Addiction 101: Introduction to Addiction Screening + Treatment

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Aleka Delafield Heinrici, MD, Associate Medical Director, North County Serenity House, HealthRight360;
Director of Substance Use Disorder Services, San Ysidro Health

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shaping the future of sexual + reproductive health care℠

Disclosure

- Speakers and planners have no financial conflicts to disclose.

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Overview

This is a general introduction to addiction medicine for primary care and family planning providers

Addiction Curriculum varies greatly in medical training

Objective is for medical providers to feel uniformly comfortable in identifying, diagnosing and starting/referring for treatment.

The following webinars will include more specifics into Medication Assisted Treatment and clinical implementation of MAT.

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Outline

- Context
- Pathophysiology of Addiction
- Prevalence of Substance Use Disorders
- Screening and Diagnosis
- Brief Intro to Evidence Based Treatment Approaches

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Context

- Evolution of physiologic basis of addiction
- SUD now understood as a chronic, relapsing disease related to brain circuitry with measurable interventions to be taken
- More medications FDA approved for treatment of addiction
- Recognition of Addiction Medicine as a medical specialty
- The bipartisan political and financial support to fight the opioid epidemic has provided funding for SUD services across the nation
- While treatment of Opioid Use Disorder gets all the attention, we need to have a general foundation of treating all SUD

What Causes Addiction?

- Genetics, Trauma, Environmental Exposures, Co-occurring Psychiatric Disorders, Personality Traits?
- These are all RISK FACTORS but do not CAUSE addiction
- Addiction is a *Primary, chronic disease of brain reward, motivation and memory circuitry*

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Multifactorial Risk Factors

Genetic

- Inherited disposition
- 40-60% of the vulnerability is genetic

Social

- Age of first use
- Peer group
- Low perception of harm
- Social and cultural norms
- Availability/Access

Family

- Use of drugs and alcohol by parents, siblings, spouse
- Family dysfunction (e.g., inconsistent discipline
- Family trauma (e.g., death, divorce)

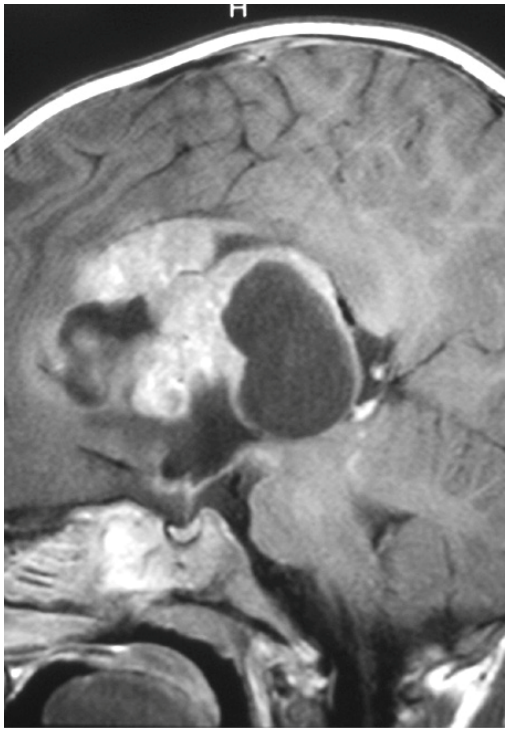
Psychiatric

- Co-occurring psychiatric do
- 30%(+) of people with psychiatric disorders have substance use disorders

Environment

- Male gender
- Low socioeconomic class
- Poor parental support
- Within-peer group deviancy
- Drug availability
- Stress (including abuse and trauma)
- Social isolation in adolescence
- Social status
  - Subordinate lab animals more likely to self-administer cocaine

Age of Onset



- Earlier alcohol use -> higher lifetime risk of developing AUD
- 47% of those that start drinking before age 14yo experienced severe AUD/dependence at some point
- More than 4 times more likely those that start drinking after 21yo
- This remains true when controlling for other risks factors

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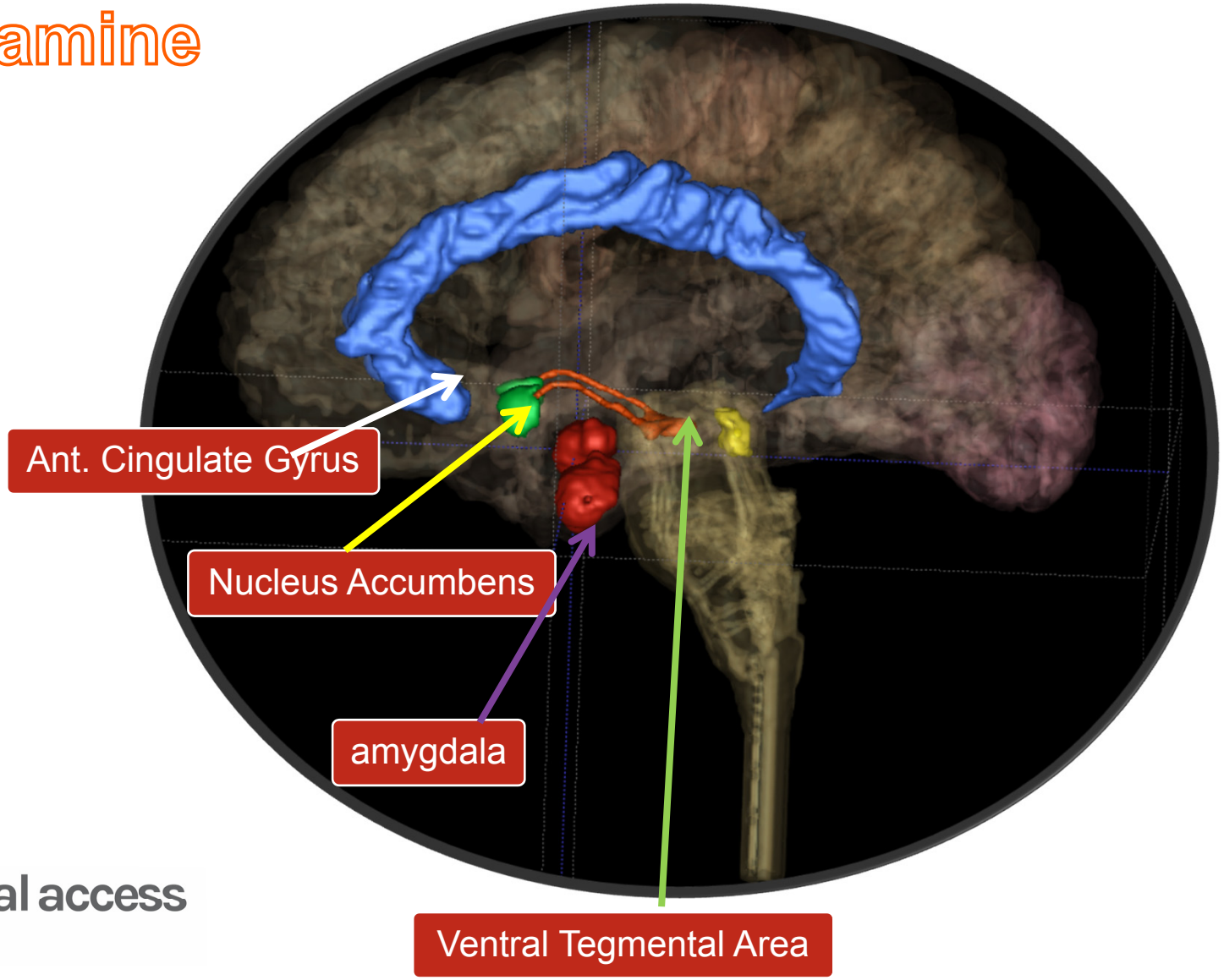
Neuroadaptations in Addiction

