

APPENDIX A.

REVIEW PROCESS FOR PREVENTION PROGRAMS

Sources and Process

The review of published research primarily focused on refereed, professional journals, which were searched using PubMed and PsycINFO. Government reports, annotated bibliographies, and relevant books and book chapters also were reviewed. In addition, programs were searched on SAMHSA's National Registry of Evidence-based Programs and Practices (NREPP) and the Centers for Disease Control and Prevention (CDC) Guide to Community Preventive Services. From these collective sources, a set of 600 core prevention programs was identified for possible inclusion in this *Report*. Of those, 42 met the evaluation criteria listed below and were included.

Evaluation Criteria

Programs were included only if they met the program criteria of the Blueprints for Healthy Youth Development listed below. All of these programs fit within CDC's well-supported category.

- *Experimental design:* All programs were evaluated using a randomized trial design or a quasi-experimental design that used an adequate comparison group. The prevention effects described compare the group or individuals that got the prevention intervention with those who did not.
- *Sample specification:* The behavioral and social characteristics of the sample for which outcomes were measured must have been specified.
- *Outcome assessments:* These assessments must have included pretest, posttest, and follow-up findings. The need for follow-up findings was considered essential given the frequently observed dissipation of positive posttest results. Follow-up data had to be reported more than



FOR MORE ON THIS TOPIC

See Chapter 1 - *Introduction and Overview*.

6 months beyond the time point at which the primary components of the intervention were delivered, in order to examine the duration and stability of intervention effects.

- *Effects:* Independent of whether the prevention intervention began prenatally, in the early years of life, or in adolescence or adulthood, programs were included only if they produced outcomes showing a measurable difference in substance use or substance use-related outcomes between intervention and comparison groups based on statistical significance testing. Level of significance and the size of the effects are reported in [Appendix B - Evidence-Based Prevention Programs and Policies](#). Programs that broadly affected other behavioral health problems but did not show reductions in at least one direct measure of substance use were excluded.
- *Additional quality of evidence criteria:* The program provided evidence that seven quality of evidence criteria consistent with those of NREPPⁱ were met: (1) reliability of outcome measures, (2) validity of outcome measures, (3) pretest equivalence, (4) intervention fidelity, (5) analysis of missing data, (6) degree and evaluation of sample attrition, and (7) appropriate statistical analyses.
- *Operations Manual:* The program had a written manual that specified the procedures used in the intervention to increase likelihood that the prevention intervention would be replicated with fidelity.

i Substance Abuse and Mental Health Services Administration. National registry of evidence-based programs and practices (NREPP). Retrieved from <http://www.samhsa.gov/nrepp>. Accessed on March 11, 2016.

APPENDIX B.

EVIDENCE-BASED PREVENTION PROGRAMS AND POLICIES

Table B.1: Evidence-Based Interventions for Children Under Age 10

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Nurse-Family Partnership Program (NFP)	Selective	Family	<p>Study 1: N = 300 rural, poor pregnant White women, first births</p> <p>Study 2: N = 743 urban, poor pregnant African American women, first births</p> <p>All studies: RCT/NTC</p>	<p>Study 1: At 13-year follow-up (age 15), parents in the nurse-visits intervention reported their children had fewer behavioral problems due to use of substances (0.15 vs. 0.34), and youth reported fewer days of alcohol consumption in past 6 months (1.09 vs. 2.49). No effects on binge drinking or illicit drug use at age 19.</p> <p>Study 2: At 10-year follow-up (age 12), lower 30-day use of cigarettes, alcohol, and marijuana (OR = 0.31).</p>	<p>Olds, et al. (1998)¹</p> <p>Eckenrode, et al. (2010)²</p> <p>Kitzman, et al. (2010)³</p>

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Raising Healthy Children (RHC) (Seattle Social Development Project elementary only)	Universal	Family and School	N = 18 urban, multiethnic schools; 810 students in Grades 1-5 QED/NTC RCT/NTC	At 6-year follow-up (age 18), reductions in heavy drinking (15.4% vs. 25.0%); high rates of attrition (quasi-experimental). At ages 21, 24, and 27, no significant effects on any form or drug or alcohol use. At grades 8-10, reduced growth of frequency of alcohol and marijuana use, no effects on initiation of alcohol, marijuana, and cigarettes (d = .40 for alcohol, d = .57 for marijuana).	Hawkins, et al. (1992) ⁴ and (1999) ⁵ Hawkins, et al. (2005) ⁶ and (2008) ⁷ Brown, et al. (2005) ⁸
Good Behavior Game	Universal	School	N = 864 large urban, multiethnic students in Grades 1-2 RCT/NTC	At ages 19 to 21, intervention males with high aggression in 1st grade (about 25% of boys) had lower rates of alcohol and drug abuse and dependence (65.6% vs. 28.1%). No effect for moderately or low aggressive males and no effect for females. Finding was not replicated in second cohort of the same study.	Kellam, et al. (2008) ⁹ and (2014) ¹⁰
Classroom Centered Intervention	Universal	School	N = 9 urban, multiethnic schools; 576 students in Grades 1 and 2 RCT/NTC	At 6-year follow-up (Grade 8), reduced risk of starting to use other illegal drugs (heroin, crack, and cocaine powder; 7% vs. 2.6%). No effects on alcohol initiation or marijuana use.	Ialongo, et al. (2001) ¹¹ Furr-Holden, et al. (2004) ¹² Liu, et al. (2013) ¹³

