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Typical Policy Dimensions pertaining to Drug and Alcohol Use

- · Licit vs. illicit
- Minimum age
- Taxation on sales
- Licensing of premises
- Hours of purchase
- Motor vehicle BAC limits
- Substance specific legal sanctions



Treatment Policy? Young People?

 Young people - underserved/underresearched

Quantity and quality of tx information limited

Evidence-based tx policy hard to <u>find</u> and to <u>form</u>

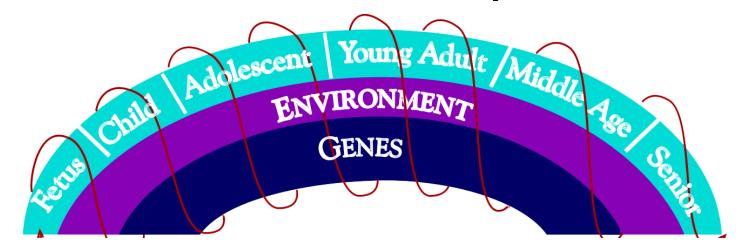
Treatment Policy? Young People?

- Yet, this stage of life-course confers highest risk for SUD...
- And associated with qualitative/ quantitative clinically-relevant differences - warrant developmentally-specific intervention approaches
- No robust/universally recommended <u>treatment</u> policies for young people in US. UK evinces greater strategic coordination and ability to make targeted improvements

Evidence-Based Policy-Relevant Propositions for the Treatment of Young People with Substance-Related Problems

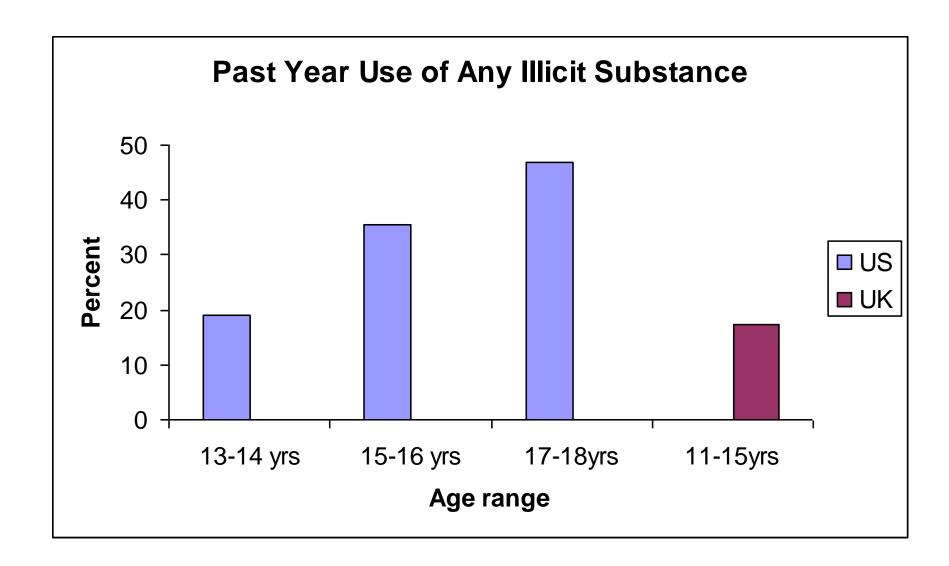
- Proposition 1: Early detection and early intervention
- Proposition 2. <u>Assertive</u> rather than <u>passive</u> intervention approaches
- Proposition 3. Allocation of resources to increase quantity and quality of youth-specific services
- Proposition 4. Training of healthcare professionals in assertive, proactive, and contingent reinforcement approaches

A Life Course Perspective

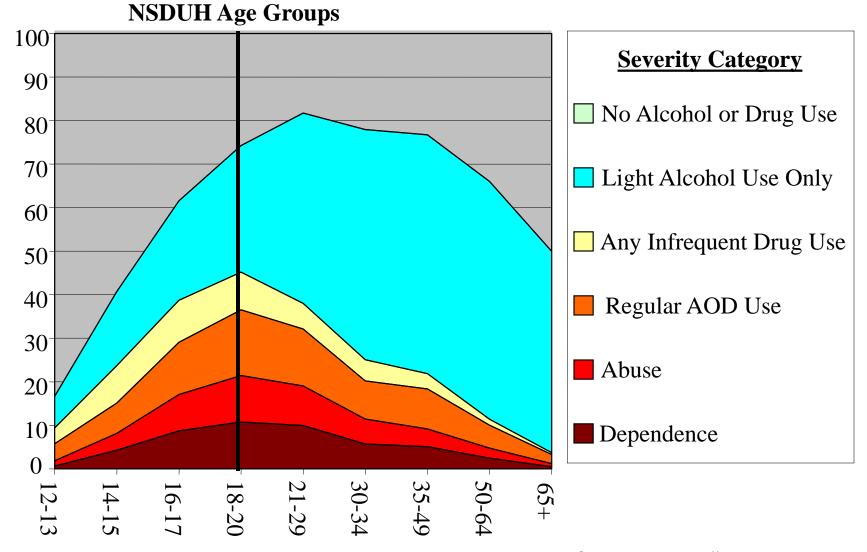


The life course perspective has the advantage of recognizing developmental stages as factors facilitating or inhibiting change and continuity, and/or protective and risk factors, that may differ across the life span"

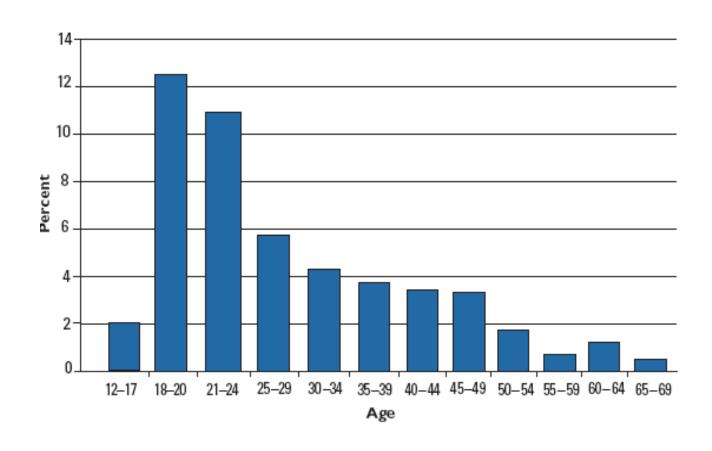
Hser & Anglin (2008).

