



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

A Brief Primer and Updates on Native American Youth Substance Use Disorder (SUD)

Steven Sust, MD
Clinical Assistant Professor
June 22, 2023



Introducing the Presenter

Steven Sust is the middle child of 3 boys born to Hong Kong immigrant parents who raised them in downtown Philadelphia. He received a bachelor's degree in psychology from GWU, medical degree from UVA, and postgraduate training at UPenn and Stanford. His work experiences range broadly from state psychiatric hospitals, county specialty MH clinics and emergency rooms to school mental health and schizophrenia research at NIMH. Current interests include primary care behavioral health integration, cultural psychiatry, school mental health, and working with underserved populations.



Steve Sust, MD

Clinical Assistant Professor,
Department of Psychiatry and Behavioral
Sciences
Stanford University School of Medicine



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

Personal Disclosures

- I am a cisgender male of Cuban influenced Chinese descent
- I have no formally diagnosed family history of mental illness
- I have sought out and received my own mental health care
- I have both knowingly and unknowingly contributed to bias and most “isms,” and will try to improve upon these areas of growth



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

Learning objectives

- Recognize psychiatric comorbidities that could pre-date initial diagnosis of SUD
- List two to three methods of screening for youth SUD
- Acquire new knowledge regarding cultural and psychosocial stressors affecting psychiatric and SUD that requires close collaboration between clinicians, schools, parents, and children



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

POP QUIZ!

True or false:

It is not important for patients to disclose quantity and frequency of marijuana use to their surgical team(s) before they operate on patients



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

Marijuana Affecting Anesthesia

Effects of Cannabis Use on Sedation Requirements for Endoscopic Procedures

Mark A. Twardowski, DO; Margaret M. Link, MSN, RN, CRNI; Nicole M. Twardowski, BS

Table.
Amount of Required Sedation in Regular Cannabis Users Compared With Nonusers

Sedative	Amount of Sedation Required			P Value	
	Cannabis Nonusers (n=225)	Cannabis Users (n=25)	Greater Requirement, %	t Test	Mann-Whitney U Test
Fentanyl, µg	109.91	125.93	14	.029	.003
Midazolam, mg	7.61	9.15	19.6	<.001	<.001
Propofol, mg	13.83	44.81	220.5	.026	.001

Context: Cannabis (or *marijuana*) became legal for recreational use in Colorado in 2012, and this legislation change has created both challenges and opportunities in medicine. More patients are using cannabis, and more patients are now willing to admit cannabis use than in the past, which increases the likelihood that they will be forthcoming about use during medical questioning. Cannabis use may have implications during medical care, including procedural sedation.

Objective: To determine whether regular cannabis use had any effect on the dose of medication needed for sedation during endoscopic procedures.

Methods: A total of 250 medical records were reviewed from 1 endoscopy center and 1 endoscopist to minimize the variability in sedation technique for the study purposes. The cohort was reviewed with regard to age and gender to determine whether differences were present among different groups as to the relative amount of sedation medication required in cannabis users vs nonusers.

Results: Medical records from 250 patients were reviewed, and researchers found that compared with people who did not regularly use cannabis, people who regularly used cannabis required an amount of sedation for endoscopic procedures that was significantly higher ($P=.05$).

Conclusion: Determining cannabis use before procedural sedation can be an important tool for planning patient care and assessing both medication needs and possible risks related to increased dosage requirements during endoscopic procedures.

J Am Osteopath Assoc. 2019;119(5):307-311. Published online April 15, 2019.
doi:10.7556/jaoa.2019.052

Keywords: cannabis, endoscopy, marijuana, sedation

[Link to article](#)

