

# Update in Teen Substance Use Disorders

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# Objectives

- Participants will learn about the current prevalence and patterns of substance use and substance use disorders (SUDs) in adolescents
- Participants will become familiar with common screening and assessment tools of SUDs in adolescents
- Participants will be able to describe common treatment options for SUDs in adolescents

# Disclosures

- I have no financial interests to disclose.
- I will be discussing non-FDA approved use of medications in this presentation, which will be so designated on these slides.

# Overview

- New DSM Definitions
- Update on Prevalence: Focus on cannabis
- Screening and Assessment
- Treatment and Monitoring (including Utox)
- Co-Occurring Disorders
- Practical Tips
- Q and A

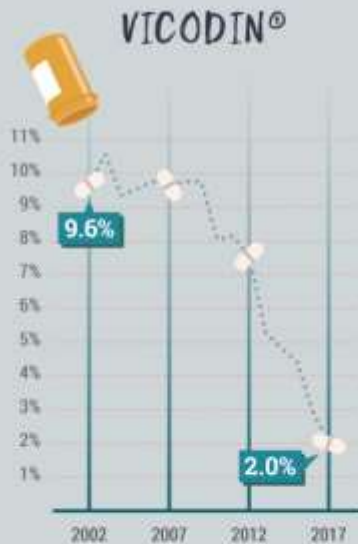
# DSM V: Substance Use Disorder

- DSM no longer uses the distinction between Abuse and Dependence
- Overall definition:
  - “A problematic pattern of use leading to clinically significant impairment or distress.”

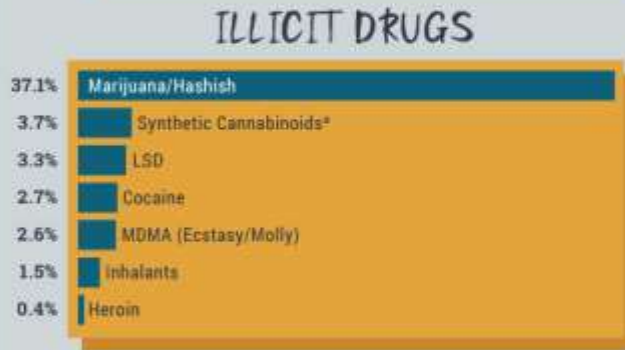
# The 11 DSM V Criteria

- 1. Substance often taken in larger amounts or over a longer period than was intended
- 2. Persistent desire or unsuccessful efforts to cut down or control use
- 3. Great deal of time spent to obtain, use or recover
- 4. Craving
- 5. Failure to fulfill major obligations
- 6. Continued use despite recurrent problems
- 7. Important activities given up
- 8. Recurrent use in hazardous situations
- 9. Use despite knowledge of major associated problems
- 10. Tolerance
- 11. Withdrawal

## PAST-YEAR MISUSE OF PRESCRIPTION/OVER-THE-COUNTER VS. ILLICIT DRUGS



Past-year misuse of Vicodin among 12th graders has dropped dramatically in the past 15 years. Misuse of all Rx opioids among 12th graders has also dropped dramatically, despite high opioid overdose rates among adults.



Past-year use among 12th graders

### STUDENTS REPORT LOWEST RATES SINCE START OF THE SURVEY

Across all grades, past-year use of heroin, methamphetamine, cigarettes, and synthetic cannabinoids\* are at their lowest by many measures.

\*Called "synthetic marijuana" in survey

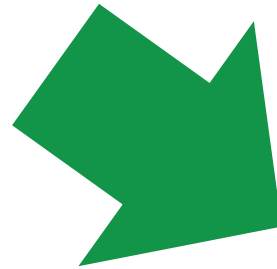


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# Prevalence of Substance Use *Disorders*

2002

Any substance: 8.9%  
Alcohol: 5.9%  
Illicit drug: 5.6%  
Marijuana: 4.3%  
Pain Reliever: 1.0%  
Cocaine: 0.4%  
Heroin: 0.1%