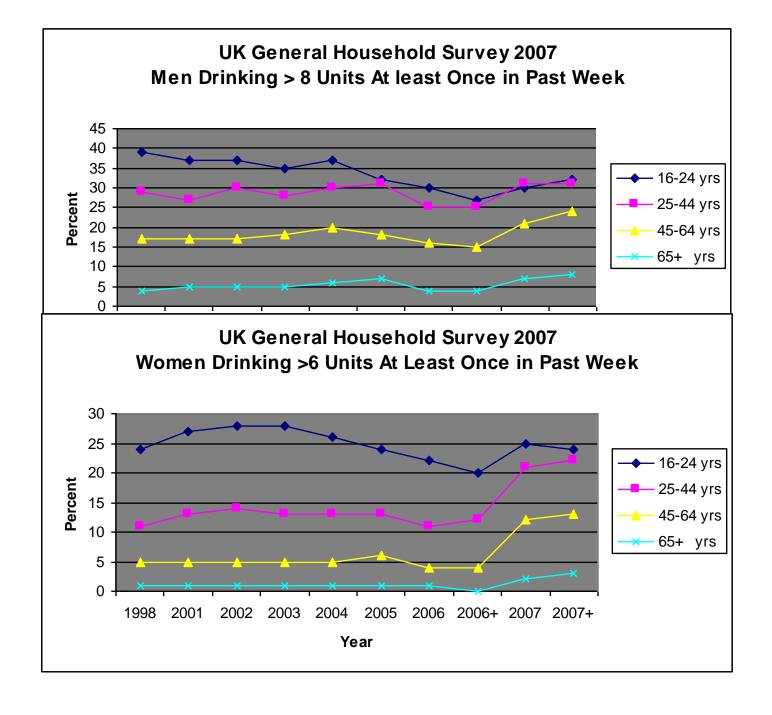


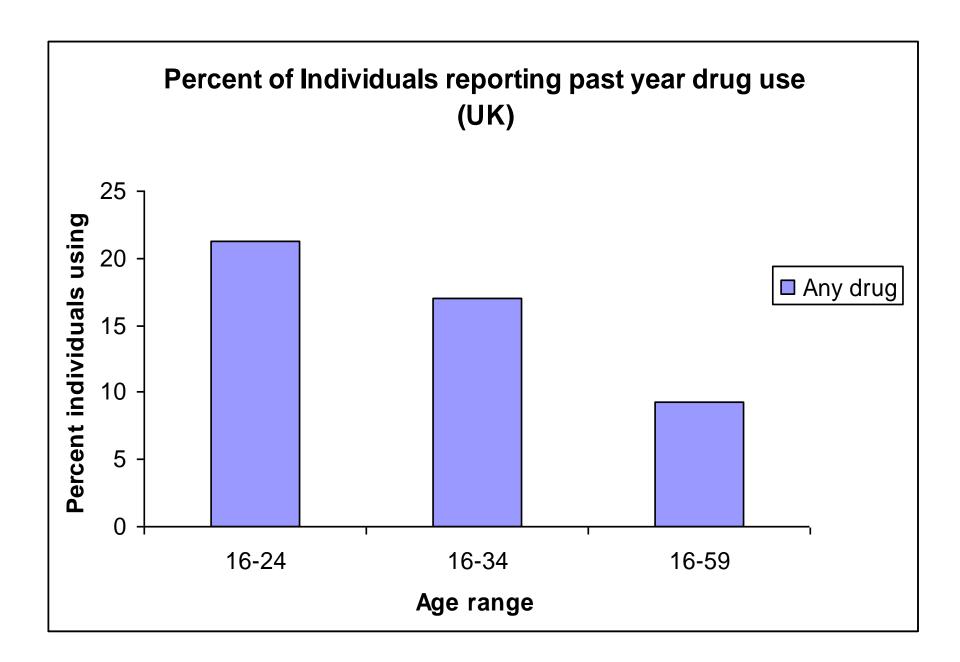
National General Population Household Survey: Problems Vary by Age



Prevalence of Past-Year DSM-IV Alcohol Dependence across the Lifespan

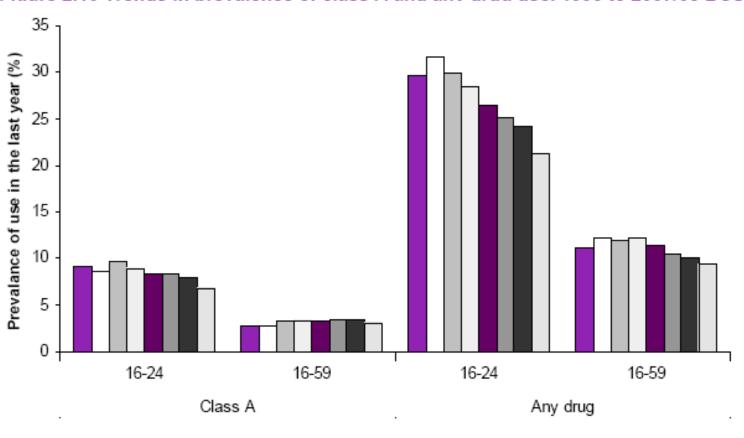






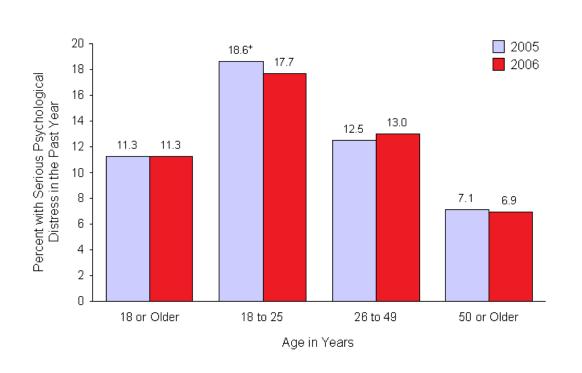
British Crime Survey: Prevalence of Use of Class A and Any Drug

Figure 2.10 Trends in prevalence of class A and any drug use, 1995 to 2007/08 BCS

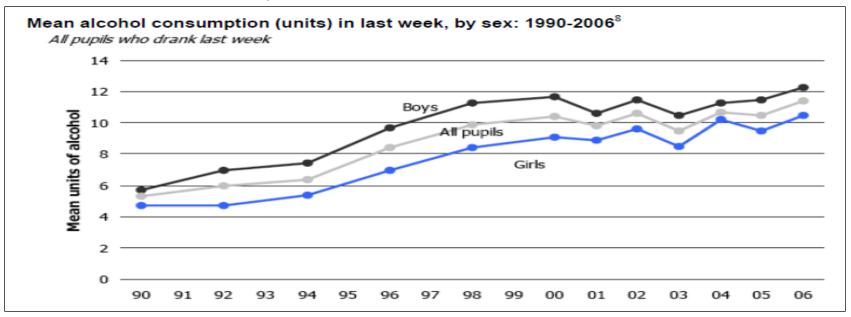


■ 1995 □ 1997 □ 1999 □ 2002/03 ints ■ 2004/05 ints ■ 2005/06 ints ■ 2006/07 ints □ 2007/08 ints

Past Year Serious Psychological Distress (NSDUH, 2007)