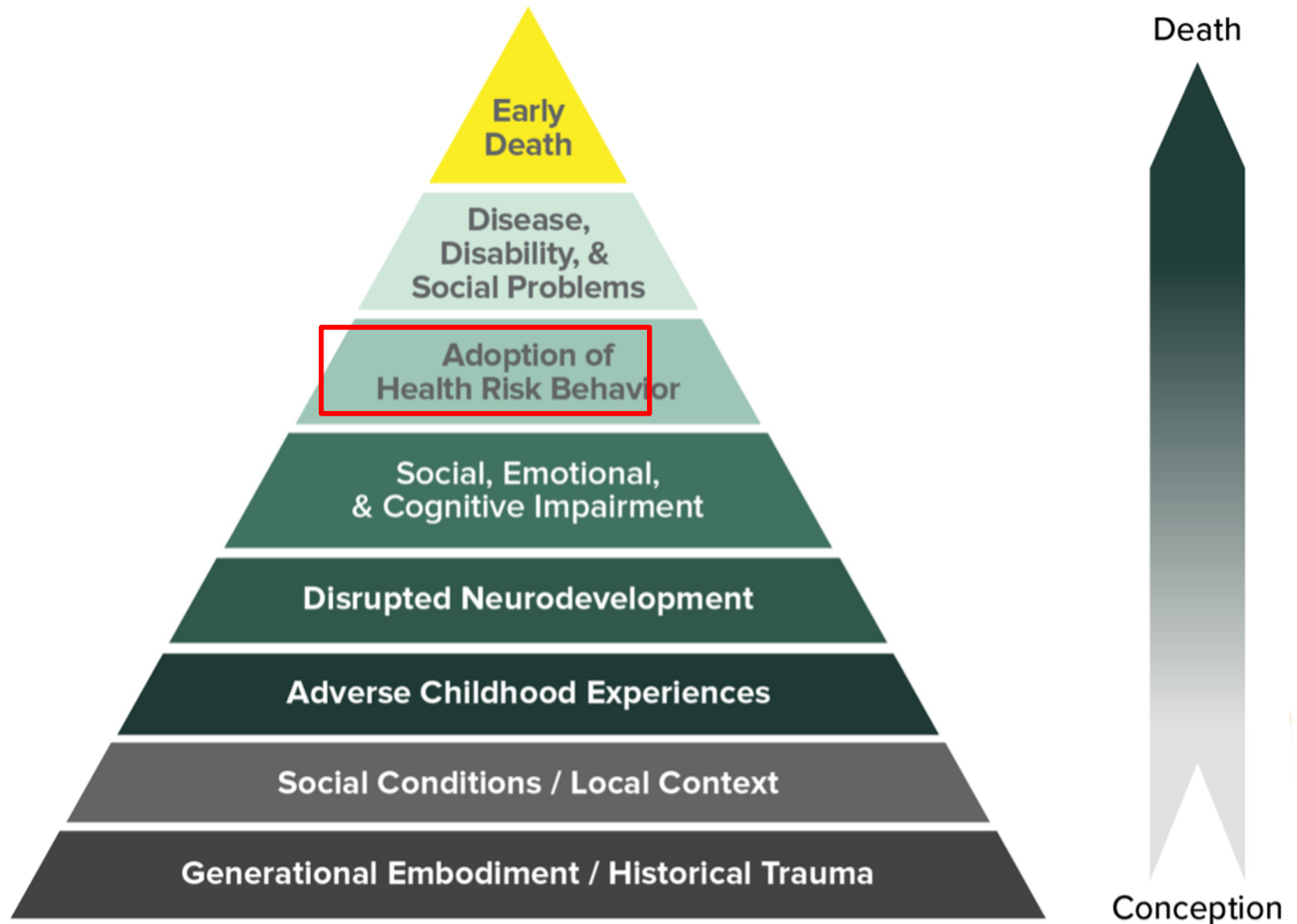
Context and Humility

“To be fully culturally competent, practitioners should understand the meaning of the NA/AI experience by understanding that, collectively, Native people have been wounded through the processes of genocide, removal, assimilation, acculturation, and loss of culture.”



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

[Link to article](#)



Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

[Link to CDC ACES page](#)



Imperfect Epidemiology Data

JAMA
Network | **Open**



Original Investigation | Substance Use and Addiction

Substance Use Among American Indian Youths on Reservations Compared With a National Sample of US Adolescents

Randall C. Swaim, PhD; Linda R. Stanley, PhD

Abstract

IMPORTANCE American Indian adolescents attending schools on or near reservations are historically at high risk for substance use.

OBJECTIVE To compare rates of substance use among reservation-based American Indian adolescents vs rates among national US youths.

DESIGN, SETTING, AND PARTICIPANTS Population-based survey study of 8th-, 10th-, and 12th-grade students attending participating schools on or near reservations, stratified by region, during the 2016-2017 school year. Substance use rates were compared with those of a national sample of comparably aged students from the Monitoring the Future study.

MAIN OUTCOMES AND MEASURES Lifetime and last-30-day self-reported use of alcohol, marijuana, and other drugs, using relative risk (RR) ratios with 95% confidence intervals to compare American Indian student rates with Monitoring the Future student rates.

RESULTS Participants included 570 students in eighth grade (49.6% girls; mean age, 13.5 years), 582 in 10th grade (50.0% girls; mean age, 15.4 years), and 508 in 12th grade (53.5% girls; mean age, 17.4 years). American Indian students reported substantially higher lifetime and last-30-day substance use rates compared with the Monitoring the Future students, with greatest disparity at eighth grade: last-30-day substance use RRs for grade 8 were 2.1 (95% CI, 1.4-3.0) for alcohol, 4.2 (95% CI, 3.1-5.8) for marijuana, and 2.4 (95% CI, 1.7-3.3) for other illicit drugs. Compared with 2009 to 2012 data, the RRs between American Indian and Monitoring the Future students for lifetime alcohol and marijuana use did not change substantially from the 2016-2017 school year (alcohol: RR, 1.5 [95% CI, 1.4-1.6] vs RR, 1.3 [95% CI, 1.2-1.4], respectively; marijuana: RR, 2.0 [95% CI, 1.8-2.1] vs RR, 2.1 [95% CI, 1.9-2.3], respectively), but increased substantially for other drugs (RR, 1.8 [95% CI, 1.7-1.9] vs RR, 3.0 [95% CI, 2.9-3.2], respectively).