Neuroadaptation	Result
Decreased dopamine and GABA in ventral striatum	Decreased reward from normal activities
Enhancement of corticotrophin-releasing factor (CRF) in amygdala	Increased negative emotional state
Blunting of HPA axis	Decreased response to stress
Engagement of dorsal striatum	Solidifies habitual behaviors
Prefrontal cortex damage/impairment	Poor inhibitory control and poor executive functioning, poor decision-making
Insula dysfunction	Impaired ability to evaluate internal states

Neurophysiology of Addiction

Dopamine



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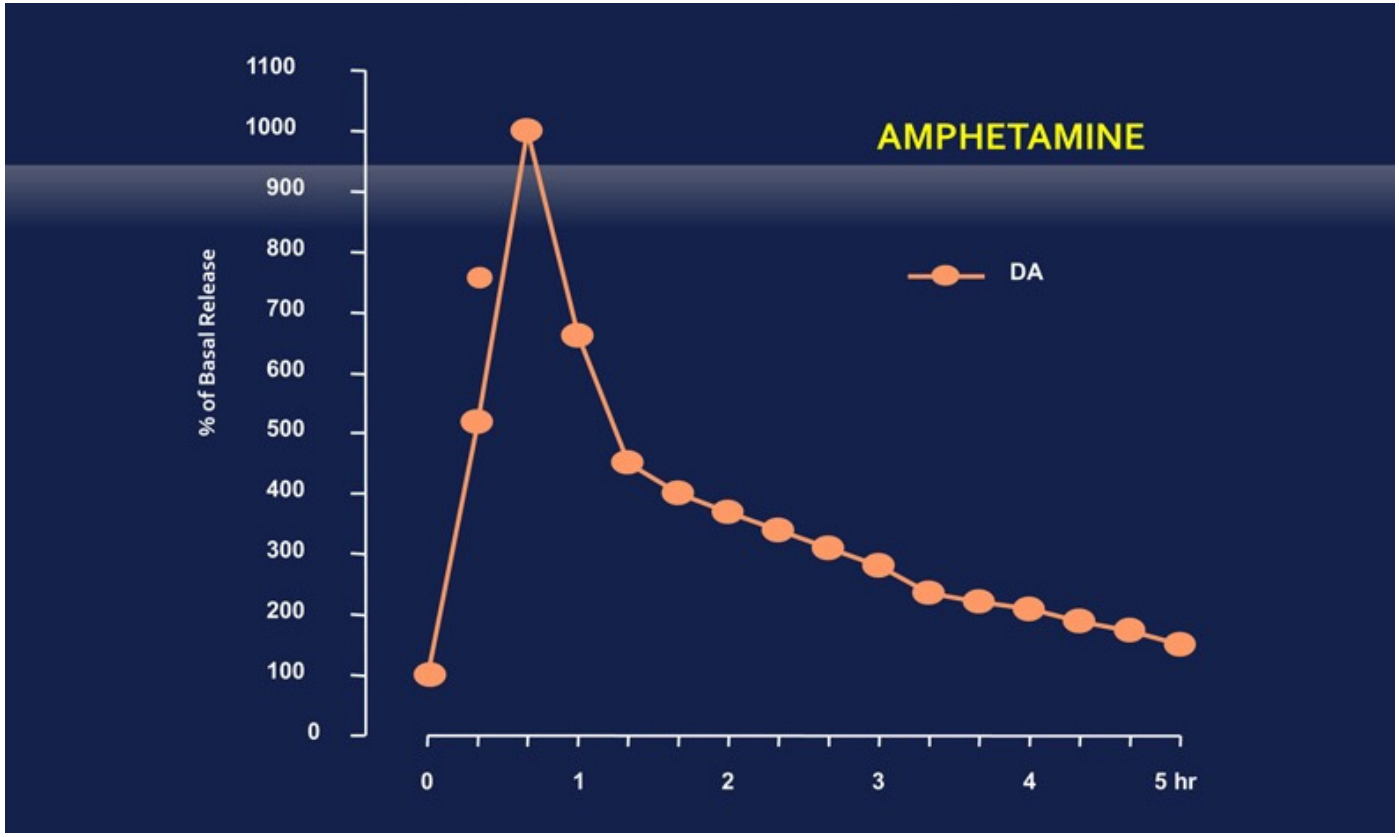
Effects of Amphetamines on Dopamine Levels



Adapted from: DiChiara and Imperato, Proceedings of the National Academy of Sciences USA, 1988, courtesy of NoraD Volkow, MD