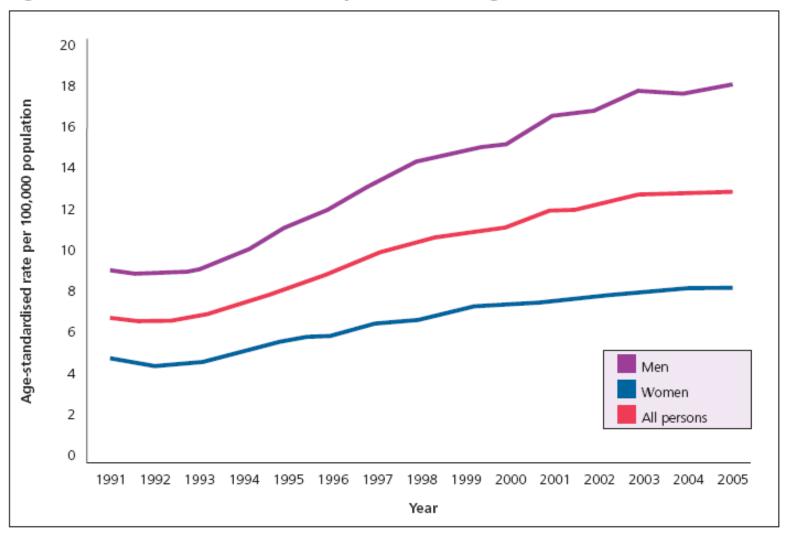
U.K. Alcohol use intensity has increased...



An international survey⁵ found that girls are as, or more, likely than boys to report binge drinking or drunkenness

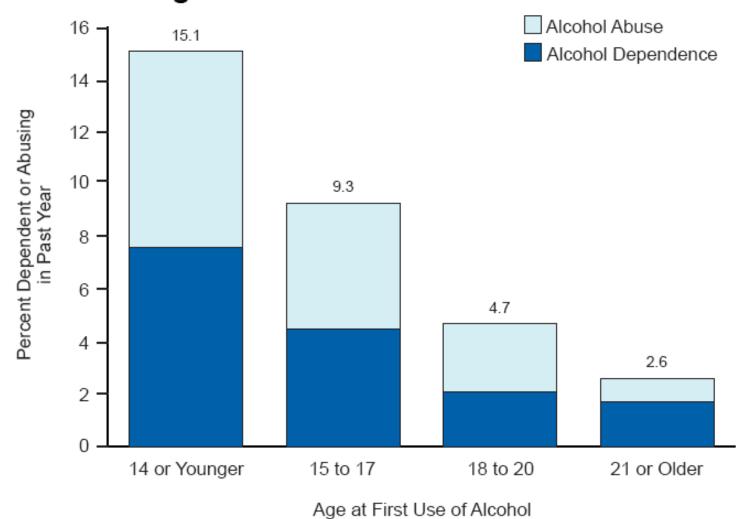


Figure 9 – alcohol-related death rates by sex, United Kingdom, 1991-2005



Source: Office for National Statistics, General Register Office for Scotland, Northern Ireland Statistics and Research Agency (2006)

Figure 7.4 Alcohol Dependence or Abuse in the Past Year among Adults Aged 21 or Older, by Age at First Use of Alcohol: 2008



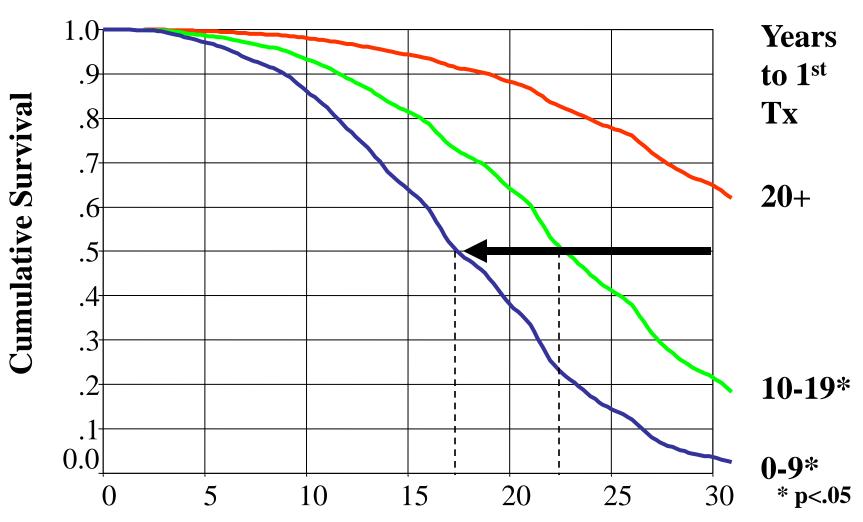
Onset of SUD occurs during adolescence and emerging adulthood

 90% adults with dependence start using before age 18

50% start using before age 15

 The earlier treatment is begun, the shorter the duration of the disorder...

Earlier Intervention Lessens Impact and Duration of SUD



Years from first use to 1+ years abstinence

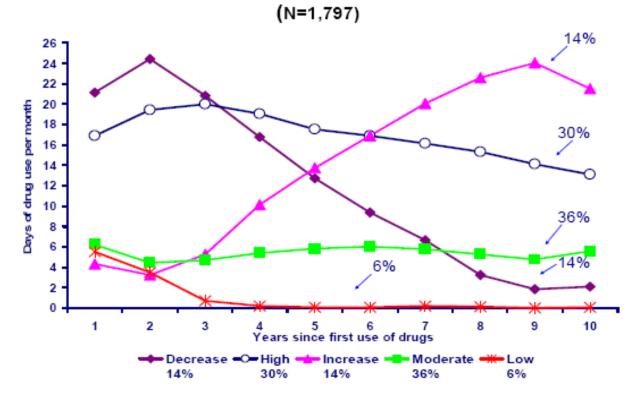
Source: Dennis et al., 2005

Prospective Adult Data

Hser and Anglin (2008)

- While quitting drug use can be facilitated by formal treatment and/or self-help participation,
- Yet, few people (about 25%) had these experiences in the 10 years following first use (Hser, Huang et al, 2008)

Figure 4. Five Distinctive Drug Use Trajectories



Summary & Implications

- Across human life-course, epi data reveal late adolescence/emerging adulthood convey the highest risk for onset of SUD and psychological and psychiatric problems
- Many young people will decrease use/remit as they transition to adulthood, but nevertheless place themselves at risk for acute morbidities and mortality -some go on to have long term problems
- Heavy use during this period impairs cognitive capacity and decision making that may prevent reaching important milestones, which can have lasting ramifications
- Most common drugs used (cannabis and alcohol) are most likely to impair memory, may have long-term effects on memory-related brain structures (e.g., hippocampus); THC may trigger latent vulnerabilities toward psychosis or other psych d/o

Proposition 1: Early detection and early intervention

Allocation of an increasingly greater proportion of available resources to early detection and intervention of problem use in the population (i.e., during late adolescence and emerging adulthood) with increased emphasis on alcohol misuse and related harm, will shorten the duration and impact of SUD in the population

Evidence-Based Policy-Relevant Propositions for the Treatment of Young People with Substance-Related Problems

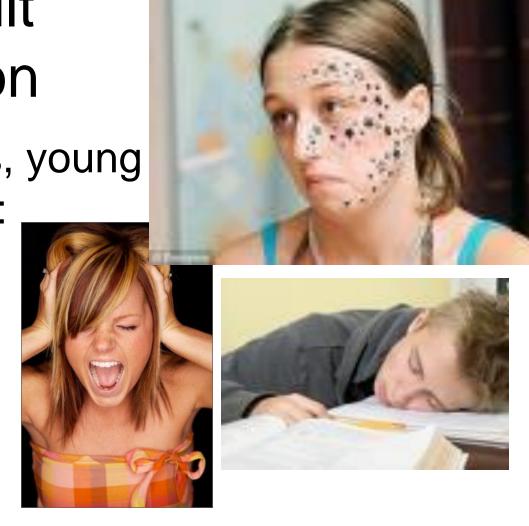
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How do Youth Differ from Adults?