CONCLUSIONS AND RELEVANCE Reservation-based American Indian students are at high risk for substance use compared with US youths in general, making prevention efforts critical. Cultural and value-based characteristics unique to American Indian populations may provide beneficial targets for prevention, but there is limited evidence on how cultural factors work to prevent risky behaviors. Without increased attention to these disparities, the costs to American Indian youths and their communities will remain high.

Key Points

Question How do substance use rates among American Indian youths compare with rates among national US adolescents?

Findings Lifetime and last-30-day substance use rates and relative risk were significantly higher for nearly all substances among American Indian youths.

Meaning Early prevention and culturally sensitive interventions are needed for this population in addition to careful screening by medical staff for signs of early initiation and substance abuse and dependence.

+ Invited Commentary

Author affiliations and article information are listed at the end of this article.



[Link to article](#)

Screening for SUD in Youth

TABLE 2

Key Characteristics of Substance Use Screening Tools

Screening tool	Patients	Time to administer	Optimal cut-point associated with problem use	Sensitivity (95% CI)	Specificity (95% CI)
Alcohol Use Disorders Identification Test (AUDIT) ³⁷	13 to 19 years of age; college students; emergency department patients	2 minutes	2	0.88 (0.83 to 0.93)	0.81 (0.77 to 0.85)
CAGE Questionnaire ³⁷	Adults (not recommended for use with adolescents)	Not applicable (not recommended for use with adolescents)	1	0.37 (0.29 to 0.44)	0.96 (0.94 to 0.98)
CRAFFT Questionnaire ³⁷	14 to 18 years of age	74 seconds via paper; 49 seconds via computer	1	0.92 (0.88 to 0.96)	0.64 (0.59 to 0.69)
National Institute on Alcohol Abuse and Alcoholism (NIAAA) Screening Guide ³⁸	Offers age-specific screening questions (9 to 11, 11 to 14, and 14 to 18 years of age)	Not documented; only two questions in length	Varies by age	0.87 (0.76 to 0.94)	0.84 (0.82 to 0.86)
Problem Oriented Screening Instrument for Teenagers (POSIT) ³⁷	12 to 19 years of age	20 to 30 minutes	1	0.84 (0.79 to 0.90)	0.89 (0.86 to 0.92)

Note: Links to the screening tools are available at <https://www.drugabuse.gov/nidamed-medical-health-professionals/tool-resources-your-practice/screening-assessment-drug-testing-resources/chart-evidence-based-screening-tools-adults>.³⁶



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

[Link to article](#)

Screening for SUD in Native American Youth

Validity of the CRAFFT in American-Indian and Alaska-Native Adolescents: Screening for Drug and Alcohol Risk*

LILLIAN HUANG CUMMINS, PH.D.,[†] KAREN K. CHAN, M.S., KELLY M. BURNS, B.A., ARTHUR W. BLUME, PH.D.,[†] MARY LARIMER, PH.D., AND G. ALAN MARLATT, PH.D.

Department of Psychology, University of Washington, Seattle, Washington

ABSTRACT. *Objective:* Native-American adolescents are reported to be at high risk for drug and alcohol use and related negative consequences. A brief screening instrument that is culturally and developmentally appropriate can aid clinicians who work with Native youth in determining whether more extensive assessment of substance use is necessary. The CRAFFT has been shown to be a valid and reliable screen among general adolescent outpatient clinic samples. *Method:* Data were collected as part of the Journeys of the Circle project, a collaborative effort between the Seattle Indian Health Board (SIHB) and the University of Washington's Addictive Behaviors Research Center. Psychometric properties of the CRAFFT were examined in 70 American-Indian and Alaska-Native youths ages 13 to 19 recruited from public schools

and SIHB's outpatient clinics. *Results:* The CRAFFT demonstrated good internal consistency ($\alpha = 0.81$). A score of 2 or higher on the CRAFFT was found to be optimal for capturing youths with high alcohol-related problems (sensitivity, 0.95; specificity, 0.86), frequent alcohol use (sensitivity, 1.00; specificity, 0.72) and frequent marijuana use (sensitivity, 1.00; specificity, 0.75). A cut-point of 3 was appropriate for identifying adolescents with frequent other drug use (sensitivity, 0.86; specificity, 0.76). *Conclusions:* The CRAFFT may be a valid instrument for identifying Native youths at risk for alcohol and other drug problems. This brief screen can be effective in helping providers determine the need for further assessment and treatment or prevention services for Native-American adolescents. (*J. Stud. Alcohol* 64: 727-732, 2003)



