

 **OPTUMHealth**  
Education

**Substance Use in Youth**

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**Learning Objectives**

- Discuss the stages of brain development in children and adolescents
- Review current trends and statistics regarding substance use disorders (SUD) in youth populations, including risks, stressors, and protective factors
- Identify optimal treatment interventions and strategies to promote health and reduce substance abuse among adolescents
- Recognize the role of cooperation with other specialties, community and social support services to provide holistic health care

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**The World of a Young Person**

*A lot to juggle*



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### Why Are We Talking About Substance Use In Youth?

The earlier a youth starts using substances, the greater the chances of developing a substance use condition later in life

- Research shows that most adults who meet criteria for having a SUD started using substances during their youth
- Research has shown that the higher risk periods for substance abuse are during major transitions in life
  - Leaving security of family/home
  - New academic & social situations
  - Social, emotional, educational challenges
  - Exposure to greater availability of substances, substance users, social activities that involve substances

**Prevention is key**  
Strengthen protective factors at every stage of development and every phase of life



<https://www.cdc.gov/healthyyouth/substance-use/09df-substance-use-fact-sheet.htm>  
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### But First...

### A Closer Look



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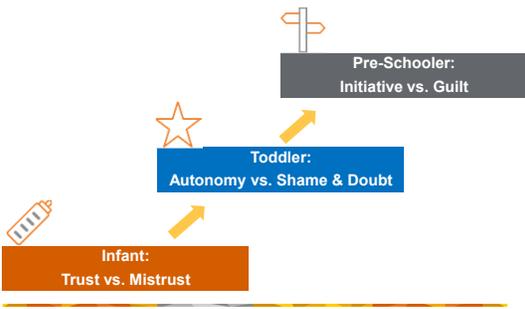
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### Erik Erikson: Theory of Psychosocial Development



Infant: Trust vs. Mistrust

Toddler: Autonomy vs. Shame & Doubt

Pre-Schooler: Initiative vs. Guilt

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### Moving Through The Stages

Grade-Schooler:  
Industry vs Inferiority

Teenager:  
Identity vs Role Confusion

Young Adult:  
Intimacy vs. Isolation

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### Brain Development

- The brain develops from back to front, through the age of ~ 25
- In teens, different regions are changing at different rates

Development

Age

**Limbic system – amygdala**

- Emotion
- Immediate reaction
- Reward focused

**Prefrontal Cortex**

- Logical decision making
- Planning
- Future orientation
- Consequences

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### Adolescents are...

**More likely to:**

- Act on impulse
- Misread or misinterpret social cues and emotions
- Engage in dangerous or risky behaviors
- Focus on the benefits

**Less likely to:**

- Pause & think before they act
- Consider consequences
- Balance benefits vs. risks
- Change or avoid the risky behavior

...In Progress...

Rapid increase in connections between brain cells, making brain pathways more effective  
Myelination: insulating layer that helps cells communicate

www.abcap.org  
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### Adverse Childhood Experiences

**"ACEs have created a chronic public health disaster."**  
 – Robert Anda, M.D., M.S., Co-Principal Investigator, Adverse Childhood Experiences Study

↑ Heart Disease

	Smokes	AUD	IV Drug Use	Attempted Suicide
<b>0 ACEs:</b>	1 in 16	1 in 69	1 in 480	1 in 96
<b>1-3 ACEs:</b>	1 in 9	1 in 9	1 in 43	1 in 10
<b>7+ ACEs:</b>	1 in 6	1 in 6	1 in 30	1 in 5

<https://www.samhsa.gov/cehs/cehs-2019/01/16/ace-behavioral-health-problems.pdf>  
<https://www.counsellingrecovery.org/childhood-trauma-and-addiction/>

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### Mental Health First, Mental Health Always

**"The rule of thumb is that almost half of kids with mental health disorders, if they're not treated, will end up having a substance use disorder."**  
 – Dr. Sarper Taskiran, MD, a child & adolescent psychiatrist, Child Mind Institute

**Prevention & Treatment:**  
 Cannot look at substance use in isolation

**A 2016 study** of 10,000 adolescents

- 2/3 of those who developed alcohol or substance use disorders had experienced at least 1 mental health disorder

depression

anxiety

negative thoughts

learning disorders

self-esteem



ADHD

impulse control

unsafe behaviors

psychosis

<https://childmind.org/article/mental-health-disorders-and-substance-use/>

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### Not All Youth Have the Same Risks

**CDC: Youth Risk Behavior Surveillance System (YRBSS)**

- 1990: to monitor health behaviors that contribute markedly to the leading causes of death, disability, social problems among youth
  - Behaviors that contribute to unintentional injuries & violence
  - Sexual behaviors: unintended pregnancy, STDs
  - Alcohol and drug use

**Some youth are more vulnerable to experiencing poor mental health, violence, drug use, sexual risk:**

- Disabilities (physical, learning disabilities)
- Thrill seeking behaviors
- LGBTQ+
- Trauma
- Foster care
- Criminal justice system



