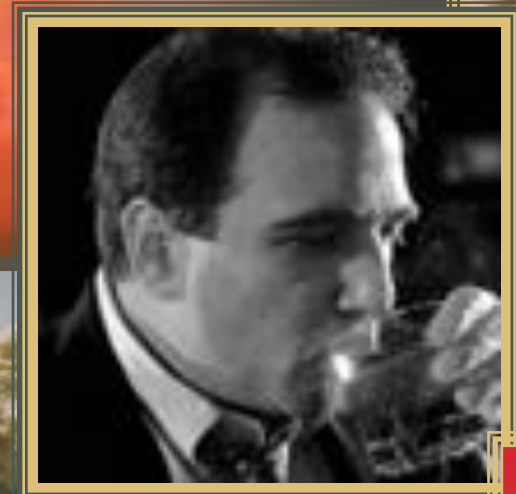
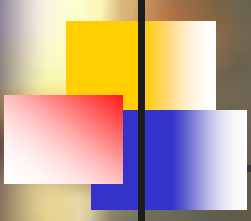
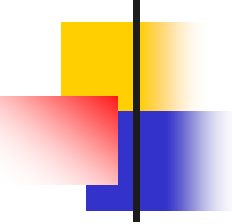


Addiction 101:

The Science of Addiction and The Nature of Recovery and Treatment



**Peter R. Cohen MD, Medical
Director, ADAA
March 17, 2010**



Facts About Addiction & Treatment

WHAT IS ADDICTION?

A BRAIN DISEASE

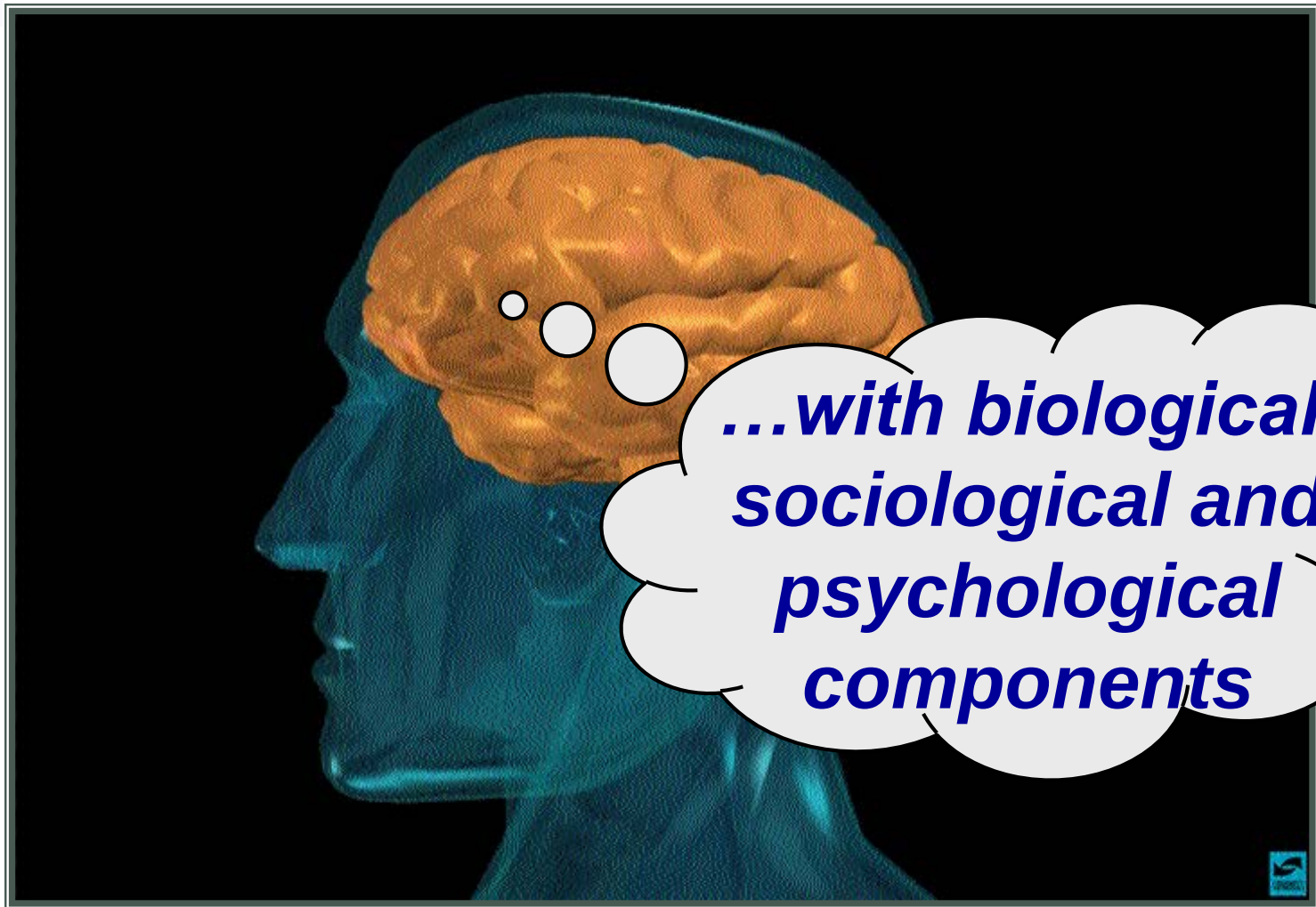
BUT WITH

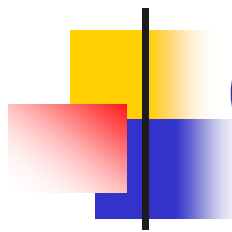
***BIOLOGICAL, PSYCHOLOGICAL &
SOCIAL COMPONENTS***

DOES TREATMENT WORK?

***YES, IT IS COST-EFFECTIVE
IN THE LONG RUN***

Addiction is a Complex Disease (CD is a CD)





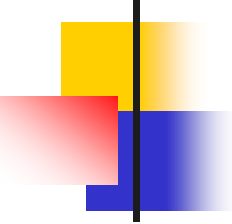
Case 1

- 37 year old man, lives with “wife” & 2 children
- Inner city, dropped out in 10th grade, skilled worker
- Parents are substance users
- 10 years heroin use IV & intranasal cocaine & alcohol
- 1 treatment: “detox” 6 years ago
- 15 years incarcerated since age 15: possession, intent to distribute, armed robbery, 3rd degree sexual offense
- Wants help: “I can’t keep living this way”

Nature of Substance Abuse



*"That is not one of the seven habits
of highly effective people."*



Three “C’s” of Addiction

Control

- Early social & recreational use
⇒ Eventual loss of emotional & behavioral control
- Cognitive distortions (denial & minimization)
- Tolerance & Withdrawal= Strictly defined CD

Compulsion

- Drug-seeking activities & Craving ⇒ Addiction
- Continued use despite adverse consequences

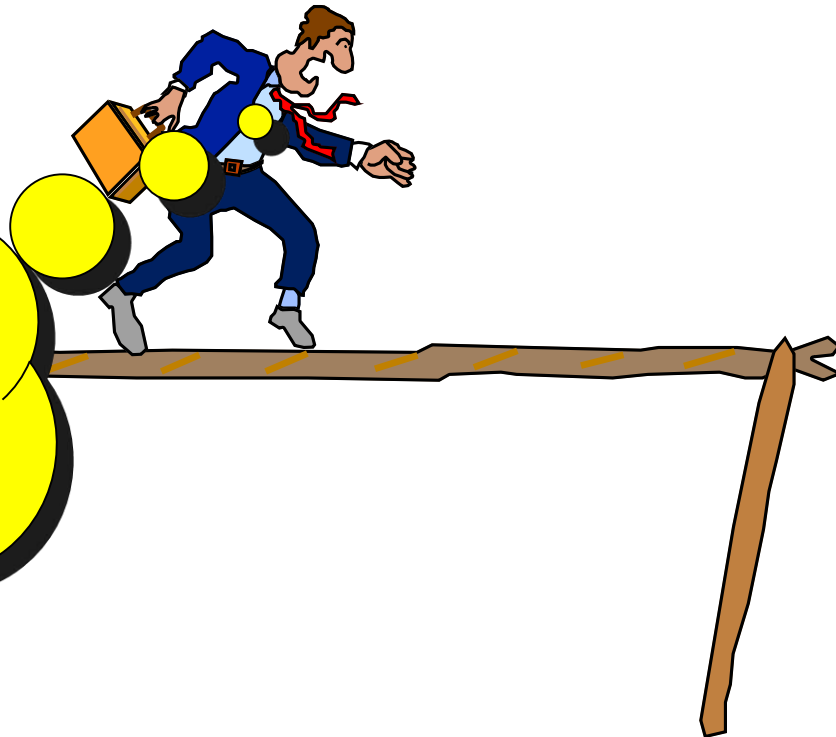
Chronicity

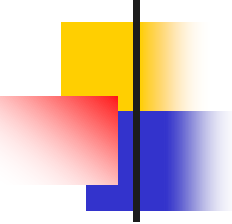
- Natural history of multiple relapses preceding stable recovery
- Possible relapse after years of sobriety

Self-Control

- Addicts seek control, not abstinence

If I can have
just one, then
I will be
normal, *just*
like my friends

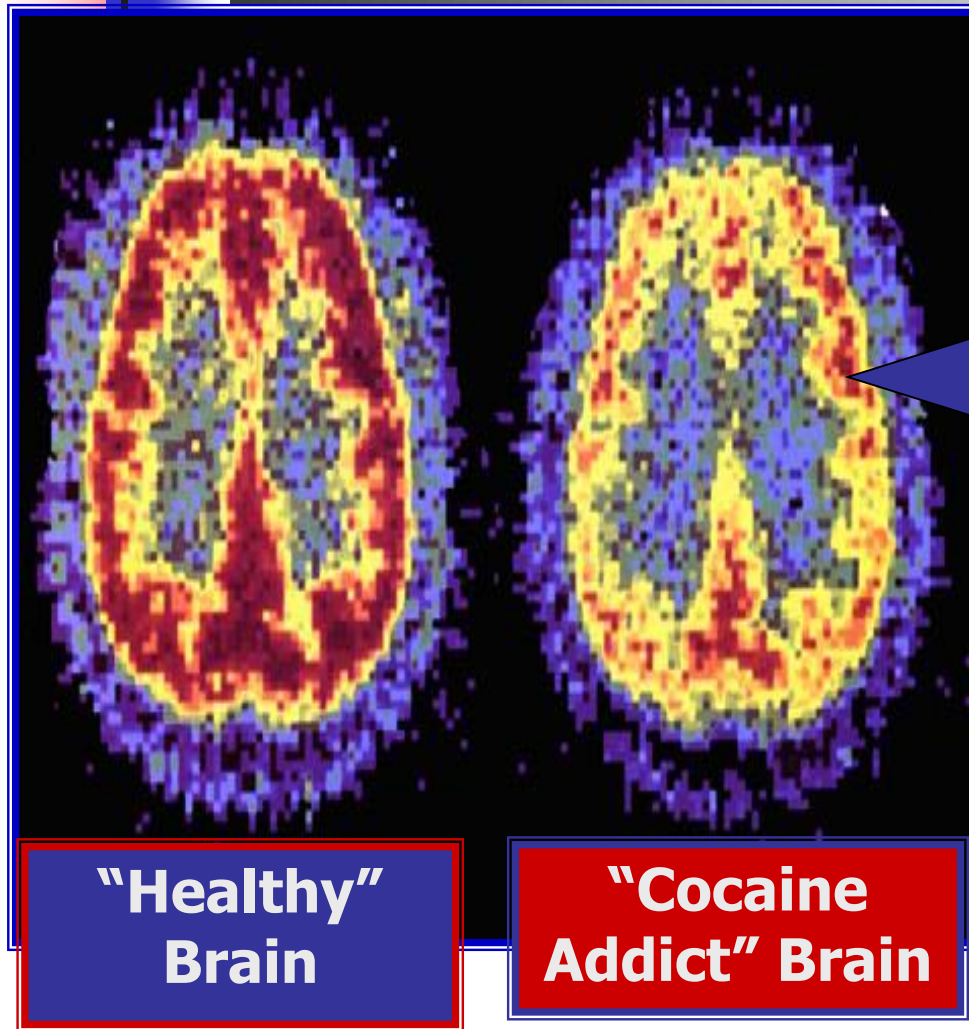




Addiction Risk Factors

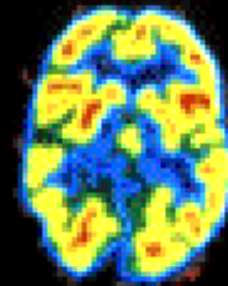
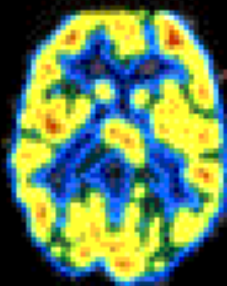
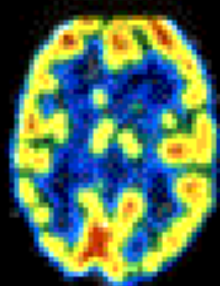
- Genetics
- Earlier Age of Onset
- Childhood Trauma (violent, sexual)
- Learning Disorders & ADD/ADHD
- Mental Illness Predating Use
 - **Depression**
 - **Bipolar Disorder**
 - **Psychosis**
 - **ADHD**

