



Evidence-Based Approaches to Treating Youth Substance Use Disorders

Drug Court Conference
Rachel Gonzales-Castaneda, PhD, MPH
June 6, 2019

Youth: Who are we talking about?

Adolescents
(12-17)

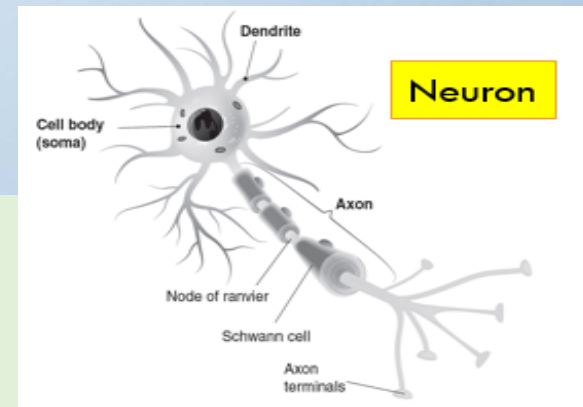
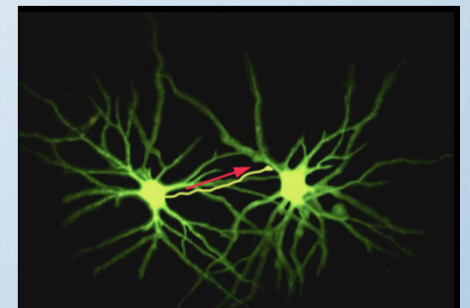


Young Adults
(18-24)

What's going on during these developmental periods?

Significant Maturation in Human Systems: Developing (Growing)

The Nervous System



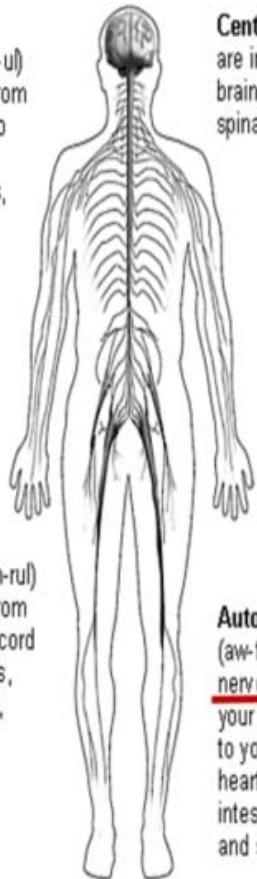
Humans are complex comprised of various interacting & integrated systems:

1. The nervous system ←
2. The endocrine system
3. The cardiovascular system
4. The respiratory system
5. The muscular system
6. The digestive system
7. The immune system
8. The reproductive system

Billions of nerves run throughout the body communicating via electro-chemical messages, signals, impulses *to control and regulate functions*

Cranial
(KRAY-nee-ul)
nerves go from your brain to your eyes, mouth, ears, and other parts of your head.

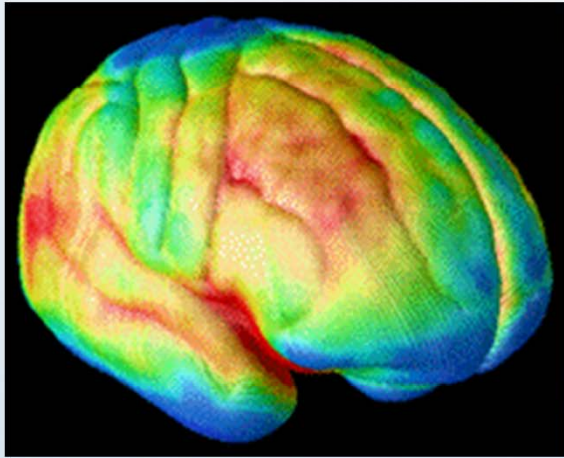
Central nerves are in your brain and spinal cord.



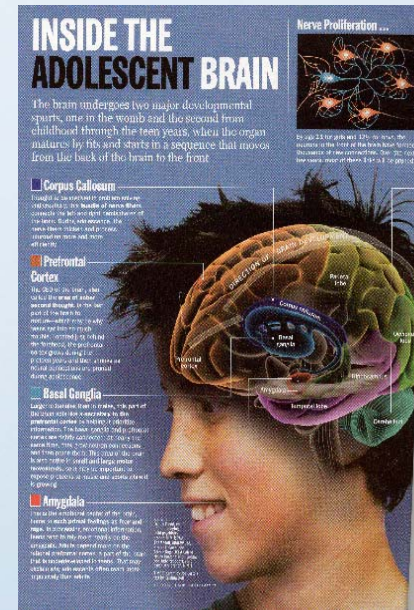
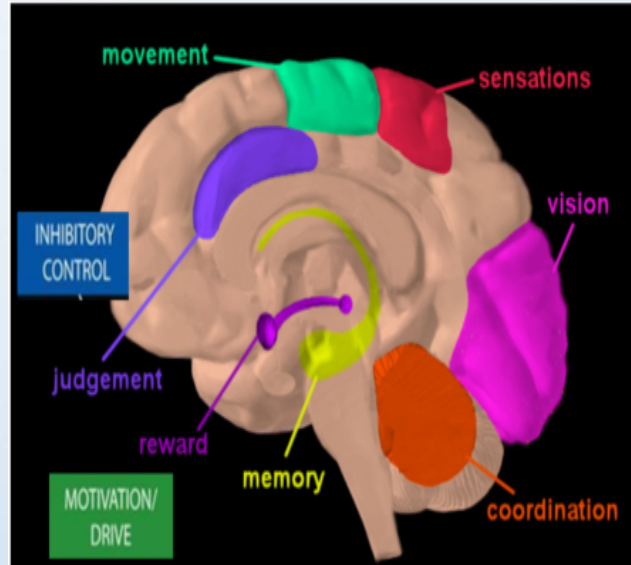
Peripheral
(puh-RIF-uh-rul)
nerves go from your spinal cord to your arms, hands, legs, and feet.

Autonomic
(aw-toh-NOM-ik)
nerves go from your spinal cord to your lungs, heart, stomach, intestines, bladder, and sex organs.

Young People's Nervous Systems' [Brains] are Immature



Prunes from Back to Front. Blue represents maturing



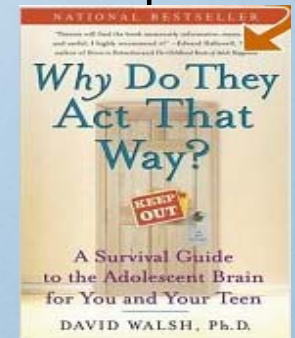
Earlier:
Motor and Sensation

Later:
-Motivation/
Drive
-Emotion
-Judgment

The brain reaches complete maturation at what Age?

25

Recipe For Poor Health Behavior Choices



Health Behaviors

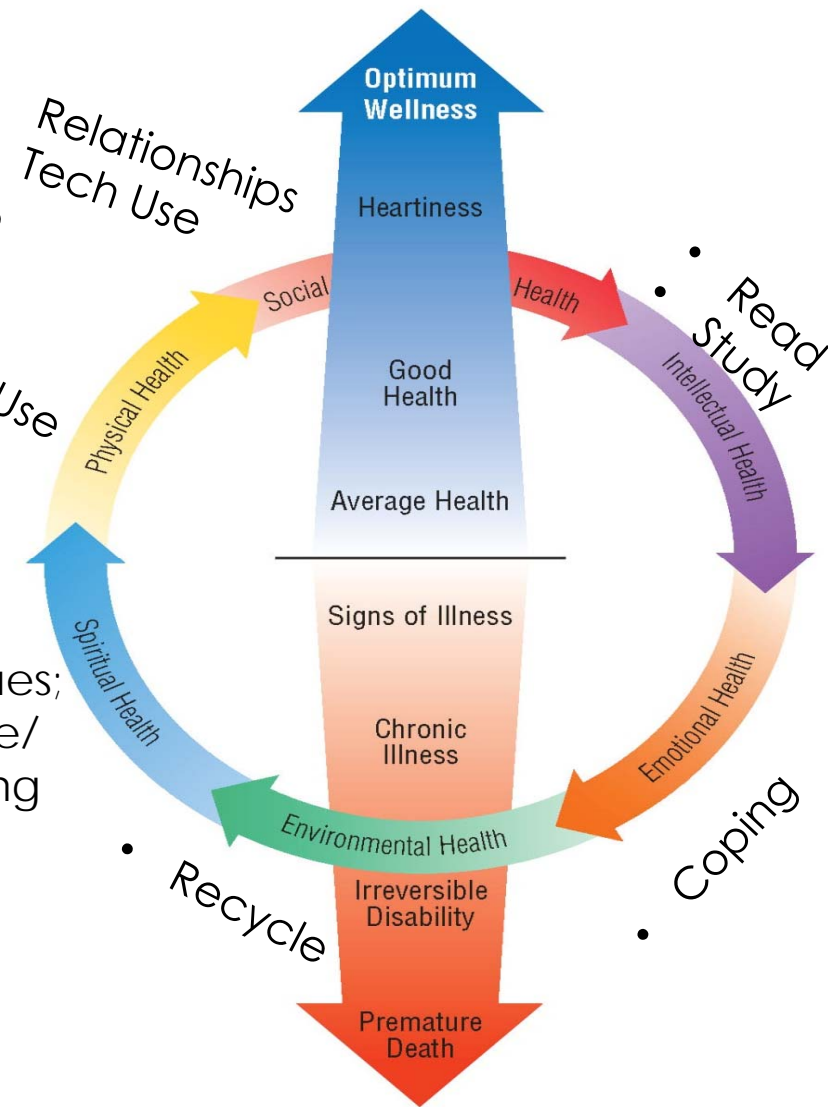
- **Health *Enhancing* Behaviors:** Actions that help promote good health and prevent illness/disease



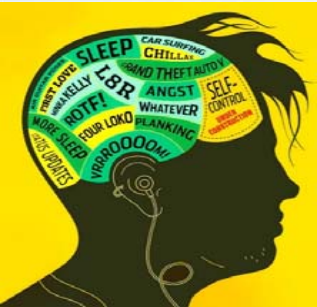
- **Health *Damaging* Behaviors:** Actions that contribute to injury, illness, and premature death