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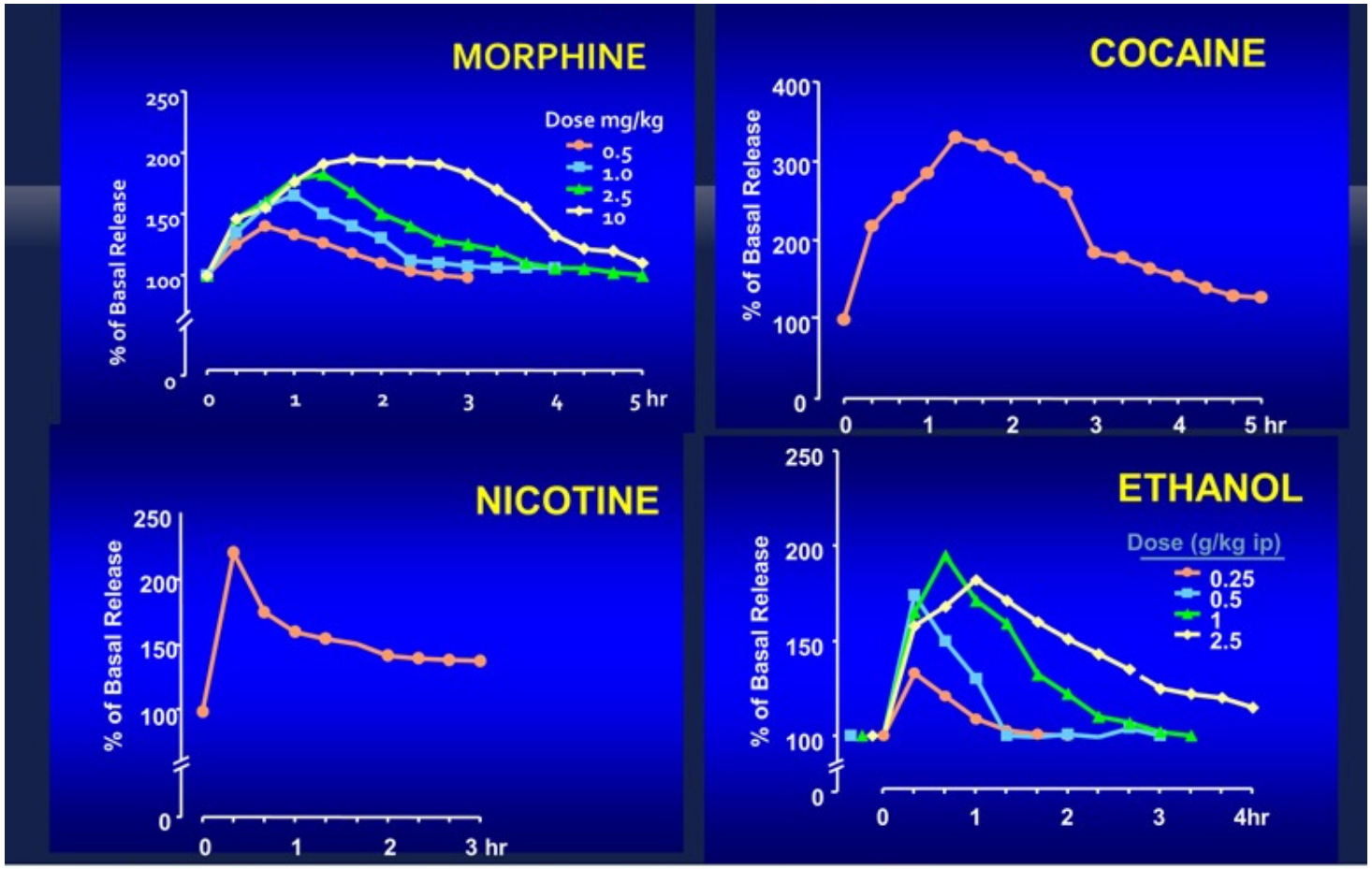
Effects of Drugs on Dopamine



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Repeated Substance Exposure

1. Release 2 to 10 times more dopamine than natural reward
2. Powerful reward strongly motivates people to take drugs again and again.
3. The brain adjusts - producing less dopamine and reducing the number of receptors that can receive signals
4. The ability to experience *ANY* pleasure is reduced.

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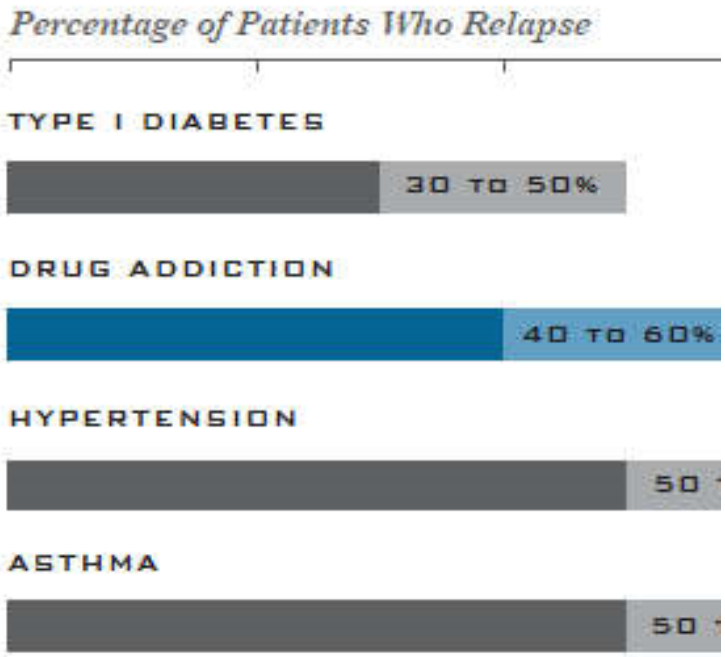
Addiction Definition

- Inability to consistently abstain, impairment in behavioral control, diminished recognition of significant problems with one's behaviors and interpersonal relationships, and a dysfunctional emotional response.
- Causes pathological pursuit of reward and relief by using a substance
- Manifestations are biological, psychological, social and spiritual
- Has cycles of relapse and remission.
- Without treatment or engagement in recovery activities-> can be progressive and can be fatal

Addiction as a Disease



- Addiction is a chronic disease
- Detoxification alone is not treatment
- Long-term treatments are required, just like for other chronic diseases – e.g., diabetes, hypertension, asthma
- Discontinuation of treatment will likely result in relapse
- Relapse does not indicate failure of treatment
- Rates of relapse and recovery for addiction are equivalent to other medical diseases
- Problematic behaviors are a unique symptoms of the disease