Addiction *is* a Brain Disease

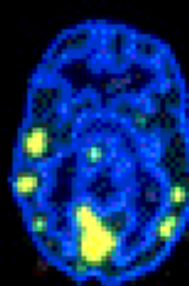
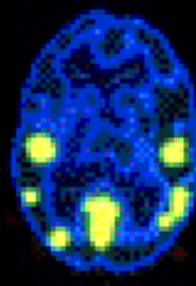
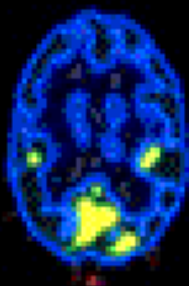


**Prolonged Use
Changes
the Brain**

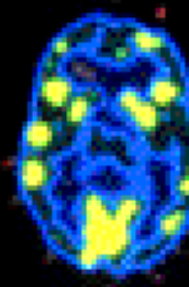
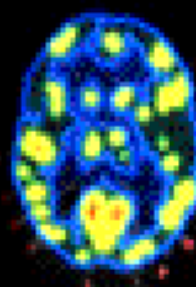
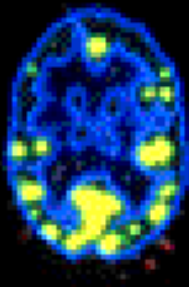
**in
Fundamental
and Lasting
Ways**



Normal

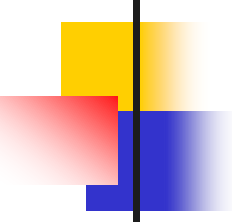


Cocaine Abuser (10 DA)



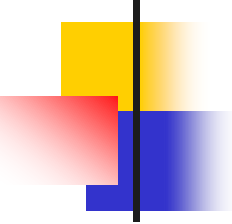
Cocaine Abuser (100 DA)





Questions 1 and 2

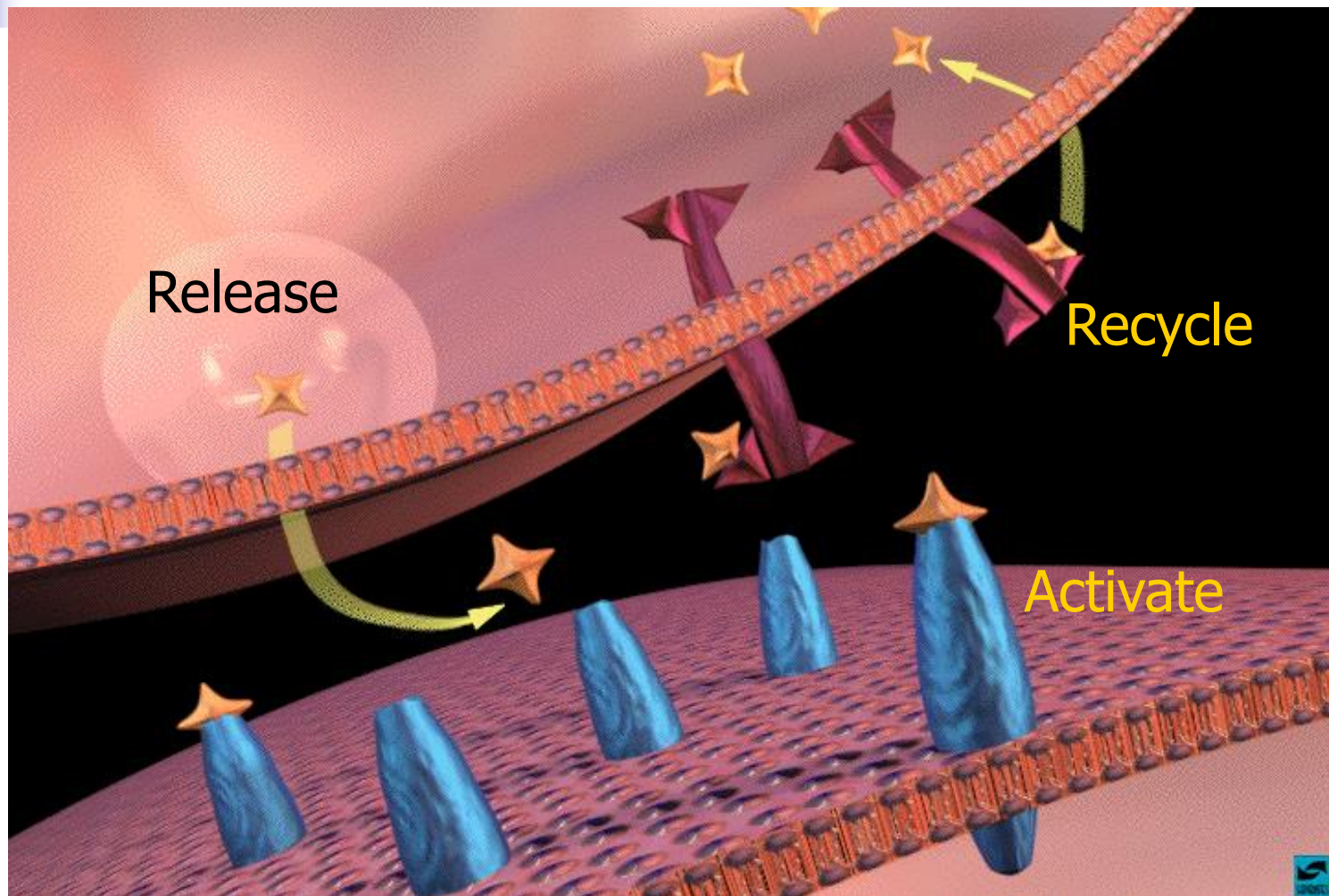
1. What are the 3 C's of Addiction?
2. True or False: "Addicts should only blame themselves for their addiction. They don't act responsibly."

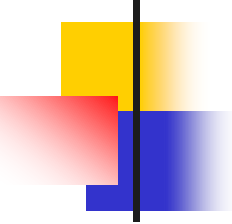


How Drugs & Alcohol Work

- **They interact with nerve circuits, centers, and chemical messengers**
- **Results**
 - ⇒ **I Feel Good – Euphoria & Reward**
 - ⇒ **I Feel “Better” – Reduce negative feelings**
 - ⇒ **This Feels “Normal”**
 - ⇒ **I’m craving it, tolerating its effects, withdrawing and feeling sick**