- Exercise
- Nutrition
- Sleep
- Substance Use

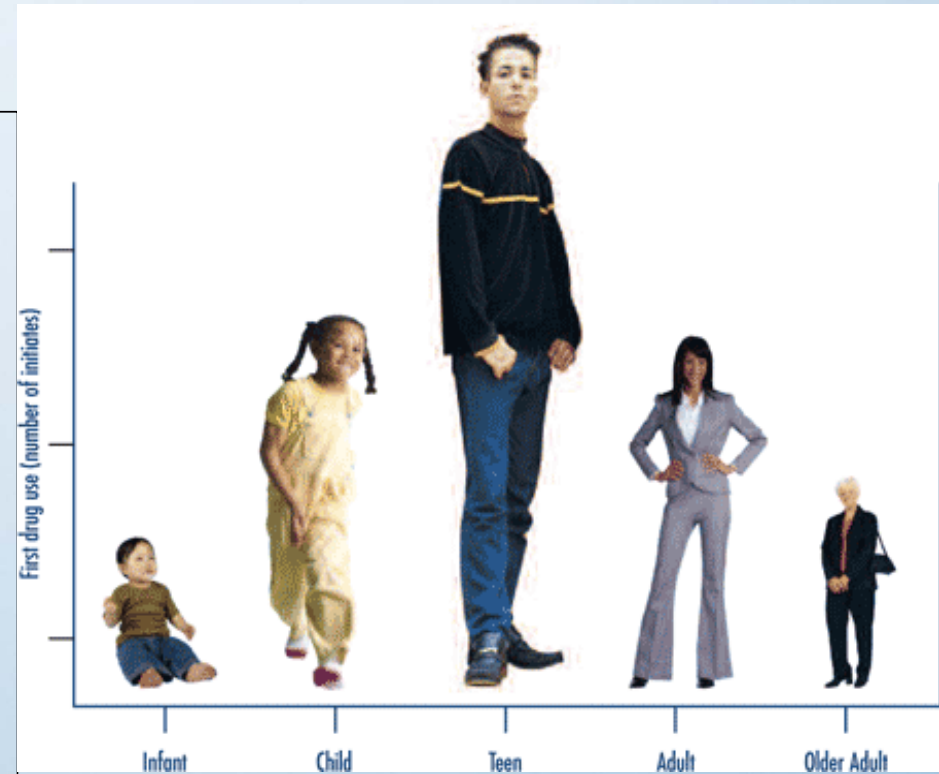


- Values; Purpose/Meaning



Youth Considered At-Risk Population: Health *Damaging* lifestyle behaviors Start Early & Peak during Youth Years:12-24

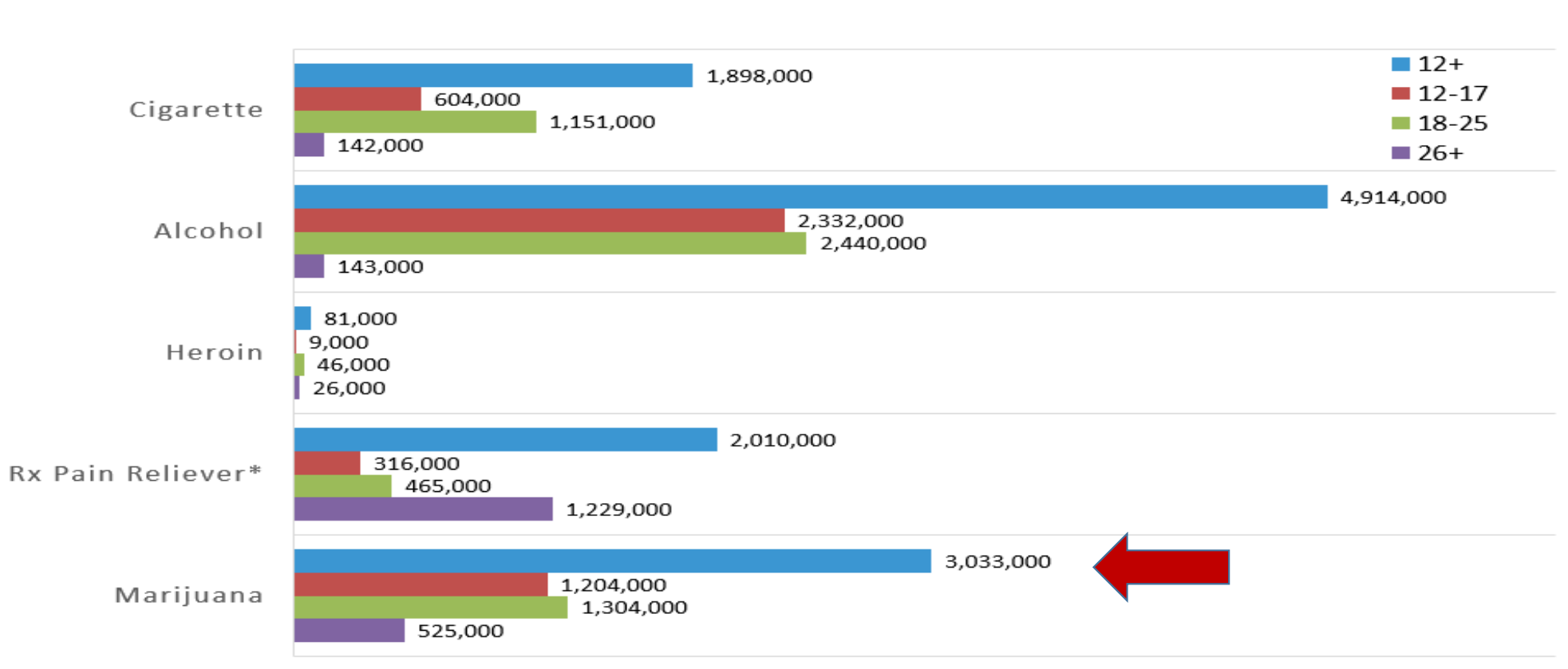
- **Increased Preference for:**
 1. Rewarding (pleasurable) activities
 2. Activities with peers that trigger excitement (fun/arousal)
 3. Novelty (boo on boredom)
- **Greater tendency to...**
 5. Be attentive to **social world**
 6. Take **risks** and show impulsiveness
- **Less Likely to...**
 7. Think before acting
 8. Control emotions/arousal
 9. Consider negative consequences
 10. Choose wisely (healthy choice)



Substance Use Experimentation

Past Year **New Initiates**, Age Group & Substance

PAST YEAR, 2017, 12+

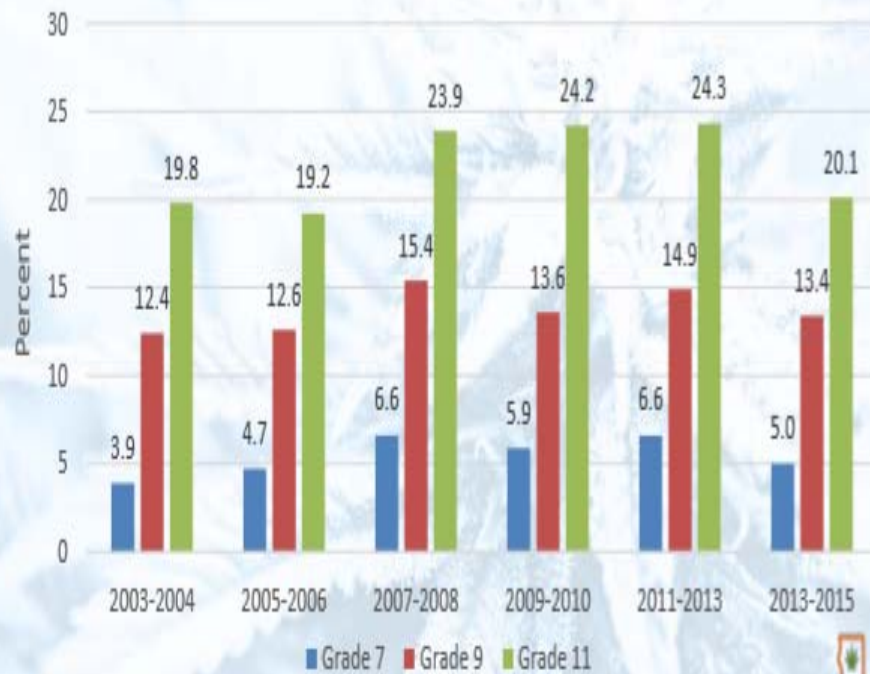


* Initiation of misuse

Local Trends

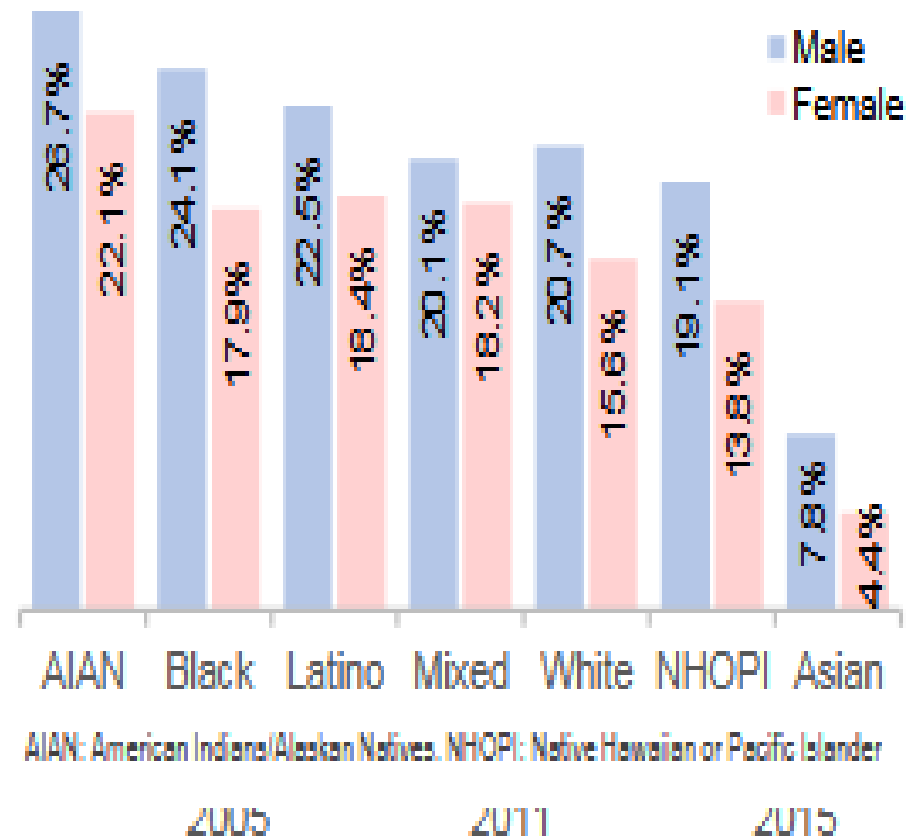
Self-Reported Cannabis Use in the Past Month Among 7th, 9th, and 11th Graders in California

