



## Trends in Youth Substance Use

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**MACS**  
Maryland Addiction Consultation Service



**JOHNS HOPKINS**  
MEDICINE

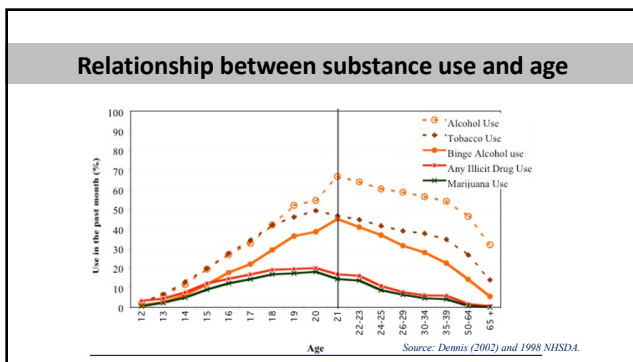
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## Some Things Never Change

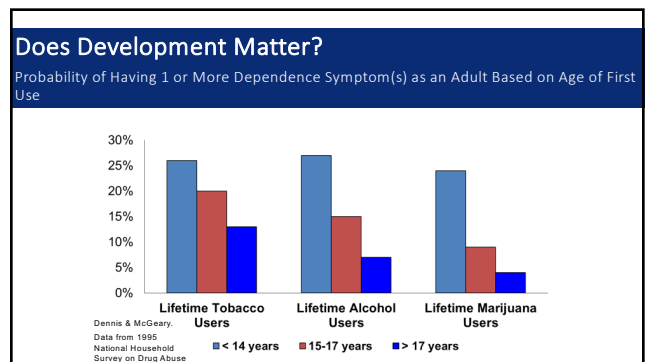
“We live in a decadent age.  
 Young people no longer respect their parents.  
 They are rude and impatient.  
 They frequent taverns and have no self-respect.”

Inscription on Egyptian tomb circa 3000 BC

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## Adolescents Are Vulnerable



- Early substance use = high risk of addiction
- Adolescent immaturity during critical development period = vulnerability
- Impulsiveness and excitement seeking
- Difficulty delaying gratification
- Poor executive function and inhibitory control
- Poor emotion regulation

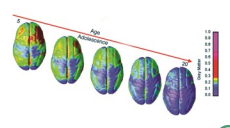
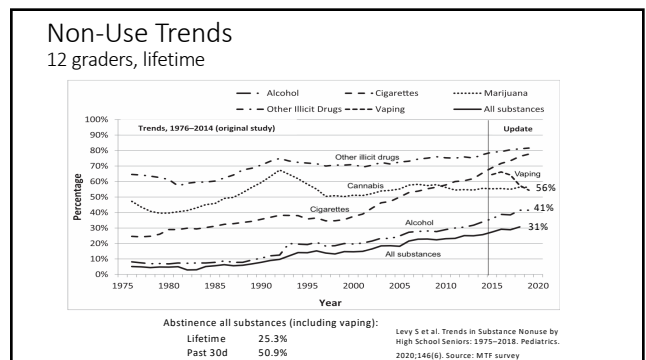


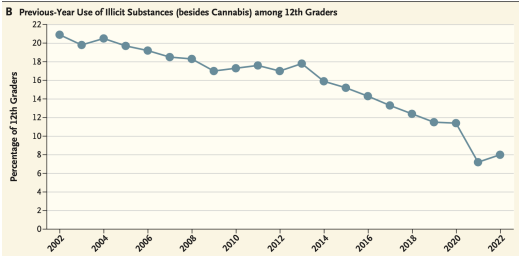
Image Source: PMID 15118174-8179. ©2004 National Academy of Sciences, U.S.A.

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Past year use trend, illicit substances other than cannabis  
12<sup>th</sup> graders



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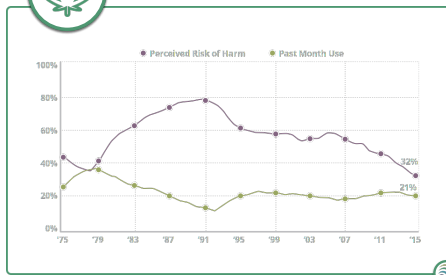
Resisting Temptation in Our Culture



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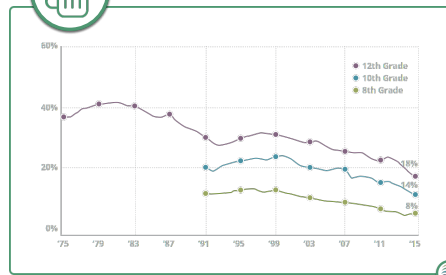
Perceived Risk of Harm and Marijuana Use - US 12th Graders: 1975 - 2015



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BINGE DRINKING (5+ Drinks) Past 2 Weeks



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What are they using?