Dopamine Spells REWARD

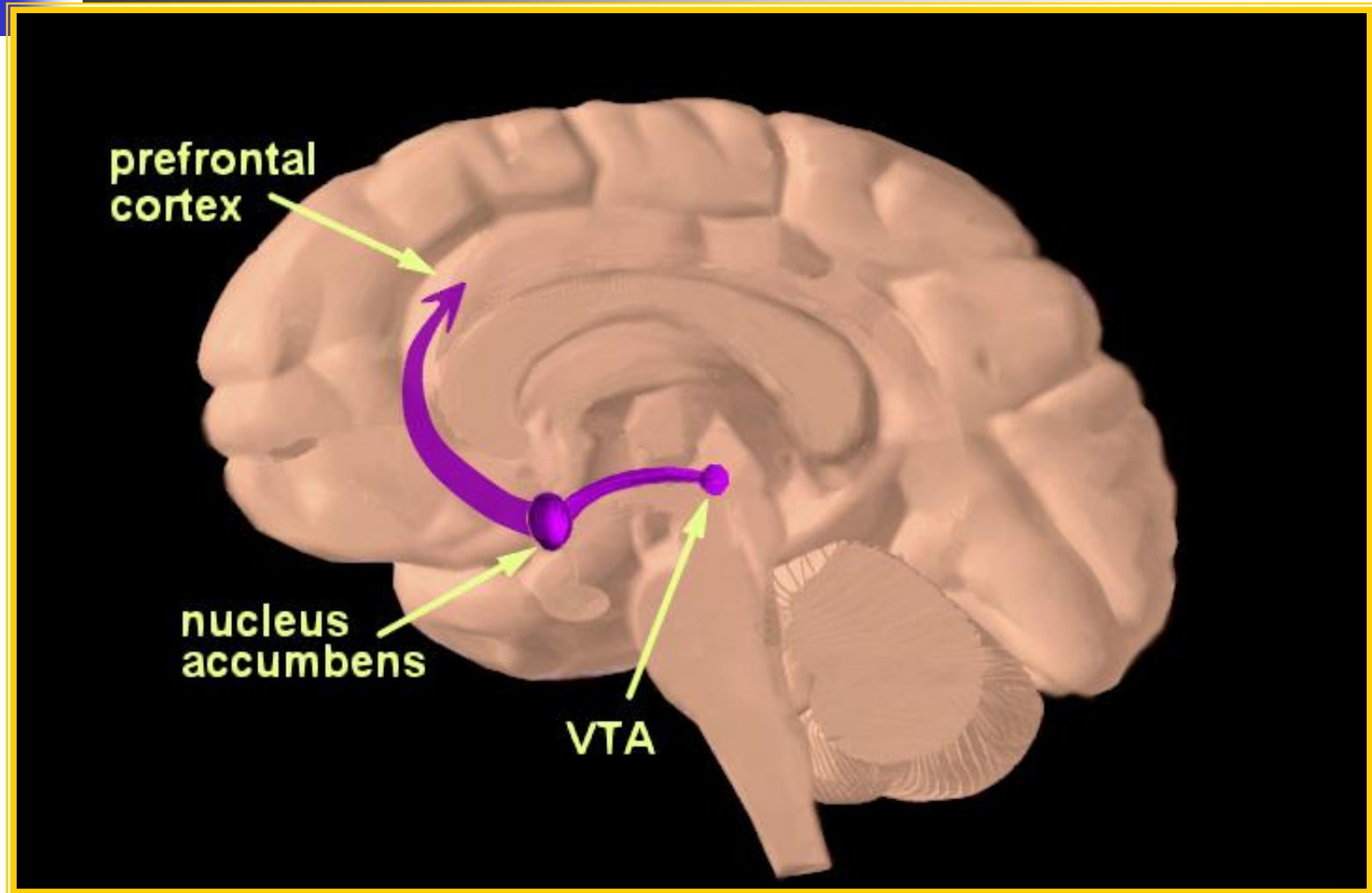




Natural Rewards

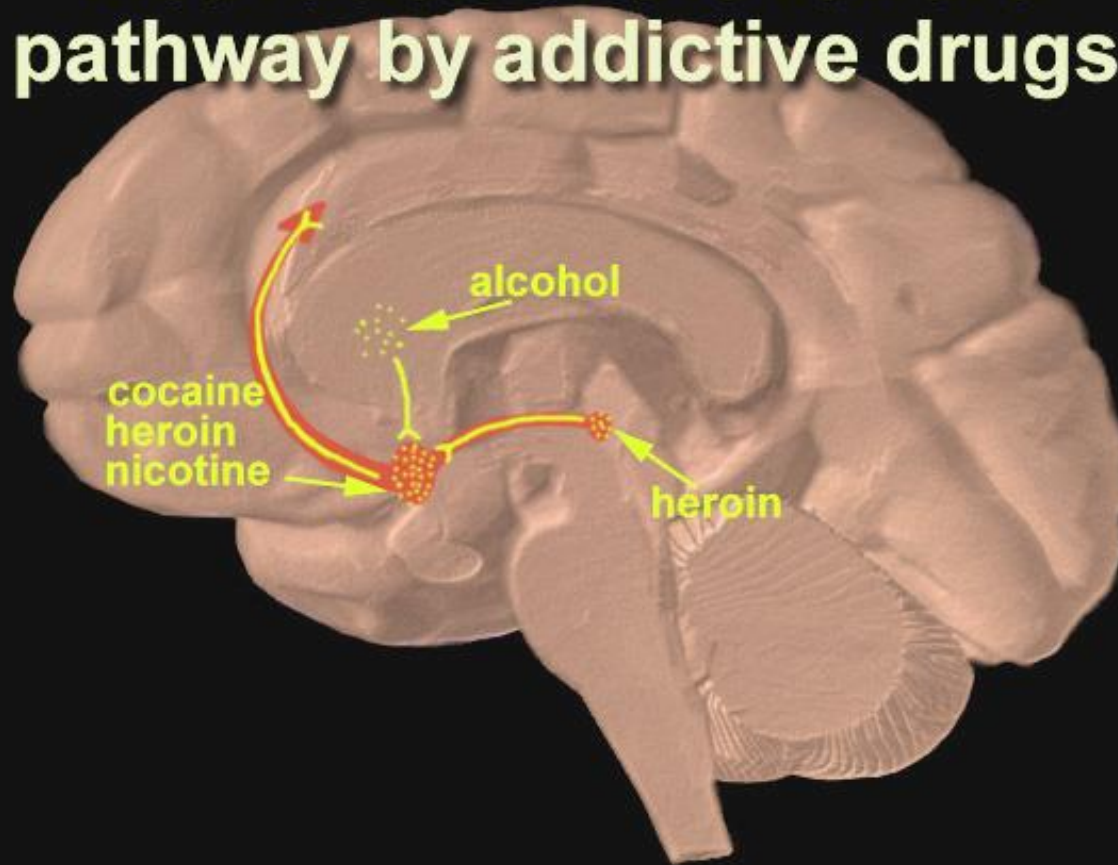
- Food
- Sex
- Excitement
- Comfort

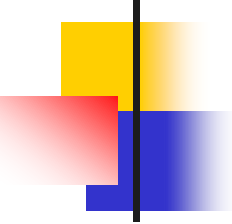
Brain Reward Pathways



Activation of Reward

Activation of the reward pathway by addictive drugs





Behavior Pathways

A rewarding behavior becomes routine



"Subconscious" control of the behavior



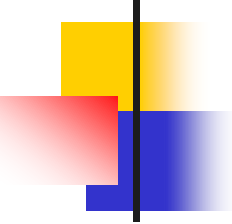
**It is hard to extinguish the behavior:
I am not always aware when it starts**



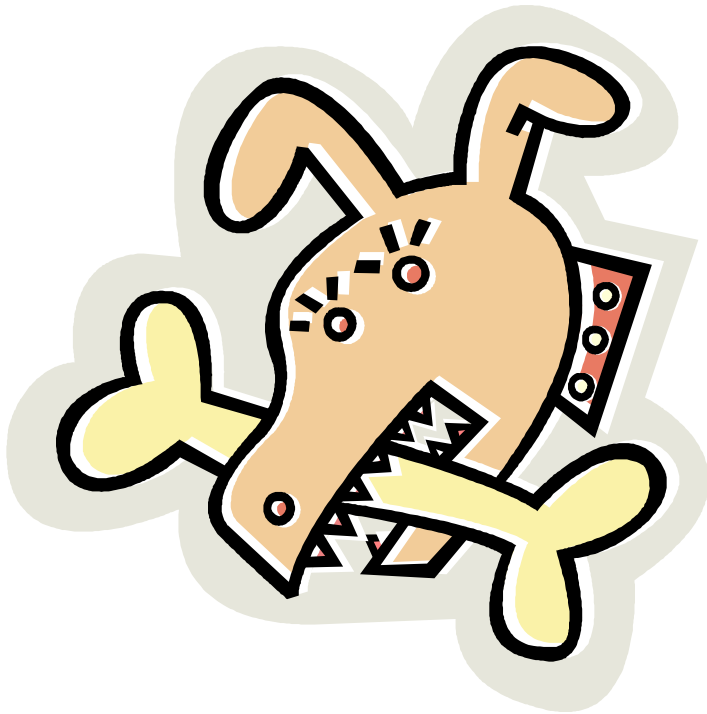
The person resists change



It is a Habit

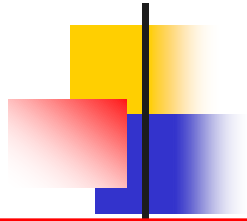


Addiction = Dog with a Bone



- It never wants to let go.
- It bugs you until it gets what it wants.
- It never forgets when and where it is used to getting its bone.
- It thinks it's going to get a bone anytime you do anything that reminds it of the bone.

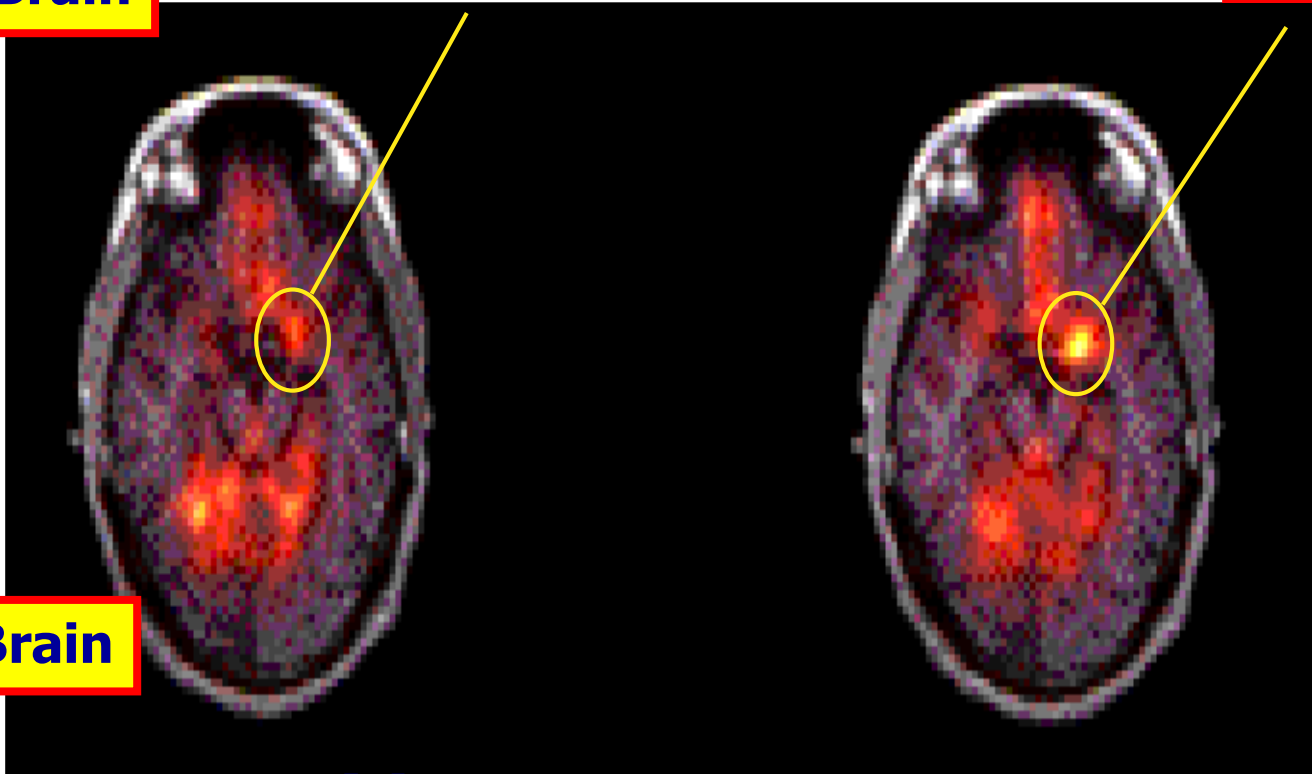
How Long Does the Brain Remember?



Front of Brain

**Amygdala
is not lit up**

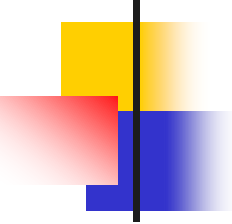
**Amygdala
is activated**



Back of Brain

Nature Video

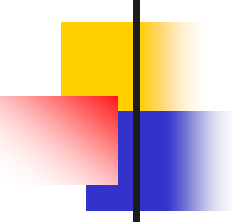
Cocaine Video



Cognitive Deficits and D&A

- **Memory** problems – short-term loss
- Impaired **abstraction**
- Perseveration using **failed problem-solving strategies**
- Loss of **impulse** control

These deficits are similar to those with brain damage



Question 3

3. What is it that makes addicted people like drugs and alcohol so much?

Commonly Abused Drugs



Alcohol

Class of Drug:
Sedatives-Hypnotics



Related Issues:

- ✓ Detoxification
- ✓ Fetal Alcohol Syndrome (FAS)
- ✓ Loss of Judgment
- ✓ Suicide/Homicide
- ✓ DWI/DUI Concerns
- ✓ Poly-drug Use
- ✓ Legality Issues

Commonly Abused Drugs

Marijuana

Class of Drug:
Hallucinogens

Related Issues:

- ✓ Lack of Motivation
- ✓ Arrested Development
- ✓ Memory & Learning Problems
- ✓ Long Detection Time
- ✓ Legalization Issues
- ✓ Medical Use Issues
- ✓ Health Issues

Commonly Abused Drugs

Cocaine/Crack

Class of Drug:
Stimulants

Related Issues:

- ✓ High-relapse Potential
- ✓ High Reward
- ✓ A Cycle: Euphoria ⇒ Agitation ⇒ Paranoia ⇒ "Crash" ⇒ Sleeping ⇒ Euthymia ⇒ Craving ⇒
- ✓ Obsessive Rituals
- ✓ Risk of Permanent Paranoia
- ✓ No Medications Currently Available

Commonly Abused Drugs

Methamphetamines

Class of Drug:
Stimulants

Related Issues:

- ✓ High Energy Level
- ✓ Repetitive Behavior Patterns
- ✓ Incoherent Thoughts and Confusion
- ✓ Auditory Hallucinations and Paranoia
- ✓ Binge Behavior
- ✓ Long-acting (up to 12 hours)

Commonly Abused Drugs

Heroin

Class of Drug:
Opiates

Related Issues:

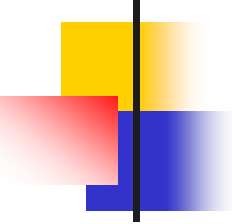
- ✓ Detoxification
- ✓ Medications Available
- ✓ Euphoria
- ✓ Craving
- ✓ Intense Withdrawal
- ✓ Physical Pain

Commonly Abused Drugs

“New Drugs”

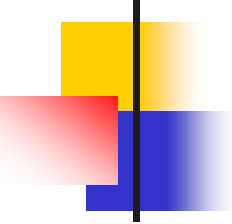
Club Drugs
Prescription Drugs

- ✓ Popular with Youth and Young Adults
- ✓ Significant Health Risks: Neuron Destruction with Ecstasy
- ✓ Users Believe They Know How to Reduce the Risks – **WRONG!**
- ✓ Use increasing for Oxycontin, decreasing for Ecstasy



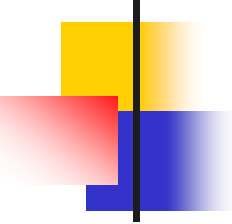
Common Characteristics of People Who are Addicted

- **Unemployed or employed**
- **Multiple or no criminal justice contacts**
- **Difficulty coping with stress or anger**
- **Highly influenced by social peer group or a loner**
- **Difficulty handling high-risk relapse situations or craves excitement**



More Common Characteristics...