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Prevalence

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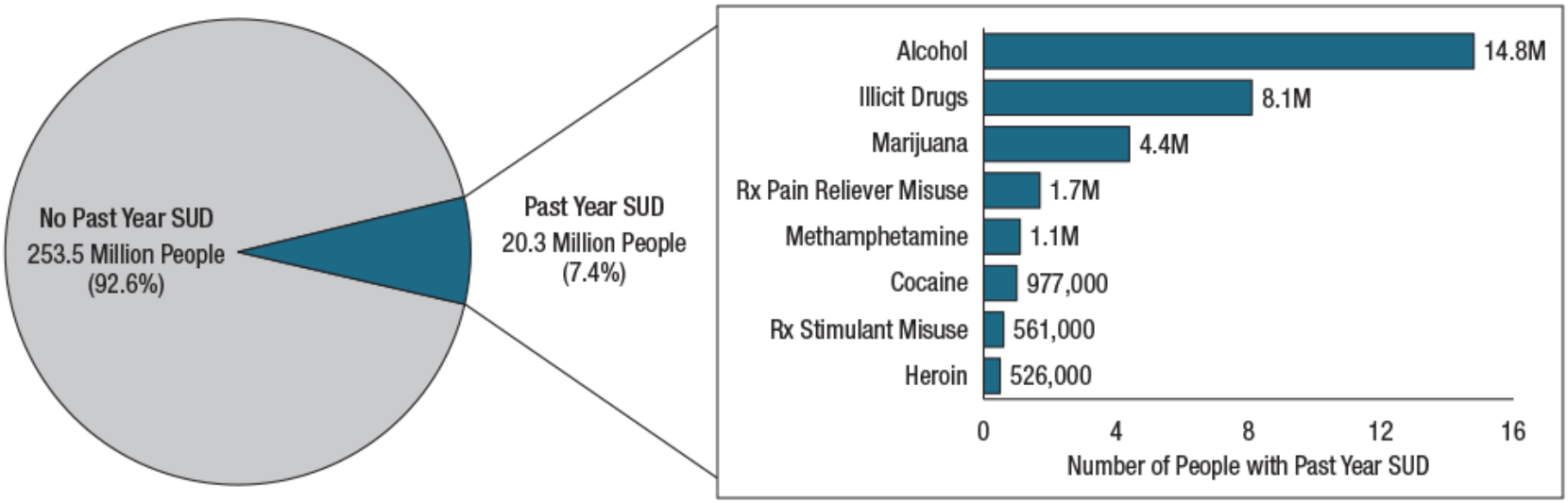
Prevalence of Substance Use Disorders



Alcohol 5.4%
Marijuana 1.6%
opioids 0.7% (pharmaceutical 0.6%, heroin 0.2%)
meth 0.4% pharmaceutical stimulants 0.2%
cocaine 0.4%
s/h/a 0.3%

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SUD, Ethnicity and Race

Ethnicity/Race	Percentage of population >12yo with SUD
American Indian and Alaskan Natives	12.8%
Caucasian	7.7%
African American	6.8%
Latinos/Hispanic	6.6%
Native Hawaiian/Pacific Islander	4.6%
Asian American	3.8%

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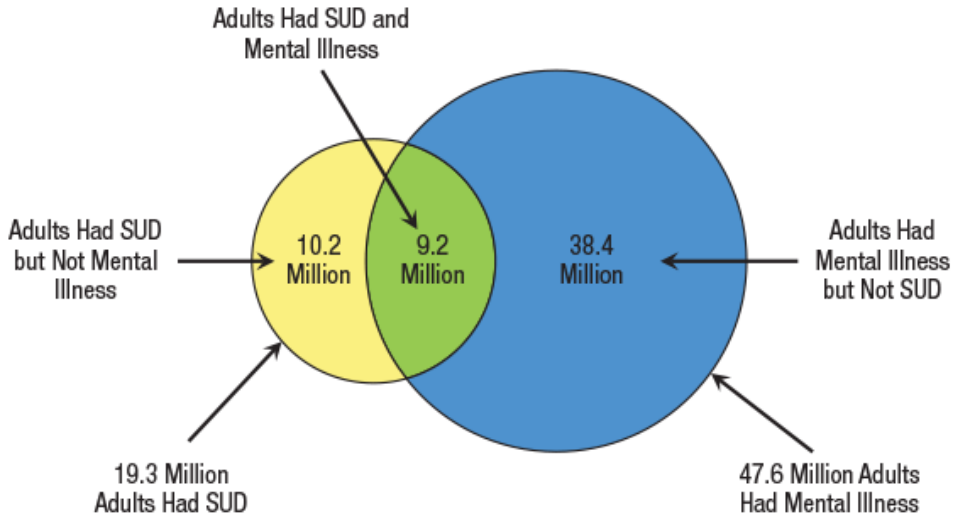
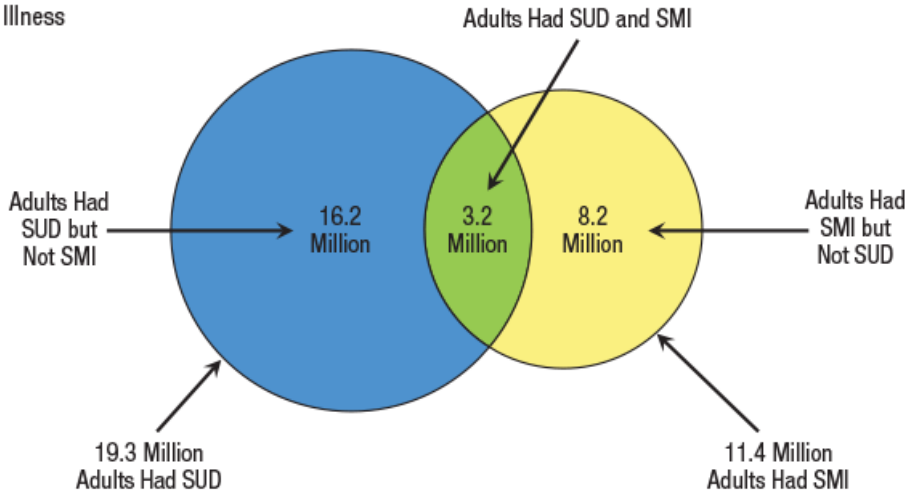
SUD and Mental Illness