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®



[Link to article](#)

The CRAFFT 2.1+N Interview

To be verbally administered by the clinician

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, on how many days did you:

1. Drink more than a few sips of beer, wine, or any drink containing **alcohol**? Say “0” if none.

of days

2. Use any **marijuana** (cannabis, weed, oil, wax, or hash by smoking, vaping, dabbing, or in edibles) or “**synthetic marijuana**” (like “K2,” “Spice”)? Say “0” if none.

of days

3. Use **anything else to get high** (like other illegal drugs, pills, prescription or over-the-counter medications, and things that you sniff, huff, vape, or inject)? Say “0” if none.

of days

4. Use a **vaping device* containing nicotine and/or flavors**, or use any **tobacco products†**? Say “0” if none.

of days

**Such as e-cigs, mods, pod devices like JUUL, disposable vapes like Puff Bar, vape pens, or e-hookahs. †Cigarettes, cigars, cigarillos, hookahs, chewing tobacco, snuff, snus, dissolvables, or nicotine pouches.*



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®



[Link to CRAFFT website](#)

Alcohol Use Disorders Identification Test-Concise (AUDIT-C)

General Instructions

The Alcohol Use Disorders Identification Test-Concise (AUDIT-C) is a brief alcohol screening instrument. Please give a response for each question.

Segment: --

Visit Number: --

1. How often do you have a drink containing alcohol?

☐ Never

☐ Monthly or less

☐ 2-4 times a month

☐ 2-3 times a week

☐ 4 or more times a week

2. How many standard drinks containing alcohol do you have on a typical day?

☐ 1 or 2

☐ 3 to 4

☐ 5 to 6

☐ 7 to 9

☐ 10 or more

3. How often do you have six or more drinks on one occasion?

☐ Daily or almost daily

☐ Weekly

☐ Monthly

☐ Less than monthly

☐ Never



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

[Link to NIDA website](#)

Imperfect Epidemiology Data(Cont'd)

Table 1. Lifetime Prevalence of Alcohol and Drug Use Comparing Reservation-Based American Indian Students (2016-2017) With MTF Students (2016)

Type of Substance Use	Grade 8			Grade 10			Grade 12		
	American Indian, % (95% CI)	MTF, % ^a	RR (95% CI)	American Indian, % (95% CI)	MTF, % ^a	RR (95% CI)	American Indian, % (95% CI)	MTF, % ^a	RR (95% CI)
Alcohol	39.7 (31.4-48.6)	22.8	1.7 (1.4-2.2) ^b	52.9 (46.5-59.2)	43.4	1.2 (1.1-1.4) ^b	72.5 (66.0-78.1)	61.2	1.2 (1.1-1.3) ^b
Been drunk	22.9 (17.3-29.7)	8.6	2.7 (2.0-3.5) ^b	39.2 (31.6-47.4)	26.0	1.5 (1.2-1.9) ^b	56.5 (49.2-63.5)	46.3	1.2 (1.0-1.4) ^b
Marijuana	43.7 (35.1-52.7)	12.8	3.4 (2.8-4.2) ^b	55.6 (46.7-64.2)	29.7	1.9 (1.6-2.2) ^b	66.4 (57.3-74.5)	44.5	1.5 (1.3-1.7) ^b
Any illicit drug, not marijuana ^c	16.2 (12.7-20.5)	8.9	1.8 (1.5-2.3) ^b	19.1 (12.8-27.6)	14.0	1.4 (0.9-2.0)	24.4 (18.8-31.0)	20.7	1.2 (0.9-1.5)
Inhalants	13.2 (9.7-17.7)	7.7	1.7 (1.3-2.3) ^b	10.7 (8.6-13.1)	6.6	1.6 (1.3-2.1) ^b	10.8 (8.0-14.3)	5.0	2.2 (1.3-3.5) ^b
Tranquilizers	3.6 (2.2-5.7)	3.0	1.2 (0.8-2.0)	6.2 (3.6-10.7)	6.1	1.0 (0.6-1.7)	5.0 (3.5-7.1)	7.6	0.7 (0.5-0.9) ^b
Narcotics other than heroin	3.0 (2.0-4.5)	NA	NA	8.1 (5.2-12.3)	NA	NA	10.9 (7.6-15.4)	7.8	1.4 (0.9-2.0)
Amphetamines	4.0 (2.3-6.8)	5.7	0.7 (0.5-1.2)	5.8 (3.5-9.4)	8.8	0.7 (0.4-1.1)	10.0 (5.9-16.4)	10.0	1.0 (0.7-1.5)
Cocaine	4.3 (2.8-6.5)	1.1	3.9 (2.3-6.5) ^b	6.4 (3.6-11.0)	1.9	3.4 (1.8-6.0) ^b	11.8 (8.3-16.4)	3.3	3.6 (2.3-5.4) ^b
Crack	3.0 (1.7-5.2)	0.9	3.3 (1.8-5.7) ^b	3.8 (2.3-6.2)	0.8	4.8 (2.8-8.2) ^b	5.6 (3.4-9.3)	1.4	4.0 (2.2-6.9) ^b
LSD	3.9 (2.6-5.9)	1.2	3.3(2.1-5.1) ^b	6.1 (3.6-10.3)	3.2	1.9 (1.2-3.3) ^b	9.8 (6.3-14.9)	4.9	2.0 (1.2-3.2) ^b
Hallucinogens other than LSD	8.1 (5.6-11.6)	1.9	4.3 (2.8-6.4) ^b	9.9 (7.3-13.4)	3.1	3.2 (2.3-4.4) ^b	12.3 (8.6-17.4)	4.7	2.8 (1.9-4.1) ^b
Heroin	2.8 (1.8-4.3)	0.5	5.6 (3.3-9.8) ^b	2.4 (1.4-3.9)	0.6	4.0 (2.3-7.4) ^b	3.2 (2.2-4.6)	0.7	4.6 (2.9-7.3) ^b
Crystal meth ^d	2.6 (1.4-4.8)	0.6	4.3 (2.2-7.9) ^b	5.3 (4.0-7.0)	0.7	7.6 (5.1-10.8) ^b	8.0 (4.2-14.7)	1.4	5.7 (3.0-12.6) ^b
Cigarettes	29.7 (22.4-38.1)	9.8	3.0 (2.3-4.0) ^b	42.0 (36.2-47.9)	17.5	2.4 (2.0-2.8) ^b	49.7 (44.2-55.1)	28.3	1.8 (1.6-2.01) ^b