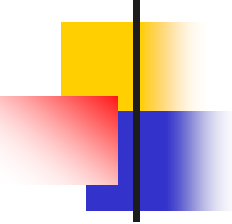
- **Emotional and psychological immaturity**
- **Difficulty relating to family**
- **Difficulty sustaining long-term relationships**
- **Educational and vocational deficits**



Violence



- **Alcohol disinhibits aggressivity**
- **Stimulants produce dose-dependent paranoia**
- **Opiate-seeking, but not opiates, produces violence**



What Are The Risks Of Becoming Addicted?

Genetic predisposition

A younger age for beginning use

Childhood trauma (violent, sexual)

Learning disorders &/or ADD/ADHD

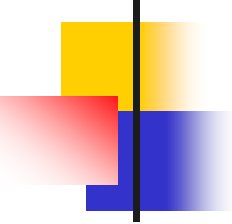
Mental illness

Depression

Bipolar disorder

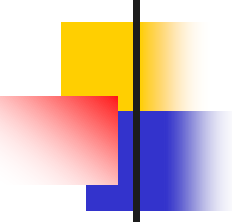
Psychosis

Personality disorder



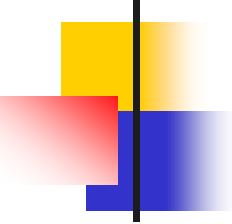
Questions 4, 5, and 6

- What are the 1st and 2nd most craved substances?
- What are the 1st, 2nd and 3rd most used substances?
- True or False: Addicted people are usually homeless, criminal, anti-social, and older than 26.



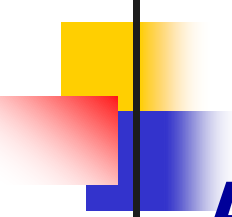
Co-Occurring Disorders

**Each Disorder Affects the Other
And
Changes The Outcome Of
Treatment**



Case 2

- 25 year old single woman pregnant with one child
- GED, wants to go to community college
- Opiate, nicotine, alcohol dependent
- Depression & anxiety since age 20
- 1 suicidal attempt
- Multiple intense & brief relationships
- CWS involved: neglect
- Close to parents, no female friends

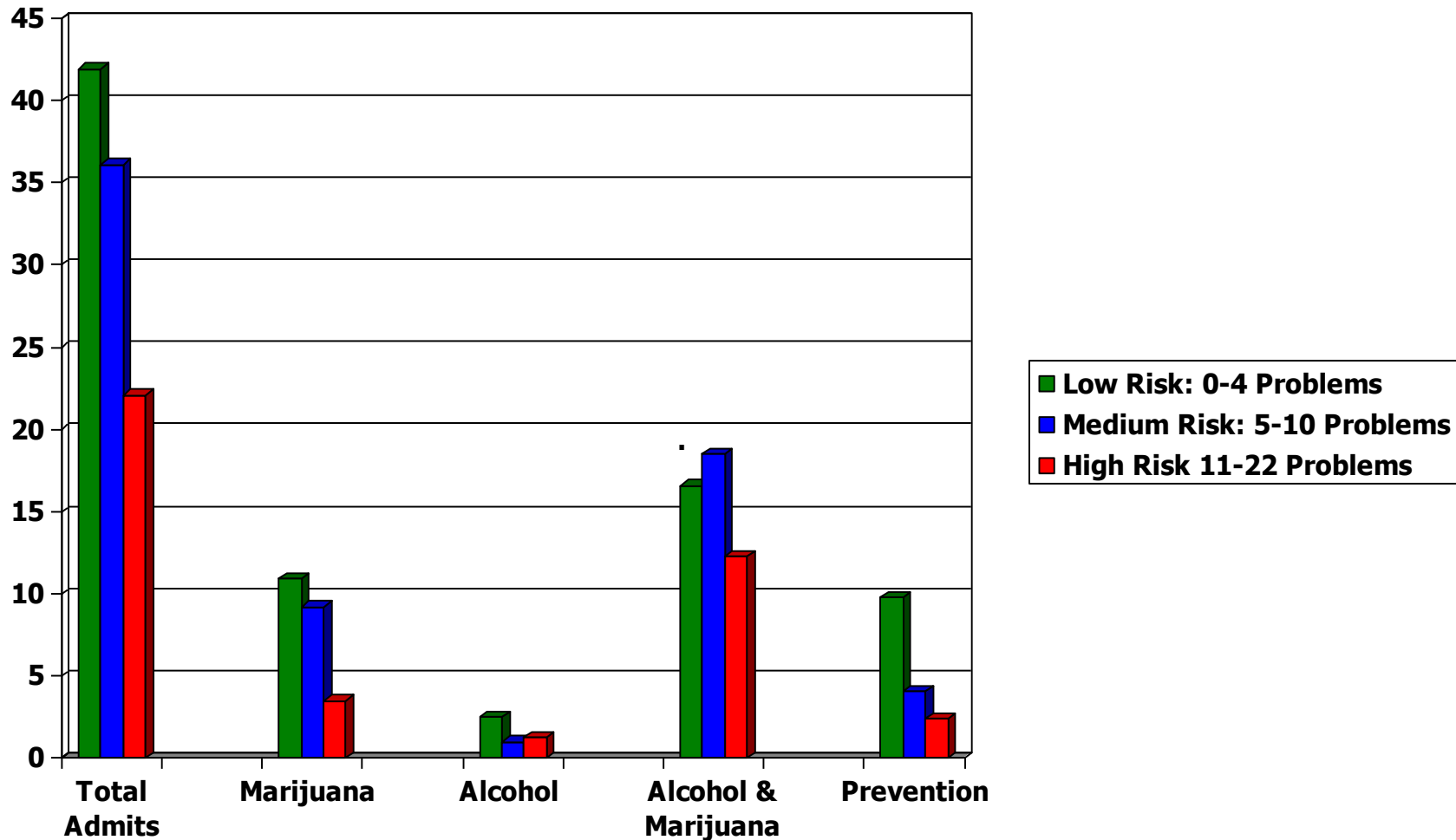


Multiaxial Diagnoses

Axis I	Clinical Disorders
Axis II	Personality Disorders & Mental Retardation
Axis III	Medical Conditions
Axis IV	Psychosocial Factors
Axis V	Global Assessment of Functioning (GAF)

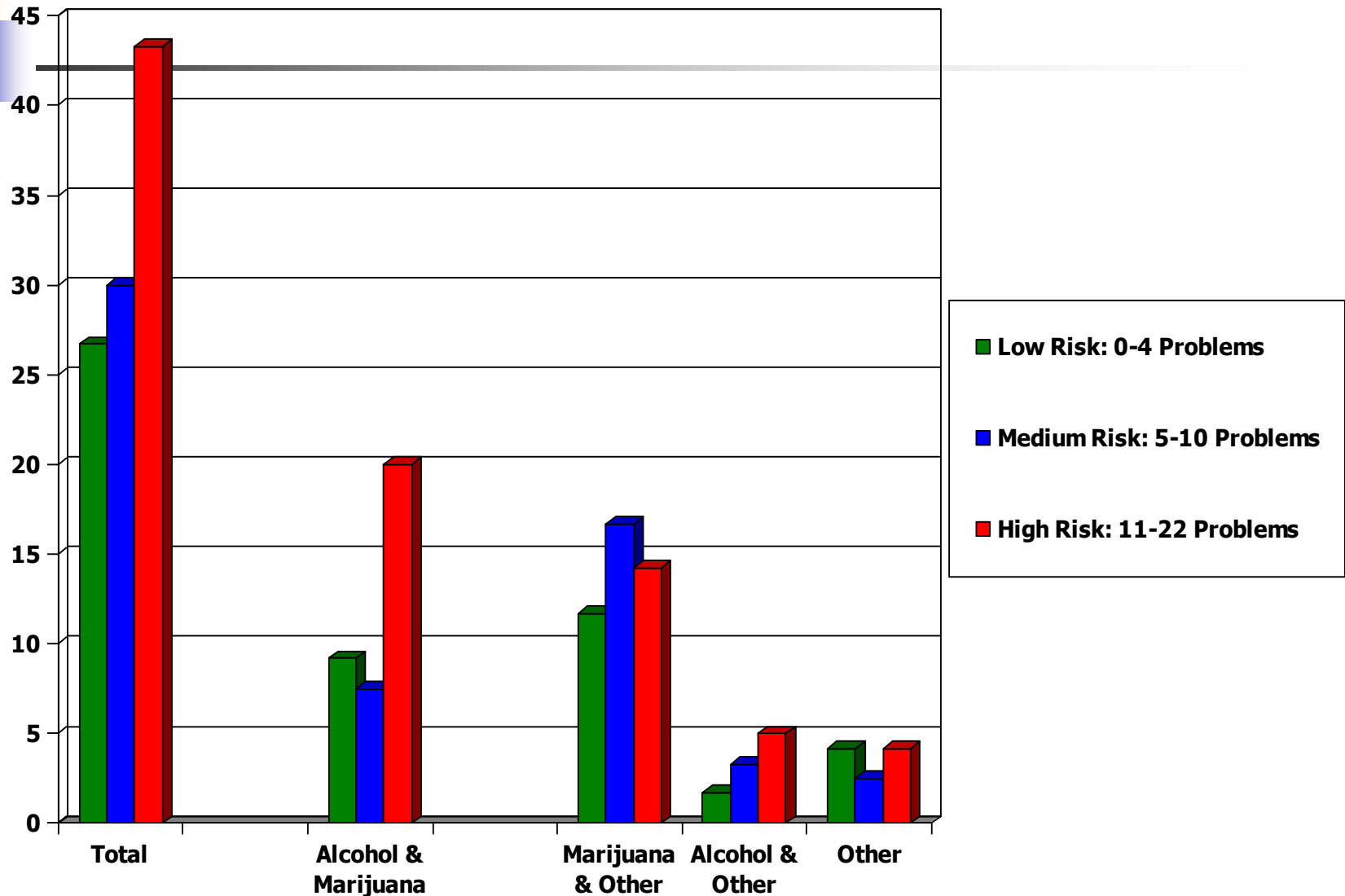
IF TEENS ABUSE SPECIFIC SUBSTANCES, WHAT'S THEIR RISK OF HAVING MENTAL HEALTH PROBLEMS?