2016

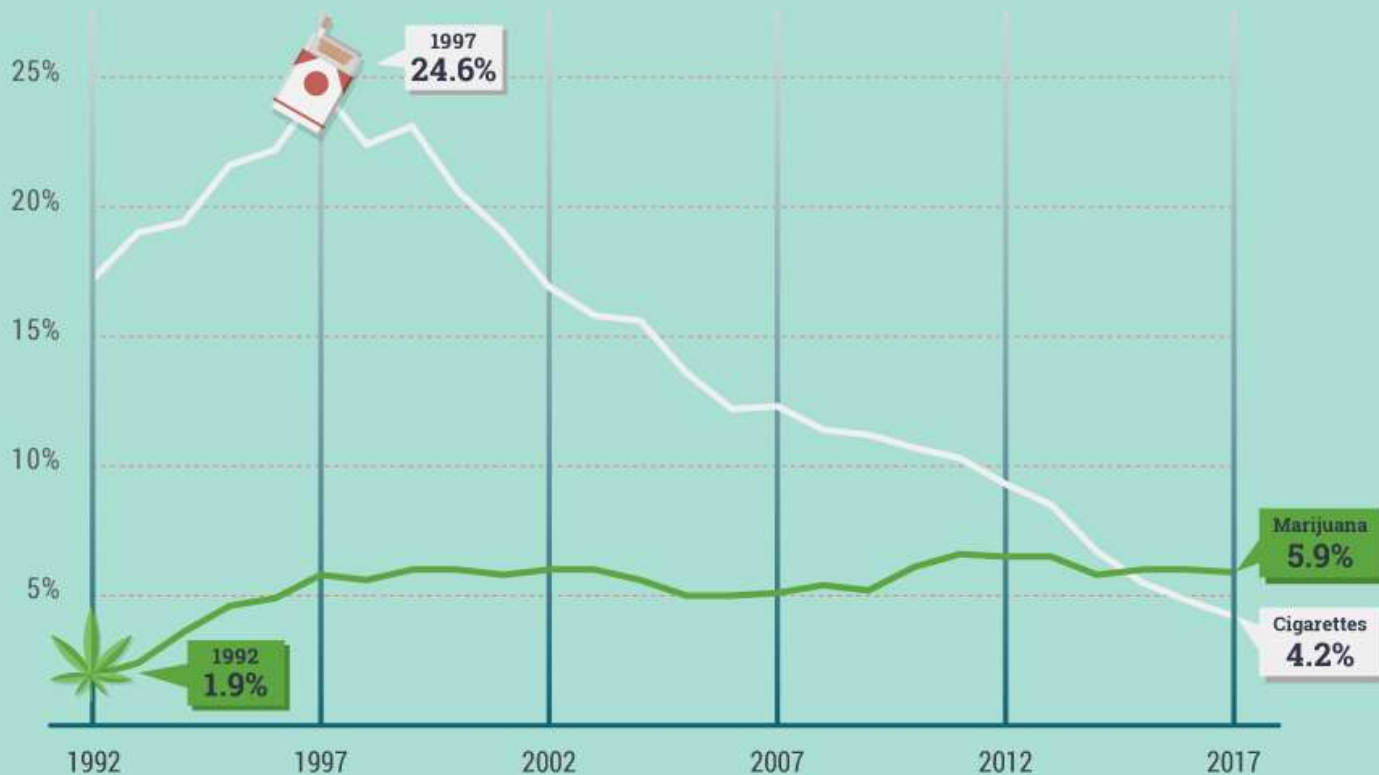
Any substance: 4.3%  
Alcohol: 2.0%  
Illicit drug: 3.2%  
Marijuana: 2.3%  
Pain Reliever: 0.5%  
Cocaine: 0.1%  
Heroin: 0.0%