California Healthy Kids Survey, California Department of Education/WestEd



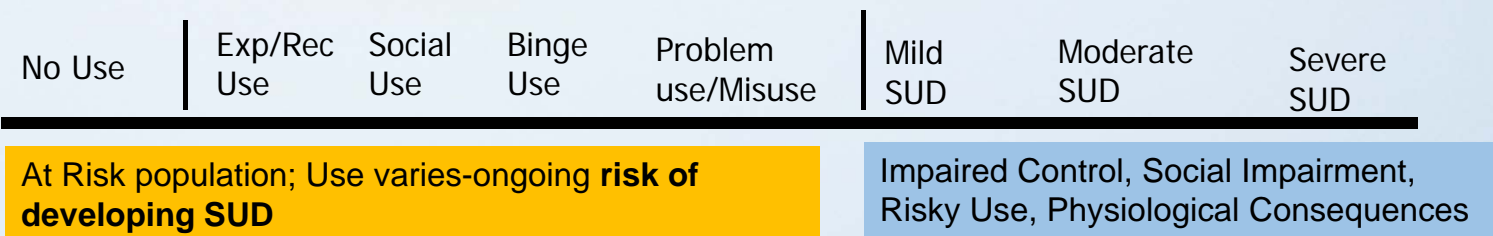
Source: California Healthy Kids Survey, Biennial Statewide Survey, California Department of Education and WestEd

Marijuana use in the past month, by race/ethnicity and gender, 9th-12th graders, LAC, SY0708-SY1415²



AIAN: American Indians/Alaskan Natives. NHOPI: Native Hawaiian or Pacific Islander

Youth Substance Use falls along a **Continuum of Risk**



Best Practices to address youth substance use risk patterns?

What has been Standard Practice?

Assume: No use

Any use

Prevention

Treatment

Drug Education

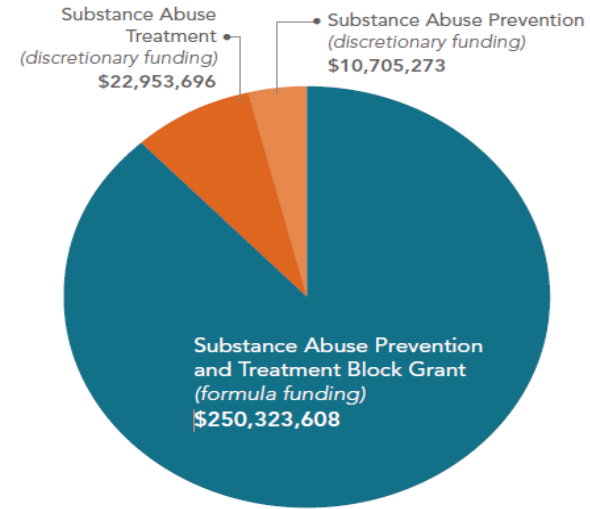


Outpatient / Residential Treatment



Sustain No Use

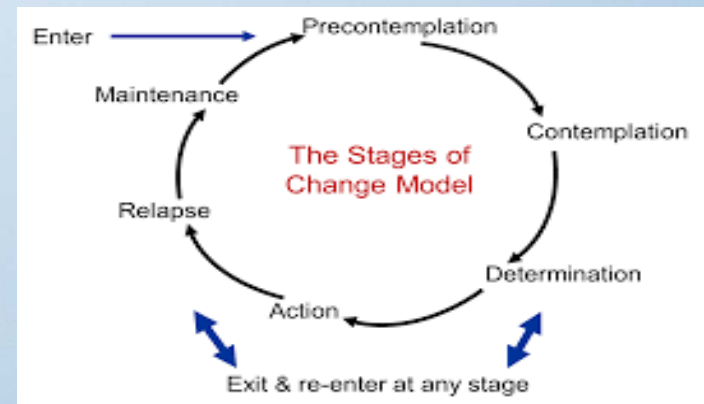
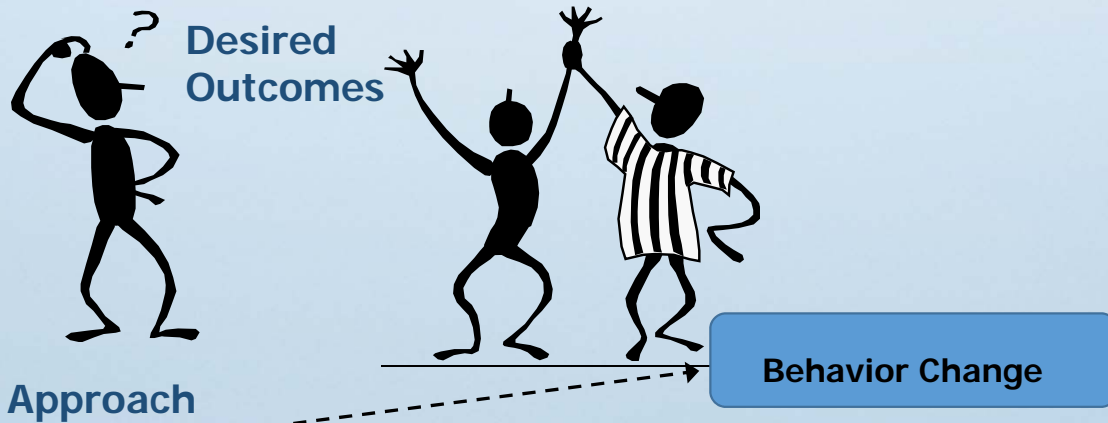
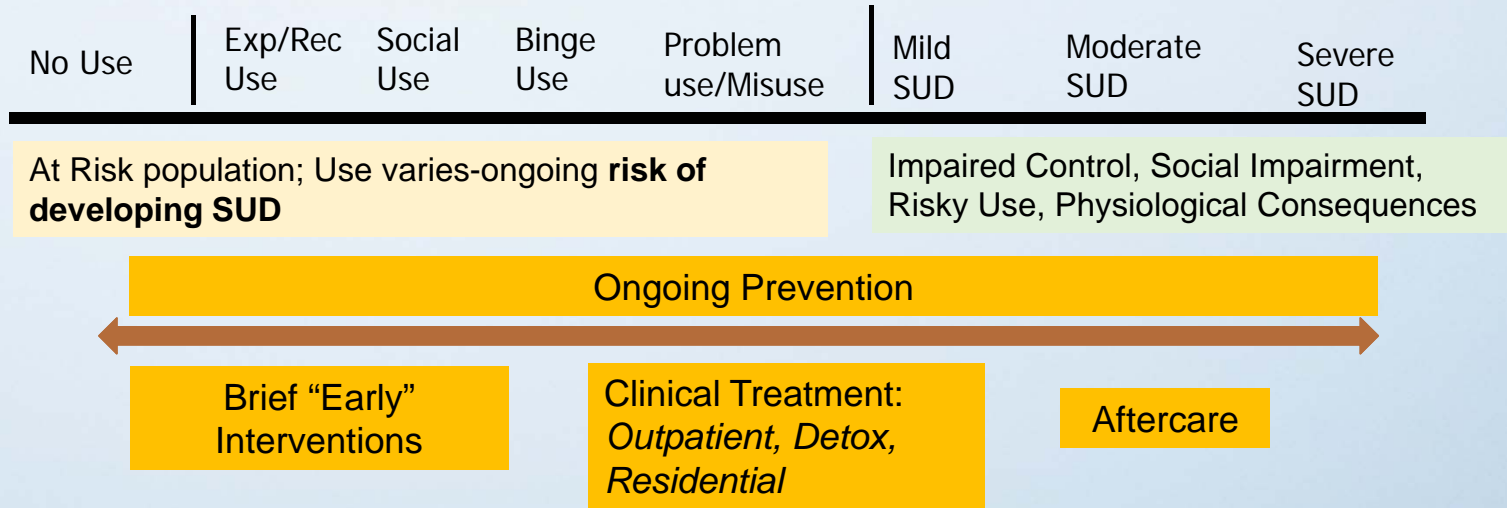
Sobriety: Abstinence