- Alcohol
  - Beer, sweet drinks, hard seltzer, pre-mixed cocktail cans
- Cannabis
  - "Weed," vapes, edibles, "dabs"
- Nicotine
  - Vapes, flavors
- Opioids – all fentanyl
  - "Percs"
- Dextromethorphan
  - Coricidin – "skittles;" Cough syrup/ Robotussin – "Robotrips"



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**Cannabis**

A Pattern of Use

Year	Percentage of 12th Graders
2002	5
2003	6
2004	7
2005	8
2006	9
2007	10
2008	11
2009	12
2010	13
2011	14
2012	18

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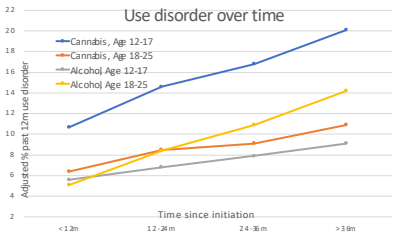
Why do we care about cannabis?  
What's all the fuss?

- Vulnerable populations: youth, psychiatric illness, other substance use disorders
- Acute consequences of intoxication, eg MVCs
- Psychiatric consequences of use
  - Depression/ anxiety
  - Psychosis
  - Cognitive impairment
- Progression to cannabis use disorders and other substance use disorders



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Early initiation confers high risk of progression



- Substantial rates of use disorder in youth soon after initiation
- Cannabis risk higher for adolescents than YA's
  - 10.7% vs 6.4% within 1 yr
  - 20.1% vs 10.9% within 3 yrs
- Cannabis risk higher than alcohol for adolescents

Volkow et al JAMA Pediatrics 2021.

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% WHO USE DAILY



Monitoring the Future Survey 2015

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Vulnerability in youth  
Progression to addiction

- Conditional risk of use disorder in adolescents as high as 40%
- Daily use of MJ <age 17 associated with substantially increased risk of:
  - Persistent MJ Dependence (OR=18)
  - High school drop out (OR=3)
  - Use of other drugs (OR=8)
  - Suicide attempts (OR=7)

Pooled longitudinal studies. N =2537 to N=3765.  
Silens et al. Lancet Psychiatry, 1, 286 – 293, 2014.

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The SBIRT paradigm  
Intervention matched to severity

- Positive reinforcement for youth reporting no use
- Brief advice for those reporting experimental use but not SUD
- Brief motivational intervention for mild / moderate SUD
- Referral to treatment for mod / severe or non-responding SUD

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Treatment Engagement and Stages of Change



- Progressive treatment engagement
- Relationship and therapeutic alliance
- Motivational enhancement

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### Ineffective Interventions

Can we establish credibility despite historical exaggerations?

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### Motivational approaches

- Do you know other kids who have been in trouble...
- Do you know why I or your parents might think it's a problem...
- What are the pro's and con's for you...
- What would be evidence in your view that it's a problem...
- If you could stop anytime, would you be willing to see what it's like...
- Let's schedule you to come back and see how it's going...
- Will you go and see a specialist? Get another opinion?

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### Digestible messages

"Weed is not my problem, what's the big deal?"

- Intoxication impairs judgment, more likely to do something you'll regret
- Being around people with MJ usually means being around people who are more likely to be trouble (including other substances)
- Teen brains easily bruised. Intoxication as a psychological and biological habit that progresses. "Sledgehammer" reinforcement by substances. If you keep pushing that button, the pathway gets stronger
- Maybe a little is ok, but is what you're doing "a little?"
- Maybe it's not that it's never ok, but that it's not right for you **now**
- Yes you could be the special rare exception but why gamble
- If it's that good and that important that you can't accept this advice, what does that tell you?

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### Readiness Rulers: "How ready are you to ..."

On a scale of 0 to 10, how <b>IMPORTANT</b> is it for you right now to change?											
0	1	2	3	4	5	6	7	8	9	10	
Not at all											Extremely
Important											Important
On a scale of 0 to 10, how <b>CONFIDENT</b> are you that you could make this change?											
0	1	2	3	4	5	6	7	8	9	10	
Not at all											Extremely
Confident											Confident

**"What would it take to move you from a 4 to a 6?"**

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### Some typical CBT sessions

- Refusal skills
- Relapse chain analysis
- Improving your social support network
- Increasing pleasant activities
- Relapse prevention
- Planning for emergencies and coping with relapse
- Managing thoughts about using
- Coping with cravings and urges
- Problem solving
- Communication skills
- Anger awareness
- Anger management
- Coping with depression

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### Relapse chain analysis

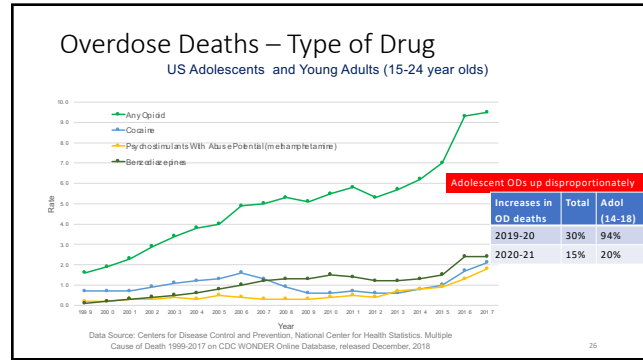
- **Problem:** What are the antecedents of particular episodes of substance use?
  - **The puzzle:**
    - Why did you use yesterday? I don't know.
    - Never mind why, let's focus on what and how. What were the circumstances that led up to the episode of use? I don't know. My friend passed me a blunt and I hit it, what am I supposed to do?
- **The solution:** chain analysis.
  - "Rewind slo-mo" – break it down into tiny steps.
  - What happened before that, and what happened before that?
  - Perhaps seems trivial to us, but remarkably unintuitive to our patients.