Past Month Use Disorder,  
NSDUH 2016



# TEENS MORE LIKELY TO USE MARIJUANA THAN CIGARETTES

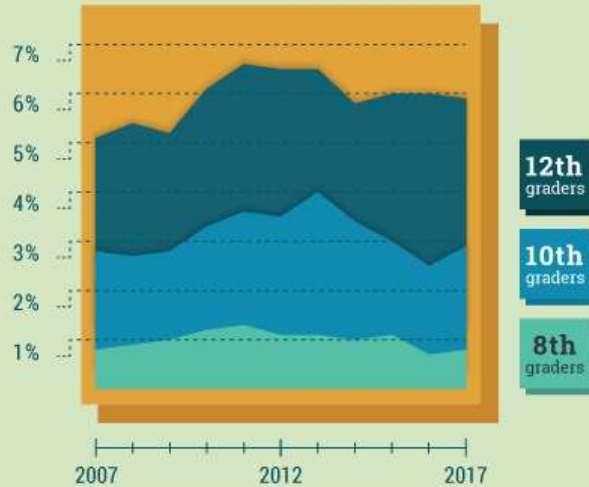
Daily use among 12th graders



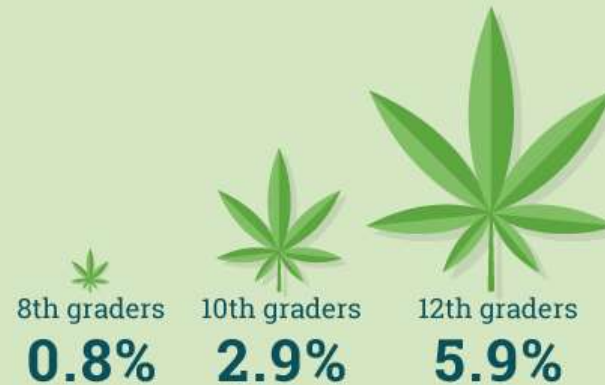
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## DAILY MARIJUANA USE MOSTLY STEADY

2007 – 2017



2017

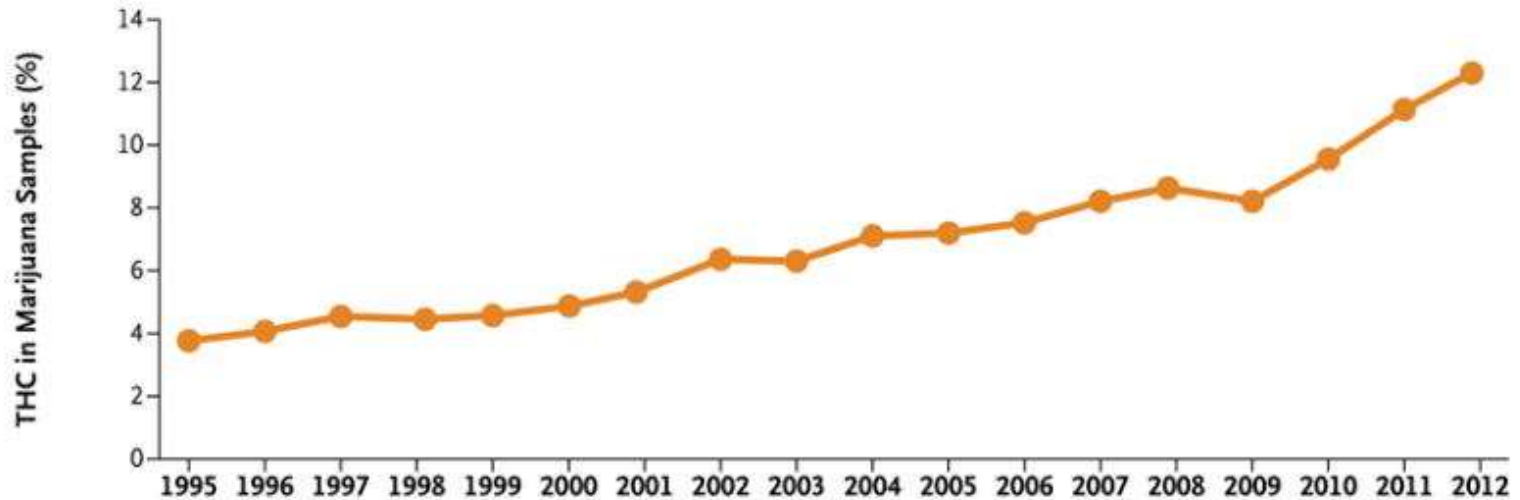


71.0% OF HIGH SCHOOL SENIORS DO NOT VIEW REGULAR MARIJUANA SMOKING AS BEING VERY HARMFUL, BUT 64.7% SAY THEY DISAPPROVE OF REGULAR MARIJUANA SMOKING.