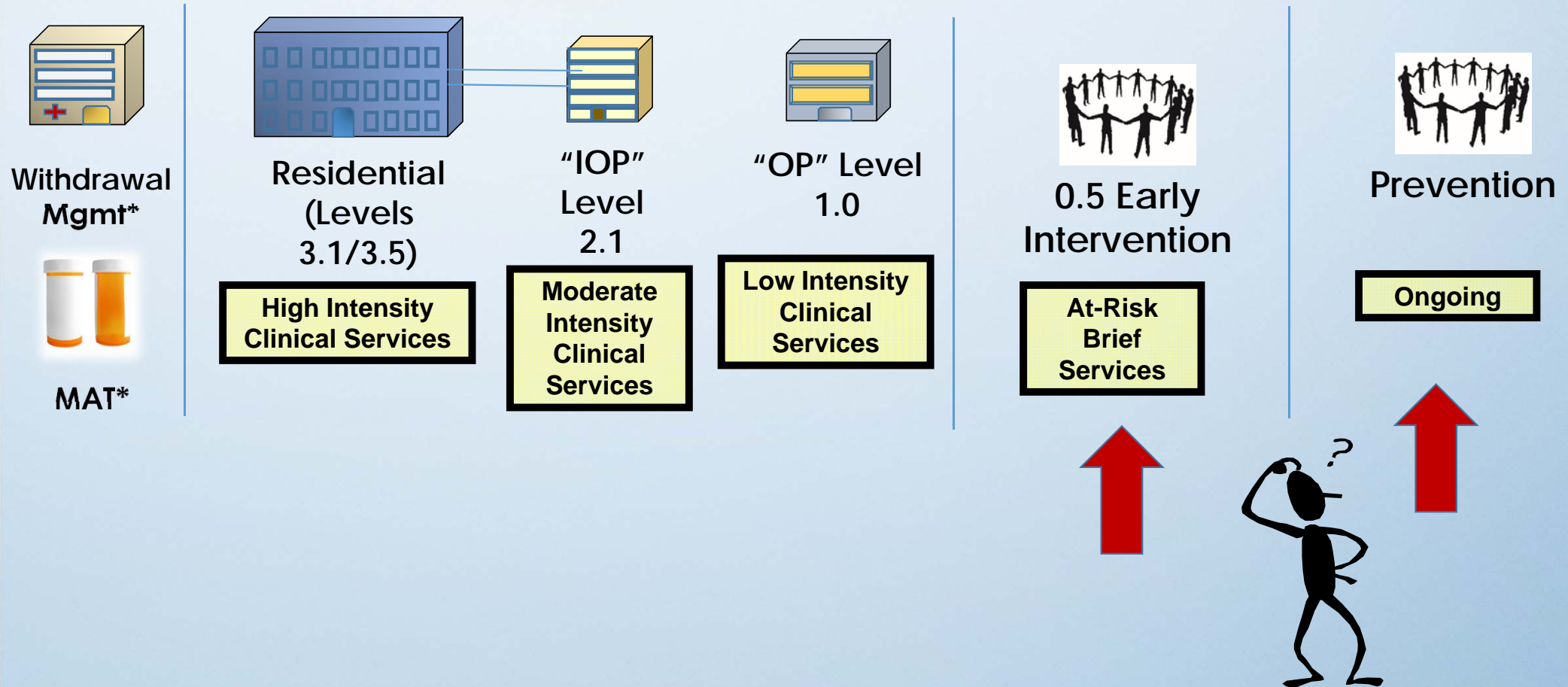
Note: Fiscal (FY) refers to July 1 to June 30.
Source: SAMHSA State Summaries FY 2015-16, California.

- Early Intervention
- MAT
- Aftercare
- *not covered benefits

Best Practices to Address Youth **Continuum of Risk**



System Transformation: DMC-ODS - Ensuring Services are Provided Along the Risk Continuum of Care



*WM & MAT services as needed with SAPC authorization

Evidenced-Based Practices to Address Youth Substance Use

- What is **Success**?
- Programs or practices that are **proven** to be **successful** through research methodology to produce consistently positive patterns of results (effective outcomes).

***Also referred to as:*

- Science-driven services...
- Empirically-supported practices...
- Data driven practices...



Effective Prevention

AGE

10

12

15

18

21

23

ENVIRONMENT

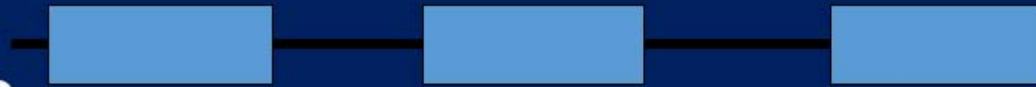
Schools



Youth Centers



Law Enforcement



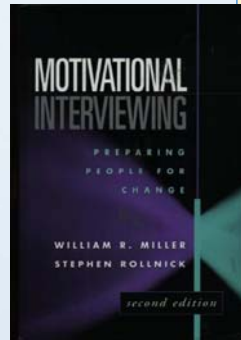
Healthcare



Local Policies



Brief Interventions are Effective with Youth Populations

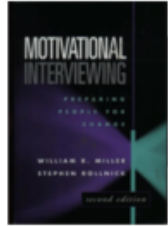


Motivational Interviewing

- ❑ A **collaborative conversation** with people that **evokes change talk** about reducing risk behaviors to improve wellbeing.
- ❑ Designed to enhance people's own **intrinsic motivation** (and commitment) to change within an **atmosphere of acceptance and compassion**.
- ❑ Is inherently **patient-centered**, focusing on important reasons to change that are **valued** by the person.

A Brief
Structured
Conversation

Requires skills
in...



What are MI Skills?

Awareness of problem



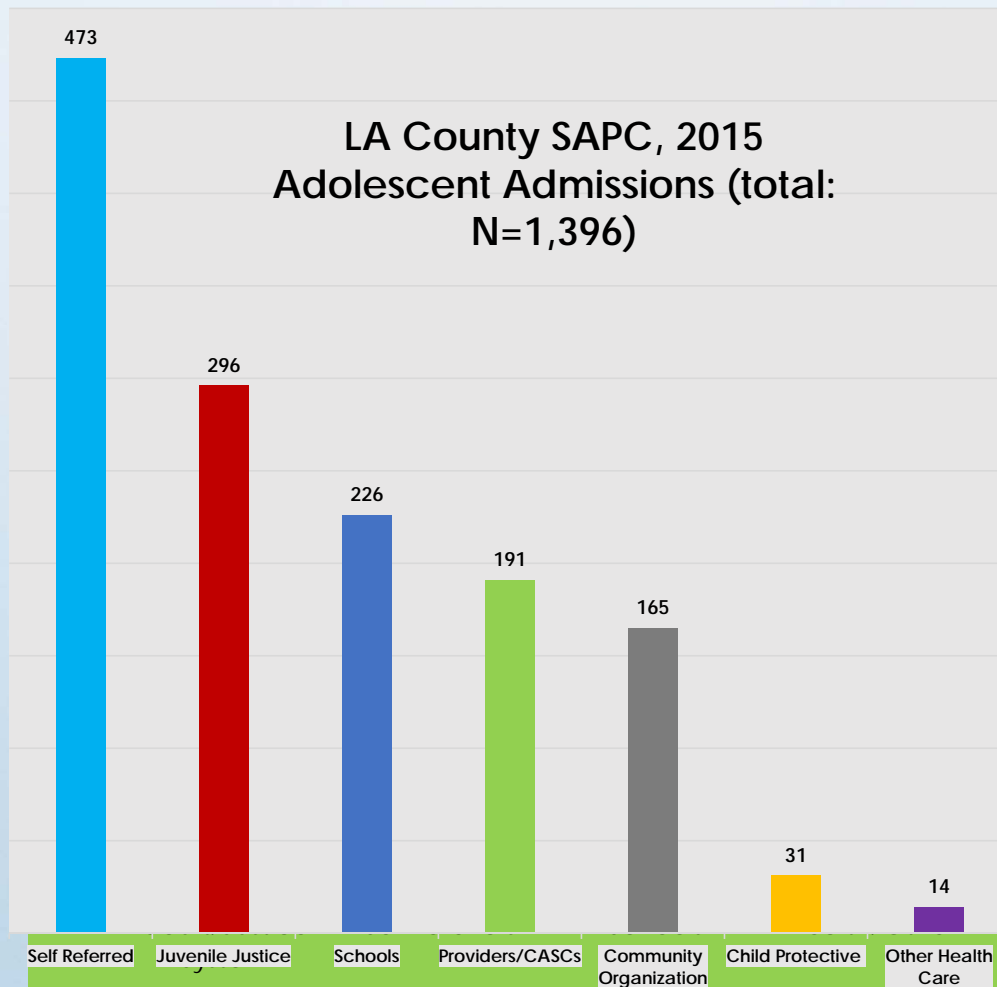
Think about Behavior Change...Change



Understand Change is a Process



Major Developmental Challenge: Treatment Mandates



Punitive Response and Treatment has been only option given to youth who “use”

- Youth don't think they have a “drug problem”
- Youth don't like to be told what to do.



When autonomy is challenged— this manifests as **resistance and low readiness/lack of intrinsic motivation to engage....**

The Brief Intervention (BI) Protocol Easy to Implement Across Systems

- **A conversation** about **substance use risk** identified in a screener

Step 1. Raise the Subject
Step 2. Provide Feedback
Step 3. Enhance Motivation
Step 4. Negotiate a Plan



The CRAFFT Screening Interview

Begin: "I'm going to ask you a few questions that I ask all my patients. Please be honest. I will keep your answers confidential."

Part A

During the PAST 12 MONTHS, did you:	No	Yes
1. Drink any <u>alcohol</u> (more than a few sips)? (Do not count sips of alcohol taken during family or religious events.)	<input type="checkbox"/>	<input type="checkbox"/>
2. Smoke any <u>marijuana</u> or hashish?	<input type="checkbox"/>	<input type="checkbox"/>
3. Use <u>anything else</u> to get high? ("anything else" includes illegal drugs, over the counter and prescription drugs, and things that you sniff or "huff")	<input type="checkbox"/>	<input type="checkbox"/>

For clinic use only: Did the patient answer "yes" to any questions in Part A?

No

Yes

Ask CAR question only, then stop

Ask all 6 CRAFFT questions

Part B

	No	Yes
1. Have you ever ridden in a <u>CAR</u> driven by someone (including yourself) who was "high" or had been using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>
2. Do you ever use alcohol or drugs to <u>RELAX</u> , feel better about yourself, or fit in?	<input type="checkbox"/>	<input type="checkbox"/>
3. Do you ever use alcohol or drugs while you are by yourself, or <u>ALONE</u> ?	<input type="checkbox"/>	<input type="checkbox"/>
4. Do you ever <u>FORGET</u> things you did while using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>
5. Do your <u>FAMILY</u> or <u>FRIENDS</u> ever tell you that you should cut down on your drinking or drug use?	<input type="checkbox"/>	<input type="checkbox"/>
6. Have you ever gotten into <u>TROUBLE</u> while you were using alcohol or drugs?	<input type="checkbox"/>	<input type="checkbox"/>

CONFIDENTIALITY NOTICE:

The information recorded on this page may be protected by special federal confidentiality rules (42 CFR Part 2), which prohibit disclosure of this information unless authorized by specific written consent. A general authorization for release of medical information is NOT sufficient for this purpose.