(2004, ADAA-FUNDED, N=2957, POSIT)

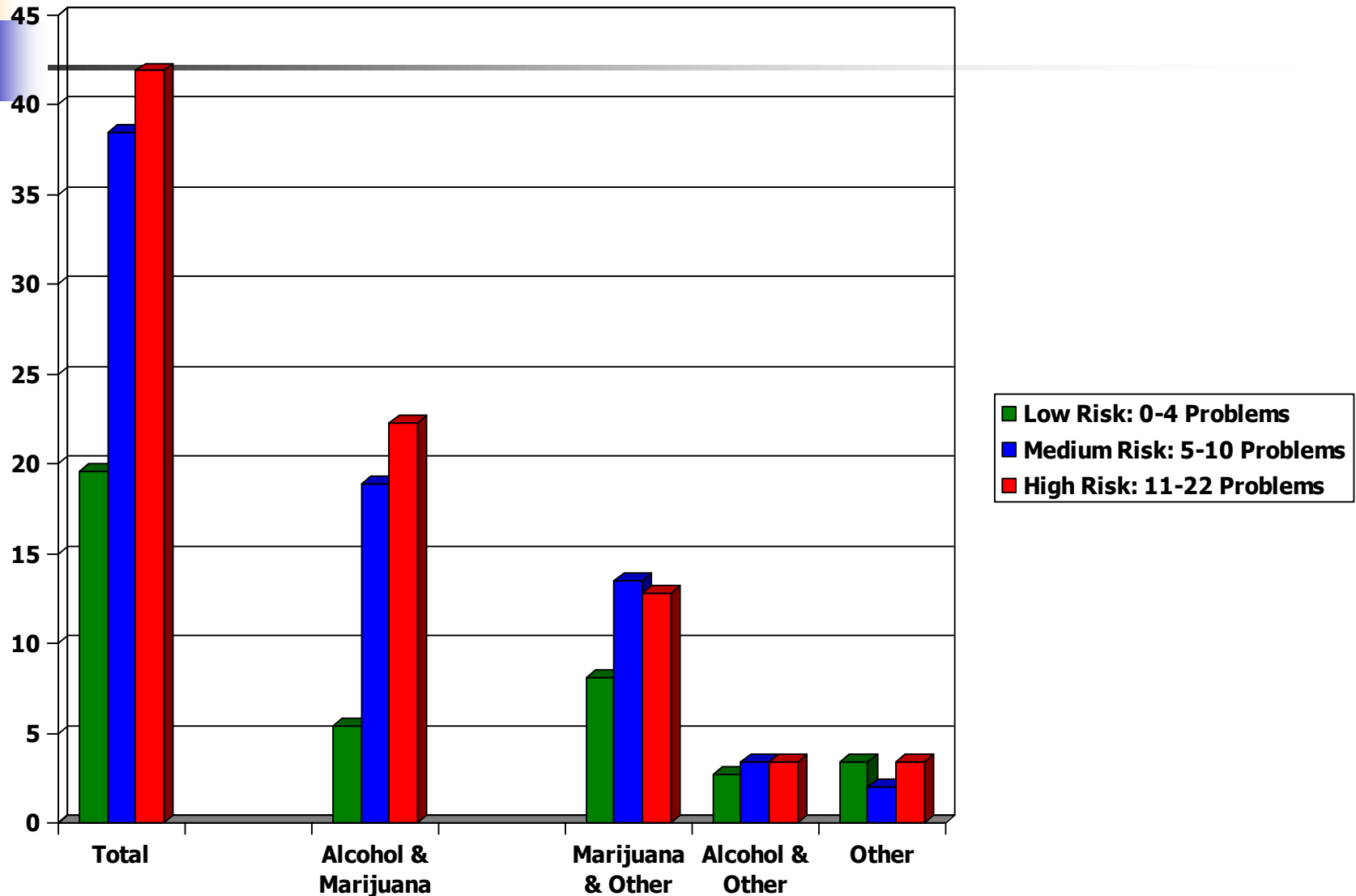


IF TEENS ABUSE COCAINE, WHAT'S THEIR RISK OF HAVING MENTAL HEALTH PROBLEMS?

(2004, ADAA-FUNDED, N=120, POSIT)



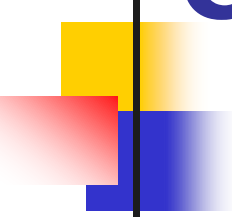
***IF TEENS ABUSE OPIATES, WHAT'S
THEIR RISK OF HAVING MENTAL HEALTH PROBLEMS?
(2004, ADAA FUNDED, N=148)***



Why Do We Need to Do More to Help People with Co-Occurring Disorders?

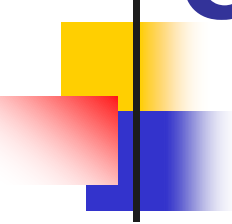


- More treatment failures & cost
- More relapse
- More re-hospitalization
- More ER visits
- More vulnerability: violence, suicide, homelessness, arrests
- More illness and earlier deaths
- More resistance to treatment



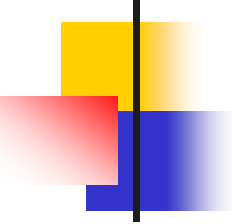
Co-Occurring Disorders = COD

- **Mood Disorder+:** 24-40% have a co-occurring substance abuse disorder
- **Alcoholism+:** 65% of females and 44% of male alcoholics have co-occurring mental health disorder(s)
 - **THE MAJOR ONE = DEPRESSION**
19% of female alcoholics, 4x the rate for men



Co-Occurring Disorders = COD

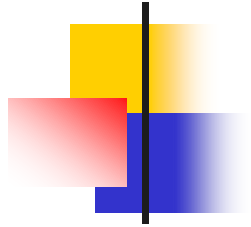
- **Addiction+:** 30-59% of women in treatment have **PTSD**, 2-3 times the rate for men
- **Prescriptions:** 1:7 women >64 years old take medication for a mental health disorder
- **Don't Forget Physical Effects:**
body/brain breakdown



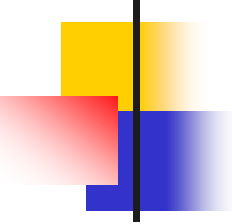
Questions 7 and 8

True or False: most addicted people have co-occurring disorders.

True or False: the social and clinical outcomes for people with co-occurring disorders is worse than for those with primary substance abuse or addiction.



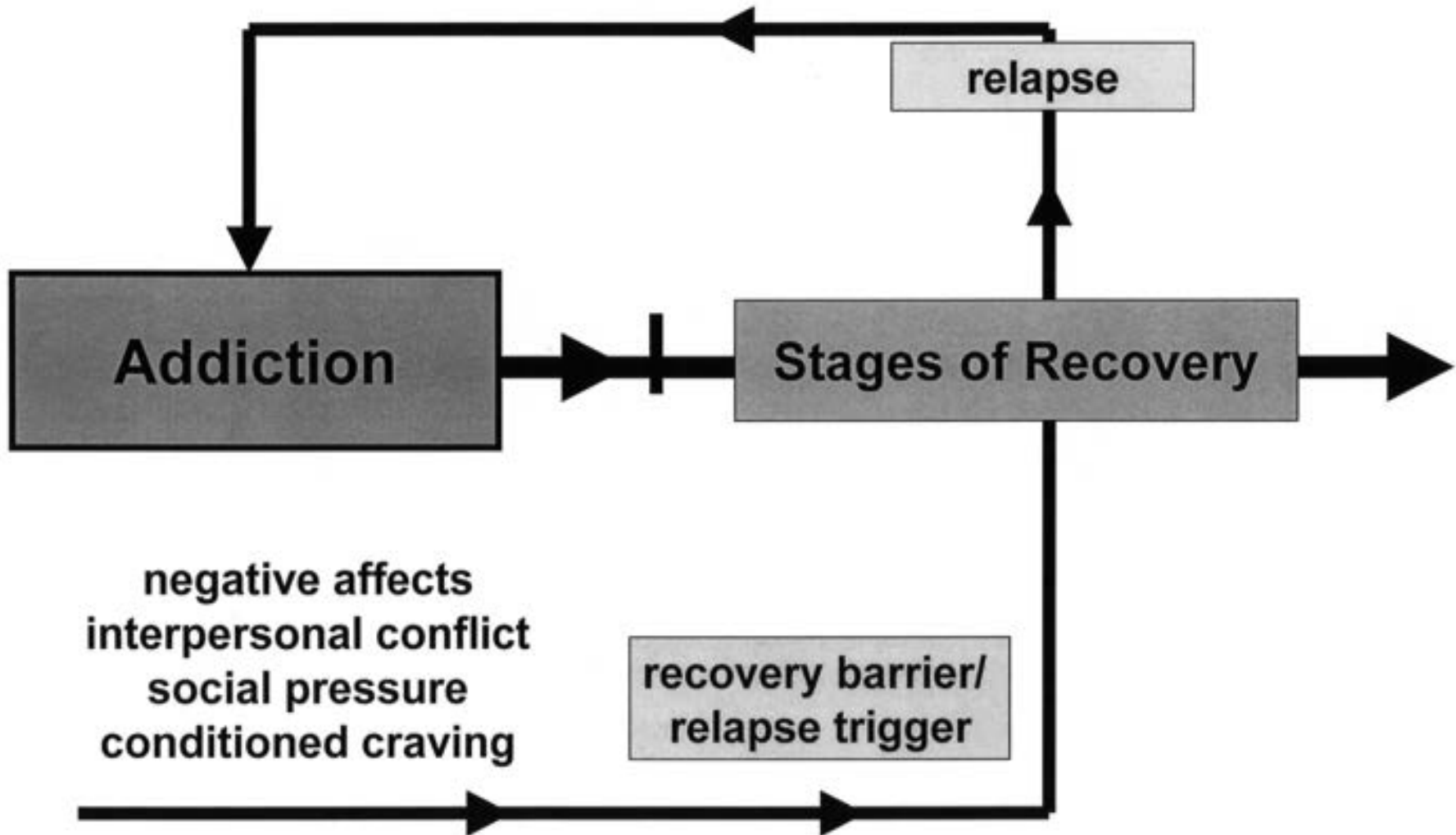
TREATMENT WORKS



How Can We Enable Recovery?

