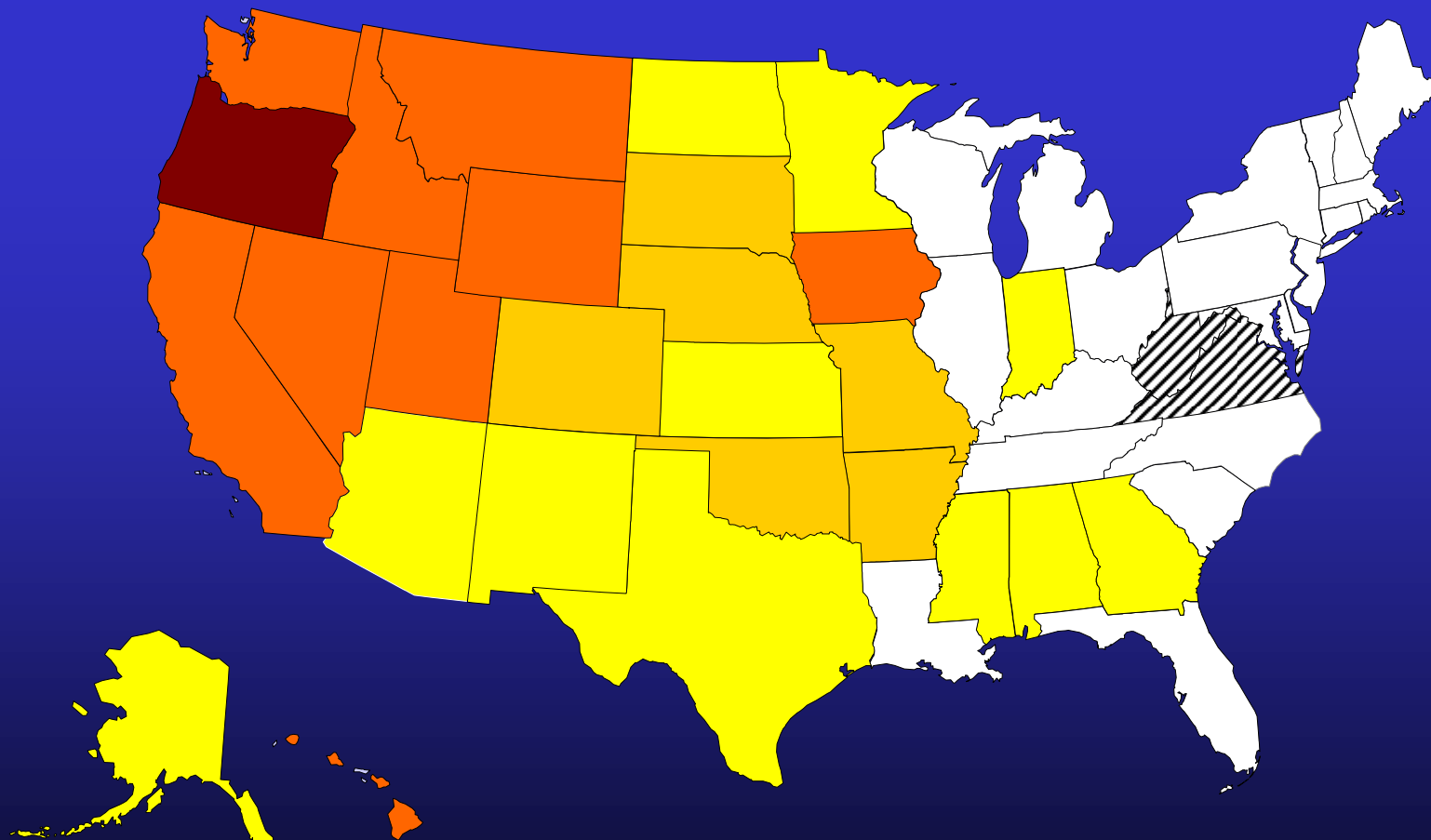


**1992**

SOURCE: SAMHSA Treatment Episode Data Set (TEDS).

# Primary Amphetamine/Methamphetamine

**TEDS Admission Rates:**  
(per 100,000 aged 12 and over)

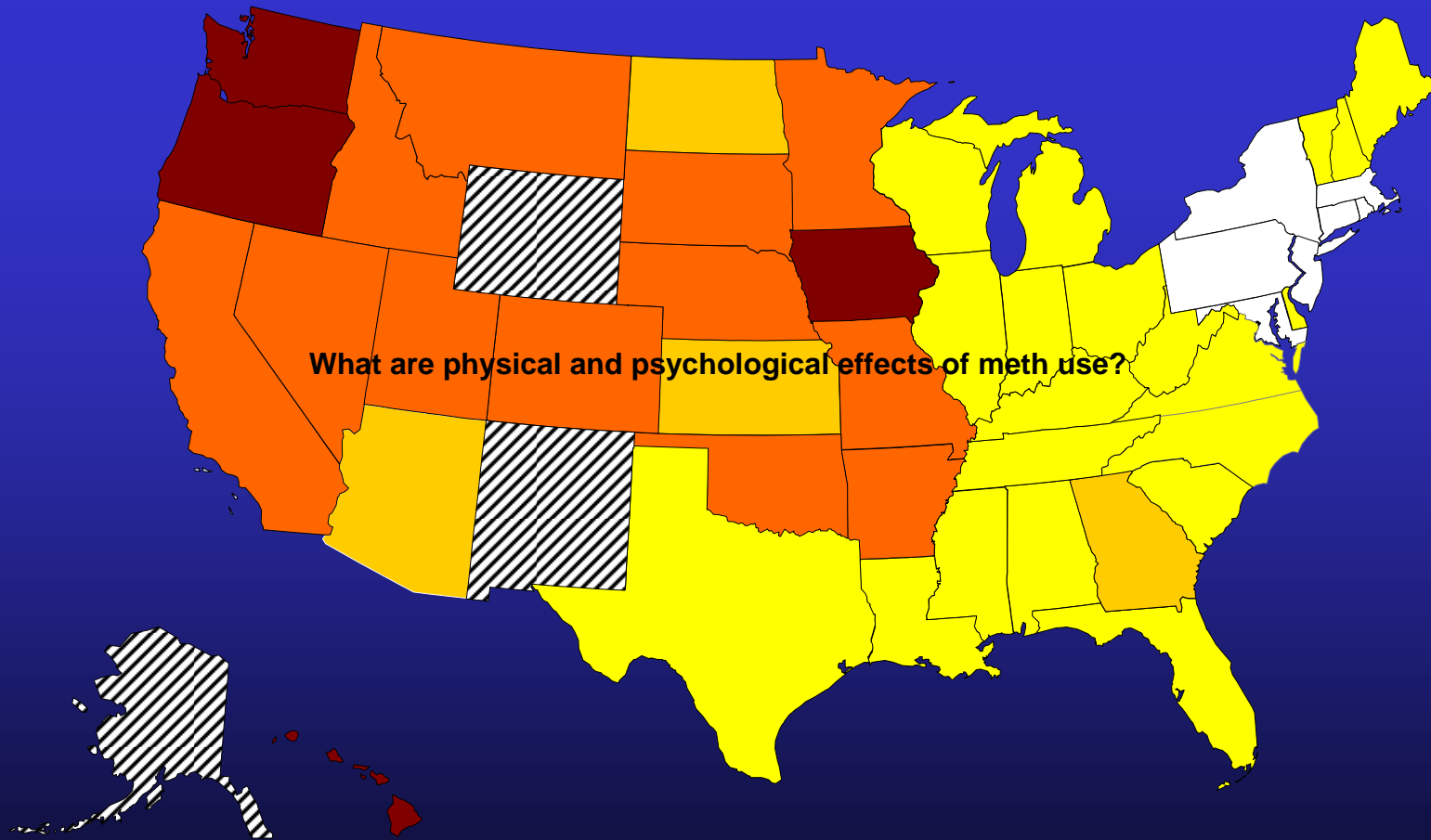


**1998**



SOURCE: SAMHSA Treatment Episode Data Set (TEDS).