Abbreviations: LSD, lysergic acid diethylamide; MTF, Monitoring the Future; NA, not available; RR, relative risk.

^a Confidence intervals for MTF data can be found in Miech et al,¹⁹ Tables 4-1a through d.

^b $P < .05$.

^c Use of any illicit drug includes any use of LSD, other hallucinogens, crack, cocaine other than crack, heroin, any use of narcotics other than heroin (grade 12 only), amphetamines, or tranquilizers not under a physician's orders.

^d Numbers for MTF grades 8 and 10 are for methamphetamine (including crystal meth).



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®



[Link to article](#)

DSM5 Diagnostic Criteria for SUD

Table 3: *DSM-5 Diagnostic* Criteria for Diagnosing and Classifying Substance Use Disorders [a,b,c]

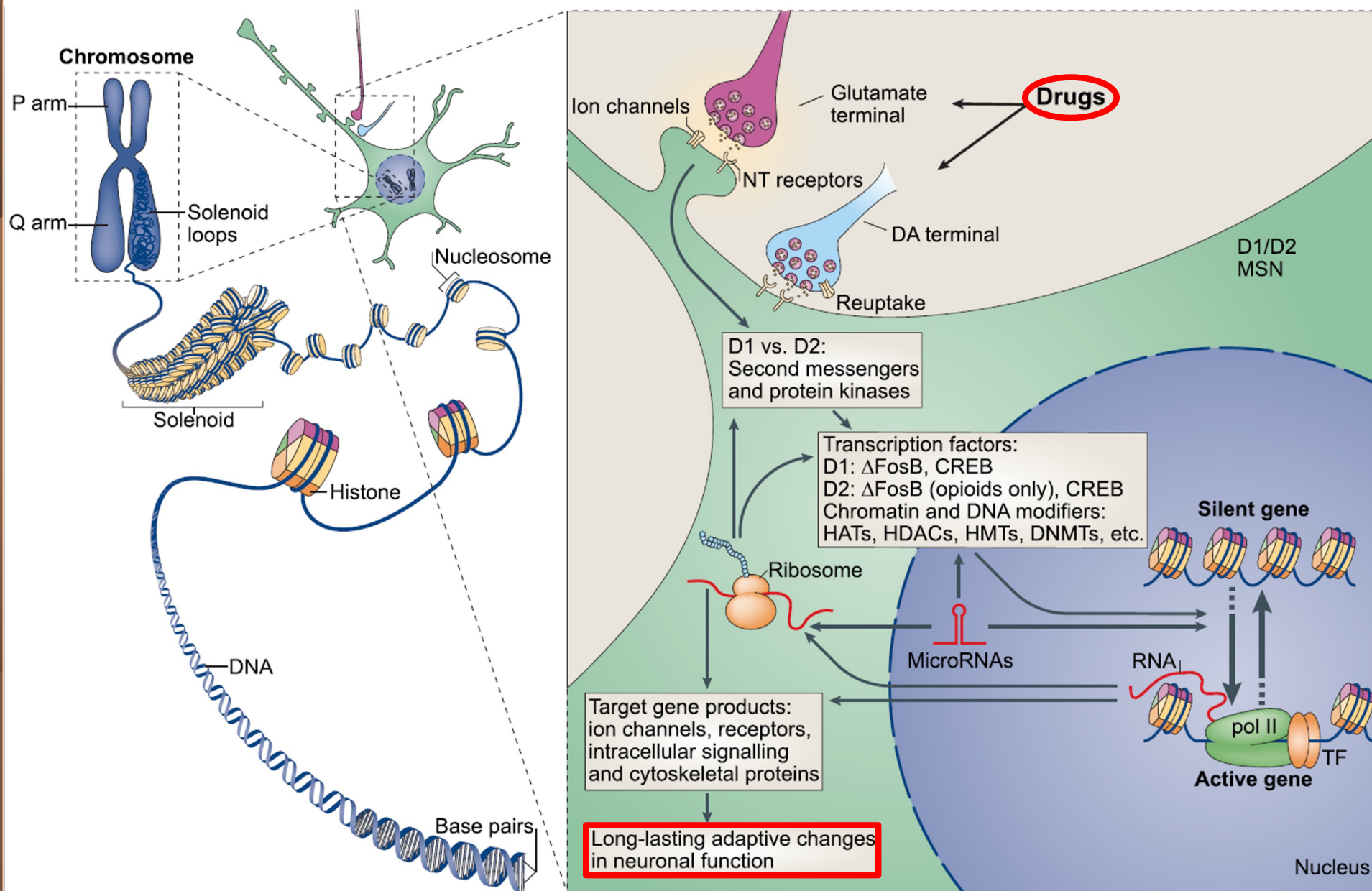
Criteria Type	Descriptions
Impaired control over substance use (<i>DSM-5</i> criteria 1 to 4)	<ul style="list-style-type: none"> Consuming the substance in larger amounts and for a longer amount of time than intended. Persistent desire to cut down or regulate use. The individual may have unsuccessfully attempted to stop in the past. Spending a great deal of time obtaining, using, or recovering from the effects of substance use. Experiencing craving, a pressing desire to use the substance.
Social impairment (<i>DSM-5</i> criteria 5 to 7)	<ul style="list-style-type: none"> Substance use impairs ability to fulfill major obligations at work, school, or home. Continued use of the substance despite it causing significant social or interpersonal problems. Reduction or discontinuation of recreational, social, or occupational activities because of substance use.