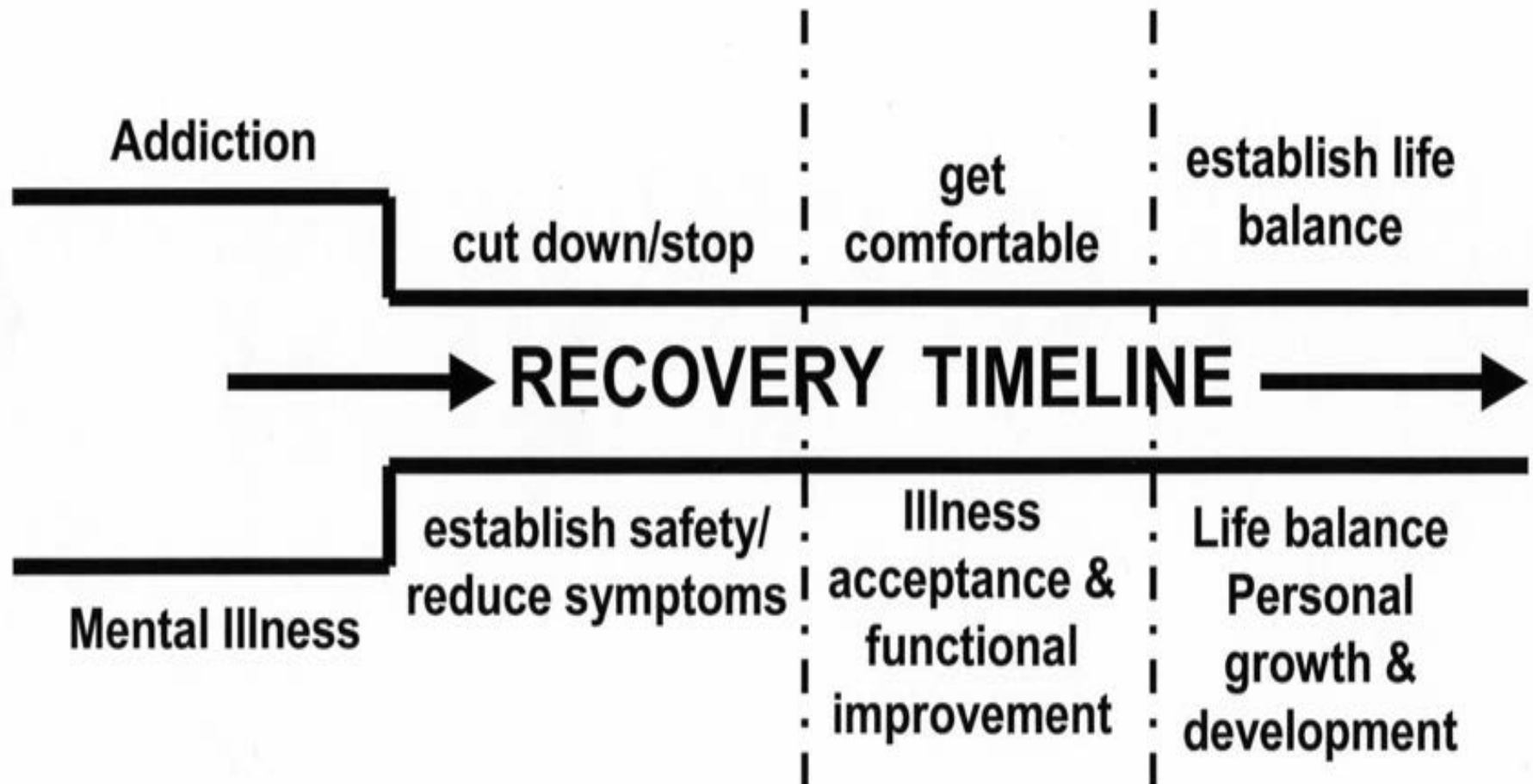
- Education
- Curiosity
- Setting reasonable and legal limits
- Patience
- Humility
- Organizing a system of care
- Avoid scapegoating and stigmatization

Integrated Recovery Model



Thanks to David R. McDuff 2005

Integrated Recovery Model



Parallel Timeline

**First
Use**

**Heavy
Use**

**Problem
Use**

Addiction

**Recovery
Plan**

Substance Use & Treatment History

Anxiety, Mood, Sleep, Attention History

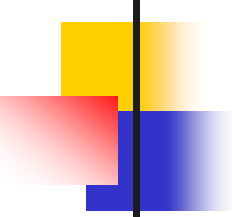
Developmental, Loss, Trauma History

Legal History

Medical History

Current Age

Thanks to David R. McDuff 2005



To Recover Or Discover?

A process of growing

Accepting the illness

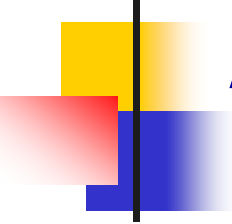
**Making healthy choices about
treatment and living in the world**

Being motivated and hopeful

What is Recovered in Recovery ?

- **Abstinence**
- **Sense of Responsibility**
- **Range of Emotions**
- **Intimacy**





Abstinence and Sobriety

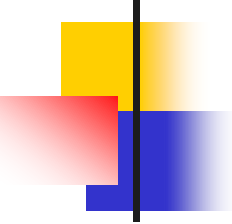
Abstinence

Stopping Alcohol Or Illicit Substance Abuse For
A Period Of Time



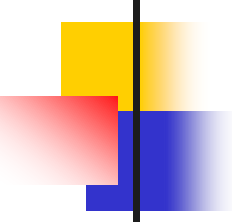
Sobriety

A Lifestyle Based On Treatment
And Personal Change



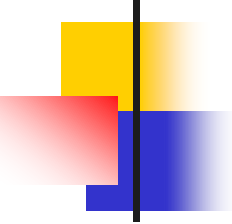
Phases of Recovery

- **Crisis**
- **Stability and Structure**
- **Consistency and Balance**
- **Attachment and Intimacy**



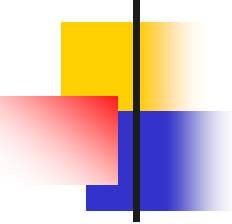
What Complicates Recovery?

- Socio-economic
- Single parent
- Ethnic
- Matriarch/
Patriarch
- Gender
- Religion
- Treatment method
- Co-dependency
- Employment
- Domestic violence
- Living situation
- Extended family



Question 10

- Which is not true?
 - A. Professionals need a timeline to help plan someone's recovery
 - B. Most people who are in treatment are in the crisis stage
 - C. People with sobriety are usually abstinent
 - D. Recovery is a process, not a goal

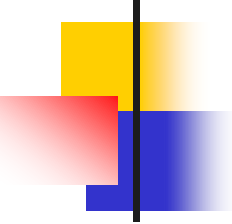


Who needs treatment?

13 to 16 million Americans need treatment for alcohol and/or other drug abuse in any year

BUT...

Only 3 million receive care



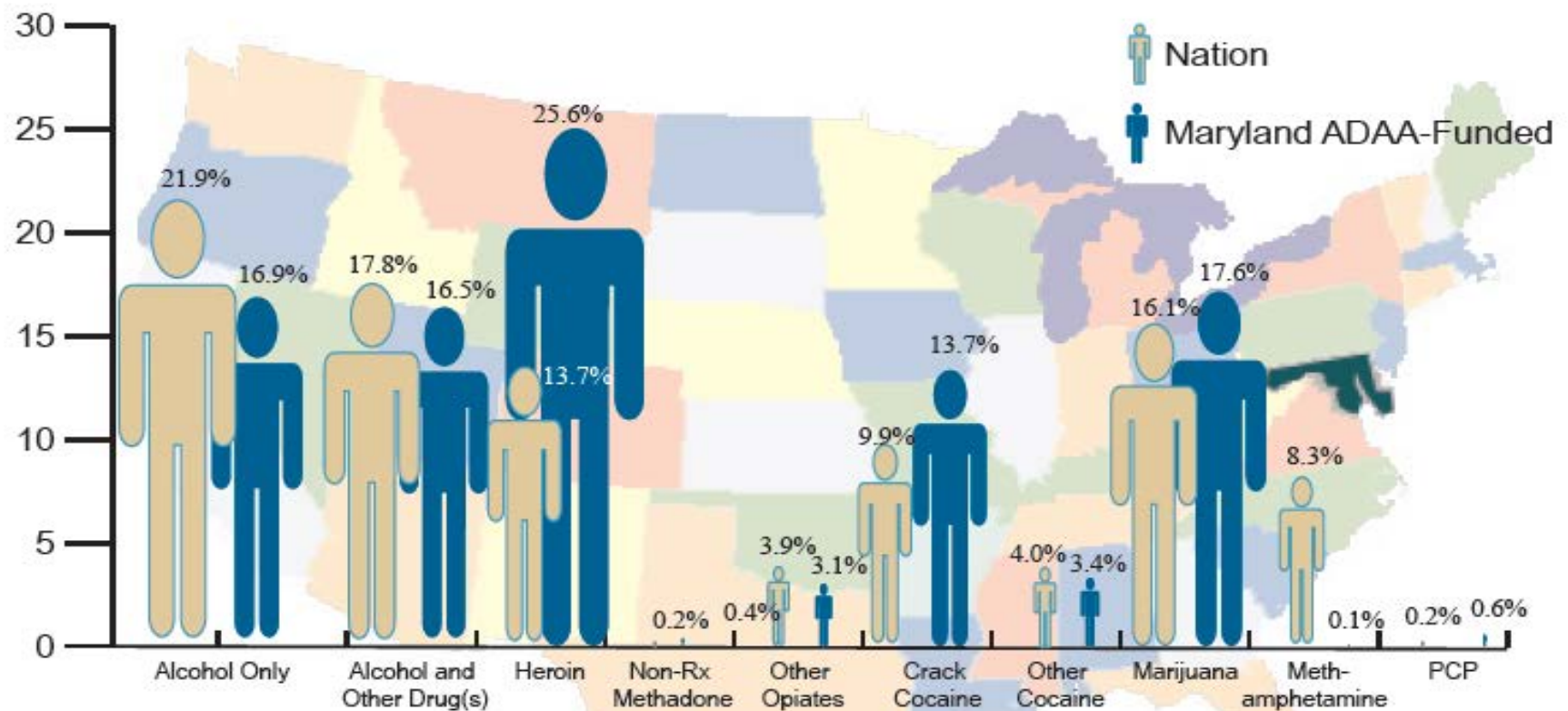
In Maryland FY2005

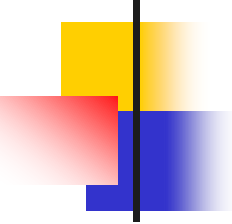
- ~ 290,000 Maryland adults need alcohol or drug treatment vs. 76,538 admissions to treatment (~26%)
- Young adults 18 to 25 have the highest unmet need for alcohol and drug treatment in the state
- Estimated Costs Per Year
 - Alcohol abuse > \$3 billion
 - Illicit drug abuse > \$2 billion

How Maryland Compares to the Nation

Primary Substance Problem

Calendar Year 2006

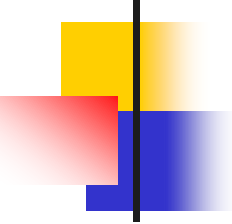




This is a Public Health Problem

- Drug & alcohol treatment is disease prevention
- HIV infection in injecting drug users: **6x** greater without treatment
- >90% injection drug users are infected with Hepatitis C virus

Why Not Harm Avoidance?



Matching Treatment with the Individual's Needs

- No single treatment is appropriate for all individuals
- Effective treatment attends to multiple needs of the individual, not just his or her drug use
- Treatment must address medical, psychological, social, vocational, and legal problems =

MULTI-SYSTEMIC AND MULTI-MODAL

Choose The Level of Care

LOCUS
LEVEL OF CARE UTILIZATION SYSTEM
FOR
PSYCHIATRIC AND ADDICTION SERVICES

Adult Version 2010

AMERICAN ASSOCIATION
OF COMMUNITY PSYCHIATRISTS

March 20, 2009

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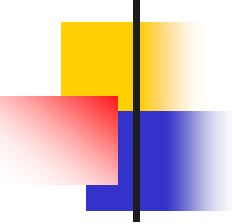
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ASAM

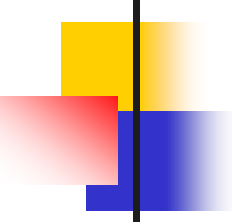
**Patient Placement
Criteria 2nd Edition**

PPC-2



ASAM CRITERIA (AMERICAN SOCIETY OF ADDICTION MEDICINE)

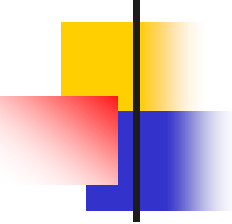
- DEVELOPED OVER 17 YEARS
- ADMISSION, CONTINUED SERVICE AND DISCHARGE CRITERIA
- SEPARATE CRITERIA FOR ADOLESCENTS AND FOR ADULTS
- DETOXIFICATION SERVICES ARE CONSIDERED AT EACH LEVEL OF CARE



ASAM CRITERIA (AMERICAN SOCIETY OF ADDICTION MEDICINE)

FIRST: Assess Six Dimensions

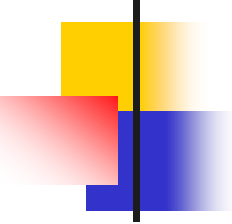
- I. Acute Intoxication and/or Withdrawal Potential**
- II. Biomedical Conditions**
- III. Emotional/Behavioral Conditions & Complications**
- IV. Treatment Acceptance/Resistance**
- V. Relapse/Continued Use Potential**
- VI. Recovery/Living Environment**



ASAM CRITERIA (AMERICAN SOCIETY OF ADDICTION MEDICINE)

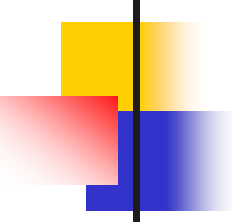
SECOND: Choose the Level of Care

- **Early intervention**
- **Outpatient Treatment**
- **Intensive outpatient or partial hospitalization**
- **Residential/Inpatient Treatment: 4 sublevels**
- **Medically Managed Intensive Inpatient Treatment**
- **Opioid Maintenance Therapy**



ASAM CRITERIA (AMERICAN SOCIETY OF ADDICTION MEDICINE)

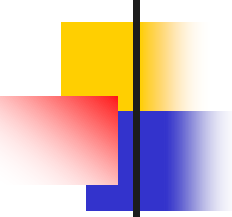
- ASAM DEFINES THE CHARACTERISTICS
OF EACH LEVEL PROGRAM BY
 - EXAMPLES OF PROGRAM TYPES
 - SETTING (Location)
 - SUPPORT SYSTEMS
 - STAFF NEEDED
 - THERAPIES OFFERED
 - ASSESSMENT AND TREATMENT PLAN REVIEW
 - DOCUMENTATION REQUIRED
 - ADMISSION, CONTINUED SERVICE AND
DISCHARGE CRITERIA



What Next?