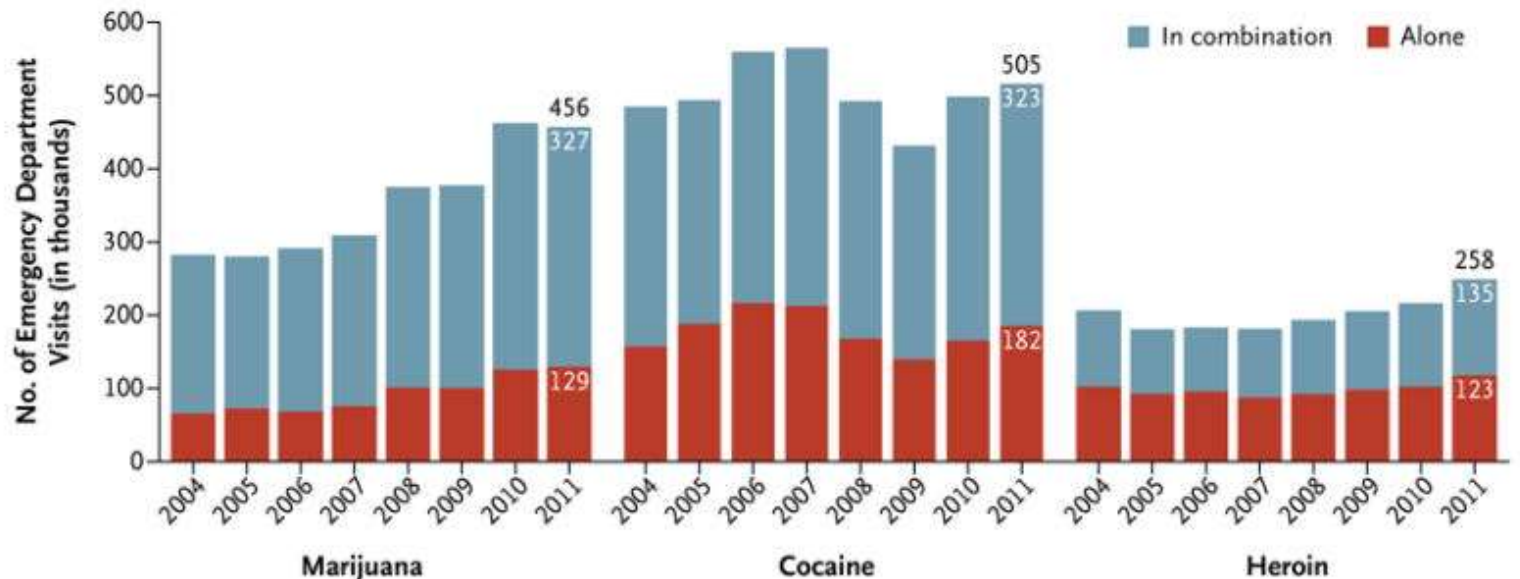


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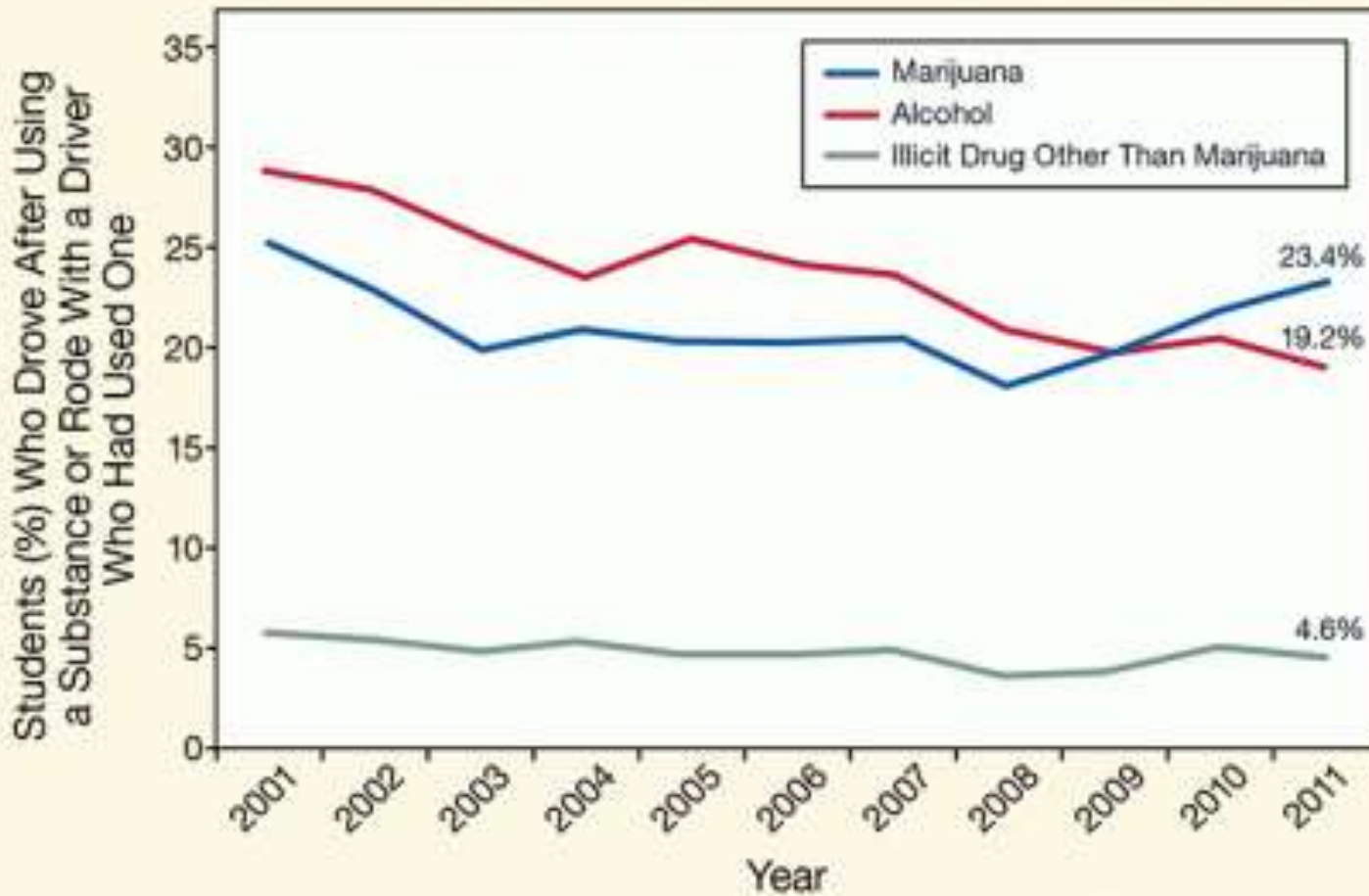
### A Potency of THC