57.8 Million Adults Had Either SUD or Mental Illness



27.6 Million Adults Had Either SUD or SMI

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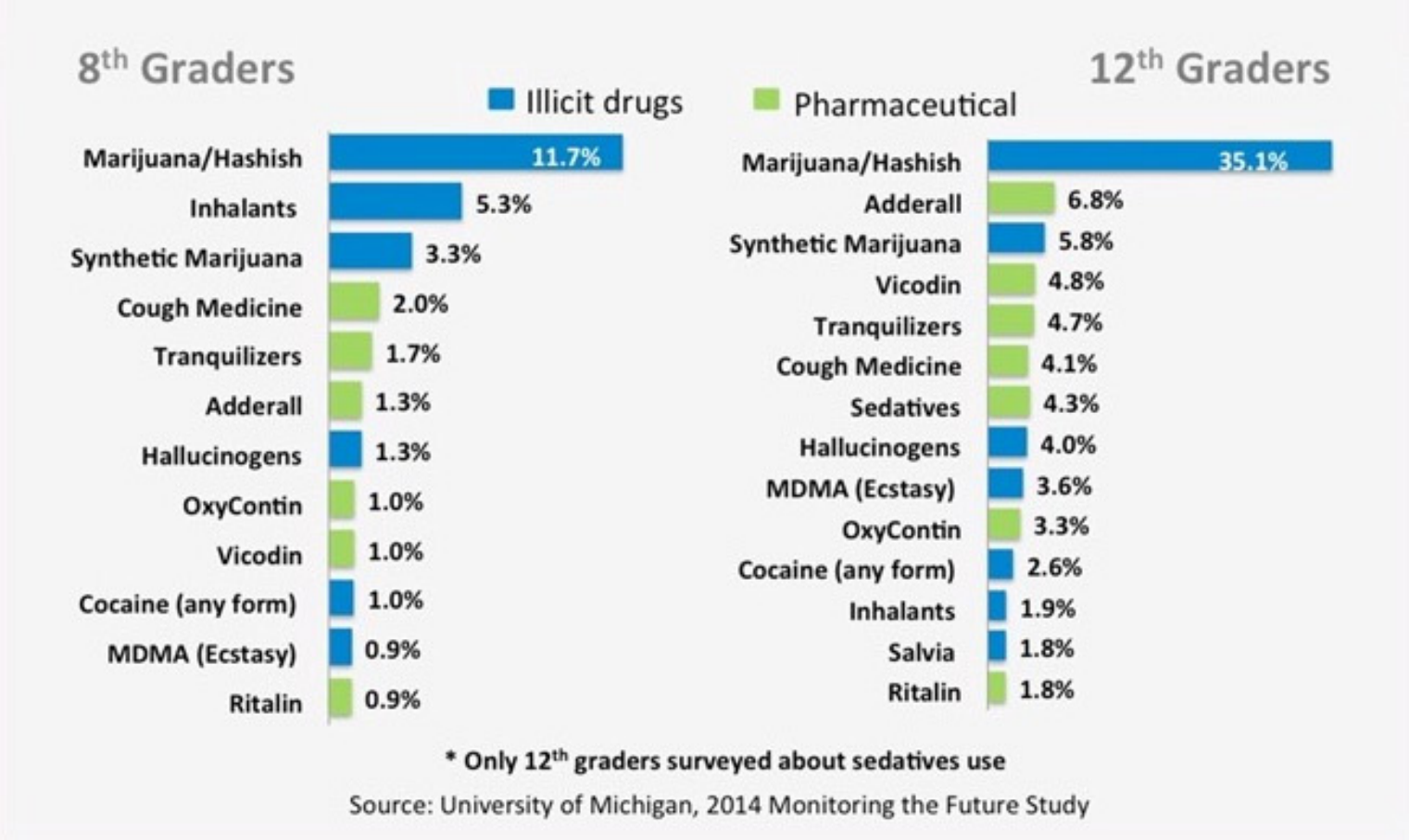
SUD and Teens



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SUD & Women- Alcohol

- 1 in 5 women (non-pregnant) report binge drinking in the past 30 days.
  - Commonly missed diagnosis.
- Pregnant women
  - Among pregnant women, 1 in 10 report any alcohol use and 1 in 33 report binge drinking in the past 30 days.
  - Fetal Alcohol Spectrum Disorders (FASDs) are estimated to occur in 2-5% of children
  - FASDs are more common than Down Syndrome, Cerebral Palsy, SIDS, Cystic Fibrosis, and Spina Bifida combined.

Medical Complications in SUD

- Accidents and trauma
- Infectious Diseases (HCV, HIV)
- Vascular Disease
- Heart Disease
- Endocarditis
- Soft-tissue Infections
- Cirrhosis
- Withdrawal and Intoxication
- Overdose
- Neonatal Abstinence Syndrome
- Fetal Alcohol Syndrome
- High Risk Sexual Behaviors leading to STI's (linked to Amphetamine and alcohol use)

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Costs of SUD

	Health Care	Overall	Year Estimate Based On
Tobacco[1,2]	$168 billion	$300 billion	2010
Alcohol[3]	$27 billion	$249 billion	2010
Illicit Drugs[4,5]	$11 billion	$193 billion	2007
Prescription Opioids[6]	$26 billion	$78.5 billion	2013

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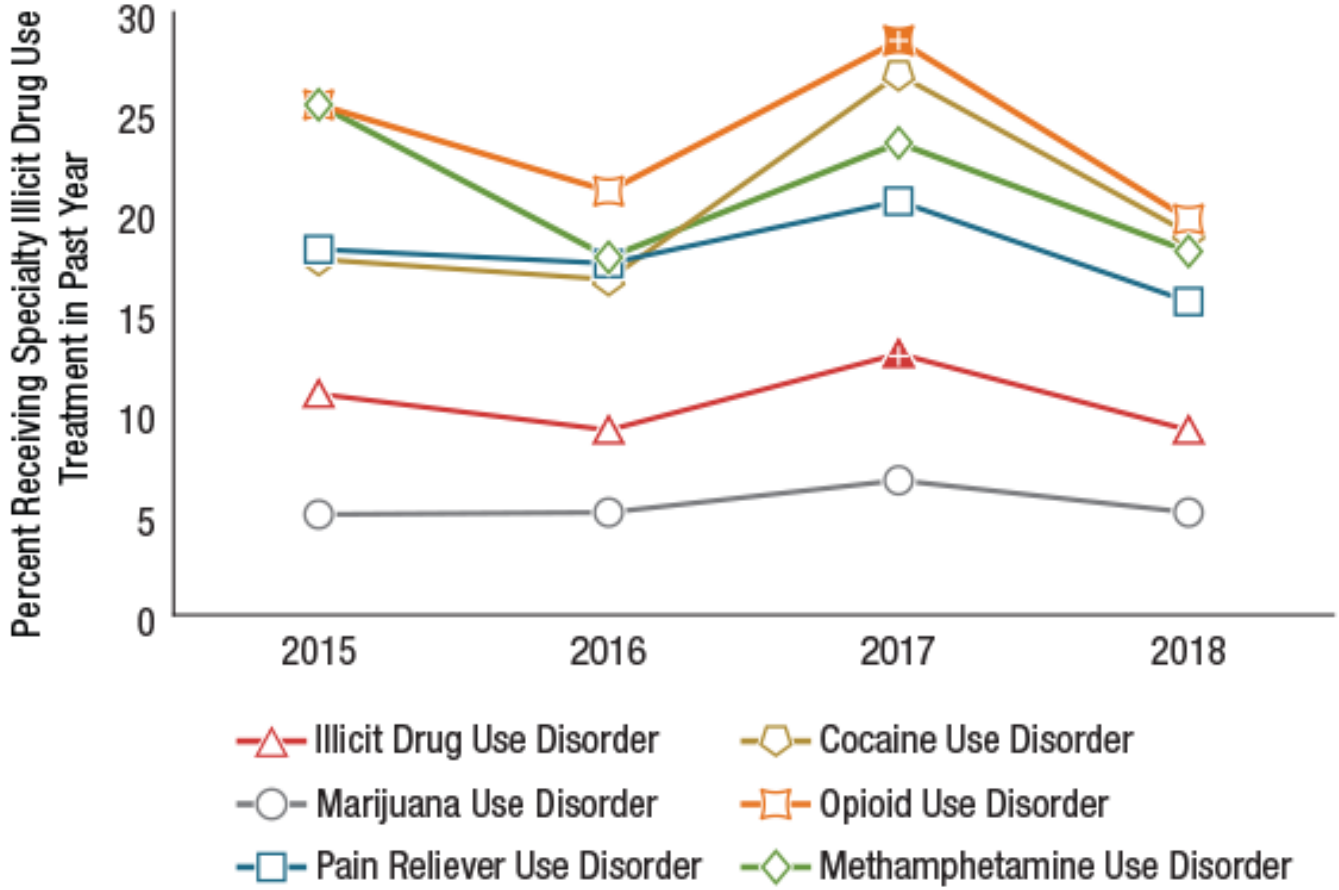
Accessing Treatment