Youth-Adult Comparison

Compared to adults, young people tend to be:

- Weirder
- Stupider
- Tireder
- Lazier
- Irresponsibler
- Freak out more



- Adults <u>tend</u> to be:
 - Less weird
 - Wiser
 - More responsible

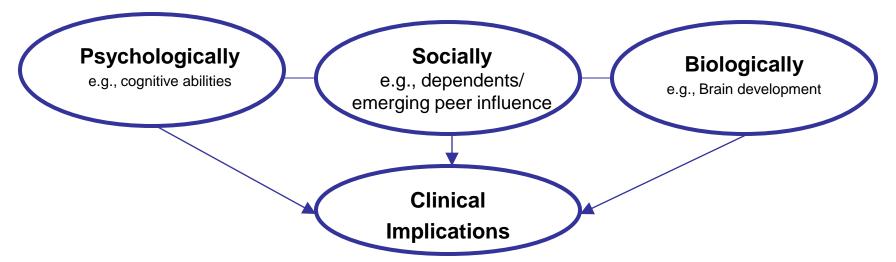




Why can't we apply the policies to youth treatment that we apply to adult treatment?

Aren't we treating the same disorder?

Young People differ across multiple dimensions...



Erikson's Stages of Psychosocial Development

Enterior Ctagos or r cychicocolar Bovelopment					
Infant (0-18 months)	Trust vs. Mistrust				
Toddler (18 months-3 years)	Autonomy vs. Shame and Doubt				
Early Childhood (3-6 years)	Initiative vs. Guilt				
Middle Childhood (6-12 years)	Industry vs. Inferiority				
Adolescence (12-18 years)	Identity vs. Role Confusion				
Early Adulthood (19-40 years)	Intimacy vs. Isolation				
Middle Age Adulthood (40-65 years)	Generativity vs. Stagnation				
Older Adulthood (65 years- death)	Integrity vs. Despair				

Youth-Adult Differences

What factors might influence a different manifestation of the disorder and treatment approaches among young people?

Cognitive/Psychological

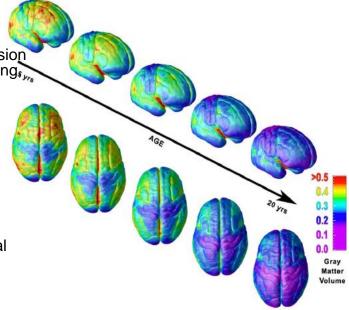
 Executive functioning, abstract reasoning and decision making, greater impulsivity, less forethought/planning, risk appraisal

Social

- Dependent vs autonomous (adolescents)
- Limited freedom/parental control
- Finances
- Few abstainers/limited recovery supports
- Non attainment vs. losses
- Critical period containing a cluster of developmental milestones- creates a "sense of urgency" (Kotter, 1996)

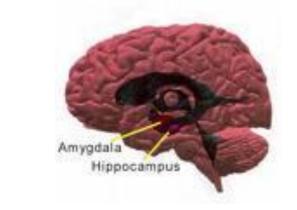
Biological

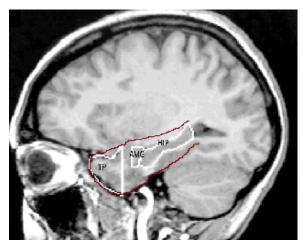
- Brain development continues through mid 20's. Front cortical areas last to develop (decision making)
- These factors have implications for clinical presentation and approach...



Neuroplasticity

- Human brain can recover much functional damage and compensate for substancerelated structural damage through increasing dendritic connections
- London taxi drivers showed increased size of hippocampus - correlated with years of driving experience (Maguire et al, 2000)





Clinical Characteristics among Adolescents

- Youth, in general, differ from adults along dimensions of duration of use, frequency of use, severity dependence, <u>number/types</u> of substances, types consequences, problem recognition (Stewart & Brown, 1995; Pollock & Martin, 1999; Tims, et al, 2002).
- Youth have fewer/less intense medical complications, dependence, or withdrawal symptoms (Brown et al., 1990; Pollock et al, 1999; Stewart et al, 1995).
- Youth encounter less psychomotor impairment but greater memory impairment (e.g., alcohol)
- Youth do not suffer same degree of psychological dependence as older adults less likely to experience cognitive preoccupation (i.e. planning use; Deas et al., 2000; Stewart & Brown, 1995)
- More likely to be using from positive reinforcement rather than negative reinforcement (e.g., to minimize/avoid w/d)
- More likely to relapse due to <u>social factors</u> and not intrapersonal stress or negative affect (Brown et al, 1993).

Emerging Adult Differences

- Compared to adolescents and/or older adults, emerging adults:
 - Among 5,606 adolescents/young adults from 77 treatment studies, emerging adults had <u>highest rates of co-occurring psychiatric problems</u> (Chan, Dennis et al, 2008).
 - Have an earlier onset of alcohol/drug use, but report lower readiness for change (Sinha, et al, 2003).
 - Are least likely to follow through with continuing care (Shin, Lundgren et al, 2007).

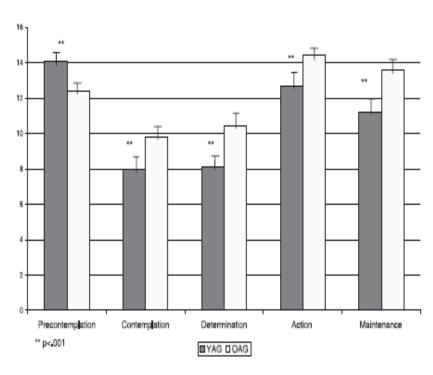
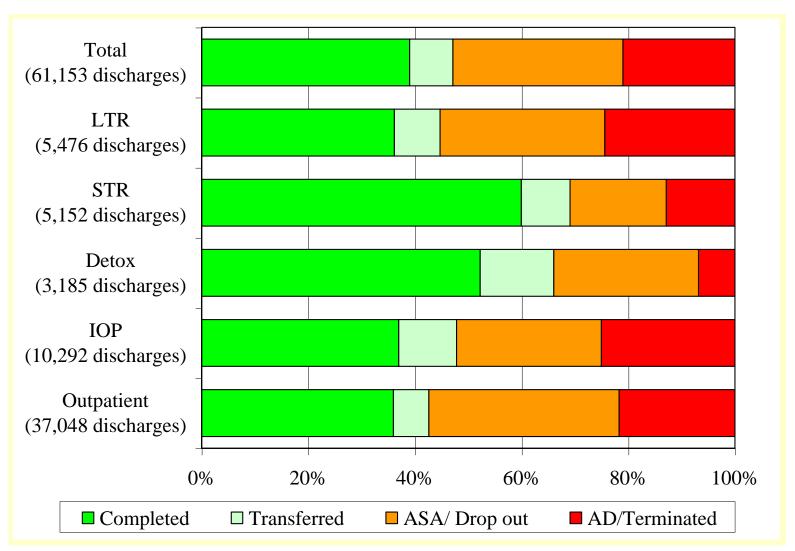


Figure 1. Mean scores (and standard error bars) for the Stages of Change Readiness and Eagerness Scale (SOCRATES) subscales in the young adult (YAG) and older adult (OAG) groups.