# Primary Amphetamine/Methamphetamine TEDS Admission Rates: (per 100,000 aged 12 and over)

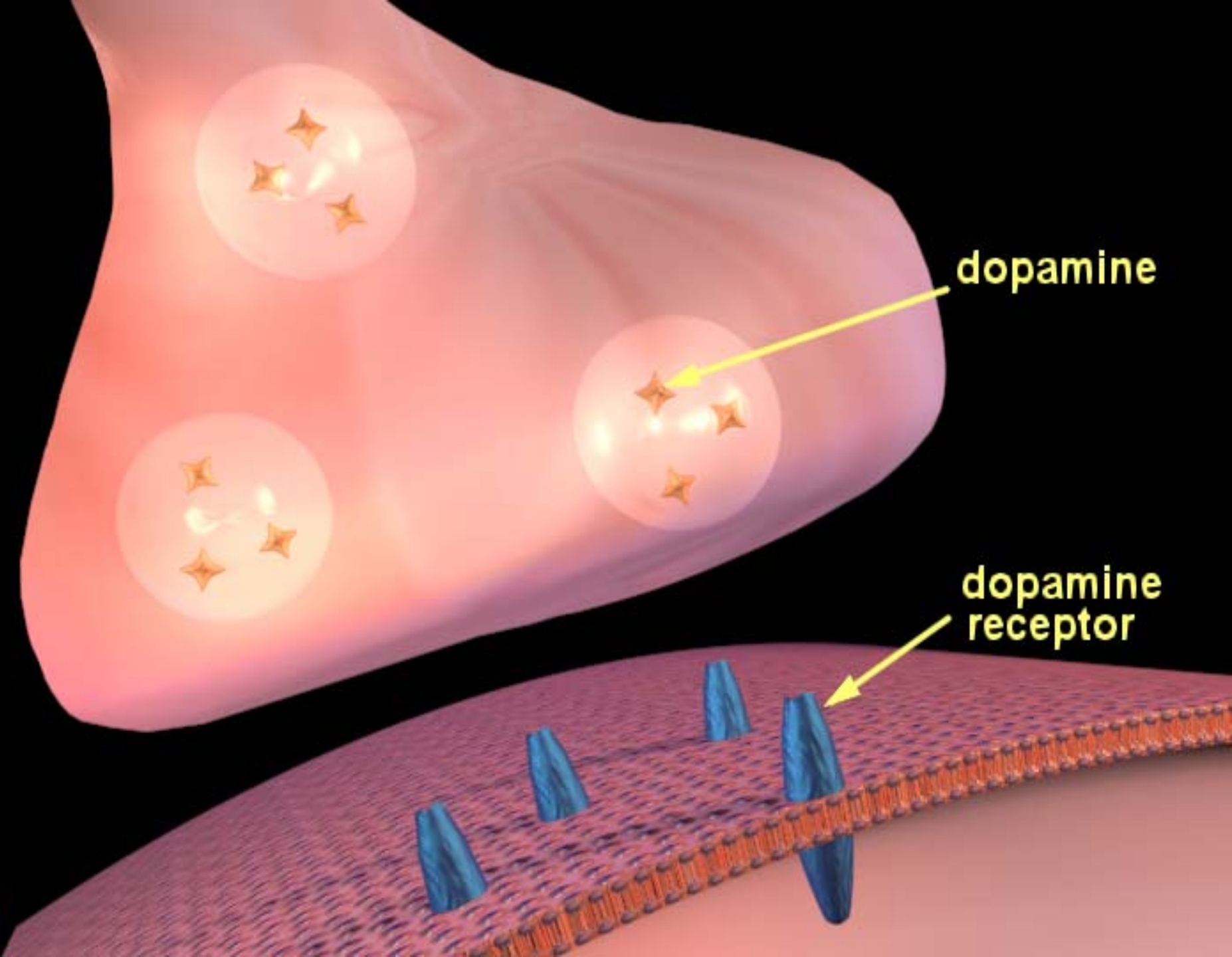


**2005**



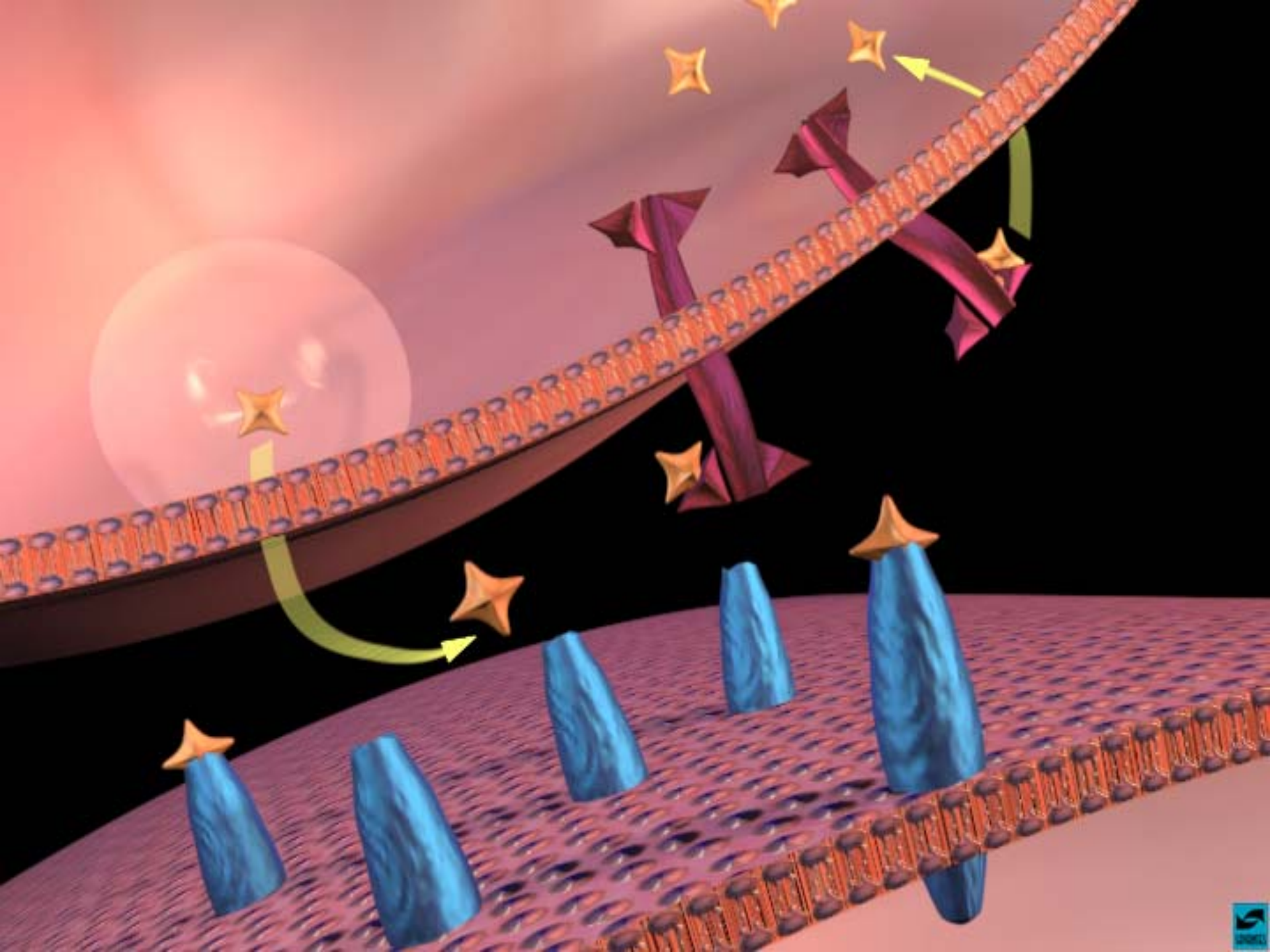
SOURCE: SAMHSA Treatment Episode Data Set (TEDS).