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Barriers to Accessing Treatment

- Lack of screening and diagnosis
- Patient not desiring treatment
- Stigma
- Limited services
- Cost of treatment
- Conflicting responsibilities
- Addressing in primary care can reduce stigma and increase access to treatment

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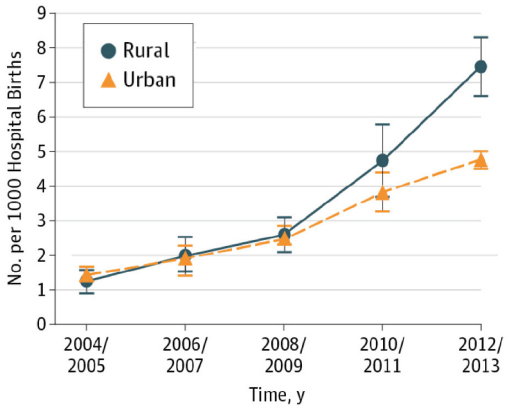
Barriers to Treatment: Pregnant Women with OUD



Rates of NAS are growing faster in rural areas

- Most stigmatized group
- Added stigma and barriers to seeking treatment:
  - Lack of understanding of how MAT will improve outcomes
  - Providers refusing treatment because of pregnancy/reduced MAT access
  - Fear of child removal or punitive measures
  - Fear Judgement and shaming
  - Trauma history
  - Financial insecurity
  - IPV

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Screening & Diagnosis

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CASA study; 2000 National Survey of Primary Care Physicians and Patients on Substance Use

- Less than one-third (32.1%) of primary care physicians carefully screen for substance use
- 94% of PCP's (excluding pediatricians) failed to include Substance Abuse among their top 5 diagnoses when presented with symptoms of alcohol abuse
- 55% of patients say that doctors prescribe drugs that could be dangerous to addicted individuals and that they don't know how to dx addiction
- 29.5% of patients said their physician knew about their addiction and still prescribed psychoactive drugs such as sedatives or diazepam

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Barriers to Addressing in Primary Care or Family Planning Setting

- Lack of adequate training in medical school, residency and continuing medical education courses
- Skepticism about treatment effectiveness
- Discomfort discussing substance use disorders
- Time constraints
- Perceived patient resistance
- Either perceived or true dishonesty on part of the patients

Integrating Screening Into Care

- The USPSTF recommended screening for illicit drug use in adults 18 or older
- Part of routine examinations in PC or family planning
- Before prescribing controlled substances
- When seeing patients who are:
  - Pregnant, or trying to conceive
  - Likely to use or drink heavily (smokers, adolescents, young adults)
  - Have health problems that might be alcohol induced
  - Have a chronic illness not responding to treatment as expected

Screening Methods

http://www.sbirtoregon.org/screening-forms/

- Adults
  - AUDIT- Alcohol
  - DAST- Drugs
  - ASSIST- Drugs
- Adolescents
  - CRAFFT 2.1+N
  - S2BI
- Pregnant, Postpartum or women seeking family planning

  5Ps (parents, peers, partner, pregnancy, past)

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TAPS- Tobacco Alcohol Prescription Drugs and Other Substances

- https://www.drugabuse.gov/taps/#/
- questions about the frequency of use of tobacco, alcohol, prescription drug use (illicit) and other substances in the past 12 months.
- ANY substance use during the initial screening phase (TAPS-1) prompts few additional questions regarding use-related behaviors through a brief assessment (TAPS-2).
- Scores on these questions generate a risk level per substance endorsed, based on a range of possible scores per substance
- For identifying DSM-5 SUD
  - At cutoff of 1+, sensitivity (>70%) for tobacco, alcohol, and marijuana use disorders
  - Further assessment should be conducted for patients with a score of 1+ for other substances to determine use disorder.

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SUD: The Great Masquerader

- Can Looks like:
  - Depressive Disorders
  - Anxiety Disorders
  - Personality Disorders
  - Psychotic Disorders
  - Organic and Neurological Disorders

Diagnosing Addiction

TABLE 1 Summarized DSM-5 diagnostic categories and criteria for opioid use disorder

Category	Criteria
Impaired control	• Opioids used in larger amounts or for longer than intended • Unsuccessful efforts or desire to cut back or control opioid use • Excessive amount of time spent obtaining, using, or recovering from opioids • Craving to use opioids
Social impairment	• Failure to fulfill major role obligations at work, school, or home as a result of recurrent opioid use • Persistent or recurrent social or interpersonal problems that are exacerbated by opioids or continued use of opioids despite these problems • Reduced or given up important social, occupational, or recreational activities because of opioid use
Risky use	• Opioid use in physically hazardous situations • Continued opioid use despite knowledge of persistent physical or psychological problem that is likely caused by opioid use
Pharmacological properties	• Tolerance as demonstrated by increased amounts of opioids needed to achieve desired effect; diminished effect with continued use of the same amount • Withdrawal as demonstrated by symptoms of opioid withdrawal syndrome; opioids taken to relieve or avoid withdrawal

Objective Data

- Urine Toxicology
- Skin exam c/w intravenous injection (if +ivdu)
- Elevated GGT or AST (for AUD)
- Symptoms of a withdrawal syndrome
- Positive Screen for Depression or Anxiety