Sinha, R., Easton, C., & Kemp, K. (2003). American Journal of Drug and Alcohol Abuse, 29(3), 585-597.

53% Have Unfavorable Discharges - Adolescents



Source: Data received through August 4, 2004 from 23 States (CA, CO, GA, HI, IA, IL, KS, MA, MD, ME, MI, MN, MO, MT, NE, NJ, OH, OK, RI, SC, TX, UT, WY) as reported in Office of Applied Studies (OAS; 2005). Treatment Episode Data Set (TEDS): 2002. Discharges from Substance Abuse Treatment Services, DASIS Series: S-25, DHHS Publication No. (SMA) 04-3967, Rockville, MD: Substance Abuse and Mental Health Services Administration. Retrieved from http://www.dasis.samhsa.gov/teds02/2002_teds_rpt_d.pdf.

Outcomes for young people accessing services 2005/06 - 2007/08

	2005/06		2006/07		2007/08	
	n	%	n	%	n	%
Complete	4079	48%	5723	50%	8060	57%
Referred on	564	7%	698	6%	937	7%
Dropped out / left	2498	29%	2896	25%	2529	18%
Prison	198	2%	285	2%	339	2%
Treatment declined by client	*	0%	246	2%	703	5%
Other	1199	14%	1648	14%	1496	11%

II. Summary & Implications

- Young people exhibit biopsychsocial differences that produce quantitative and qualitative differences in clinical presentation
- Lack of severe, prolonged, consequences/intrinsic motivation and greater positive reinforcement from substances indicates standard, adult-based, passive approach ineffective
- Implies use of greater outreach, screening, and assertive intervention to help youth access and stay engaged in treatment and continuing care

Proposition 2. <u>Assertive</u> rather than <u>passive</u> intervention approaches

Poor problem recognition, low motivation for change, and low rates of treatment access, engagement, and retention, indicate a need for <u>assertive</u> rather than <u>passive</u> approaches in the treatment of young people at all stages of the continuum of care

Evidence-Based Policy-Relevant Propositions for the Treatment of Young People with Substance-Related Problems

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Needing Treatment and Receiving Treatment for Substance Use Disorders, Ages 12 – 17 (SAMHSA, 2006)



National availability of centers offering adolescent only substance-use treatment

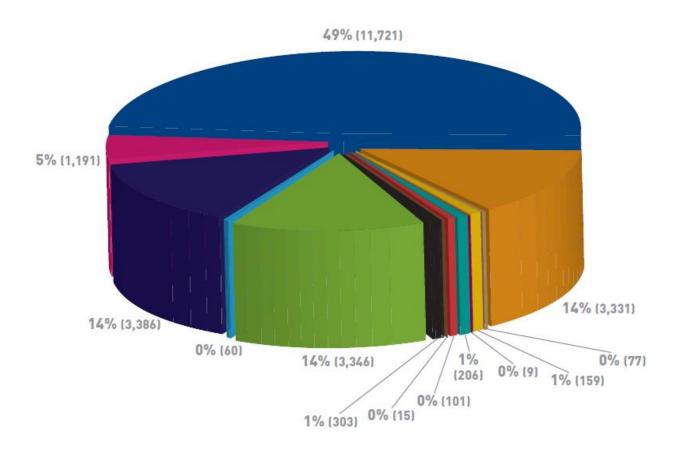
- 2007 National Survey of Substance Abuse Treatment Services (N-SSATS) all SUD tx facilities in U.S.
 - 52% admitted adolescents
 - 16% offered adolescent-only tx
- 2008 Service Delivery and Use of Evidence-Based Treatment Practices (Knudsen et al, 2008)
 - 42% admitted adolescents
 - 20% offered adolescent-only services
 - <u>Distribution</u> of adolescent-specific programs unknown
- Adolescent-only programs:
 - Outpatient (69.1%); Group (1-2/wk)
 - 85% recommended 12-step meetings
 - 63.6% also offered MH treatment

Treatment Centers

(N = 13,648)



Interventions received 2007/08



"Every local authority in England now has access to a specialist substance misuse service for young people" (NTA, 2009)



Quality: How good is Adolescent Treatment?

Adolescent Treatment Research Reviews

- Need for more randomized controlled studies (Williams & Chang, 2006)
- Improved methodological rigor regarding follow-up rates, assessment, limiting recall bias, and verification of self-report (Williams & Chang, 2006)
- Examination needed of link between relapse and underlying mechanisms (Chung & Maisto, 2009)

Treating Teens: A Guide to Adolescent Drug Programs

- Purpose: to evaluate the <u>quality</u> of treatment available to adolescents
- "Highly regarded" adolescent-specific programs were identified by US region based on expert
- Method:
 - Treatment Expert Panel who:
 - determined 9 key tx elements
 - identified the top 144 US programs

Treating Teens: A Guide to Adolescent Drug Programs Key Elements of Effectiveness

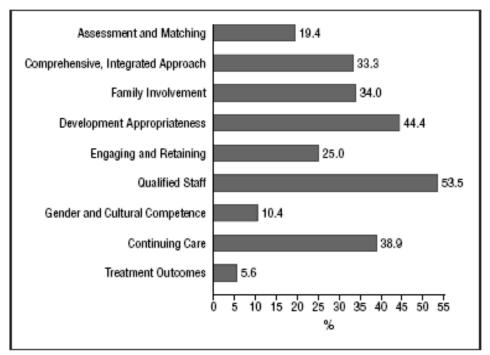


Figure 3. Percentage of programs scoring 4 or 5 on key element.

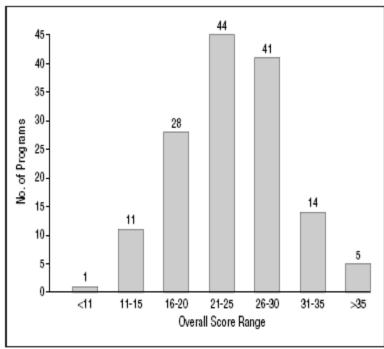


Figure 2. Number of programs by overall score. The maximum possible overall score is 45.

Does External Accreditation Make a Difference in Quality?