**What are effects of meth use?**

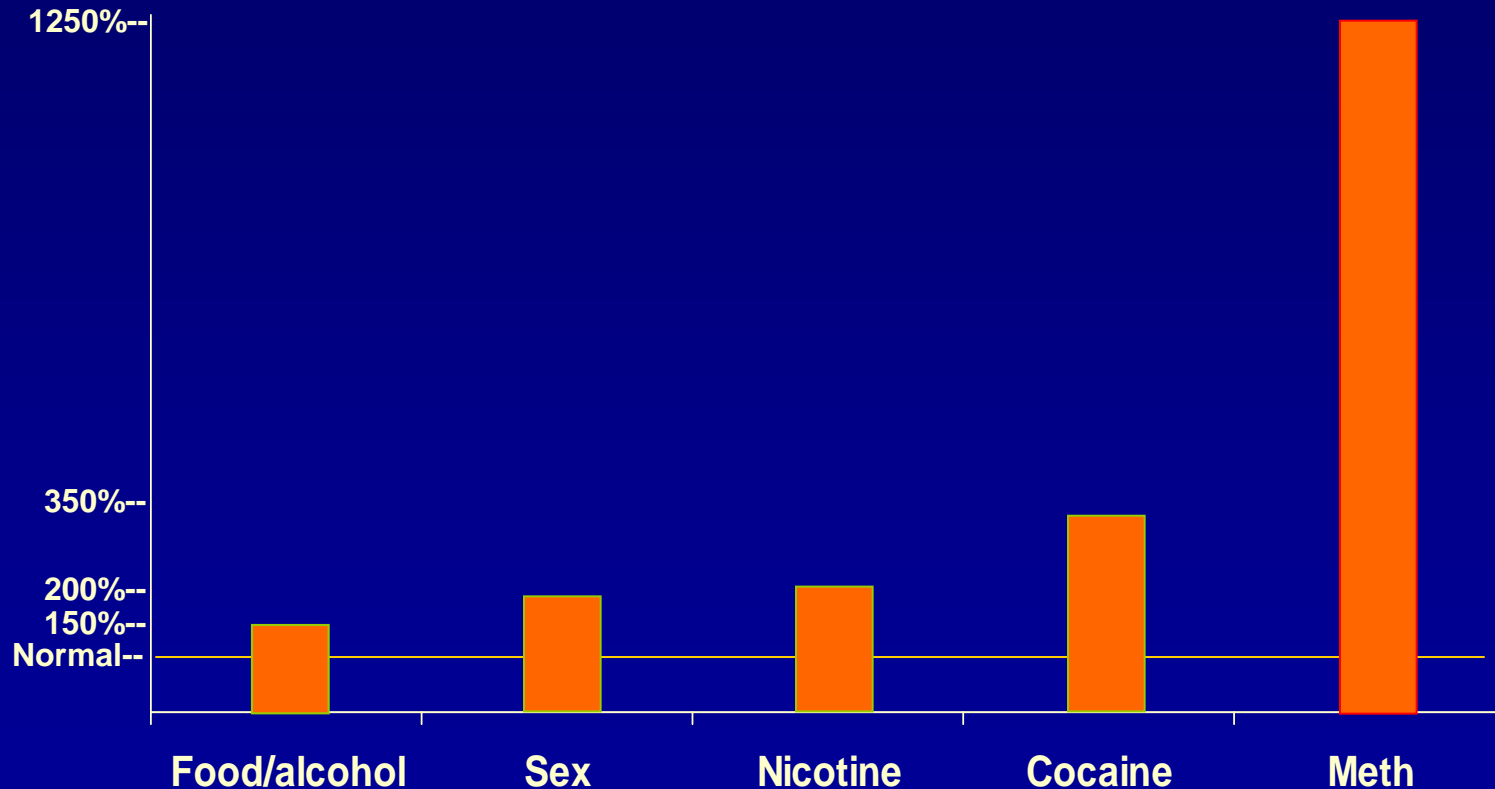


dopamine

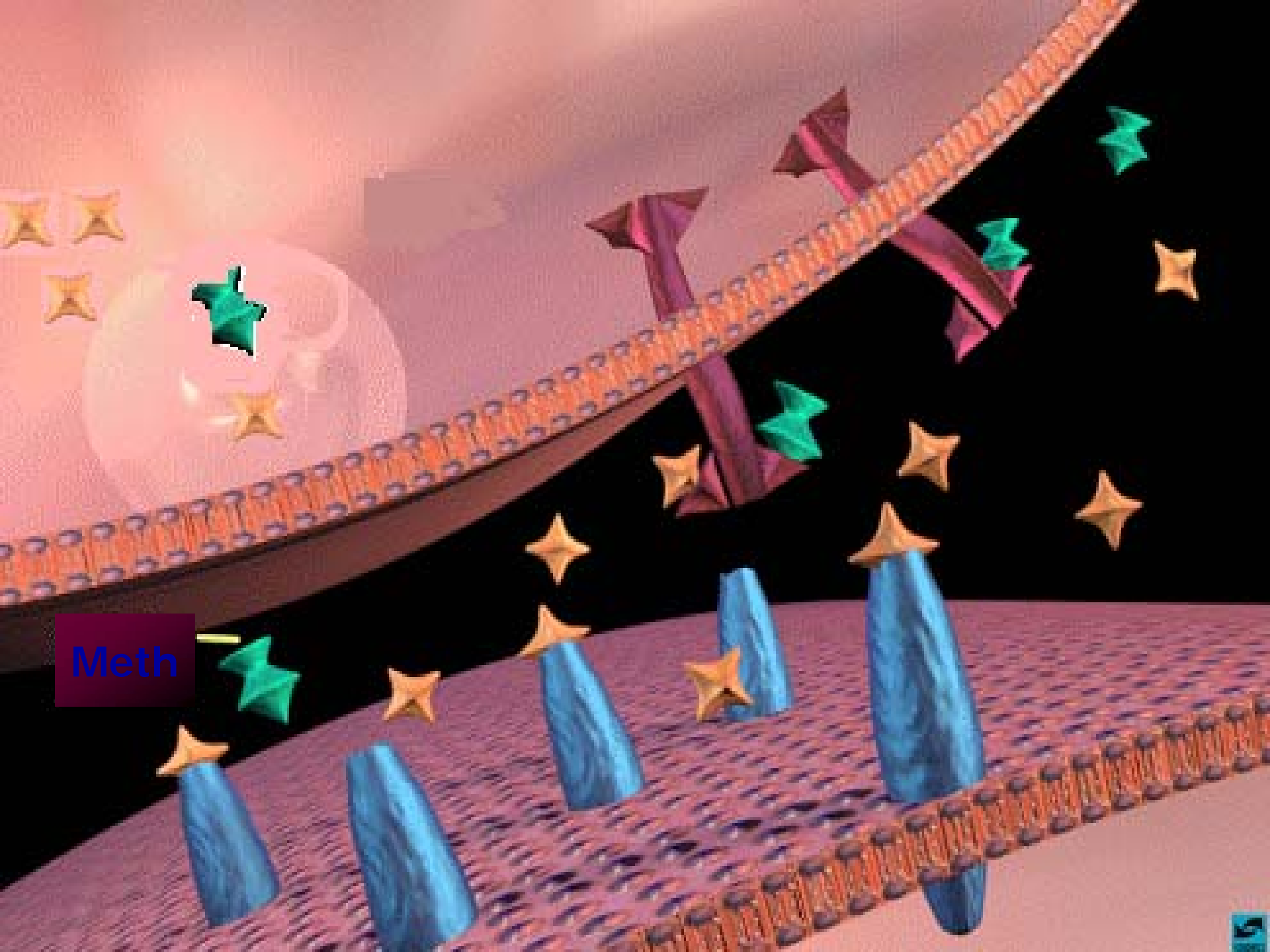
dopamine  
receptor



# Dopamine (Feel-good) Levels from ....



*Based on data from: Di Chiara et al., Fiorino & Phillips, Shoblock & Sullivan; Di Chiara & Imperato*



Meth

# Acute Effects of Methamphetamine

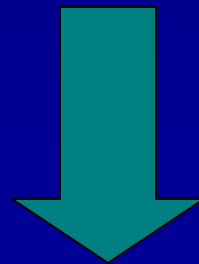
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Heart rate  
Respiration  
Blood pressure  
Pupil size  
Sensory acuity  
Energy



Confidence  
Alertness  
Mood  
Sex drive  
Talkativeness

Appetite  
Sleep  
Reaction time



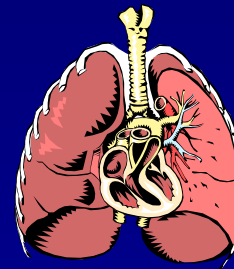
Boredom  
Loneliness  
Timidity

**WOW!**

# Longer Term Physical Effects

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- Cardiac arrhythmia
- High blood pressure
- Seizures, stroke
- Respiratory problems
- Anorexia
- Tooth decay
- “Speed bumps”



# Speed Bumps



Photos courtesy of Citizens for the North Metro Task Force

# METH Use and Severe Tooth Decay "Meth Mouth"



Sources: Richards, JR and Brofeldt, BT, J Periodontology, August 2000

New York Times, June 11, 2005

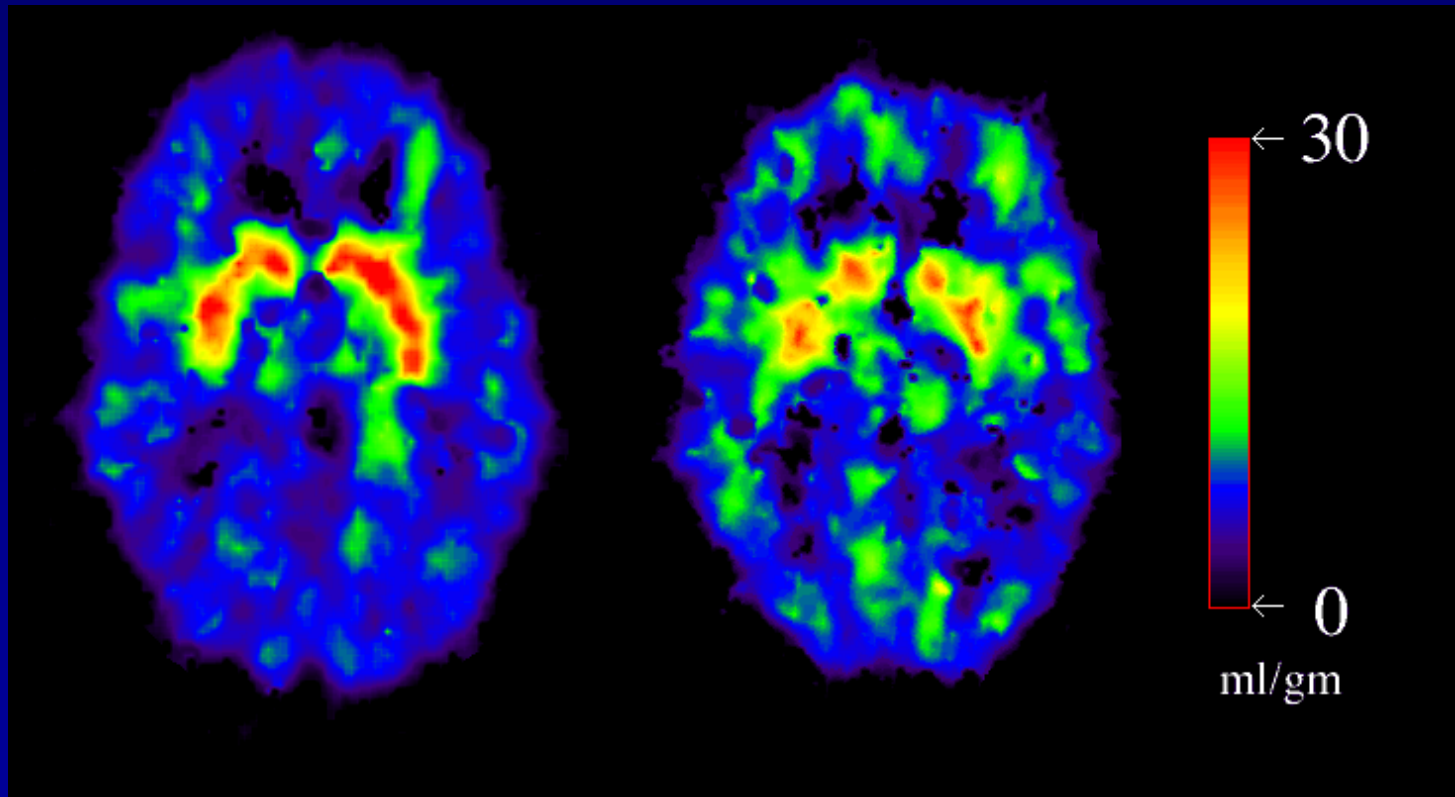
# Chronic Psychological/Cognitive Effects

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- Paranoia
- Hallucinations
- Panic reactions
- Depression
- Psychosis
- Anger
- Irritability
- Insomnia
- Confusion
- Concentration problems
- Memory loss
- Decreased inhibitory control