Treatment

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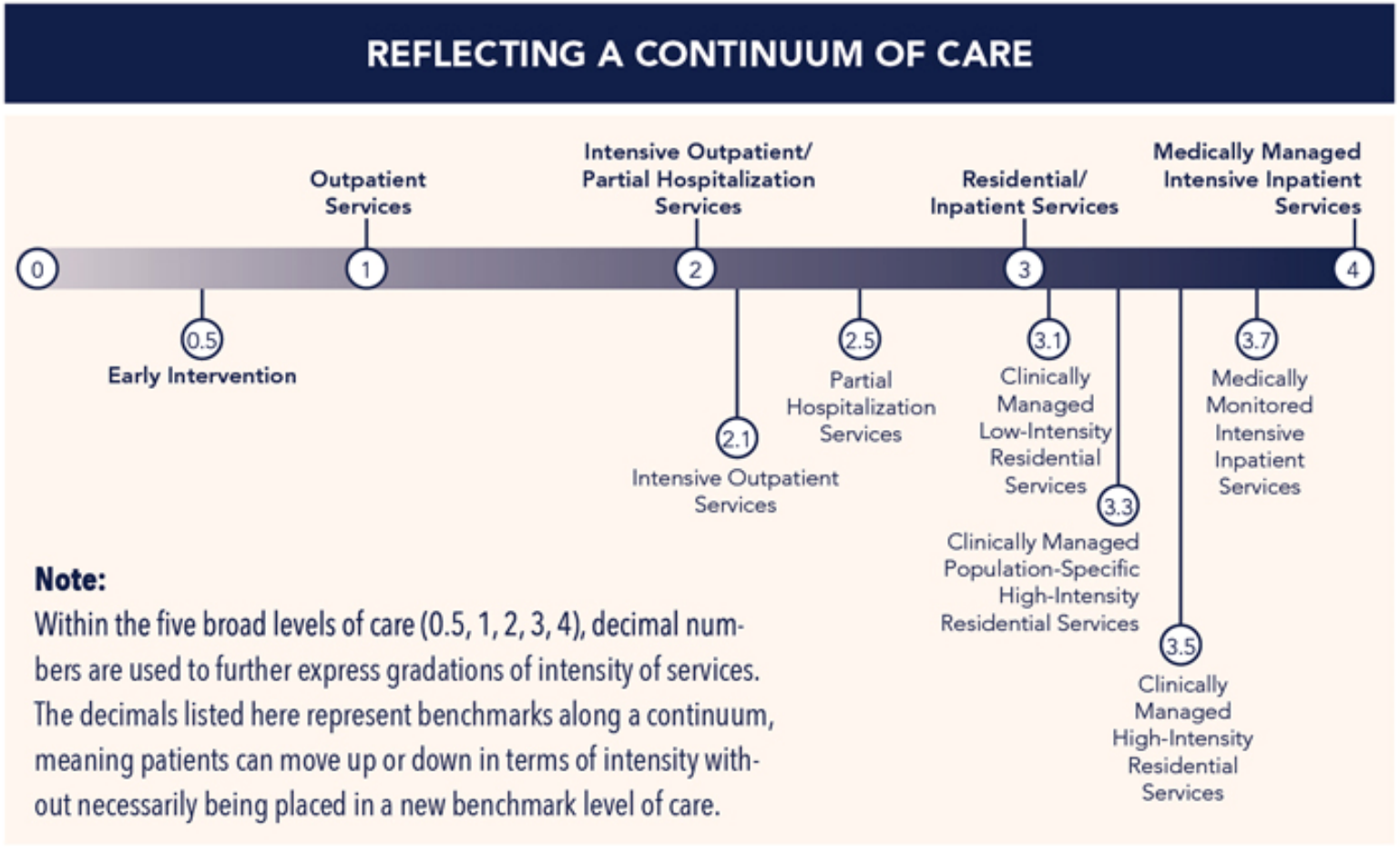
ASAM Level of Care



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Treatment Setting

- Home
- Mutual support groups
- Outpatient programs, DUI and other Court-mandated programs
- Intensive Outpatient Programs (IOP)
- Partial Hospitalization Programs (PHP)
- Sober living and halfway-homes
- Residential Treatment Programs (RTP)
- Medical Detoxification
- Inpatient hospitalization
- Dual-diagnosis hospital inpatient
- Primary Care or Family Planning Clinics!

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Treatment Approaches

- Peer Support/Therapeutic Environment
- Abstinence Based
- Mutual Support/12-step
- Harm Reduction
- Medication Assisted
- Therapeutic Approach
- Medical Model; Addiction Medicine approach

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Traditional Therapeutic Approach

Type of Therapy

- Neuro-Cognitive Behavioral Therapy (CBT)
- Contingency Management
- Motivational Enhancement Therapy
- Family Therapy (especially for youth)
- Individual/Group Psychotherapy
- Disease Education Classes
- Relapse Prevention Classes
- Trauma Informed Approach

Common Aspects

- Moderated by a professional
- Cost associated with service
- In a treatment or clinical setting
- Varying degrees of evidence

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Mutual Support Groups

Accessibility

- Available worldwide in many languages
- There is a 12-step group for many types of addiction:
  - AA, NA, MA, HA, CMA, Alanon, GA, SLAA, WA
- Special interest groups and needs addressed
  - LGTBQ
  - hearing impaired
  - parents needing childcare
  - young people
  - First Nations peoples (White buffalo/Wellbriety)
  - Buddhist
  - Aetheist
- No professional involvement, self-governed and FREE

Barriers

- Traditionally abstinence based
- Some resistance to MAT (NA)
- Spiritually based and use the word god which is huge barrier
- AA literature is dated

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Evidence for Twelve Step Programs

Difficult to study due to anonymity

Recent Cochrane review published:

- 27 studies containing 10,565 participants (21 RCTs/quasi-RCTs, 5 non-randomized, and 1 purely economic study).
- AA/TSF was compared with psychological clinical interventions, such as MET and CBT
- AA/TSF improves rates of continuous abstinence at 12 months (risk ratio (RR) 1.21, 95% confidence interval (CI) 1.03 to 1.42
- For percentage days abstinent (PDA), AA/TSF appears to perform as well as other clinical interventions at 12 months (mean difference (MD) 3.03, 95% CI -4.36 to 10.43; 4 studies, 1999 participants; very low-certainty evidence), and better at 24 months (MD 12.91, 95% CI 7.55 to 18.29;
- When compared to the other treatment approaches AA-based programs may perform just as well at reducing drinking intensity, negative alcohol-related consequences and addiction severity.
- Cost was lower and health care expenses overall were reduced more with 12 step than traditional therapeutic approach (less ER visits, etc).