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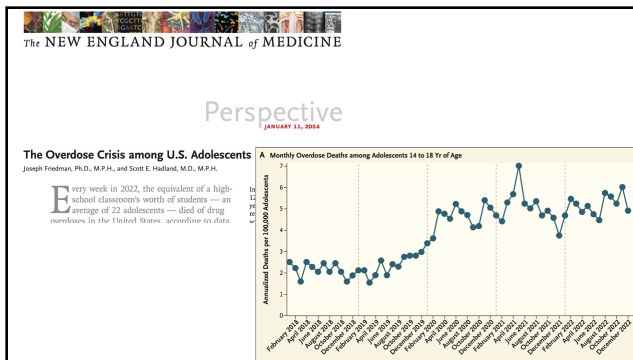
### Examples of adolescent counseling manuals

- <https://www.chestnut.org/ieighthouse-institute/store/>
- <http://www.sevenchallenges.com>
- <https://behavioraltech.org/about-us/>

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### Intervention for youth substance use is Prevention for youth OUD

- Addiction – a developmental disorder of pediatric onset
- The vast majority of youth who initiate opioids have problems with other substances first
- Earlier onset associated with worse outcomes
- Earlier intervention associated with better outcomes
- OUD as advanced, malignant stage in progression of illness
- Prevention of OUD by treatment of non-opioid SUD prior to opioid initiation – cannabis, alcohol, nicotine

Sharma B, Bruner A, Barnett G, Fishman M. "Opioid Use Disorders" in Substance Use Disorders, Haiso R and Walker L, eds. Child and Adolescent Psychiatric Clinics of North America. 25: 473-487, 2016. NIDDKS 776918. PMID: 27338968

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### MOUD for adolescents and young adults

#### Summary of the evidence

- Buprenorphine and XR-NTX clearly effective, though less youth-specific research
- Outcomes very good, not as good as for older adults, but far better than without medication
- Longer is better; no evidence for time limitation
- No signal for safety or efficacy problems based on age
- MOUD first line; No evidence for fail-first
- **MOUD – should be STANDARD OF CARE**

Borodovsky JT, Levy S, Fishman M, Marsch LA. Buprenorphine Treatment for Adolescents and Young Adults With Opioid Use Disorders: A Narrative Review. J Addict Med. 2018 May/June; 12(3):170-183. PMID: 29432333

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### Family Engagement: Historical Barriers

- Normative pushback against sense of parental dependence and restriction
- Clinicians: lack of training, competence, comfort
- Focus on internal transformation
- Preoccupying focus on "enabling"
- Over-rigid concern with confidentiality

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**Rationale for family involvement**

Both **families and patients** need a recipe for treatment with role definitions, expectations, and responsibilities

Families have **core competence, deep connections, special powers of persuasion** and natural leverage that we as clinicians don't have

Family **mobilization** – "Medicine may help with the receptors, counseling may help with the skills, but you still have to parent this difficult young person"


Encouragement of emerging youth autonomy and self-efficacy **is compatible** with empowerment of families

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How should we manage the confidentiality barrier?

- Following rigid limitations on disclosure?
- Making unilateral and surreptitious disclosures?

• **Getting to yes**



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Approaches to family communication

- You can't talk to my family
- OK

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Approaches to family communication

- You can't talk to my family
- Watch me

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Approaches to family communication

- You can't talk to my family
- What should I say when they call?

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Approaches to family communication

- You can't talk to my family
- Let's talk to them together

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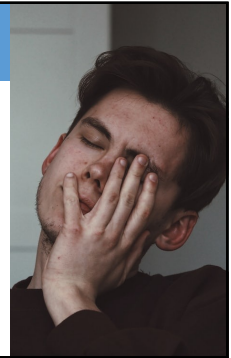
### Getting to yes

- This is what we do
- Let's invite them in and see what happens
- Don't you want their help
- What if I could help you get them to back off
- They'll find out anyway and won't it be better if it comes from you

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### Principles of Family Negotiation The Art of the Deal – Getting to Yes

- Pick your battles
- Know your **leverage**
- You gotta give to get
- You have more juice than you realize
- Keep your **eyes on the prize**
- For families: rewards will work better
- For patients: earning family points will be worth your while
- For both:
  - Aren't you tired of battling?
  - How's that working for you?



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### Questions? Discussion?

Therapeutic optimism remains one of our best tools!



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