Risky use (<i>DSM-5</i> criteria 8 and 9)	<ul style="list-style-type: none"> Recurrent substance use in physically unsafe environments. Persistent substance use despite knowledge that it may cause or exacerbate physical or psychological problems.
Pharmacologic (<i>DSM-5</i> criteria 10 and 11)	<ul style="list-style-type: none"> Tolerance: Individual requires increasingly higher doses of the substance to achieve the desired effect, or the usual dose has a reduced effect; individuals may build tolerance to specific symptoms at different rates. Withdrawal: A collection of signs and symptoms that occurs when blood and tissue levels of the substance decrease. Individuals are likely to seek the substance to relieve symptoms. No documented withdrawal symptoms from hallucinogens, PCP, or inhalants. Note: Individuals can have an SUD with prescription medications, so tolerance and withdrawal (criteria 10 and 11) in the context of appropriate medical treatment do <i>not</i> count as criteria for an SUD.
<p>Abbreviations: <i>DSM-5</i>, <i>Diagnostic and Statistical Manual of Mental Disorders–5</i>; PCP, phencyclidine; SUD, substance use disorder.</p> <p>Notes:</p> <p>a. Adapted from [APA 2013].</p> <p>b. SUDs are classified as mild, moderate, or severe based on how many of the 11 criteria are fulfilled: mild, any 2 or 3 criteria; moderate, any 4 or 5 criteria; severe, any 6 or more criteria.</p> <p>c. Please consult the <i>DSM-5</i> for substance-specific diagnostic information.</p>	