© CHILDREN'S HOSPITAL BOSTON, 2009. ALL RIGHTS RESERVED.

Reproduced with permission from the Center for Adolescent Substance Abuse Research, CeASAR, Children's Hospital Boston. (www.ceasar.org)

Screening to Brief Intervention (S2BI)

Developed at Boston Children's Hospital with support from the National Institute on Drug Abuse.

The following questions will ask about your use, if any, of alcohol, tobacco, and other drugs. Please answer every question by checking the box next to your choice.

IN THE PAST YEAR, HOW MANY TIMES HAVE YOU USED:

Tobacco?

- Never
 Once or twice
 Monthly
 Weekly or more

Alcohol?

- Never
 Once or twice
 Monthly
 Weekly or more

Marijuana?

- Never
 Once or twice
 Monthly
 Weekly or more

Prescription drugs that were not prescribed for you (such as pain medication or Adderall)?

- Never
 Once or twice
 Monthly
 Weekly or more

Illegal drugs (such as cocaine or Ecstasy)?

- Never
 Once or twice
 Monthly
 Weekly or more

Inhalants (such as nitrous oxide)?

- Never
 Once or twice
 Monthly
 Weekly or more

Herbs or synthetic drugs (such as salvia, "K2", or bath salts)?

- Never
 Once or twice
 Monthly
 Weekly or more

STOP if answers to all previous questions are "never." Otherwise, continue with questions on the right.

Validated for screening tools for Adolescent Populations

SCREENING-YOUTH (PAPER VERSION)

Date: _____ Start time: _____ Stop time: _____ Total completion time: _____

Thank you for calling the Los Angeles County Substance Abuse Service Helpline (SASH).

1. How did you hear about us? Website Family/Friend Provider Other agency (_____)

2. Are you calling regarding service information for youth under the age of 18?

- Yes (If YES, proceed to next question)
- No (If NO, proceed to adult prompt/Brief Triage Assessment)

3. Are you calling for yourself or on behalf of someone else?

- Self / Youth Parent/Guardian of Child SUD Provider for patient/client Court / Probation officer
 Other _____

(If caller is a parent or guardian seeking services for a youth, use the parent screener screening is not applicable for other types of caller such as SUD provider or court/probation officer.)

Youth Demographic information

Youth Name:		Phone Number:	<input type="checkbox"/> Mobile
Parent / Guardian Name:		Okay to leave voicemail? <input type="checkbox"/> Yes <input type="checkbox"/> No	
Address or Zip Code:			
DOB:	Age:	Gender:	
Race/Ethnicity:	Preferred Language:	Medi-Cal or MyHealthLA ID #:	
Insurance Type: <input type="checkbox"/> None <input type="checkbox"/> MyHealthLA <input type="checkbox"/> Medicare <input type="checkbox"/> Medi-Cal <input type="checkbox"/> Private <input type="checkbox"/> Other	(plan):	(plan):	(specify):
Living Arrangement: <input type="checkbox"/> Homeless <input type="checkbox"/> Living with family <input type="checkbox"/> Living in foster care <input type="checkbox"/> Other (specify):			
Referred by (specify):			

4. What are the main reasons you are seeking help today?

5. Are you currently receiving other services such as physical or mental health counseling? Please describe.

6. Are you currently experiencing any family, financial, legal, or school problems? Please describe.

In the past year, how many times have you used [X]?	Never	Once or Twice	Monthly	Weekly
1. Tobacco Products	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Marijuana	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Illegal Drugs (i.e. cocaine or Ecstasy)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Prescription drugs that were not prescribed for you (i.e. Pain Medication or Adderall)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Inhalants (i.e. nitrous oxide)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Herbs or synthetic drugs (i.e. salvia, K2, or bath salts)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAPC Screener adapted from Validated Screeners - CRAFFT and S2BI

<https://www.drugabuse.gov/news-events/news-releases/2017/11/nida-launches-two-adolescent-substance-use-screening-tools>

DSM-5 Definition: Substance Use Disorders

1. Using larger amounts or over a longer period of time than intended.
2. Persistent desire or unsuccessful efforts to cut down or control
3. Great deal of time spent in obtaining, using, and recovering from
4. Craving or a strong desire or urge to use
5. Recurrent use resulting in failure to fulfill major role obligations
6. Continued use despite persistent or recurrent social or interpersonal problems caused or exacerbated by use
7. Important social, occupational, or recreational activities are given up or reduced because of use
8. Recurrent use in physically hazardous situations
9. Continued use despite knowledge of having a persistent or recurrent physical or psychological problems that is caused or exacerbated by use.
10. Tolerance defined by need for increased amounts to achieve desired effect or markedly diminished effect with continued use of the same amount
11. Withdrawal either with withdrawal symptoms, or continued use to relieve or avoid withdrawal

What is SUD remission?

- A medical term used for describing the elimination or diminishing of disease symptoms below a predetermined, harmful level.

In early remission: at Least 3 Months

None of the criteria for the SUD have been met for at least 3 months (with the exception of Criteria 4-craving/strong desire to use -*may still be met*).

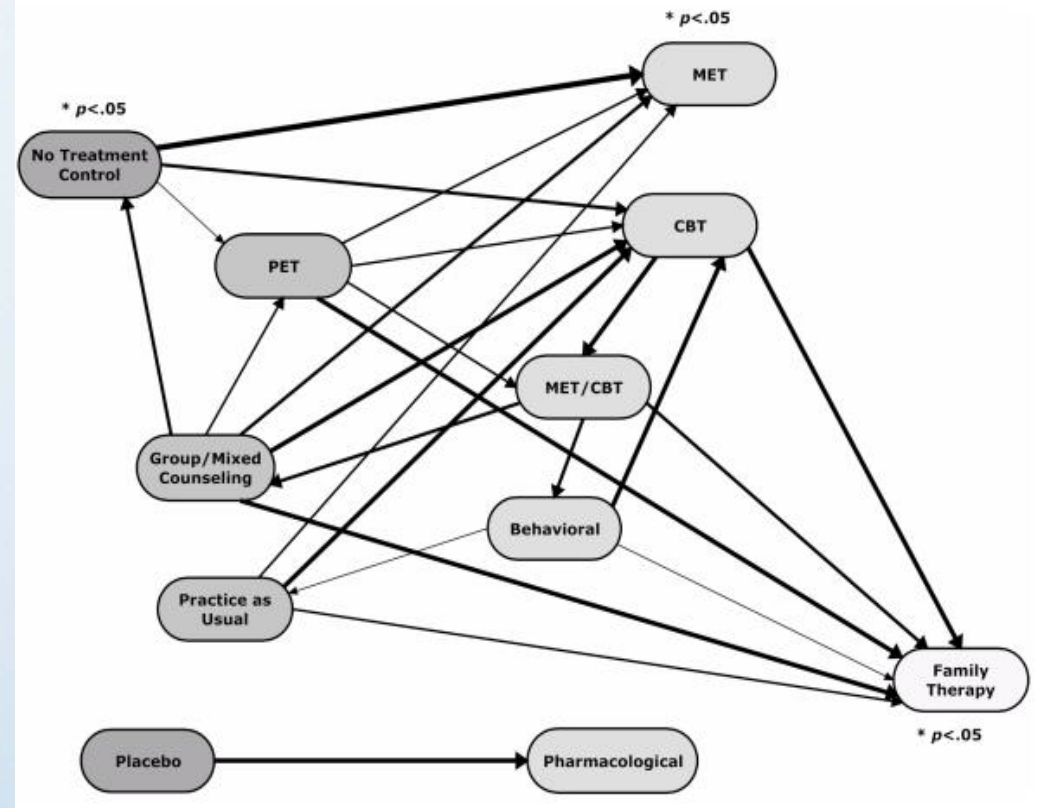
In sustained remission: 3-12 Months & Beyond)

None of the criteria for the SUD have been met at any time during a period of 12 months or longer (with the exception that Criteria 4-craving/strong desire to use-*may still be met*).



Adolescent Substance Use Treatment Effectiveness: A Systematic Review and Meta-Analysis

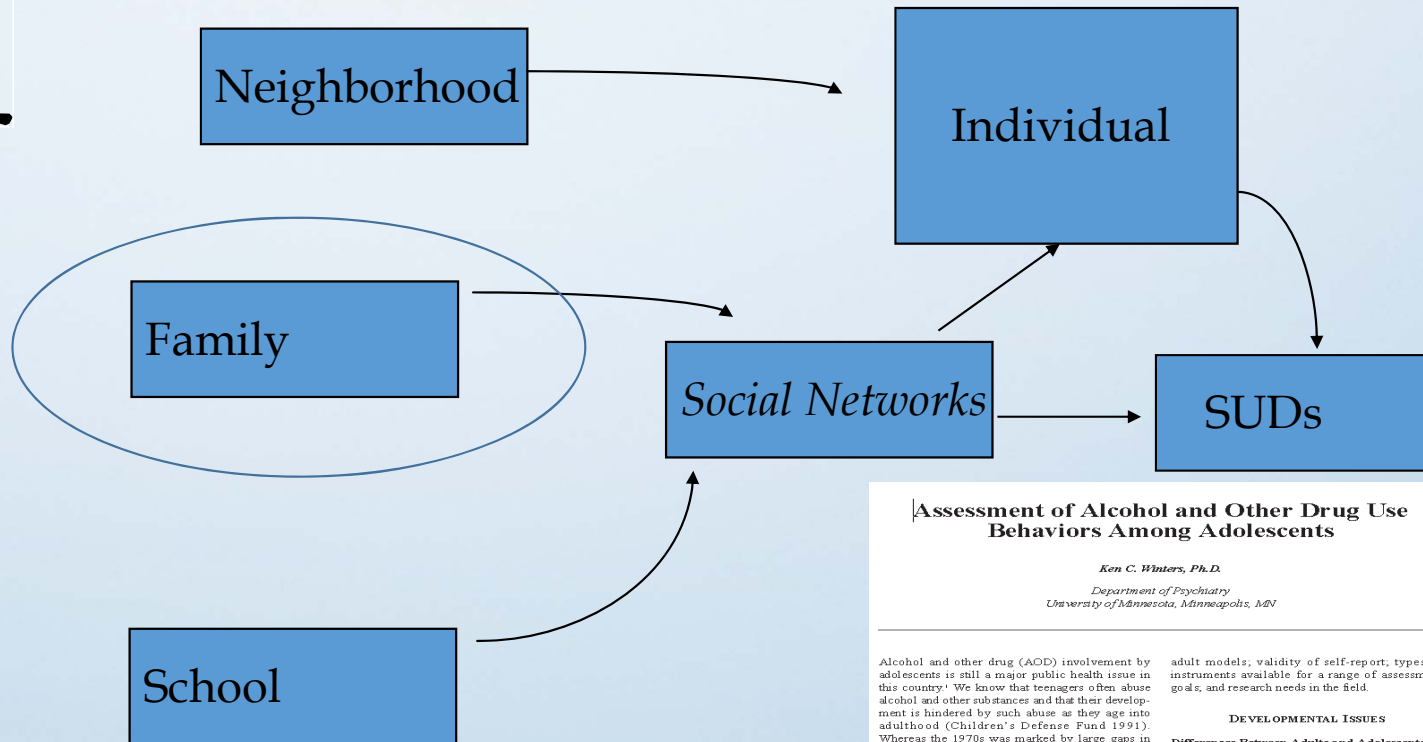
Emily E. Tanner-Smith, PhD
 Katarzyna T. Steinka-Fry, MPA
 Heather Hensman Kettrey, PhD
 Mark W. Lipsey, PhD