<https://www.cdc.gov/healthyyouth/data/yrbss/index.html>

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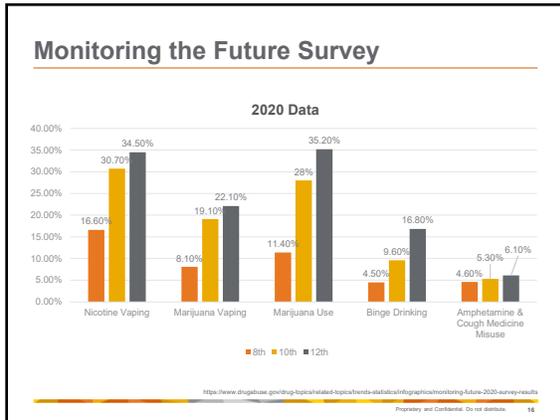
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### High-Risk Substance Use

CDC: any use by adolescents of substances with a high risk of adverse outcomes

school dropout

injury

criminal justice

loss of life

**Studies show:**

- an association between substance use & **sexual risk behaviors** such as ever having sex, having multiple partners, not using protection, pregnancy before the age of 15
- as the frequency of substance use increases, the likelihood of sex & the number of partners also increases
- Increased risk of **HIV, STDs**

<https://www.cdc.gov/healthyyouth/substance-use/>  
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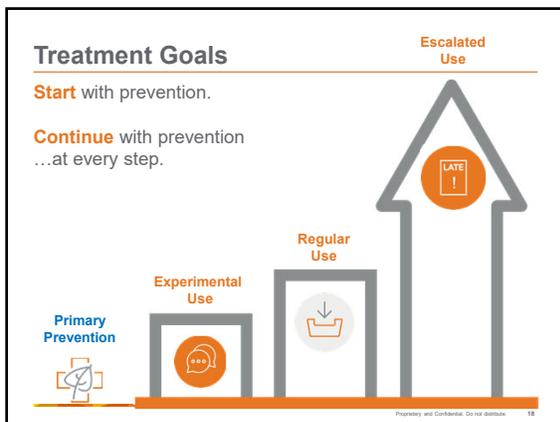
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### Community Prevention Strategies

- Community coalitions
- Availability and access
  - Density, location, price, promotion
- Laws, policies, practices
  - Prescribing practices
  - Legal age limits
  - Consistent enforcement
- Norms
  - Public education campaign
  - Parent pledge

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### School Prevention Strategies

- Educational campaigns
- Organizational Level
  - School Climate
  - School Connection
  - School Policies
- Individual Level:
  - Universal: Curricula, screening, activities
  - Selective: Full screen, small groups, 1:1
  - Indicated: Referrals, counseling, mentors

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### Family Prevention Strategies

**Communication Is Key**

- Listen**
  - Family engagement
  - Family education & training
  - Family support
  - Linkage to resources
- Talk Early**
  - Basic needs
  - Counseling & peer support
- Talk Often**

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### Peer Prevention & Recovery Supports

- Positive youth development
- Activism
- Peer to peer
- Alternative peer groups
- Recovery high schools
- College recovery programs
- Faith-based organizations
- 12 step fellowship
- Community resources & connectedness
- Systems serving youth: schools, child welfare, juvenile justice

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### Pharmacological Interventions

**Treat the root or associated causes: medical (pain) & mental health**

**Opioid Use Disorder:**  
Increased morbidity & mortality in comparison with other adolescent SUDs

**Detox is NOT treatment!**  
**MAT is safe and effective, but overall limited published evidence for adolescents**  
**\*\*\*more research needed**

**Clonidine** – can help with anxiety, impaired focus when coming off an opioids

**Naloxone** – opioid antagonist, reversal rescue medication

**Opioid agonist:**

- Buprenorphine** – FDA approved for **16 years and older**
- Methadone** – FDA approved for **18 years and older**

**Opioid antagonist:**

- Naltrexone** – oral and injectable
- Extended Release-Naltrexone** – FDA approved for **18 years and older**

Ref: Pallock, M. J., Wilensky, E. L., Corry, J., Goren, S., & Subramanian, G. (2019). Treatment of opioid dependence in adolescents and young adults with extended-release buprenorphine and intensive case management. *Addiction*, 114, 1660-1668. doi:10.1111/add.14811

Medications for Maintenance Treatment of Opioid Use Disorder in Adolescents: A Narrative Review and Assessment of Clinical Severity and Patient Risk. Chicago, IL: Rockwell, Minnesota, July 2019. *Journal of Studies on Alcohol and Drug Use* 10: 434-443. DOI: 10.1093/jsad/kz010

16C Medication-Assisted Treatment of Adolescents With Opioid Use Disorder. COMMITTEE ON SUBSTANCE USE AND PREVENTION. Pediatrics Aug 2016; 138(2):e2016-1893. Proprietary and Confidential. Do not distribute. 24

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### Building Youth Resilience – It Takes a Village

**Healthy Communities → Healthy Youth**

- Social-emotional learning
- Relationship & connectedness
- Trauma informed approaches
- Cultural competency

**Juvenile System**  
**Health Care System**  
**Educational System**  
**Social/Community Systems**

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### In Summary

- The **stages & phases** of brain and psychosocial development in youth impact decision making and can increase the risks of using substances and engaging in risky behaviors
- **Adverse childhood experiences** increase the likelihood of developing substance use and other health conditions
- **Ongoing monitoring of trends** of substance youth is an essential component to informing next steps for prevention and interventions
- **Thinking comprehensively** about risks, stressors, and protective factors is necessary to develop **whole-person** care and support
- **An integrated, collaborative, multi-system** approach can improve optimal treatment interventions and strategies to promote health and reduce substance abuse among adolescents

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### One Step at a Time, Together

**Resilience**

**Connectedness**

**Hope**

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