Table 2. Accredited Programs and Nonaccredited Programs Scoring 4 or 5 on Key Elements*

	Accredited (n = 72)	Nonaccredited (n = 72)
Assessment and matching†	19 (26.4)	9 (12.5)
Comprehensive, integrated approach	23 (31.9)	25 (34.7)
Family involvement	28 (38.9)	21 (29.2)
Developmental appropriateness	31 (43.1)	33 (45.8)
Engage and retain	14 (19.4)	22 (30.6)
Qualified staff	41 (56.9)	36 (50.0)
Gender and cultural competence	8 (11.1)	7 (9.7)
Continuing care	28 (38.9)	28 (38.9)
Outcomes	3 (4.2)	5 (6.9)

^{*}Data are presented as number (percentage). Accredited means accredited by the Joint Commission on the Accreditation of Healthcare Organizations, Commission on the Accreditation of Rehabilitation Facilities, or Council on Accreditation.

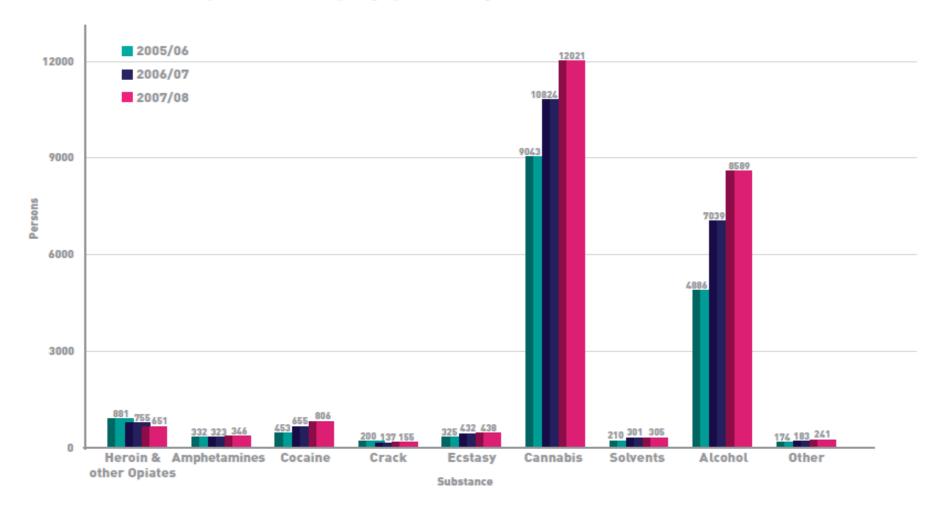
[†]P<.1 for difference between proportion in accredited vs nonaccredited programs.

Updated National Drug Strategy and Every Child Matters: Change for Children: Young People and Drugs:

- Multi-agency (Dept of Education, Home Office, Dept of Health) joint holisitic approach
 - 3 objectives:
 - Reform delivery and strengthen accountability
 - Ensure more focus on drug misuse prevention/early intervention screening/assessment by ALL youth focused agencies
 - Build service and workforce capacity

U.K. - Increased YP Treatment Entry by Primary Substance

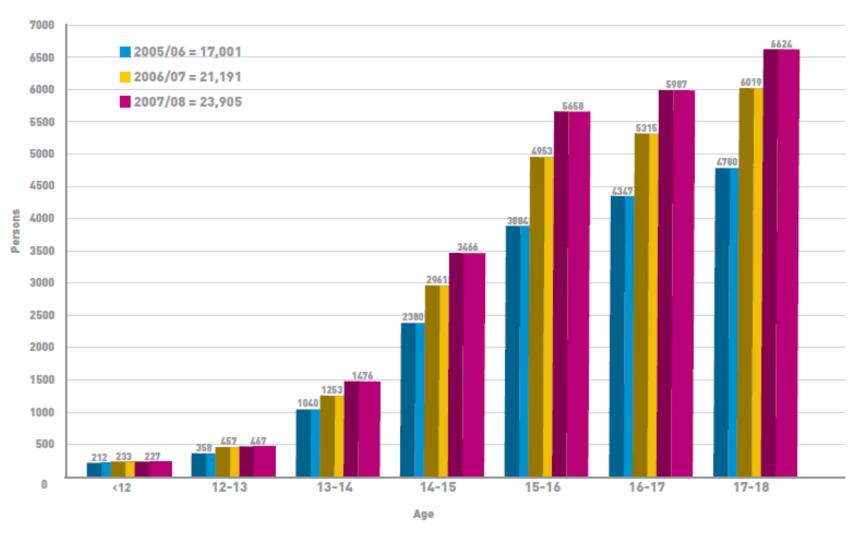
Numbers presenting by primary substance 2005/06-2007/08



(National Treatment Agency for Substance Misuse, 2009: Getting to Grips with Substance Misuse Among Young People)

U.K.

Young people accessing services by age 2005/06-2007/08



(National Treatment Agency for Substance Misuse, 2008)

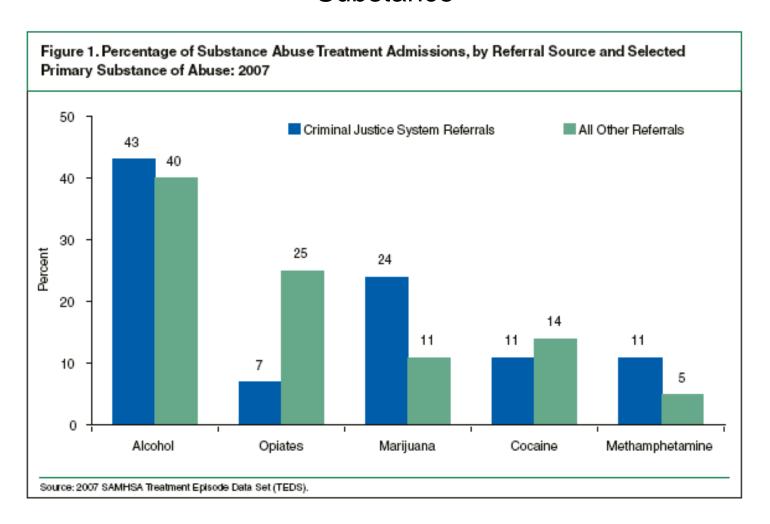


US System "Build it and they will come"?

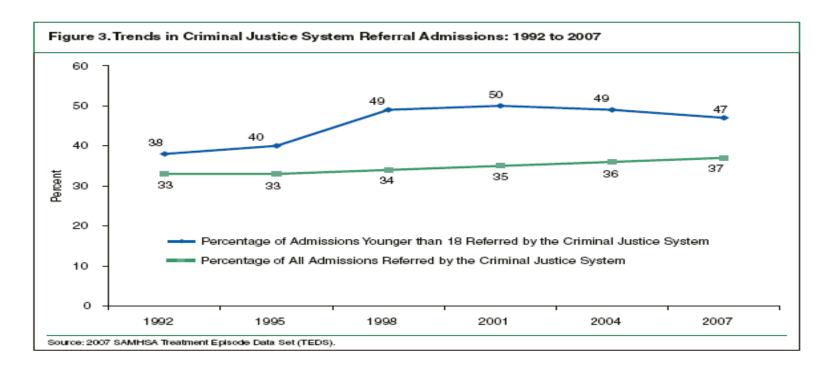
- Still formatted on an adult patient model
- Passive approach
 - Assumption = build it and they will come
 - Reality = no they won't
- UK: Explicit goal setting and targeted and coordinated emphasis on young people – documented improvements
- Criminal justice plays increasingly large role in diverting youth to treatment

How do young people get there?