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

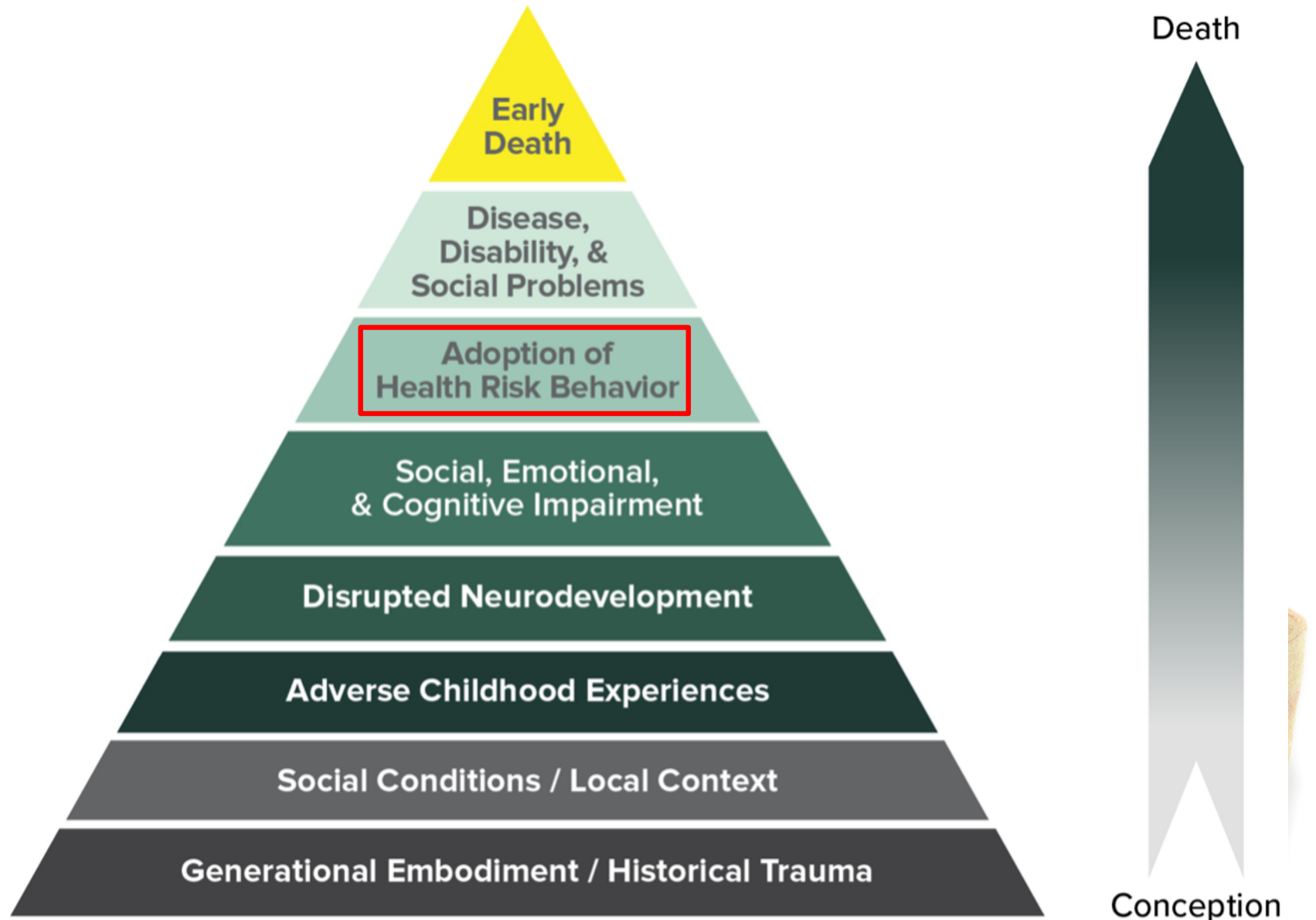
[Link to table](#)

Neurobiology of Addiction





CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®



Mechanism by which Adverse Childhood Experiences
Influence Health and Well-being Throughout the Lifespan

[Link to CDC ACES page](#)

Empathy and Support

STEPS TO MIRRORING



LISTEN
CAREFULLY AND
ATTENTIVELY



IMAGINE THEIR
PERSPECTIVE AND FEELINGS



STAY OUT OF JUDGMENT
(AVOID BLOCKERS)



PARAPHRASE THEIR
FEELINGS AND
PROBLEMS

Practice **mirroring** using sentence stems and avoid **empathy blockers** - well intentioned statements that may communicate judgment by shifting the attention away from the person who needs to be heard.

MIRRORING SENTENCE STEMS

IT SOUNDS LIKE YOU ARE FEELING...



I'M HEARING YOU SAY THAT YOU...



I WONDER IF YOU FEEL...



IT SEEMS LIKE YOU ARE NEEDING...