THIRD: Create a Treatment Plan

- **Goals**
- **Treatment priorities**
- **Types of counseling & education**
- **Detoxification**
- **Treatment priorities**
- **Recovery supports, including self-help groups**
- **Coercion**

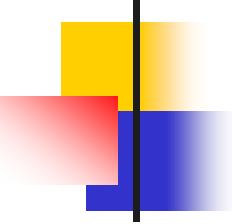


Coercion

Treatment does not need to be voluntary to be effective

- Court-Ordered Probation
- Family Pressure
- Employer Sanctions
- Medical Consequences





Self Help

- Complements and extends treatment efforts, but it is not treatment
- Most commonly used models include 12-Step (AA, NA) models
- Most treatment programs encourage self-help participation during/after treatment

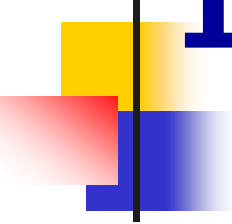
12-Step Groups

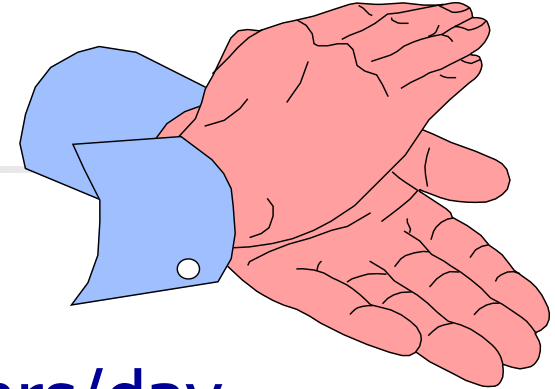
■ Myths

- Only AA can treat alcoholics
- Only a recovering individual can treat an addict
- 12-step groups are intolerant of prescription medication
- Groups are more effective than individual support because of confrontation



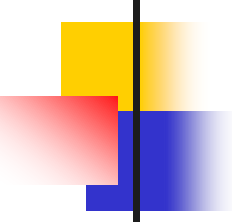
12-Step Groups





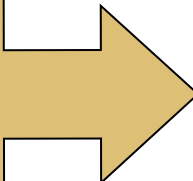
■ Facts

- Available 7 days/week, 24 hrs/day
- Work well with professionals
- Primary treatment modality is fellowship (identification)
- Safety and acceptance predominate over confrontation
- They offer a safe environment to develop intimacy

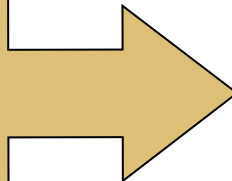


Counseling and Other Behavioral Therapies

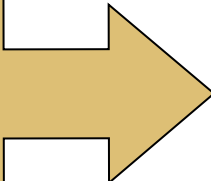
**Drug
Resisting
Skills**



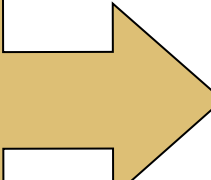
**Problem-
solving
Skills**



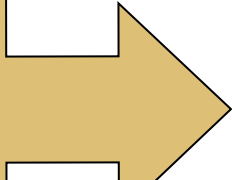
**Replacing
Drug Using
Activities**

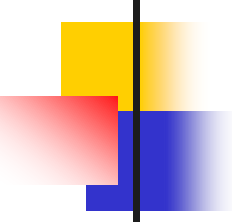


**Motivational
Enhancement
Counseling**



**Building
Interpersonal
Relationships**



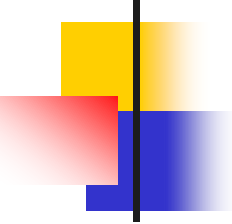


Medical Detoxification

- Medical detoxification is only the first stage of addiction treatment
- By itself, it does little to change long-term drug and alcohol use
 - There are high post-detoxification relapse rates
 - **Detoxification is not a cure!**
 - It prepares the person for further care

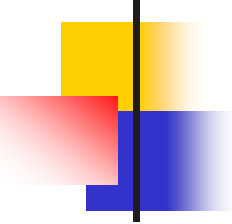


- Alcohol: Naltrexone (oral and injectable), Disulfiram, Acamprosate
- Opiates: Naltrexone, Methadone, Buprenorphine
- Nicotine: Nicotine replacement (gum, patches, spray, inhaler), Bupropion, Varenicline
- Stimulants: [None to date]



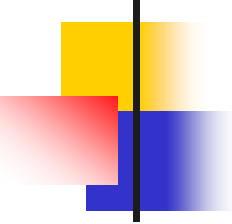
When Should We Suggest Medications?

- **“Nothing works”:** Psychosocial interventions are not effective for abstinence or reduced drinking
- **“I’ve got to stop”:** An immediate serious need to stop or reduce drinking
- **“Just help me stop”:** The patient wants to stop or reduce drinking but not interested or able to start counseling or self-help
- **“Thanks for the meds. I’ll get it under control”:** Unable to accept the idea of a chronic disease



Why Recommend a Medication?

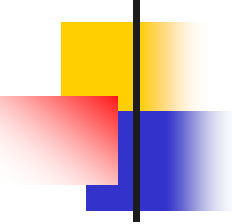
- **Reduced drinking leads to abstinence**
- **Helps the motivated person stay abstinent when severe consequences for relapse**
- **Allows for time to**
 - **Learn coping skills**
 - **Build a social network**
 - **Re-establish intimate relationships**



Why Don't People Take Medications Regularly?

Poor Adherence Because

- Medication “doesn't seem to work”
- Irrational worries about side effects and safety
- Side effects, especially early onset
- Complicated or frequent dosing
- Relapses: unintentional forgetting, reduced motivation
- Expense
- Believes that AA and NA discourage medications: not true



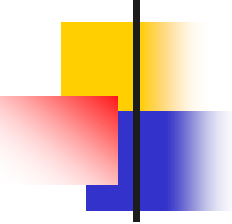
Myths of Addiction Treatment

- Myth of Self-Medication
 - Treating just the “underlying” disorders tends not to work
 - Depression doesn’t make you drink
 - Drugs do make you feel good at first
 - But you feel less and less good and feel worse and more over time

“I Was Medicating My Disease”

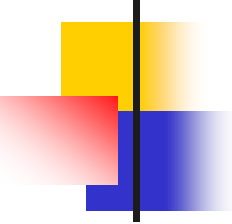
“I Wasn’t Medicating My Problems...”

“They Only Got Worse”



Myths of Addiction Treatment

- **Myth of Self-Medication**
- **Myth of Character Weakness**
 - Weakness or will power has little to do with becoming addicted
 - Even the “educated and strong” from all walks of life succumb to drugs and alcohol

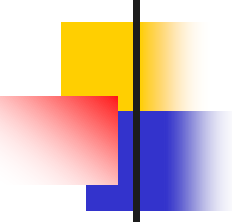


Myths of Addiction Treatment

- Myth of Self-Medication
- Myth of Character Weakness
- Myth of Holding One's Liquor
 - The "Wooden Leg" Syndrome

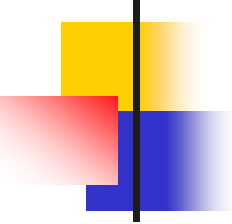
IT DOES NOT PREDICT
IMMUNITY TO ALCOHOLISM

IT PREDICTS ALCOHOLISM



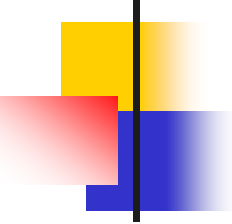
Myths of Addiction Treatment

- Myth of Self-Medication
- Myth of Character Weakness
- Myth of Holding One's Liquor
- Myth of Detoxification
 - Becoming abstinent is easy
 - Staying sober is incredibly difficult



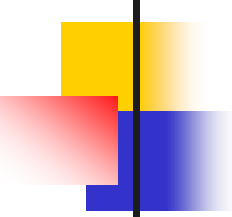
Myths of Addiction Treatment

- Myth of Self-Medication
- Myth of Character Weakness
- Myth of Holding One's Liquor
- Myth of Detoxification
- Myth of Brain Reversibility
 - Addiction produces permanent neurotransmitter and chemical changes
 - "Kindling" increases risk of permanent paranoia, hallucinations (from alcohol and stimulants), and emotional explosiveness



Myths of Addiction Treatment

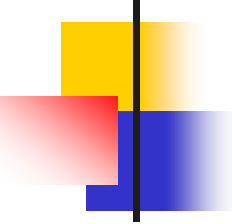
- Myth of Self-Medication
- Myth of Character Weakness
- Myth of Holding One's Liquor
- Myth of Detoxification
- Myth of Brain Reversibility
- Myth of Purification and Perfection



The Myth of Purification and Perfection

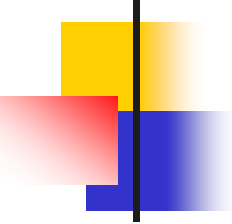
Five Myth-Conceptions

- Recovery means “detoxification”
- Purification is a means not an end
- Recovery as a developmental process is irrelevant
- Scientific research and the science of addiction has no bearing
- Drug-free treatment means NO opioid maintenance no matter how many relapses.
You don't treat addiction with an addicting drug



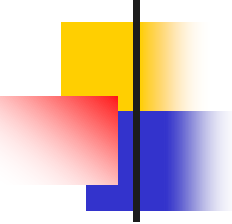
Question 11

- True or False:
 - Alcoholics can be taught to hold their liquor
 - Even if addicts learn that they are self-medicating, they still won't stop using
 - The brain can get back to normal if one is recovering over time
 - Most opiate addicts don't need to be on methadone
 - My alcoholic father has no will to stop



Let Facts & Humility Get in the Way of Ideology & Unfounded Theory

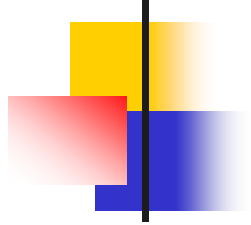
- Craving and relapse represent how the brain has a stubborn switch that is stuck
- The potential for relapse is lifelong
- Opiate cravings are lifelong and vary in intensity over time
- People respectfully treated at their stage of development do better
- When cravings interfere with treatment, strategic treatment with OMT brings better outcomes
- Patients on OMT who look impaired need medical and treatment attention



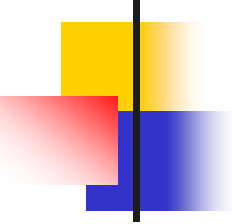
So...