# Dopamine Transporter Loss After Heavy Methamphetamine Use



Comparison  
Subject

METH Abuser

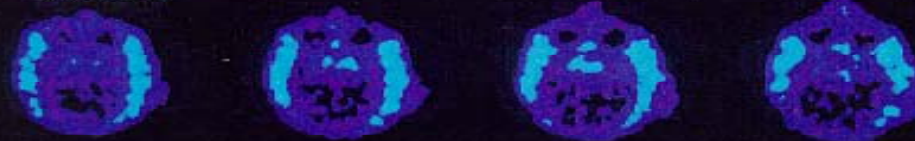
# Striatal FDOPA Activity

*Pre-Amphetamine/Control*

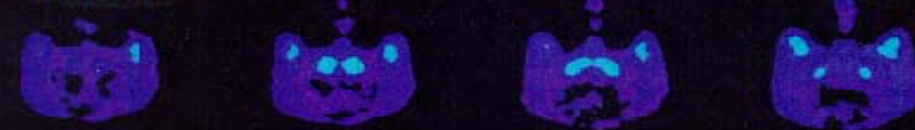


*Post-Chronic Amphetamine (10 days)*

**4 weeks**



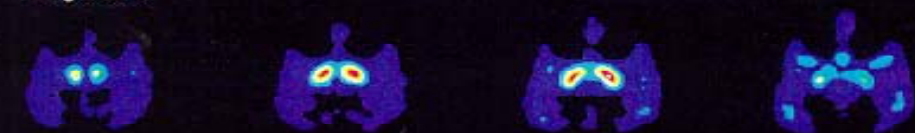
**6 months**



**1 year**



**2 years**



**Superior**



**Inferior**

# Parenting Issues With Meth Use

- **Neglect, long periods of sleep**
- **Inconsistent, paranoid behavior**
- **Irritability, short fuse, physical abuse**
- **Exposure to violence, unsavory characters**
- **Potential for sexual abuse**
- **Poor supervision**
- **Chaotic home environment**
- **Mental health issues**
- **Unhealthy living conditions**



# Effects of Prenatal Meth Exposure

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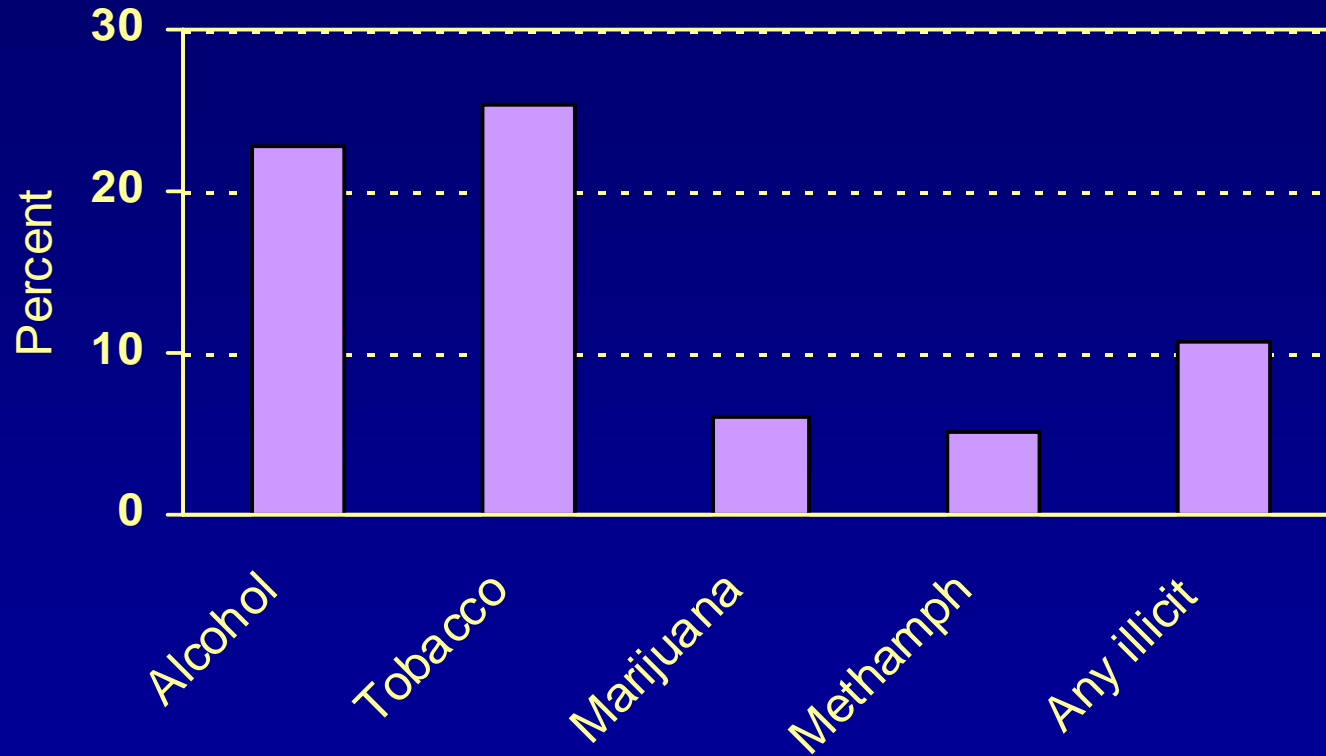
- **Smaller babies (similar to nicotine exposure)**
- **Which can mean poorer neuro development and future health problems**
- **Decreased arousal and regulation**
- **Increased stress**

**Results from “IDEAL” Study (Brown Univ. + hospitals in CA, HI, OK, IA)  
– n=1618 mother/infant pairs, incl. 84 meth-exposed infants**

# Prevalence of Substance Use During Pregnancy

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# **Behavioral Treatments for Substance Abuse that Work!**

- **Cognitive- Behavioral Therapy (CBT)**
- **Motivational Interviewing (MI)**
- **Incentive Approaches (CM)**

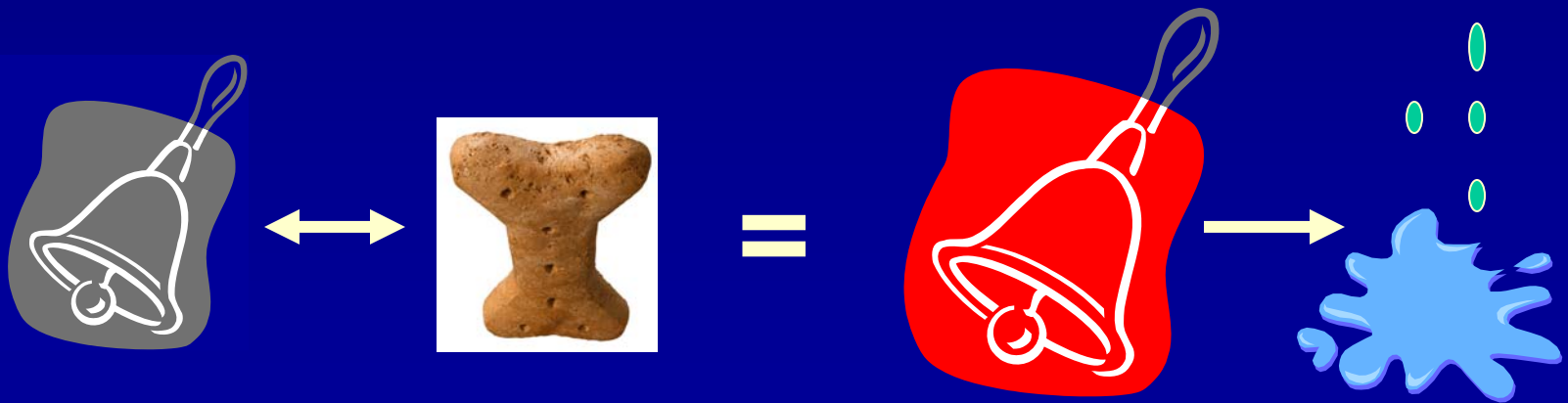
# What is CBT? How is it used in addiction treatment?

**CBT is.....**

- **for teaching and supporting individuals about how to reduce / stop their use**
- **structured, goal-oriented, and focused on the immediate problems faced by substance abusers.**
- **flexible, individualized approach adaptable to a wide range of clients**
- **applicable to a variety of settings (inpatient, outpatient) and formats (group, individual)**

# CBT Based on Classical Conditioning

Stimulus does not produce a physiological response, but once we have strongly associated it with an Unconditioned Stimulus (UCS) (e.g., food) it ends up producing the same physiological response (i.e., salivation).



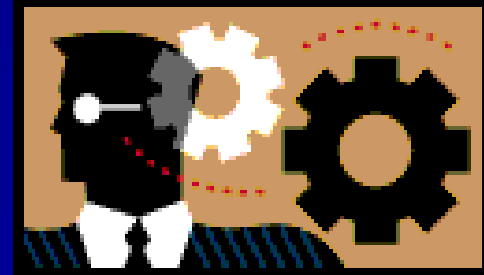
# Classical conditioning: Addiction

- Repeated pairing of specific events, emotional states, or cues with meth use can produce **craving** for meth
- Over time, meth use is paired with **cues** such as money, paraphernalia, particular places, people, time of day, emotions
- Eventually, exposure to cues alone produces meth cravings or urges that are often followed by abuse

# Important concepts in CBT

Emphasis given to the “cognitive” part of CBT, including

- **Teaching clients...**
  - knowledge about addiction
  - about conditioning, triggers, and craving
  - cognitive skills (“thought stopping” and “urge surfing”)
- **Practice...**
  - To achieve mastery of skills