- Any treatment is better than absence of treatment.
- EBPs shown to *predict significantly better outcomes*:
 - Motivational Enhancement Therapy-MET
 - Family Therapy



The Family is not systematically engaged in the Care Continuum



Assessment of Alcohol and Other Drug Use Behaviors Among Adolescents

Ken C. Winters, Ph.D.

Department of Psychiatry
University of Minnesota, Minneapolis, MN

Alcohol and other drug (AOD) involvement by adolescents is still a major public health issue in this country. We know that teenagers often abuse alcohol and other substances and that their development is hindered by such abuse as they age into adulthood (Children's Defense Fund 1991). Whereas the 1970s was marked by large gaps in knowledge about what contributes to the onset and course of AOD use in teenagers and how to best measure its signs and symptoms, the past 15 years have been characterized by a rapid growth of research in the development of screening and assessment tools for measuring the extent and nature of adolescent AOD use disorders and related problems (Lecesse and Waldron 1994). This body of research has improved the assessment process by introducing more standardization to the field and permitting a wide network of professionals with diverse training and backgrounds to more objectively participate in the assessment process.

The inclusion of this new chapter in the second edition of this *Handbook* speaks to the growing recognition that the adolescent assessment literature is a significant body of research in the alcoholism and drug addiction field. The chapter provides an

adult models, validity of self-report, types of instruments available for a range of assessment goals, and research needs in the field.

DEVELOPMENTAL ISSUES

Differences Between Adults and Adolescents

The technical understanding of alcoholism and drug addiction has strong links to established beliefs about adult experiences, yet the applicability of adult models to adolescents has been questioned (Tarter 1990; Winters 1990). Findings suggest that most adolescents do not show the same psychological, behavioral, and physiological characteristics that are central to adult models (Kaminer 1991). One area of difference is in the pattern of AOD use and the development of substance use disorders. According to a number of clinical and community studies, adolescents are less likely to abuse just alcohol but are more likely to abuse marijuana and other drugs concurrently with alcohol (Center for Substance Abuse Treatment 1999). Yet it is likely that adults who are in treatment for substance problems are there

Predictors of Substance Use Outcomes among Youth Post-Treatment

Correlation between baseline scores and corresponding scores at follow-up					
Variable	3-month	6-month	9-month	12-month	Intraclass Correlations (with 95% CI)
Family conflict	.56	.48	.47	.43	.58 (.53, .62)
Family cohesion	.56	.50	.46	.50	.54 (.50, .59)
Social support	.42	.38	.35	.34	.37 (.33, .42)
Recovery environment risk	.42	.42	.37	.24	.43 (.39, .48)
Social risk	.28	.34	.24	.21	.37 (.32, .42)
Substance use related problems (craving, stressors)	.43	.35	.31	.31	.46 (.42, .51)

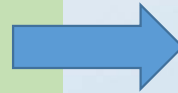
Research shows that family services address **Family-related Risk Factors** that influence youth substance use patterns and recovery:

- ✓ Unhealthy or Unstable Relationships
- ✓ Dysfunctional family, including use and pro-social norms

Challenges in the SUD System of Care

Broader System Issues

- The youth is referred in **isolation** (not as a family unit)
- Hence, the youth and *their* presenting SUD problem is the **unit** of treatment.
 - Tx goals are developed for the patient only (family not active participant as *expects* youth to change (providers to change them)).



Address barriers?

- Educate other systems – schools, legal that **SUD is a family systems issue** and the importance of the family playing an active part in the change of their youth.
- Hence, youth needs to be **referred as a unit** with their *identified* family system to treatment (vs. provider asking youth about the inclusion of family)...

Educating Family about Increased Risk with Social Media



Teen are exposed to Drugs at an early age from Social Media



90% of teens are initially exposed to pictures of their peers drinking or using drugs on social media before they reach the age of 15.

National Center on Addiction and Substance Abuse's study

Social Media and Teen Marijuana Abuse

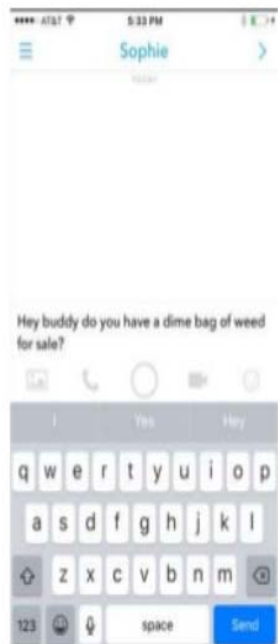
Teens are four times more likely to use marijuana if they have been exposed to the drug through Social Media



National Center on Addiction and Substance Abuse's study

Educating Family about Cannabis is Critical

Teens using Snap Chat to deal or buy drugs



**MARIJUANA
TALK KIT**

*What you need to know to talk with
your teen about marijuana*

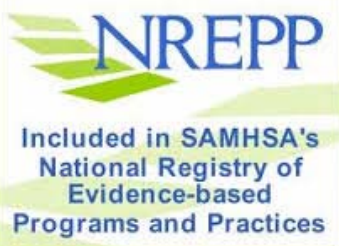
#MJTalkKit

 **Partnership™**
for Drug-Free Kids
Where families find answers.

Resources Specific to Cannabis in LA County

- In May 2018, LA-DPH launched an innovative, digital, and social media campaign created by local youth on MJ
 - **Youth Cannabis Prevention Resources**– Educational videos developed by-teens, for-teens regarding the impact of cannabis use on youth:
<https://www.LetsTalkCannabisLACounty.org>
- **Let's Talk Cannabis website** - for parents and teens:
(<https://www.mjfactcheck.org/>)





Evidence Based Treatments for Substance Use Disorders among Youth Populations

Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment

Enhancing Motivation For Change in Substance Abuse Treatment

Treatment Improvement Protocol (TIP) Series

35

Motivational Enhancement Therapy and Cognitive Behavioral Therapy for Adolescent Cannabis Users: 5 Sessions

CYT

Cannabis Youth Treatment Series

Volume 1

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Services Administration
Center for Substance Abuse Treatment
www.samhsa.gov

TIP 39: Substance Abuse Treatment and Family Therapy

Introduces substance abuse treatment and family therapy, as well as models for...