- **Treatment must be medically & scientifically driven: “Show me the research!”**
- **“Drug-free” treatment is appropriate at a specific developmental stages of recovery for some, but not all, patients**
- **Condemning patients who are OMT patients is stigmatizing and does not promote recovery**
- **There is no debate...let’s respect the humanness of people suffering and treat them**

...Cut the person a break

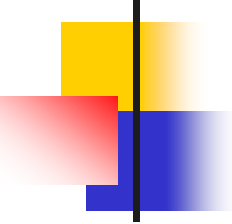


**TREATMENT IS
COST-EFFECTIVE**

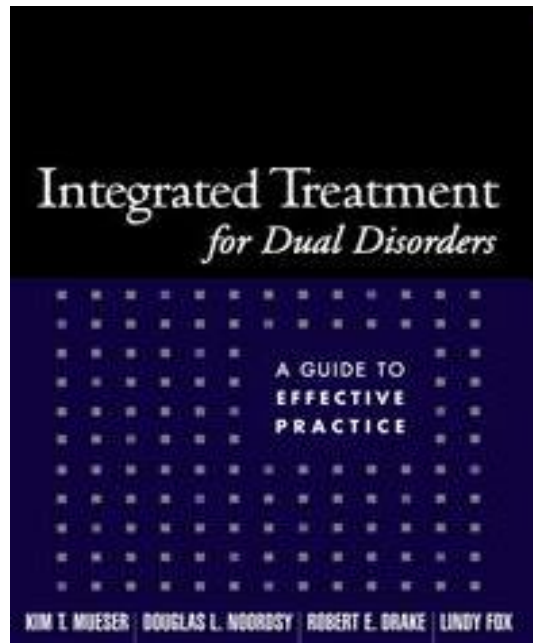


What The Treatment Community Needs to Do: Long-Term Goals

- Foster a Learning Culture
- Be Organized
- Be Predictable
- Measure Outcomes
- Communicate with Other Agencies
- Base Treatment on Evidence and A Manualized Approach
- Integrate Services



Choose a Manual



Keep Fidelity to a Model of Treatment

Co-Occurring Disorders: Integrated Dual Disorders Treatment

Implementation Resource Kit



DRAFT VERSION
2003

Integrated Dual Disorders Treatment Fidelity Scale

This document is intended to help guide you in administering the Integrated Dual Disorders Treatment (IDDT) Fidelity Scale. In this document you will find the following:

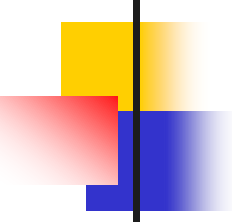
Introduction

The introduction gives an IDDT overview and a who/what/how of the scale. There is also a checklist of suggested activities for before, during, and after the fidelity assessment that should lead to the collection of higher quality data, more positive interactions with respondents, and a more efficient data collection process.

Protocol

The protocol explains how to rate each item. In particular, it provides:

1. A definition and rationale for each fidelity item. These items have been derived from comprehensive, evidence-based literature.
2. A list of data sources most appropriate for each fidelity item (e.g., chart review, program leader interview, team meeting observation). When appropriate, a set of probe questions is provided to help you elicit the critical information needed to score the fidelity item. These probe questions were specifically generated to help you collect information from respondents that is free from bias such as social desirability.
3. Decision rules will facilitate the correct scoring of each item. As you collect information from various sources, these rules will help you determine the specific rating to give for each item.



The Six C's of COD: Making Treatment Work

Combine

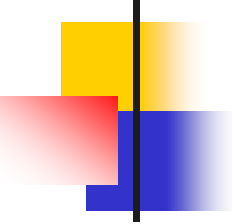
Compute

Crosstrain

Care

Compensate

Collaborate



Treatment Effectiveness

- Drug dependent people who participate in drug treatment

↓ Drug use

↓ Criminal activity

↑ Employment

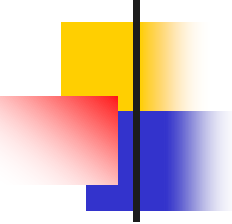
↑ Social and intrapersonal functioning

↑ Physical health

- Drug Use & Criminal Activity

↓↓ For virtually all who enter treatment ⇒

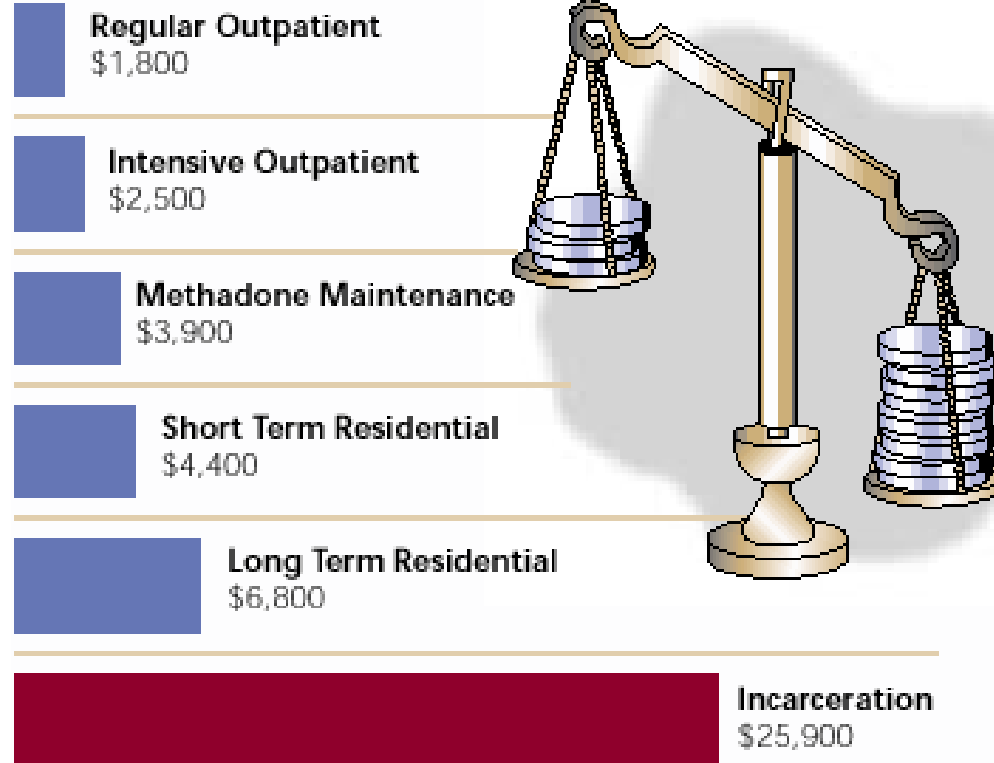
↑↑ results the longer they stay in treatment



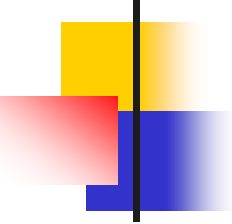
“Costly” or “Cost-Effective”

- **Incarceration is Expensive**
Treatment is less expensive than not treating or incarceration
 - 1 year of methadone maintenance = \$3,900
 - 1 year of imprisonment = \$25,900
- **1:7 Rule:** Every \$1 invested in treatment = up to \$7 in reduced crime-related costs
- **Health Offset:** Savings can be > **1:12** when health care costs are included
- **Social and Personal Benefits**
 - Reduced interpersonal conflicts
 - Improved workplace productivity
 - Fewer drug-related accidents

Weighing the Costs Annual Cost per Drug Addict



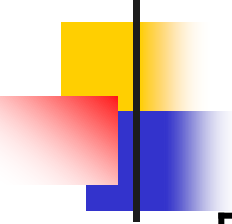
DATA SOURCES: Center for Substance Abuse Treatment 1997 *National Treatment Improvement Evaluation Study (NTIES)* (Rockville, MD: CSAT, 1997); Federal Bureau of Prisons. Data prepared by the Physician Leadership on National Drug Policy National Project Office.



How Long Should Treatment Last ?



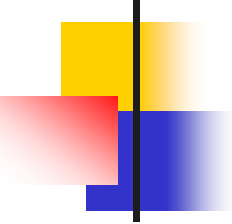
- Depends on patient problems/needs
- Less than 90 days is of limited or no effectiveness for residential/outpatient setting
- A minimum of 12 months is required for methadone maintenance
- Longer treatment is often indicated



Compliance & Chronicity

Chronic Illness	Medication Compliance	Relapse within 1 year
Diabetes	<60%	30-50%
Hypertension	<40%	50-70%
Asthma	<40%	50-70%
Diet or Behavioral Changes	<30%	NA

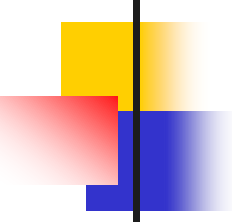
McLellan AT, Lewis DC, O'Brien CP, Kleber HD;
Drug Dependence, A Chronic Medical Illness, JAMA, Oct 4, 2000



But...For How Long?

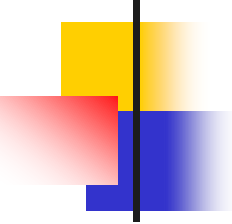
- One Year After Treatment

■ ↓↓ Drug selling	80%
■ ↓↓ Illegal activity	60%
■ ↓↓ Arrests down	60%
■ ↓↓ Trading sex for money or drugs	60%
■ ↓↓ Illicit drug use	50%
■ ↓↓ Homelessness	43%
■ ↓↓ Receipt of welfare	11%
■ ↑↑ Employment	20%



How Long...?

- Five Years After Treatment
 - Users of *any* illicit drugs ↓↓ 21%
 - Cocaine users ↓↓ 45%
 - Marijuana users ↓↓ 28%
 - Crack users by ↓↓ 17%
 - Heroin users by ↓↓ 14%



How Long...?

- Five Years After Treatment (continued)
 - The numbers engaging in illegal activity are significantly reduced
 - ↓↓ **56% stealing cars**
 - ↓↓ **38% breaking and entering**
 - ↓↓ **38% injecting drugs**
 - ↓↓ **30% selling drugs**
 - ↓↓ **34% homeless**
 - ↓↓ **23% victimizing others**

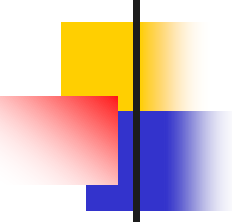
How Will I Know I'm Doing Better? How Will We Know?

MAAAP

- What's My Motivation?
- Do I Feel Attached in a Healthy Way?
- Do I Have a Positive Alliance?
- Am I Working Up to My Ability?
- Do I Feel Like I've Got a Place in this World?



**Am I On or Off
the MAAAP?**



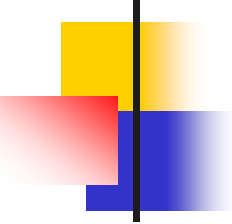
Facts About Addiction & Treatment

**CHEMICAL DEPENDENCE IS A BRAIN DISEASE
THAT HAS
BIOLOGICAL, PSYCHOLOGICAL & SOCIAL
COMPONENTS**

*Chronic, "cancerous" disorders require
multiple strategies and multiple episodes of intervention*

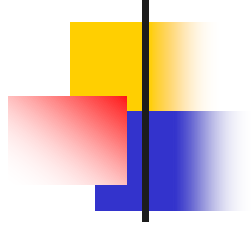
TREATMENT WORKS IN THE LONG RUN

TREATMENT IS COST-EFFECTIVE



Question 12 and 13

- What is the 1st Step of AA and NA?
- What's wrong with...
 - The Orioles?
 - The Nationals?
 - The Redskins?
 - The Wizards?



Thank You