### B Drug-Related Emergency Department Visits



# Driving After Marijuana Use Surpasses Drunk Driving



# Risk Factors: Early

- Genetic vulnerability
- Prenatal exposures
- Attachment/neglect
- Sensation-seeking temperament
- Traumatic exposure(s)
- Impulse control deficits
- Learning disorders

# Risk Factors: Later

- Poor parental supervision and poor parenting skills
- Substance problems and conflict in family
- Heavy use in local community
- School failure
- Social skills deficits
- Using peer group (gang)
- Poor affect identification and regulation
- Conduct problems
- Mental health problems

# Resilience Factors

- Female
- Hobbies
- Prosocial peer group
- Empathic caregiver
- Higher intellectual functioning
- Good academic performance

# Summary: Epidemiological Findings

- Experimentation is normative but consequences can be severe and far-ranging
- Use *Disorder* is the exception.
- Look for
  - Risk factors
  - Early initiation
  - Heavy use



# CRAFFT: 2 is Too Much

- Car
- Relax
- Alone
- Family/friends
- Forget
- Trouble

(Knight 2002)

# When to UTOX

- In acute change in mental status: testing essential, but not fully reliable
- For outpatient assessment: *voluntary and confidential* urine drug testing may be useful
  - If there is concern that the patient's use puts him or her at immediate, significant risk, there may be grounds to break confidentiality
- For ongoing monitoring: testing may improve outcomes

# EtG

- EtG positive in excess of the 500 ng/mL cutoff is consistent with the ingestion of alcohol-containing products 1-2 days prior to specimen collection)
- Studies examining “incidental” exposure widely conclude that results in excess of the 500 ng/mL cutoff are not associated with inadvertent or environment ethanol sources
- Advertised “80-hour” window of detection not “real-world” applicable

# Cannabis Detection Window: Update

- 30+ day detection window often exaggerates duration of detection window
- Detection time: at 50 ng/mL cutoff
  - up to 3 days for single event/occasional use
  - up to 10 days for heavy chronic use
- Detection time: at 20 ng/mL cutoff
  - up to 7 days for single event/occasional use
  - up to 21 days for heavy chronic use

# “Chemical Dependency” Assessment

- Usually performed by Chemical Dependency Professionals (CDPs)
- Assessment usually consists of a clinical interview that addresses the 6 dimensions of American Society of Addiction Medicine (ASAM) Patient Placement Criteria (PPC)