COMMON EMPATHY BLOCKERS



SILVERLINING IT

Reassuring, cheering up, downplaying, trying to make them feel better or differently



FIXER UPPER

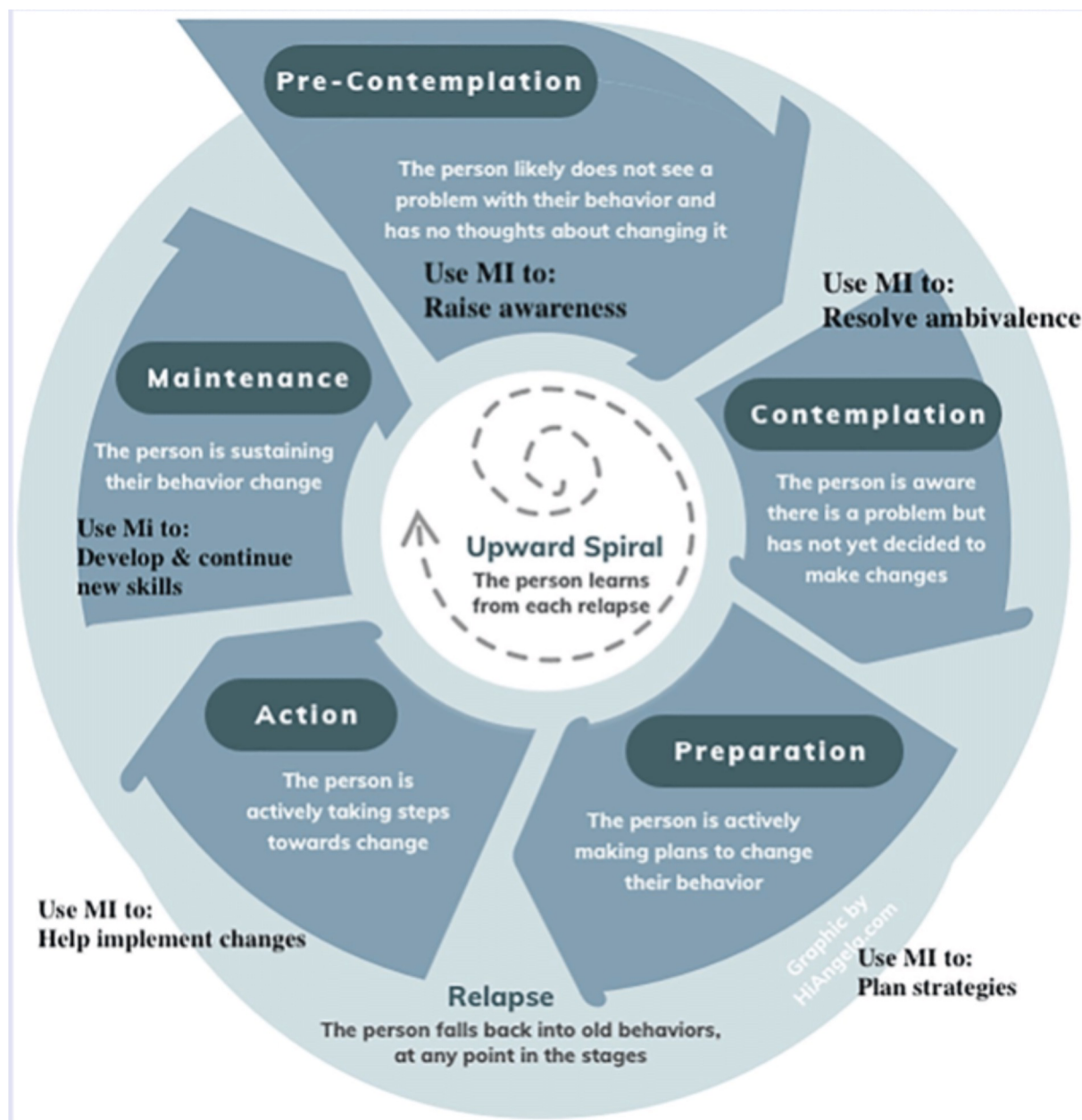
Offering your solutions, advice, beliefs, or opinions



INTERROGATING

Probing, analyzing, evaluating

Motivational Interviewing



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

[Link to motivational interviewing resources](#)
[Link to article containing image](#)

Summary

1. Strong possibility of both diagnoses for both psychiatric and substance use disorder
2. Work with cultural practitioner(s) to review all screeners before implementation
3. People who struggle with SUD deserve equal parts of compassion and empathy as well



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

References & Resources

- Please see direct URL links embedded in slides for presentation references
- Additional Resource
 - [Native American Motivational Interviewing: Weaving Native American and Western Practices](#)



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®

Presenter Contact Information

Steven Sust, MD
susts@stanford.edu



CALIFORNIA AREA INDIAN HEALTH SERVICE
Project ECHO®