# Important concepts in CBT

**CBT attempts to help clients:**

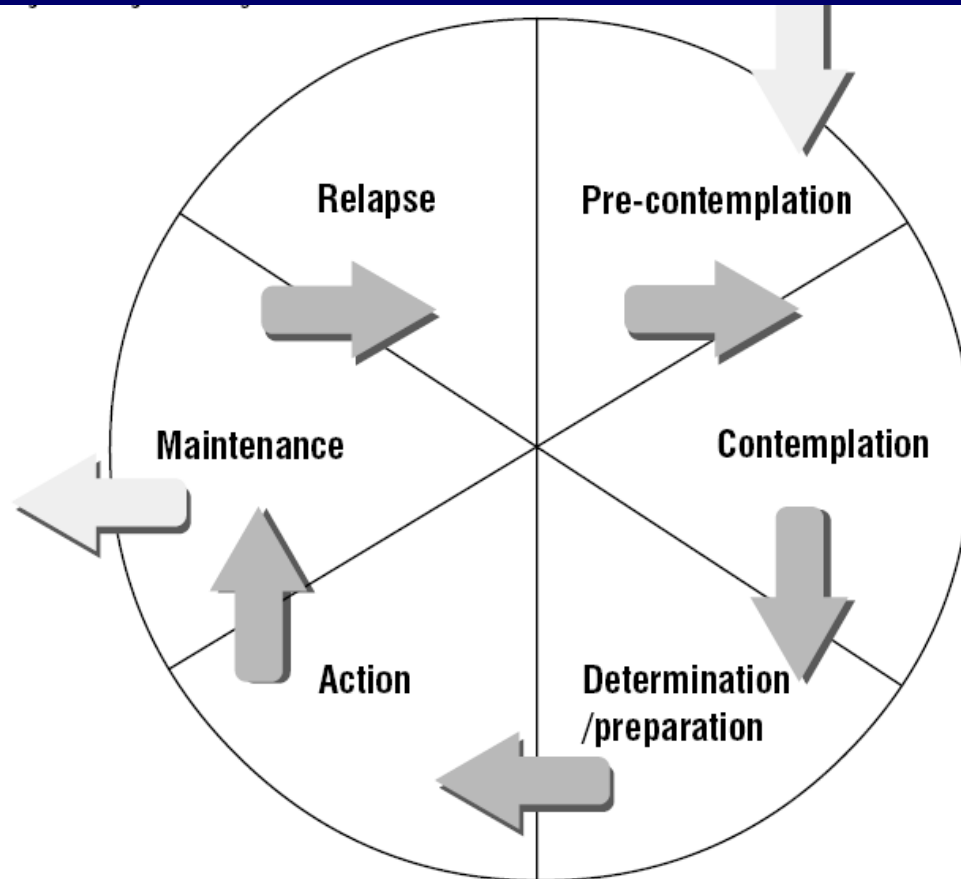
- **Follow a planned schedule of low-risk activities**
- **Recognize meth use (high-risk) situations and avoid them**
- **Cope more effectively with a range of problems & behaviours associated with meth use**



# Motivational Interviewing: The Concept of Motivation

- **Motivation is....**
  - **A key to change**
  - **Multidimensional**
  - **Dynamic and fluctuating**
- **Confrontation of “denial” can be counterproductive &/or harmful to some individuals**
- **Used internationally with meth abuse**

# Stages of Change



Adapted from Prochaska, J., & DiClemente, C. (1986). Towards a comprehensive model of change. In W. Miller & N. Heather (Eds), *Treating addictive behaviours: Process of change*. New York: Plenum Press.

# Motivational Interviewing: Working through Ambivalence

- Ambivalence is normal
- Clients usually enter treatment with fluctuating and conflicting motivations
- They “want to change and don’t want to change”
- *“Working with ambivalence is working with the heart of the problem”*

# General Motivational Strategies

- Giving **ADVICE**
- Removing **BARRIERS**
- Providing **CHOICE**
- Decreasing **DESIRABILITY**
- Practicing **EMPATHY**
- Providing **FEEDBACK**
- Clarifying **GOALS**
- Active **HELPING**

# Incentive Approaches: Key Points

- **Drug/alcohol behavior can be controlled using reinforcers (rewards & penalties)**
- **Behavior to be modified must be objectively measured & monitored frequently**
- **Reinforcement must be immediate**



# Incentive Approaches: Vouchers

- Vouchers can be used as proxies for money/goods
- Vouchers should be redeemed for items incompatible with drug use
- Vouchers can be applied to a wide range of prosocial alternative behaviors

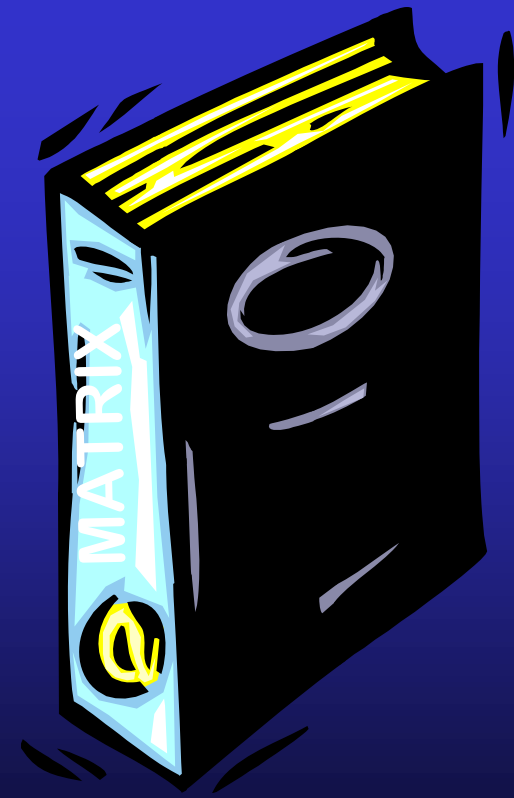


# After Care and 12-Step Participation

- **Aftercare is an essential aspect of treatment**
- **Critical during the 6-months following intensive treatment when relapse is highest**
- **12-Step is most common Aftercare approach**
- **Randomized trials show 12-step aftercare is comparable to CBT and MI aftercare approaches**
- **Those who choose to participate in aftercare show better outcomes (selection bias); strong correlation between involvement in aftercare and better outcomes**

# Treatment Components of the Matrix Model

Individual Sessions  
Early Recovery Groups  
Relapse Prevention  
Groups  
Family Education Group  
12-Step Meetings  
Social Support Groups  
Relapse Analysis  
Urine Testing



# The Matrix Model: Organizing Principles

Behavioral strategies used to promote cessation of drug use and behavior change

- Scheduling time to create “structure”
- Educating and reinforcing abstinence from all drugs and alcohol
- Promoting and reinforcing participation in non-drug-related activities

# The Matrix Model: Organizing Principles

Cognitive-Behavioral strategies used to promote cessation of drug use and prevention of relapse.

- Teaching the avoidance of “high risk” situations
- Educating about “triggers” and “craving”
- Training in “thought stopping” technique
- Teaching about the “abstinence violation effect”
- Reinforcing application of principles with verbal praise by therapist and peers

# Status of Medications Research for Meth Dependence

## *Negative results*

- Imipramine
- Sesipramine
- Tyrosine
- Ondansetron
- Fluoxetine

## *Under consideration*

- Gabapentin
- Modafinil
- Toprimate
- Disulfiram
- Lobeline
- Aripiprazole

## *Limited evidence—but potentially promising*

- Bupropion
- Methylphenidate SR

**What are outcomes of treatment for  
meth use?**

# Long-Term Outcomes—“Treatment-as-Usual” for Meth Use

Of 10 Meth-abusing women entering treatment,



After treatment:

Still Meth-abstinent:

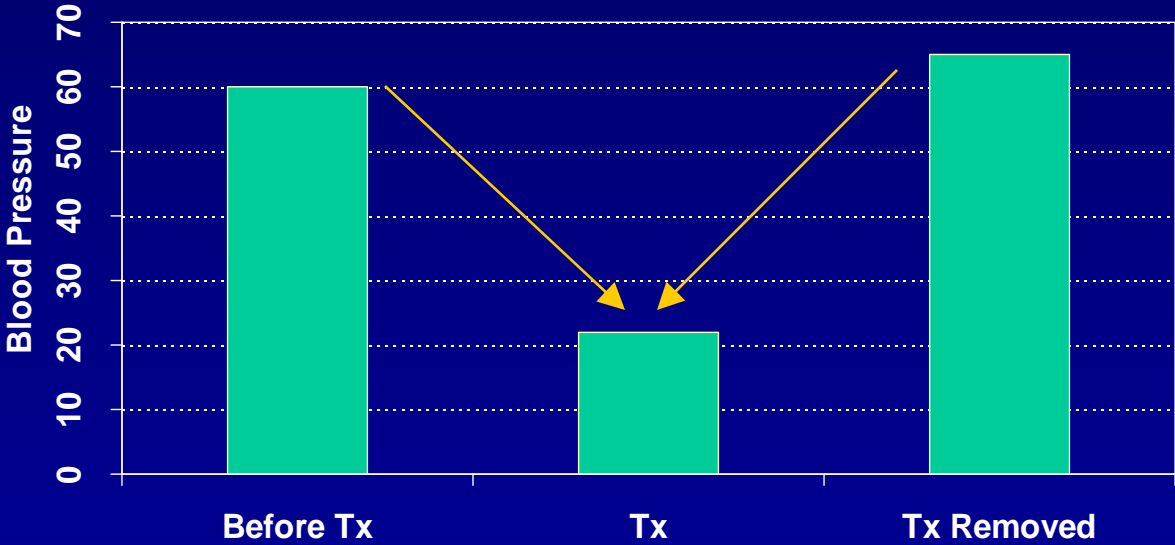


**3 still Meth-abstinent  
48 mo. after treatment**

Results from MethNH study  
N=153 women treated for  
meth use in LA County

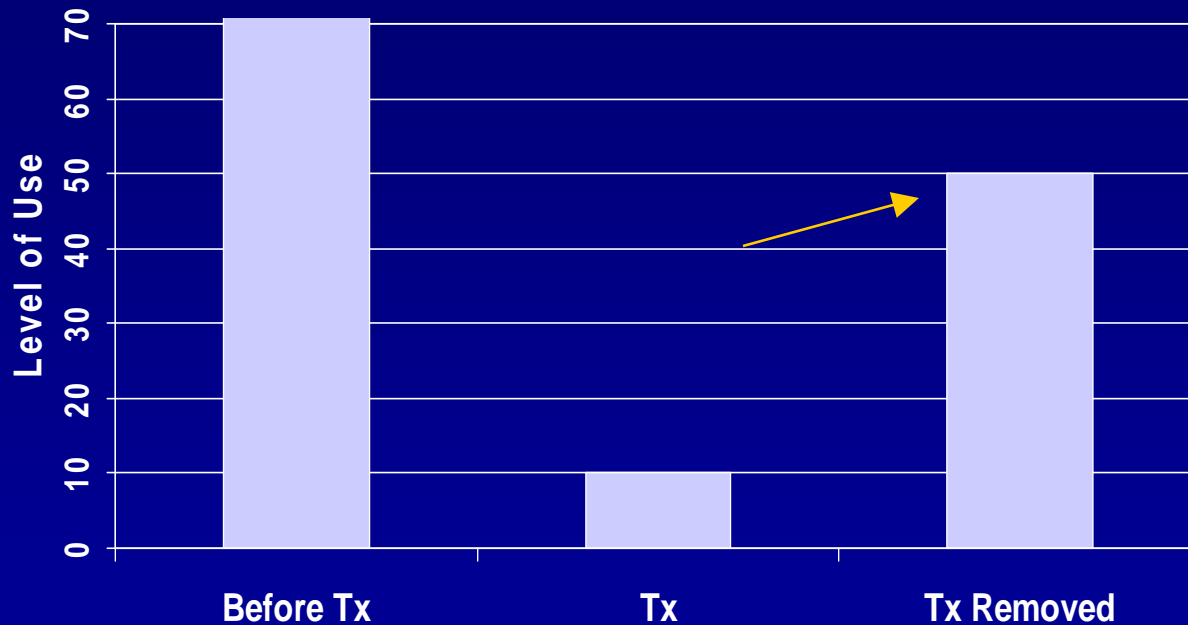
# Common Perceptions:

## Hypothetical Investigation of Meds for High Blood Pressure



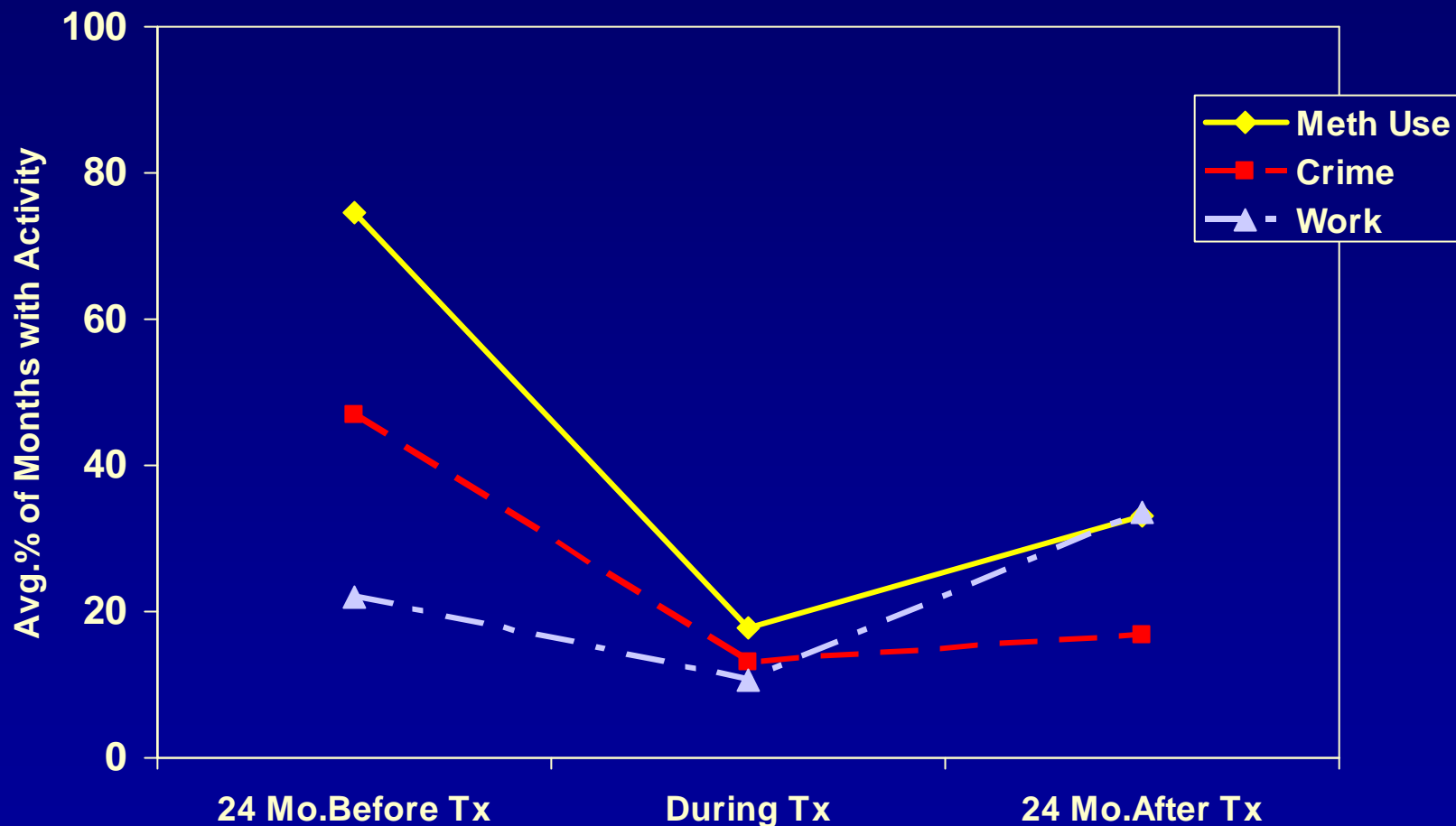
**Common Perception: Treatment Works!!!**

# Common Perceptions: Hypothetical Investigation of Meds for Meth Use



**Common Perception: Treatment Failed!!!**

# Other Outcomes: % of Months with Meth Use, Crime, Employment Before, During, and After Treatment

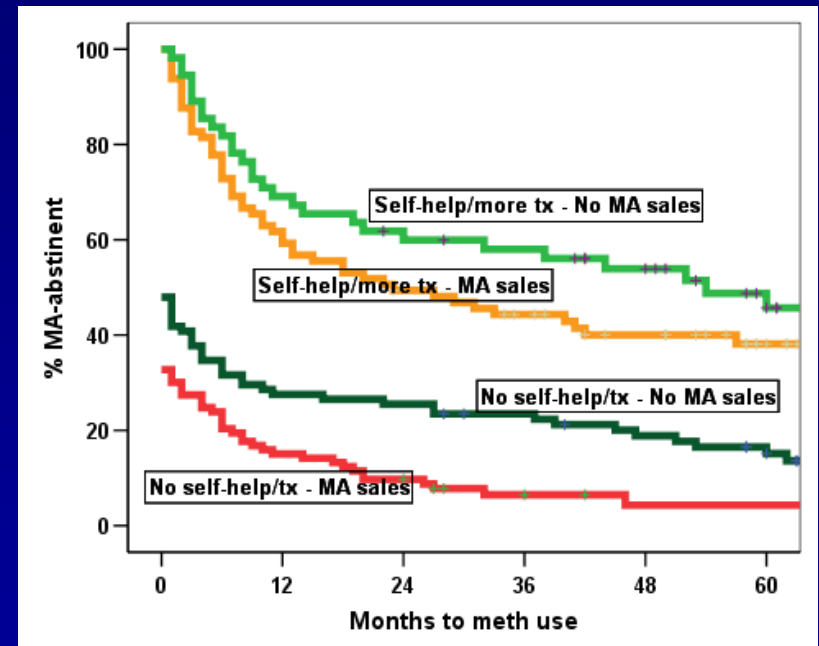
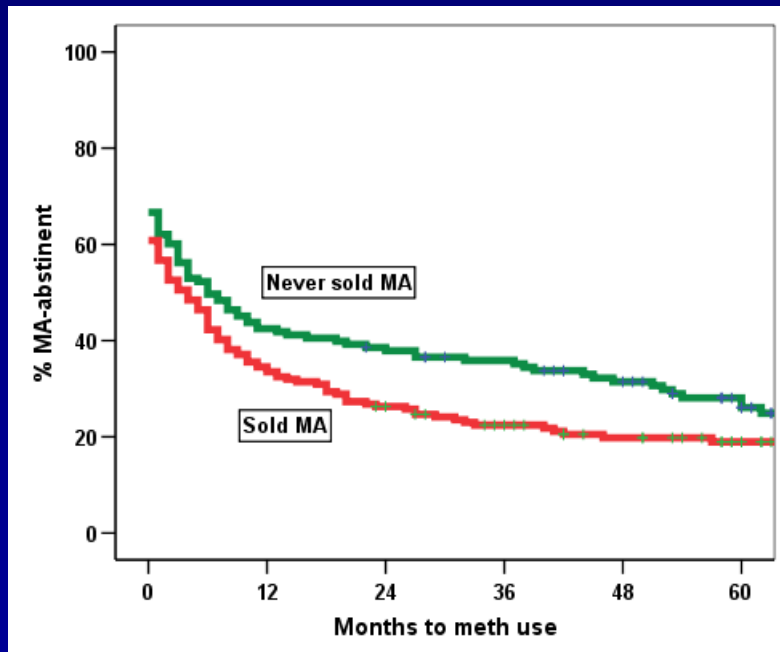


Results from MethNH study  
N=350 people treated for meth  
use in LA County

# Patterns of Relapse: % meth-abstinent over time

Sample divided by meth sales involvement  
(never vs. ever sold meth “MA”)