# ASAM PPC Levels

- Level 0.5: Early Intervention
- Level I: Outpatient Services: <9hours/week
- Level II: Intensive outpatient (9-19 hours/week)/  
Partial hospitalization (>20 hours/week)
- Level III: residential/inpatient services (e.g.,  
imminent risk of relapse, continued use or poor  
recovery environment)
- Level IV: medically managed intensive inpatient  
services

# Evidence Base: Psychosocial Treatments

| Program  | Level of Support |
|--|------------------|
| Multisystemic Therapy (MST)                        | Evidence-based   |
| Adolescent Assertive Community Care                | Research-based   |
| Adolescent Community Reinforcement Approach (ACRA) | Research-based   |
| MET/CBT-5 for youth MJ use                         | Research-based   |
| Multidimensional Family Therapy                    | Research-based   |
| Teen Marijuana Check Up                            | Research-based   |
| Therapeutic Communities                            | Research-based   |
| Matrix Model                                       | Research-based   |
| Dialectical Behavioral Therapy                     | Promising        |
| Recovery Support Services                          | Promising        |
| Seven Challenges                                   | Promising        |

# Multisystemic Therapy

- Manualized approach addressing multiple determinants of substance use and antisocial behaviors
- Engages family members as collaborators
- Stresses the strength of youth and families
- Addresses barriers to treatment goals
- Therapists familiar with several therapies including CBT and structural family therapy
- Frequent home visits and on-call full time



# Behavioral Therapy

- Contingency management: utilize reward systems
- Cash incentives reduced smoking
- Vouchers improved treatment retention

# CBT

- Based on social learning theory
- Functional analysis of substance use
- Skills training and self-regulation strategies
- Supported by research
- Efficacy appears to be enhanced by a **FAMILY** component

# Twelve-Step

- Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and many other substance specific programs
  - Focus on building support network
  - Spiritually based and abstinence only
  - Most common but no true RCT

# Harm Reduction

- Client centered approach applying readiness to change concept
- Focus is on **reducing consequences** of use, rather than demanding or promoting abstinence
- Develop strategies and skills

# Motivational Approaches

- Motivational interviewing (MI)
  - Client-centered approach focusing on ambivalence
- MI Techniques
  - Open-ended Questions
  - Express Empathy, Listen Reflectively
  - Develop Discrepancy
  - Roll with Resistance
  - Summarize and Affirm
  - Elicit **Self-motivational** Statements

# Medication Treatment

- Cannabis
  - NAC (1200mg BID)
- Alcohol
  - Naltrexone
  - Disulfiram
  - Ondansetron, Topiramate, Acamprosate
- Opiate
  - Methadone
  - Buprenorphine
  - Naltrexone

ALL  
OFF-  
LABEL

# Summary: Treatment

- Treatment is better than no treatment
- Well-defined, structured approaches targeting broad dimensions work best
- Treatment completion --> better outcome
- Family-based treatments have strongest support
- Growing support for CBT, contingency management, motivational approaches

# Co-Occurring Disorders

- COD is the Rule, Not the Exception
- Common Conditions
  - Disruptive Behavior Disorders (DBDs)
  - Depression & other mood disorders
  - Anxiety disorders
  - Attention-Deficit Hyperactivity Disorder (ADHD)
  - Learning disabilities & sensory problems
  - Others: Bulimia, Psychosis, Personality Disorders
- **Increased Role for Medications**



# Integrated Treatment

- Combined Treatment of depression, conduct disorder and substance use disorder in 2007 RCT:
  - CBT/ Fluoxetine vs. CBT/Placebo
  - CBT/Fluoxetine →→ Greater Improvement in Depression
- Combined Treatment of ADHD and substance use disorder
  - Some support for treatment with long-acting methylphenidate or atomoxetine -- Caution advised

# Overall Summary

- The sky is not falling *in general*, but there is a core group of very impaired teens
- Screening and detection are worth it
- There is a role for urine testing, and urine testing is evolving
- There are no magic bullets, but good treatment is better than no treatment
- There is a role for medications, but it is modest

# Tips for Primary Care

- Use screening tools: when in doubt REFER!
- Gather collateral information (including drug testing) and educate parents on warning signs
- Know your local resources and assemble your own referral/treatment network
- Know the content of services
- Involve family
- Involve family
- Involve family

# Tips for Primary Care II

- Encourage adolescents to engage in pro-social activities and recovery support
- Treat co-occurring disorders: consider medications for primary psychiatric disorders
- Consider training in Motivational Interviewing
- Consider training in Buprenorphine
- Judicious use of medications with addictive potentials when indicated



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