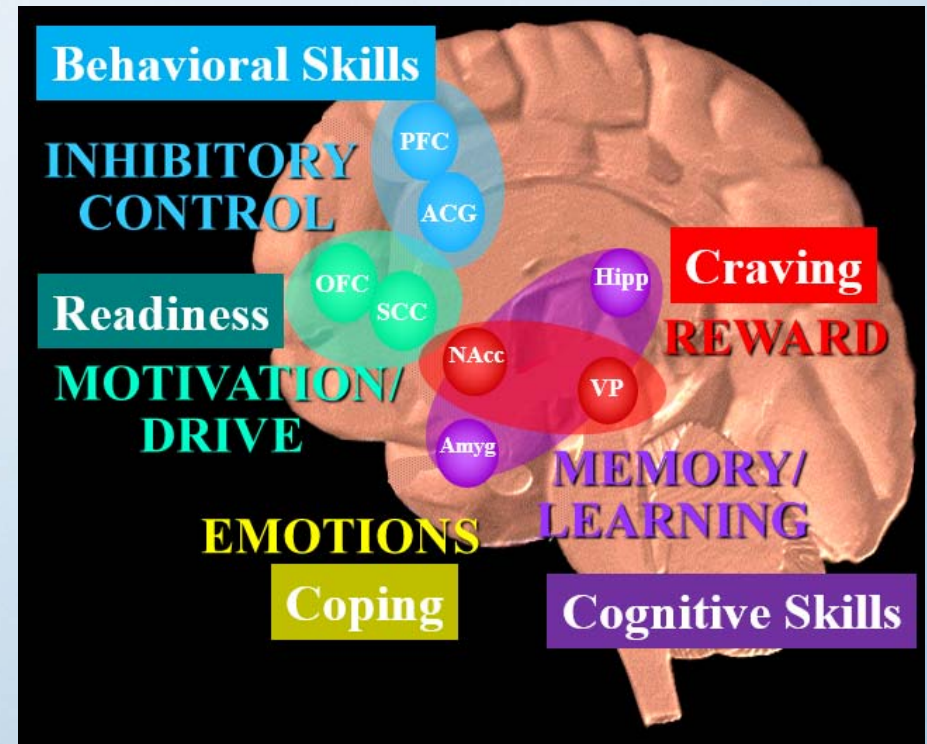
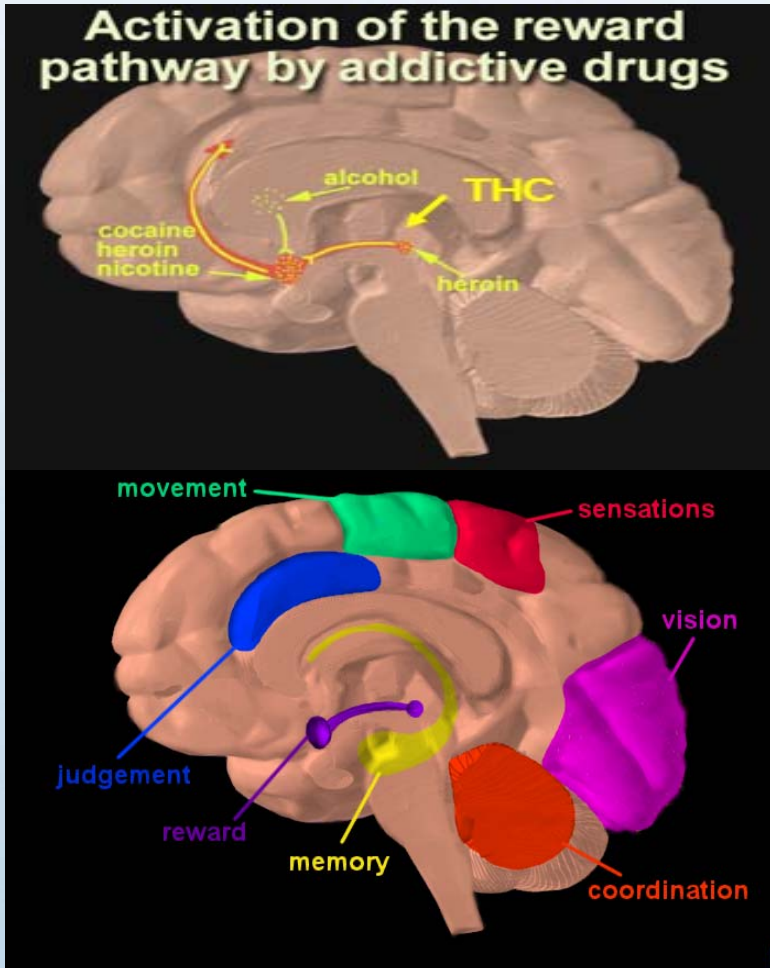
Multidimensional Family Therapy for Adolescent Cannabis Users

Presents a family treatment approach that addresses multiple dimensions of...

Why These Models?



Psychoactive substances affect the Brain



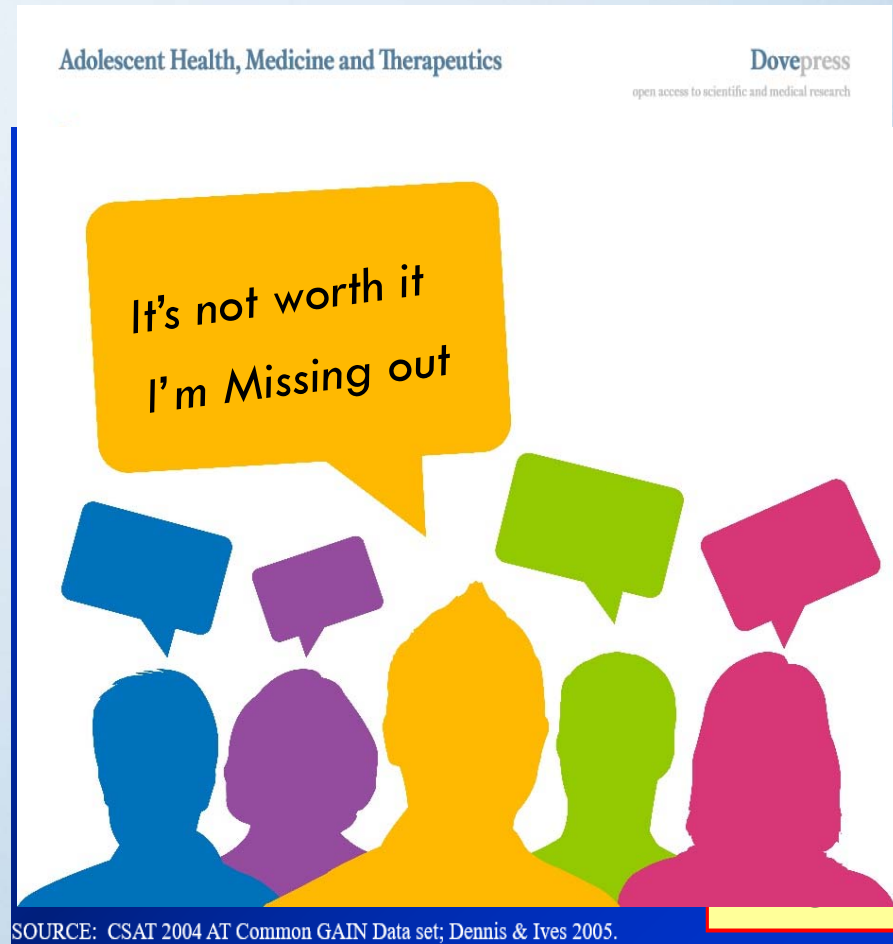
Clinical Research also points out 2 other significant predictors of “poor treatment outcomes” among youth:



- Not addressing co-occurring mental health needs – *am I feeling better?*

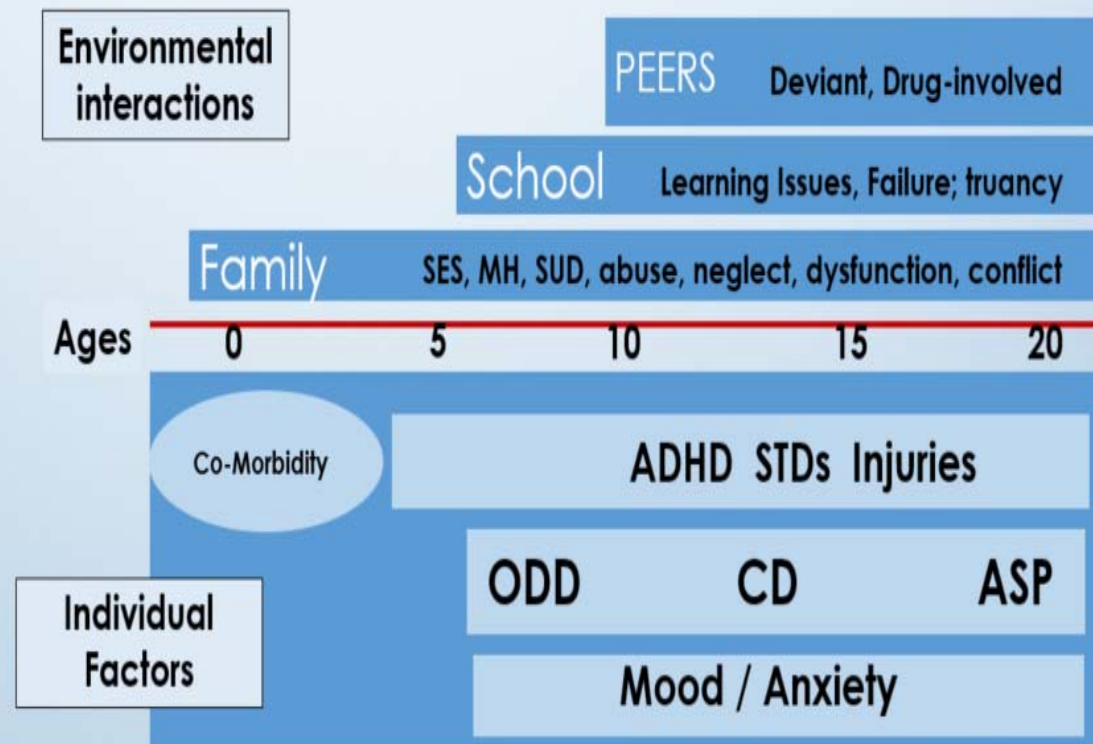


- Not addressing developmental reward needs – *what’s in it for me?*



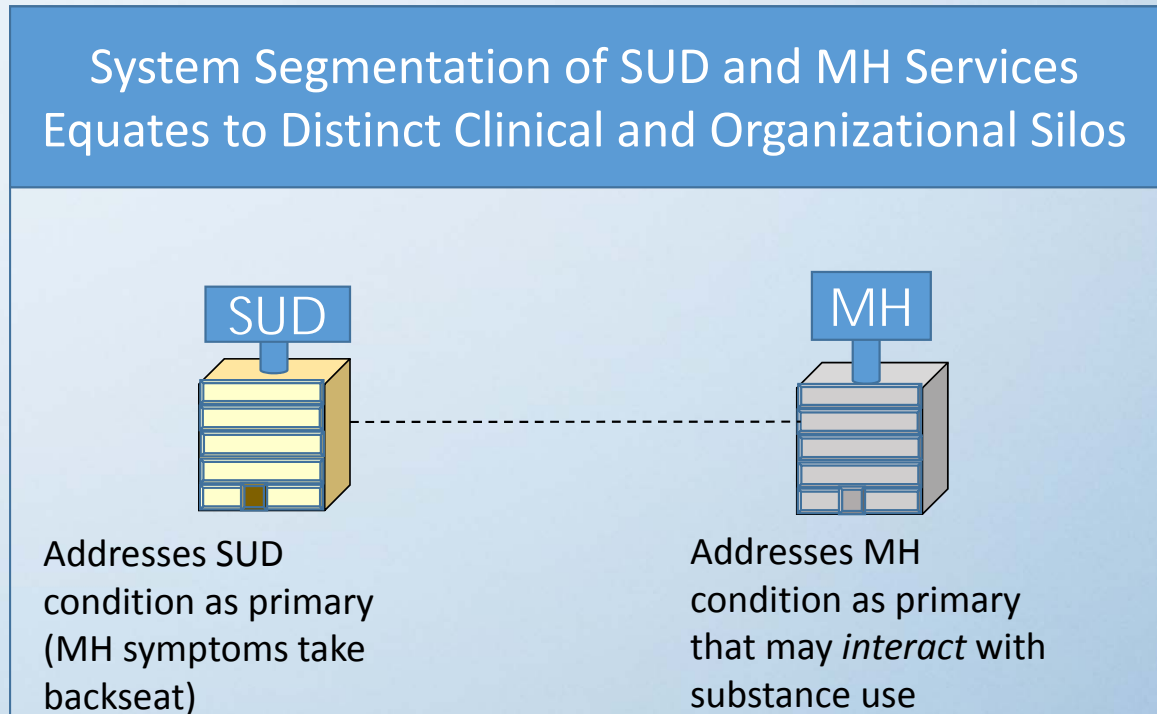
Common Patterns/Trajectories of Youth with CODs

- Research points out that CODs among youth are complex and the need to view them along a developmental continuum that starts with mental health symptoms that have interacting (individual and environmental) factors.
- Individual differences with the degree of functional “impairment” – minimal, moderate or severe (significant).