Sample divided by meth sales AND post-discharge self-help/other tx (any SH/tx vs. none)



**Note: Higher lines mean more are abstinent**

# **Meth Tx Outcomes for *Women***

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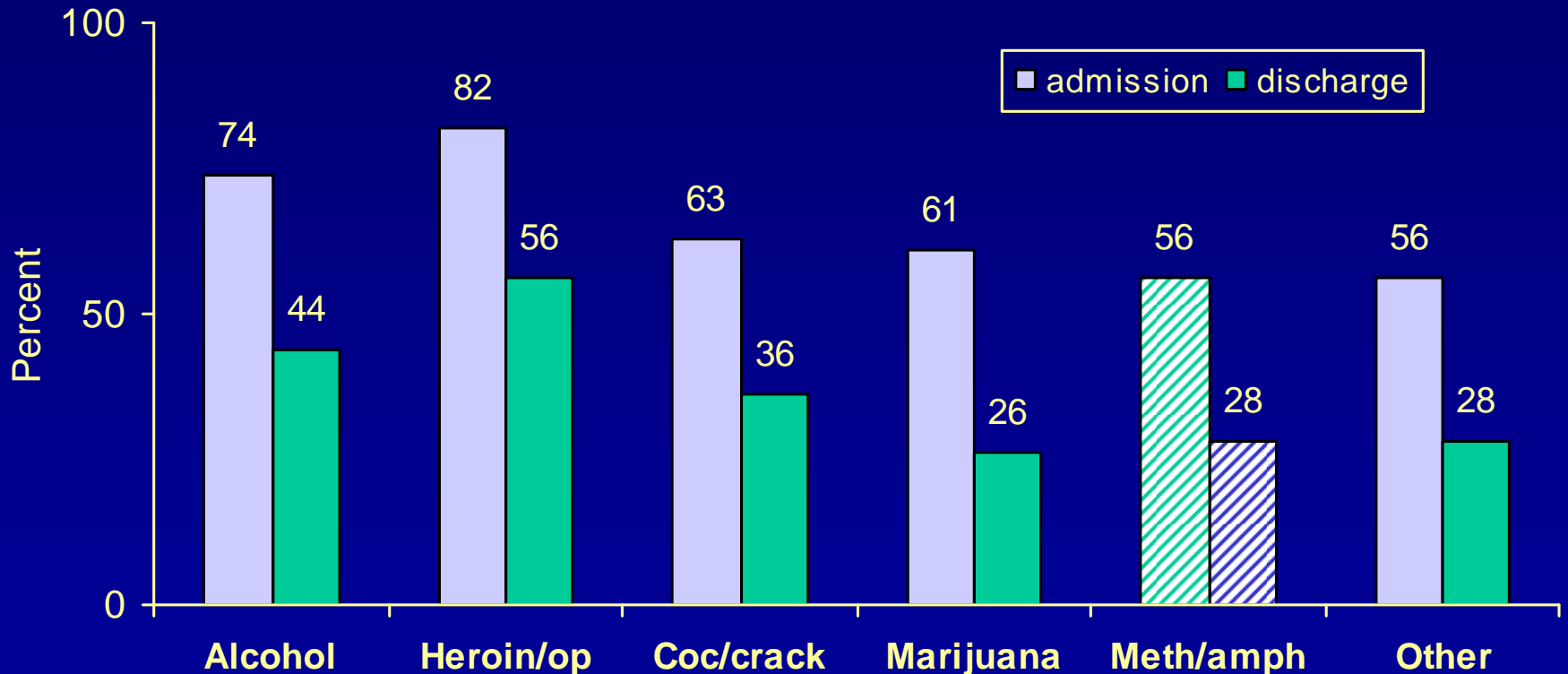
- **Of every 10 meth-using women treated, 3 remained meth-abstinent for at least 4 years**
- **Most relapse was within first 12 months after treatment**
- **Women who spent longer time in treatment had better outcomes**
- **Treatment seems to work as well for meth users as for users of other drugs**

**Results from MethNH study**

**N=350 people treated for meth use in LA County**

# CA Treatment System Outcomes

## % Using Primary Substance in Past 30 Days by Type of Drug (CalOMS FY06-07)



Based on 81,382 episodes of continuing care

Source: ISAP Evaluation of CalOMS, Rawson et al., 2008

# So.....

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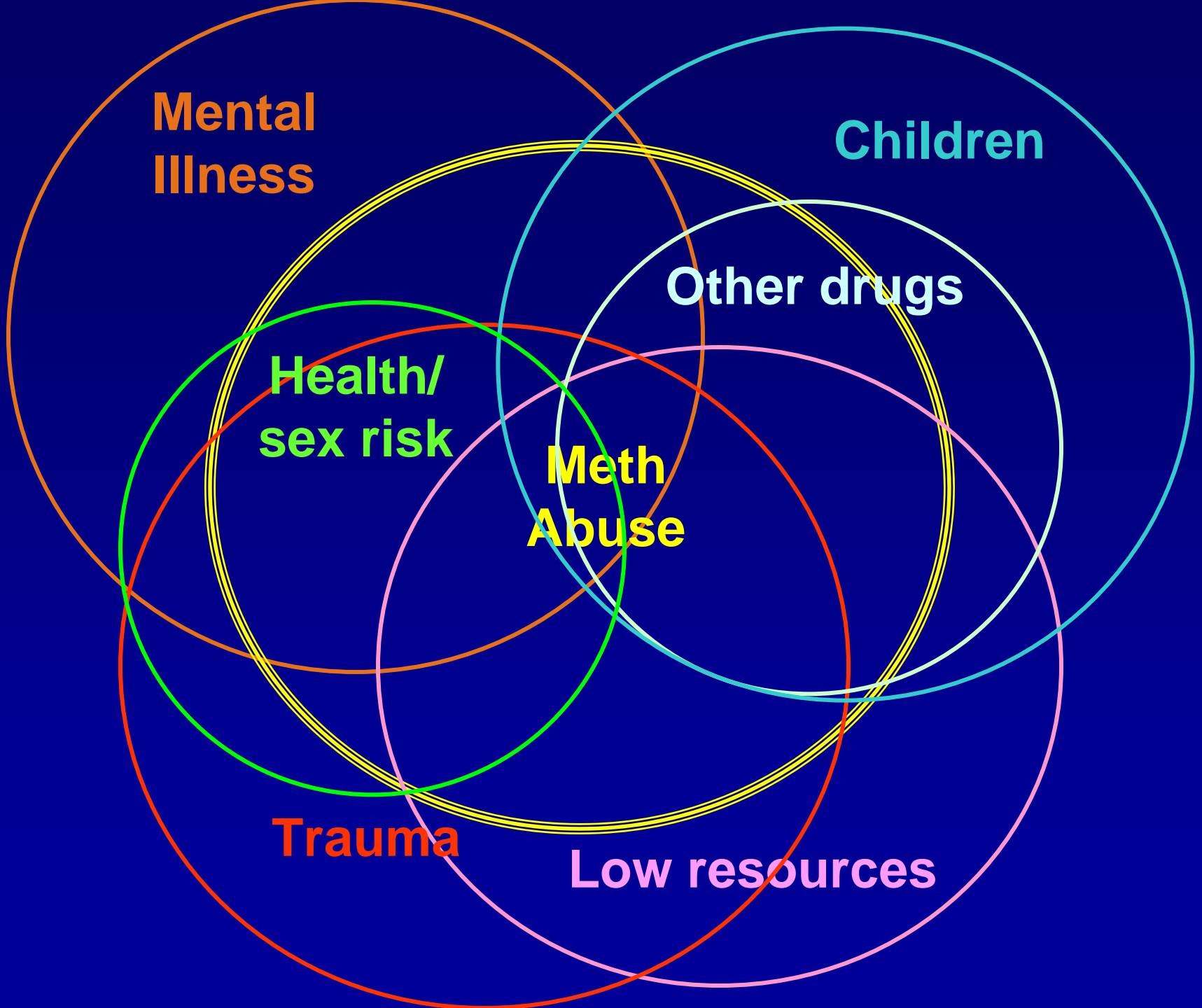
- **Treatment for meth use works.....**
  - For some women
  - Some of the time
- **External pressure to enter treatment seems to be as good as any other motivation**
  - Many women cited concern for children as motivator
- **Longer time in treatment helps; continuing care may also help**

# But Many Questions Remain.....

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- **Optimal duration of treatment?**
- **Facilitating factors & barriers to tx effectiveness?**
- **Which treatment best for which individuals?**
- **How about cost-effectiveness?**
- **Meds?**
- **Optimal use of continuing care/aftercare?**