% Treatment Admissions by Referral Source and Primary Substance



Trends in Criminal Justice System Referral Admissions



- •A recent RCT compared **juvenile drug court** to standard family court in the treatment of juvenile drug offenders (Henggeler et al., 2006)
- •Drug court was found to be more effective than family court at decreasing rates of substance use and criminal behavior.

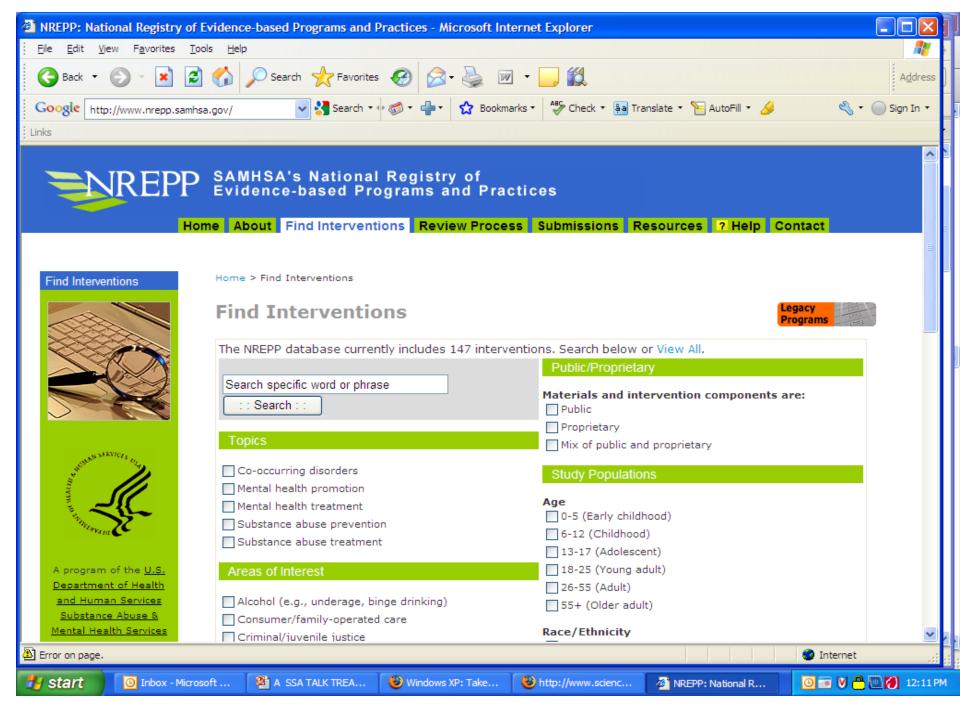
Youth in Criminal Justice System

 U.K. Approximately 33% of youth in 2007-2008 were referred by youth offending teams (each with a substance misuse worker; National Treatment Agency for Substance Misuse, 2008)

 U.S In 2005, of all adolescents age 12-17 in substance abuse treatment, 39% females and 55% males were referred by the criminal justice system

Adolescent Treatment: What works?

- Adolescent tx become recent focus for NIH in US and UK
- CYT largest RCT conducted with adolescent SUD
 - Goal: to test promising approaches in a rigorous fashion and assess incremental effects of differing intensities of treatment delivery
- National Registry of Evidence-based Practices and Programs (NREPP) database



Cannabis Youth Treatment Study: Interventions

Incremental Arm:

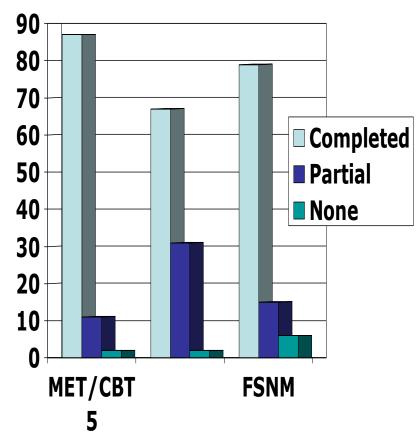
- MET/CBT 5- 2 individual MET sessions + 3 CBT group sessions
- MET/CBT 12- 2 individual MET sessions + 10 CBT group sessions
- Family Support Network (FSN) –MET/CBT 12 + parent attended 6 group sessions + home visits

Comparative Arm:

- MET/CBT 12- 2 individual MET sessions + 10 CBT group sessions
- Adolescent Community Reinforcement Approach (A-CRA)- 12 individual sessions and parent received 4 sessions
- Multidimensional Family Therapy (MDFT)- 12 to 15 sessions including 6 with adolescent, 3 with parents, 6 with whole family) plus case management (SUD emphasis incorporated into family therapy)

Cannabis Youth Treatment Study: Findings

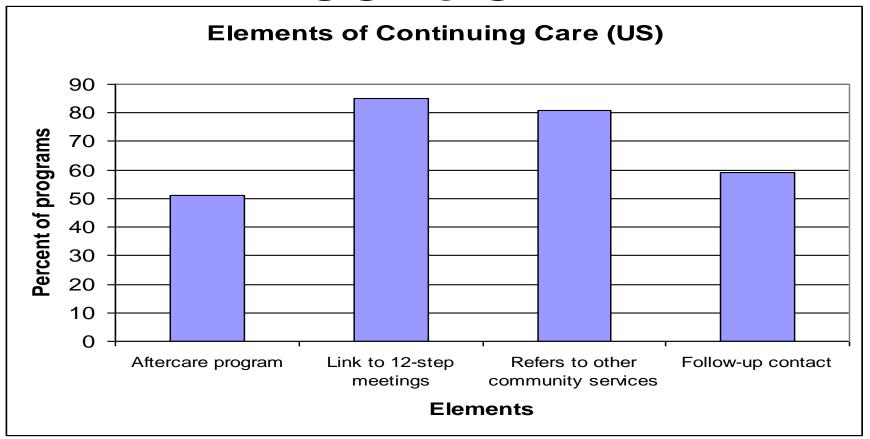
- All 5 interventions showed sig. increase in PDA (+24%) and % in recovery (3% up to 24%)
- Continued use/relapse very common
- Successful "graduation" from shorter tx may produce better results than non-completion of longer tx even though absolute # of sessions attended may be higher (e.g., Wallace & Weeks, 2004)
- Policy Implication: implementation of shorter interventions (at frequent intervals; RMC) may allow teens to achieve sense of accomplishment



(Dennis et al, 2004)

Continuing Care?

US vs UK



UK (?): Little (if any) referral to 12-step for young people

US vs UK Treatment: What is happening now?