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Medical Model for Treating SUD

Reduce risk to individual and public health by:

- Reducing infectious disease spread via promotion of safe injection, hepatitis vaccination
- Increasing access to screening and treatment of infectious diseases linked to SUD
- Decreasing overdose deaths with public health measures such as distributing naloxone, fentanyl test strips, safer prescribing guidelines, public education

Treat patients for their SUD as we would other diseases

- Identify diagnosis, provided education and discuss treatment goals and motivation
- Screen, monitor and treat for co-occurring diagnosis
- Use medications and clinical monitoring of response
- Refer to other community services, specialty services or treatment modalities as needed- Know your community resources or consider a SUD caseworker

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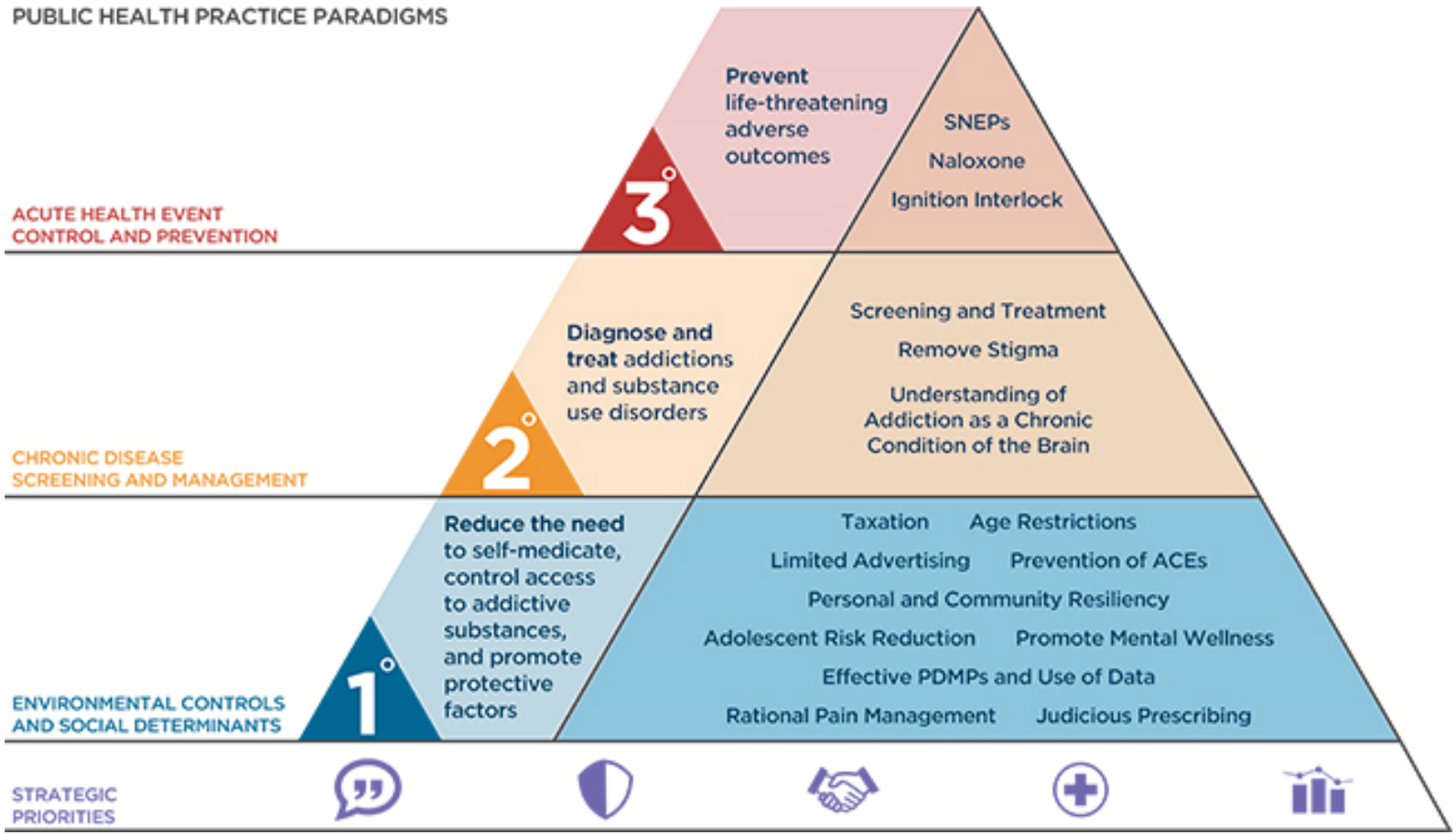
Medical Approach



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Medications for Treatment of SUD

Alcohol:

- Naltrexone (ReVia)
- Depot Naltrexone (Vivitrol)
- Acamprosate (Campral)
- Disulfiram (Antabuse)

Opioids:

- Naltrexone(ReVia)
- Depot Naltrexone (Vivitrol)
- Buprenorphine (Subutex)
- Buprenorphine + Naloxone (Suboxone)
- Methadone

Nicotine:

- Varenicline (Chantix)
- Buproprion (Wellbutrin/Zyban)
- Nicotine-gum, patch, lozenge, inhaler

- FDA approved indiction
- safe and effective at reducing time to next use, quantity of use
- Improve health outcomes
- REDUCE MORTALITY!

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Medication Assisted Treatment

- Often used (inaccurately) to refer only to medications for OUD
- Only two are controlled and have special restrictions on prescribing
- The rest can be prescribed in any clinical setting

Take Home Points

- SUD/Addiction are progressive, chronic diseases that should be treated as such
- Family Planning Providers have an important role to play:
  - Screening- consider TAPS and SBIRT approach
  - Diagnosing- as a way to de-stigmatize SUD
  - Referring to Therapeutic interventions, Mutual support Groups or formal treatment programs.
  - Offering access to harm reduction by providing education, infectious disease screening/treatment, access to overdose reversal drugs and compassionate care.
  - Treating with MAT where appropriate…(next talk)

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QUESTIONS?

For continuing education credit, you must complete the post assessment evaluation and continuing education form. The survey will appear when you leave the webinar. An email with a link to the survey will also be sent to attendees the following day.

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Upcoming Events

Medication-Assisted Treatment for Substance Use Disorder in a Family Planning or Primary Care Setting
Free Webinar Series

Webinar 2: Medication-Assisted Treatment (MAT) in the Primary Care Setting
May 18, 2020 - 12:00 PM - 1:00 PM

Webinar 3: Operationalizing Addiction Screening + Treatment
May 29, 2020 - 12:00 PM - 1:00 PM

Webinar 4: Problem Solving + Overcoming Challenges with Addiction Screening + Treatment
June 24, 2020 - 12:00 PM- 1:00 PM

Contraception + the COVID-19 Pandemic: Overcoming Challenges + Optimizing Opportunities
April 21, 2020 - 1:00 PM - 2:00 PM

Register at essentialaccesstraining.org for these and other Online Courses and On-Demand Webinars via our Learning Portal

Questions? Contact us at learningexchange@essentialaccess.org