System Challenges for Youth with CODs

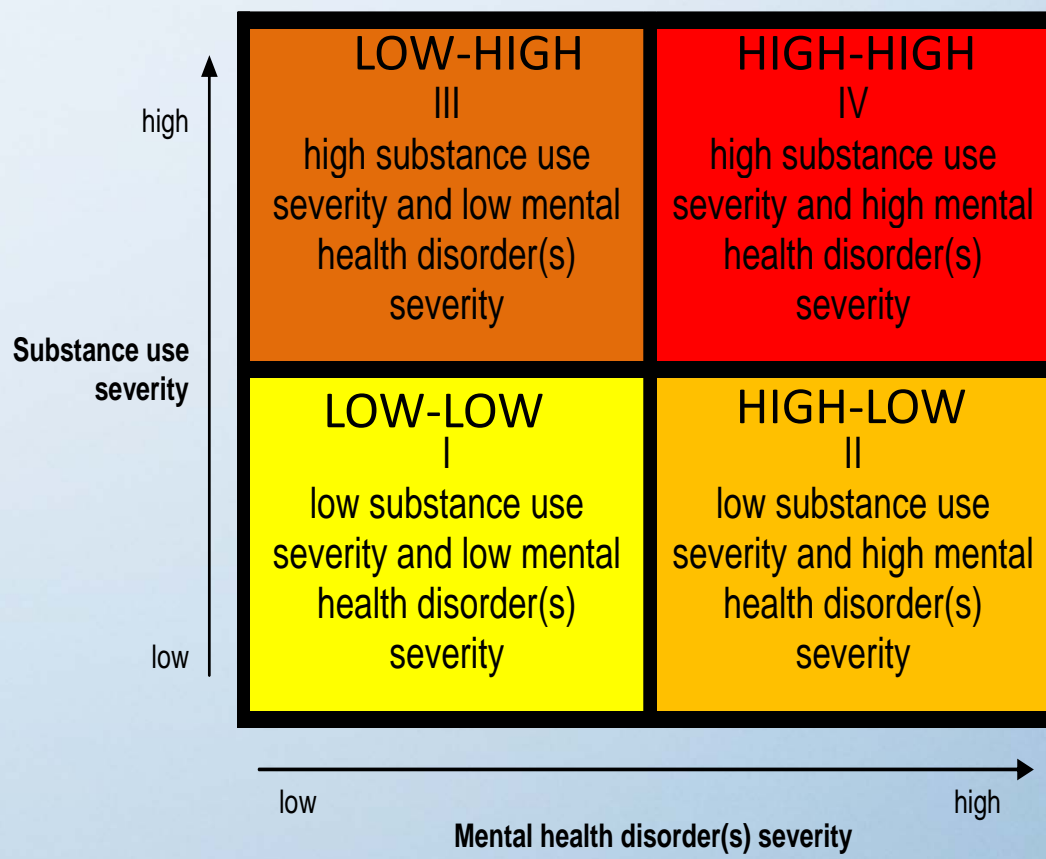
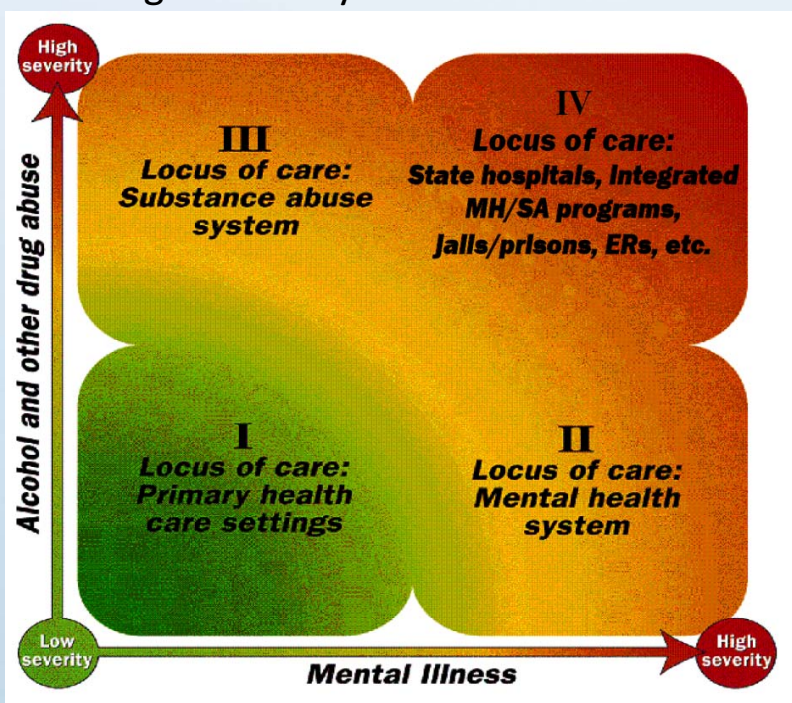
- Fragmented system due to different entry paths
- Different funding mechanisms (fiscal carve outs for benefits)
- Consequently:
 - Limited services – Treatment emphasized is presenting “system” problem - *either* or (SUD or mental health condition), typically not both
- Care coordination or integration between systems is critical



Best Practice: work with multiple Systems

Effective Response:

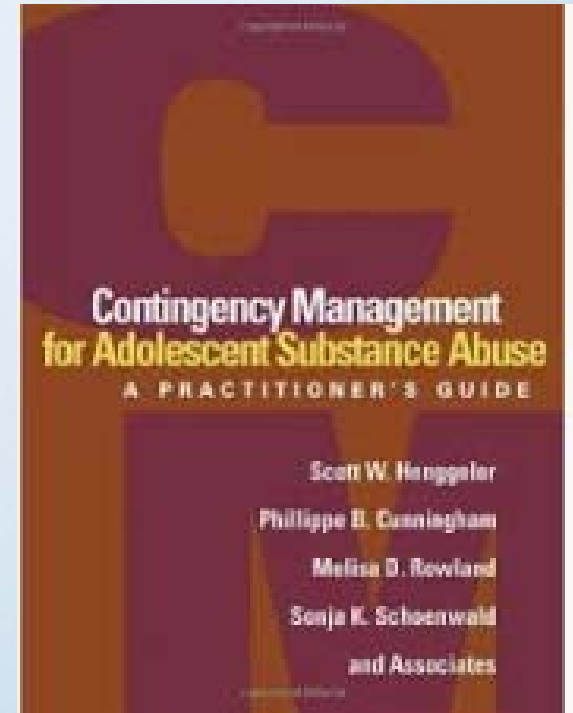
- Consultation with multiple agencies
- Collaboration with multiple agencies
- Integrate family



Consultation
 Collaboration
 Integrated Services

Contingency Management

- Referred to as “CM.” It has been “endorsed” by NIDA (est 1999) as a best practice for youth
- It appears on almost every list of evidence-based practices for treating substance use disorders (ADAI, 2005)
- It has been singled out, along with MI as being an effective behavioral approach to help youth engage (and reduce or stop use) (Carroll & Onken, 2005)



Behavioral Incentives
Recommended by.

→ Verified by over 100 randomized controlled trials

→ Analyzed by seven meta-analyses

→ Can use diverse monetary vouchers or earned rewards as incentives for youth

The complex block contains a white rectangular area with a blue border. At the top, it says 'Behavioral Incentives Recommended by.' in blue text. Below this, there are four logos: the Surgeon General's Office logo, the American Society of Addiction Medicine (ASAM) logo, the National Institutes of Health (NIH) logo, and the National Health Service (NHS) logo. To the right of these logos, there are three bullet points, each starting with a blue arrow pointing to the right. The first bullet point says 'Verified by over 100 randomized controlled trials', the second says 'Analyzed by seven meta-analyses', and the third says 'Can use diverse monetary vouchers or earned rewards as incentives for youth'.

Research supports that CM offers youth an opportunity to “earn” **low-cost incentives**, such as prizes or cash vouchers (for movie passes, food items, other personal goods) **in exchange for participating in services** (session attendance, achieving important goals like doing HW, self-help involvement, not using/drinking).

Questions, Comments, Follow-Up



Rachel Gonzales-Castaneda

Email:

rcastaneda@apu.edu

Resources related to Youth Substance Use Treatment

- **SAMHSA TIPS (Treatment Improvement Protocols Series)**
<http://www.store.samhsa.gov/list/series?name=TIP-Series-Treatment-Improvement-Protocols-TIPS-&pageNumber=1>
 - TIP 32: Treatment of Adolescents with SUDs
 - TIP 35: Enhancing Motivation for Change
- **Cannabis Youth Treatment Series**
 - Vol. 1 – MET/CBT for Adolescent Cannabis Users:
<https://store.samhsa.gov/product/Adolescent-Cannabis-Users-Motivational-Enhancement-and-Cognitive-Behavioral-Therapy/SMA05-4010>
 - Vol. 2 – MET/CBT for Adolescent Cannabis Users:
<https://store.samhsa.gov/product/Motivational-Enhancement-Therapy-and-Cognitive-Behavioral-Therapy-Supplement-7-Sessions-of-Cognitive-Behavioral-Therapy-for-Adolescent-Cannabis-Users/SMA15-3954>