# **Specific Issues for Women**



**Mental  
Illness**

**Children**

**Other drugs**

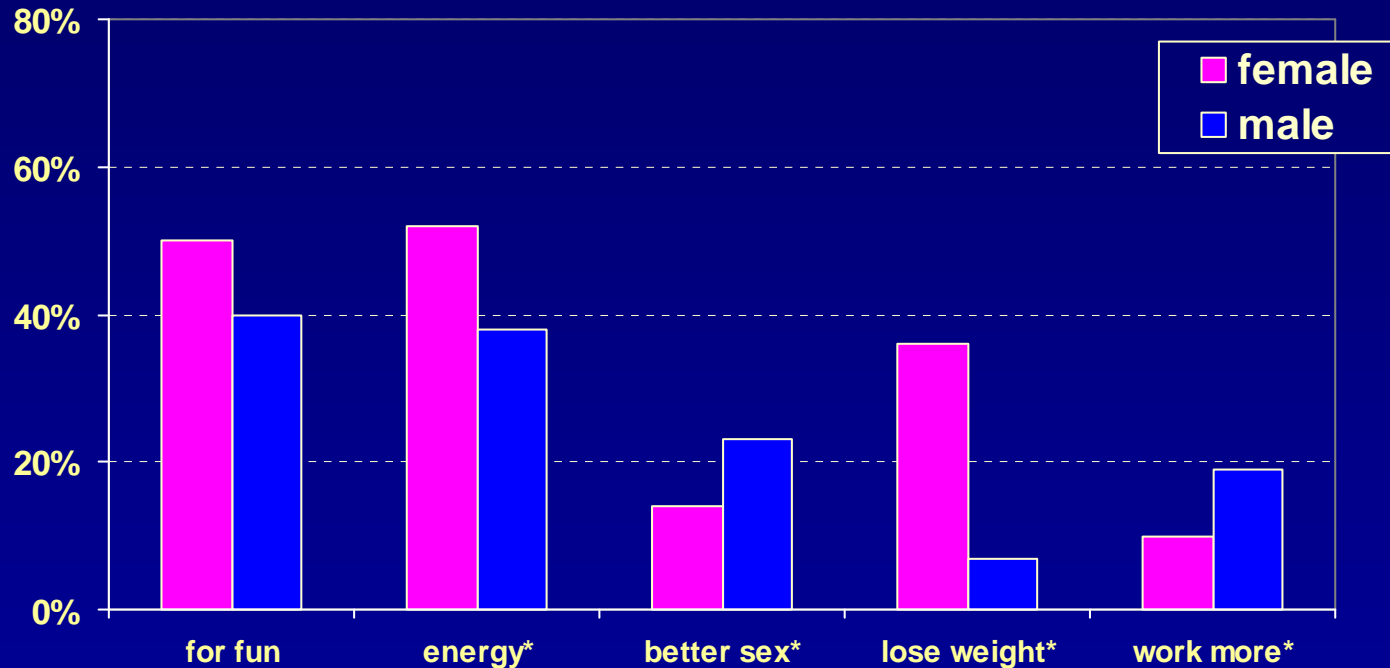
**Health/  
sex risk**

**Meth  
Abuse**

**Trauma**

**Low resources**

# Differences Between Men & Women in Why They Started Using Meth



Men/women similar in other reasons they give:  
to get high, because friends use, to experiment,  
to stay awake, to escape

Results from MethNH study  
N=350 people treated for meth  
use in LA County

# Women Use Meth as a Coping Mechanism

Compared with men, women:

- Are more frequently **initiated** to meth use **by their partners**
- Have patterns of meth use that revolve around **relationships**
- Cite **weight loss**, increased **energy**, and enhanced **sexual response** as reasons for use
- Continue to use meth in order to more easily **cope with abusive relationships**

# Women Use Meth to Self-Medicate

Compared with men, women:

- Are more likely to suffer from **depression or PTSD**
- Are more likely to have a **panic or eating disorder**
- Are more likely to have been **prescribed medication** for psychological disorders
- Are **less likely to inject meth**

# Women Use Meth to Cope with *Past & Current* Abuse

Compared with men, women:

- Have **more severe histories** of sexual/physical/emotional abuse in childhood
- Abuse often **continues** into adolescence and adulthood
- More often report instances of **incest and/or molestation** while growing up and prior to abusing MA

# Women Are Primary Caregivers

Compared with men, women:

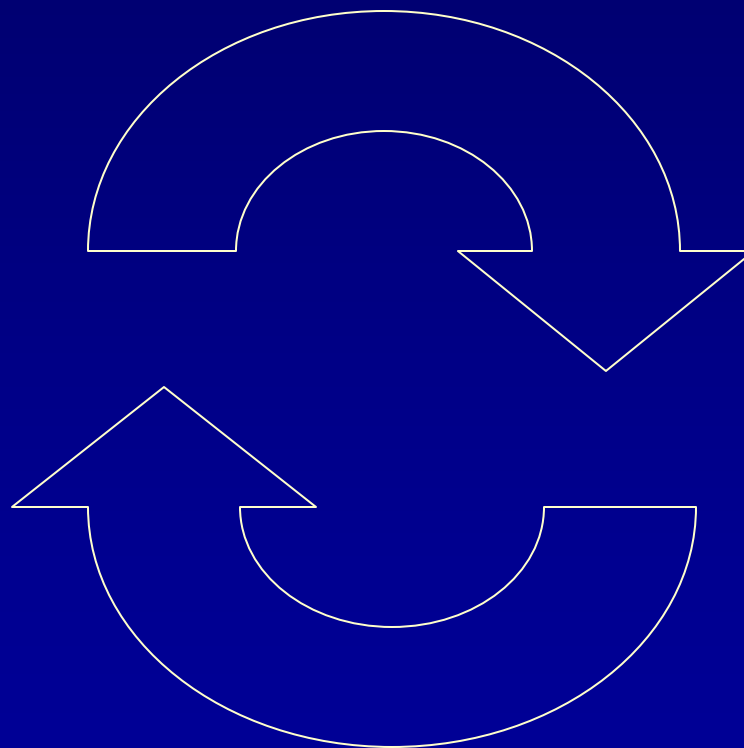
- Have **children** under 18;
- Are the **primary caregivers** to children;
- **Children need protection** from domestic violence.

# Challenge: to Break the Intergenerational Cycle

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Meth-abusing Women/Men



Children at risk

Parental drug/alc abuse

# Methamphetamine and Sexual Risk Among Women



- **Methamphetamine is a “sex” drug**
- **Women who use methamphetamine =**
  - **Increases in sex drive**
  - **Increases in “risky” sex; unprotected sex**
  - **More anonymous sex partners**
  - **Increased risk for sexually-transmitted infections**
- **Sex can be a trigger for relapse (self and partner)**

# Some of the Challenges

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- **Meth impact on brain & body....long, slow recovery**
- **Some treatment programs aren't long enough**
- **Finding programs that can deal with the complexities of women's issues**
- **Few treatment programs for women *and* their children.**
- **Competing responsibilities**
- **Money**
- **Staying connected to continuing care/aftercare**

# Treatment and Care: Some Women's Issues

## ➤ Relationship issues

- Domestic Violence
- Fear of losing partner
- Fear of losing children
- Fear of sex without drugs

## ➤ Shame and stigma

## ➤ Weight gain and hygiene

## ➤ Histories of sexual and physical abuse



# Some Implications



- All women deserve a safe and secure place to recover.
- Programs should focus on an “**empowerment**” approach to aid in recovery.
- Use “**trauma-informed**” techniques.
- Meth-dependent women need **separation from “triggers”** to aid in recovery (e.g., partners).

# Resources: Selected Treatment Curricula for Women

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- **Helping Women Recover (S. Covington)**
- **Beyond Trauma (S. Covington)**
- **Voices: Empowerment for Girls (S. Covington)**
- **Seeking Safety (L. Najavits)**
- **Trauma Recovery Empowerment Model (TREM)**
- **TRIAD (Clark & Fearday)**
- **ATRIUM (Miller & Guidry)**
- ❖ *Curriculum for meth-dependent women is being developed*

# Example of Women's Tx: Heart of Iowa Mother & Child Recovery Center

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## PROGRAM PROVIDES

**Transportation**  
**Medical Care**  
**Mental Health Care**  
**Childcare**  
**Education-GED, College**  
**Family Planning**  
**Meals**  
**AA/NA/12 Step**  
**Spirituality**  
**Case Management/Referral**  
**Attention to Culture**

## TREATMENT APPROACH (WHOLISTIC)

**Relapse Prevention**  
**Basic Living Skills**  
    **Nutrition**  
    **Cooking**  
    **Shopping**  
    **Cleaning**  
**Health and healthy living**  
**HIV Education and testing**  
**Tobacco Education & Stop smoking**  
**Money Management**  
    **Budgeting**  
    **Savings Plan**  
    **Credit Counseling**  
**Relationships**  
**Active Parenting**  
**Nurturing Parenting**  
**Single Parenting/Support**  
**Domestic Violence**  
**Relaxation**



# Drug Endangered Children (DEC) Project

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- **Created to break the cycle of “child abuse” caused by those who manufacture, sell, and use drugs – with focus on MA**
- **Created a collaborative, *multi-disciplinary* response to children discovered in MA labs**
  - **at the specific case level**
  - **at the community and services level**

# Drug Endangered Children (DEC)

- **Core DEC team members**
  - Law enforcement
  - Child protective services
  - District attorney's office
  - Medical personnel
- **Auxiliary DEC team members**
  - Mental health & therapeutic personnel for children
  - Environmental services, fire, & public health
  - Drug treatment providers for parents & family members

# Brief Summary

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- **Complex issues for women: mental health/health (including trauma/victimization/ domestic violence), economic, relationships, sex risks, multiple roles and family responsibilities**
- **Need for a range of services**
- **Meth-related damage to brain function and slow recovery**
- **Some tx approaches work for meth users (e.g. CBT, MI, CM)—at least some of the time for some women**
- **Some specialized approaches facilitate tx for women**
- **Importance of continuing care/aftercare**

# Contact Info/Resources

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- Methamphetamine info website (presentations, links, info)  
[www.methamphetamine.org](http://www.methamphetamine.org)
- UCLA Integrated Substance Abuse Programs website  
[www.uclaisap.org](http://www.uclaisap.org)
- Methamphetamine Treatment: A Practitioner's Reference available at [www.adp.ca.gov/Meth/meth.shtml](http://www.adp.ca.gov/Meth/meth.shtml)
- Matrix Treatment info:  
[www.oas.samhsa.gov/methTXpress.cfm](http://www.oas.samhsa.gov/methTXpress.cfm)  
[www.matrixinstitute.org](http://www.matrixinstitute.org)
- Florida meth-related sites  
<http://www.stopmethinflorida.org/>  
<http://www.floridadec.org/>
- Mary-Lynn Brecht [lbrecht@ucla.edu](mailto:lbrecht@ucla.edu)
- Acknowledgements  
- L. Smith, R. Rawson, T. Freese, S. Larkins, N. Messina for slides