- US eclectic mix of mostly outpatient treatment; about half do not complete treatment; referral to AA/NA is strong as continuing care
- UK eclectic mix mostly outpatient psychosocial; about half do not complete care plan; rare use of AA/NA as cc resource

Summary & Implications

- Roughly half of programs in US admit adolescents
 - US Only 16-20% adolescent-specific –distribution not determined based on need
 - UK reports YP specific service in every local authority
- increased emphasis on treating young people in the past 10 years in US and more recently in the UK
- Quantity/quality of research lags behind adults. However, more recent emphasis on developing, testing, implementing youth-specific interventions in the US. Need more research
- Relapse rates high; continuing care very low following single episode of care
- Criminal justice may provide opportunities for treatment exposure and leverage for engagement and continuing care

Proposition 3. Greater allocation of resources to increase quantity and quality of youth-specific services

Greater resources should be allocated to increasing the quantity and quality of youth-specific specialty services with emphasis on harm minimization/relapse prevention, and ongoing recovery monitoring and management. Increased collaboration with criminal justice can provide treatment opportunities and effective ongoing leverage

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Community Reinforcement Approach and Family Training (CRAFT) Model

- Intended to support family members in encouraging behavior change in loved ones misusing substances but unmotivated to seek tx
- Waldron et al.- study of 42 families with an adolescent currently misusing drugs:
 - considerably reduced negative symptoms among parents
 - 71% parents able to engage children in treatment

Additional Continuing Care Engagement Strategies

- Recovery Management Check-Ups (Dennis et al, 2009)
- Contingency Management approaches (Higgins & Petry, 1999)
- Assertive linkage/proactive outreach (ACC; Godley et al, 2006)

Assertive Continuing Care (ACC) vs Standard Continuing Care (SCC):

"If we don't see them we can't help them"

- Results (N=342; 12-17yrs)
 - ACC more likely to achieve continuity of care (78% vs. 56%)
 - Adolescents receiving continuing care 92% more likely to be in recovery at 3m follow up

Recommendations:

- Tx providers should be <u>held accountable and rewarded for</u> achievement of continuity of care
- Further research is needed to assess the <u>cost</u>
 <u>effectiveness</u> of assertive continuing care interventions

Contingency management (CM) Adolescents with marijuana disorder

- N= 69 (14–18yrs)
- Results:
 - CM condition greater THC abstinence during tx
 - 7.6 vs. 5.1 continuous weeks
 - 50% vs. 18% achieved ≥ 10 weeks of abstinence
- CM tx outcomes in adolescent sample consistent with adults
- CM abstinence-based approaches with other empirically based outpatient interventions provides an alternative and efficacious tx for adolescent SUD

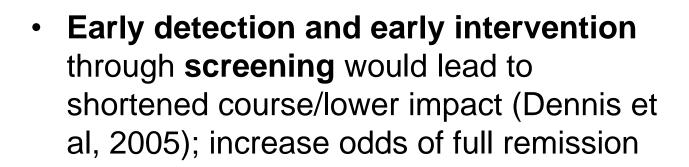
Proposition 4. Training of healthcare professionals in assertive, proactive, and contingent reinforcement approaches

Training of healthcare professionals in evidence-based assertive, proactive, and contingent reinforcement approaches hold promise for addressing the SUD treatment needs of young people and their families, but further research is needed

Toward a Rational Youth Treatment Policy (1)

"All professionals and agencies should screen these young people for substance use" (UK Substance of Young Needs, 2001)

- Conceptualize using public health framework (e.g., cancer, heart disease, diabetes (McLellan et al, 2000).
- Likely to destigmatize SUD and increase likelihood of tx seeking (SAMHSA, 2008; IOM, 1998)





Toward a Rational Youth Treatment Policy (2)

"The importance of drug and alcohol prevention, responses to use and misuse cannot be over emphasised" (UK Substance of Young needs, 2001)

• Efficient screening would occur where the PPV (i.e., a positive screen is indicative of a true case) is highest (e.g., mammograms for women 40+, cervical screening 18+)



- Current cumulative incidence data indicate screening and monitoring most cost-efficient if conducted during teen and emerging adult years
- Less help-seeking among youth means screening and intervention should occur where youth are likely to be: Emergency rooms, criminal justice, MH, primary care, school/college health centers,
- **SBIRT** initiatives are promising protocols to facilitate increases in addressing SUD (Madras et al, 2008)

US SBIRT Initiatives (SAMHSA, 2008)

"Intervene before more intensive services are needed"

- Screening, Brief Intervention and Referral to Treatment
 - Screening- integrate into routine medical and community settings
 - Brief <u>Intervention</u>- a motivational discussion with the individual when moderate risk of problems with substance use is detected
 - Brief <u>Treatment-</u> includes assessment, education, problem solving, coping skills and creating support system
 - Referral severe risk or dependence, individuals referred to intensive treatment
 - JCAHO may soon <u>require</u> SBIRT in emergency rooms and urgent care venues

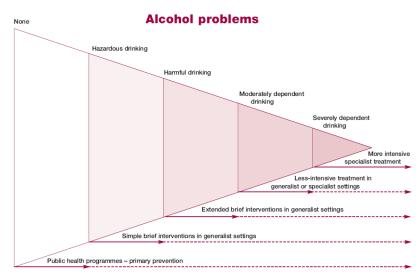


Figure 2a: A spectrum of responses to alcohol problems

http://sbirt.samhsa.gov/index.htm

Toward a Rational Youth Treatment Policy (3)

"The importance of drug and alcohol prevention, responses to use and misuse cannot be over emphasised" (UK Substance of Young needs, 2001)

 From a life-course perspective, greater relative proportion of tx emphasis/resources allocated to young people, importantly particularly during emerging adulthood (18-25yrs) when risk is highest



- Tx needs to be sensitive to quantiative/qualitative biopsychosocial differences inherent among adolescents and emerging adults that result in different clinical presentations and recovery challenges (e.g., few recovery supports)
- Clinical research with young people points to need for <u>assertive</u> approaches for access, engagement, retention, and continuing care

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Evidence-Based Policy-Relevant Propositions for the Treatment of Young People with Substance-Related Problems

- Proposition 1: Allocate an increasingly greater proportion of available resources to early detection and intervention of problem use in the population (i.e., during late adolescence and emerging adulthood) with increased emphasis on alcohol misuse and related harm
- Proposition 2. Poor problem recognition, low motivation for change, and low rates of treatment access, engagement, and retention, indicate a need for <u>assertive</u> rather than <u>passive</u> approaches in the treatment of young people at all stages of the continuum of care
- Proposition 3. Greater resources should be allocated to increasing the quantity and quality of youth-specific services with emphasis on harm minimization/relapse prevention, and ongoing recovery monitoring and management. Increased collaboration with criminal justice can provide treatment opportunities and effective ongoing leverage
- Proposition 4. Training of healthcare professionals in evidence-based assertive, proactive, and contingent reinforcement approaches hold promise for addressing the SUD treatment needs of young people and their families