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Linking the Interests of Families and Teachers (LIFT)	Universal	Multicomponent	N = 6 schools; 348 primarily White students in Grade 5, college town RCT/NTC	At 2- and 3-year follow-up, effects on patterned alcohol use (OR = 1.49) across Grades 6-8. Lower risk of initiating alcohol use (7% reduction). Also reduced growth of illicit drug use, particularly for females.	Eddy, et al. (2003) ¹⁴ DeGarmo, et al. (2009) ¹⁵
Fast Track	Indicated	Multicomponent	N = 4 urban and rural multiethnic communities; 891 children with behavioral problems selected in kindergarten, Grades 1-10 RCT/TAU	No effects on substance use in Grades 9-12. At 10-year follow-up (age 25), decreased probability of DSM alcohol abuse (OR = 0.69), serious substance use (OR = 0.58). Lower drug crime conviction rate (34.7% reduction). No effect on binge drinking or heavy marijuana use.	Dodge, et al. (2015) ¹⁶
Preventive Treatment Program (Montreal)	Selective	Multicomponent	N = 166 urban French Canadian students in Grades 1-2 with early behavioral problems RCT/TAU	At 7-year follow-up, effects on drinking to the point of being drunk at age 15. At 6- to 8- year follow-up, reduction in alcohol use at age 17 (ES = 0.48), and the slope of the number of drugs used between age 14 and 17 (ES = 0.70).	Tremblay, et al. (1996) ¹⁷ Masse, (1996) ¹⁸

Abbreviations: RCT - Randomized Controlled Trial, QED - Quasi-Experimental Design, TAU - Control Group Received Treatment As Usual, NTC - No Treatment Control, ES - Effect Size, OR - Odds Ratio

Table B.2: Evidence-Based Interventions for Youth Aged 10 to18

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Life Skills Training (LST)	Universal	School	<p>Study 1: N = 56 public schools; 5,954 White, urban students in Grade 7 (1985-1991)</p> <p>Study 2: N = 29 schools in New York; 3,791 urban youth in Grade 7 (high-risk subsample), primarily African American and Hispanic</p> <p>Study 2a: N = 758 high-risk students from Study 2</p> <p>Study 3: N = 9 rural public schools; 732 White students in Grade 6 (1999-2002)</p> <p>Study 4: N = 36 rural schools; 1,650 primarily White students in Grade 7 (1998-2006)</p> <p>All Studies: RCT/ NTC</p>	<p>Study 1: 6-year follow-up showed significantly lower incidence of drunkenness (33.5% vs. 40%) but not on rate of monthly, or weekly alcohol use; no effect on marijuana use. 66% reduction in weekly polydrug use (alcohol, marijuana, and tobacco).</p> <p>Study 2: 1- and 2-year follow-up showed lower rates of alcohol use, binge drinking, and inhalant use.</p> <p>Study 2a: At 1-year follow-up, high-risk participants (21% of sample) reported less drinking (ES = 0.22), inhalant use (ES = 0.14), and polydrug use (ES = 0.21).</p> <p>Study 3: No significant findings.</p> <p>Study 4: At 1.5-year follow-up, reduction in substance use for females, which became nonsignificant at 2.5-year follow-up. No significant effects for males.</p>	<p>Botvin, et al. (1995)¹⁹</p> <p>Botvin, et al. (2001)²⁰ Griffin, et al. (2003)²¹</p> <p>Smith, et al. (2004)²²</p> <p>Spoth, et al. (2005)²³</p> <p>Spoth, et al. (2008)²⁵ and (2006)²⁴</p>

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
				At 5.5-year follow-up, lower rate of SU initiation, marijuana initiation (23% reduction), drunkenness (10% reduction), polydrug use, and lifetime methamphetamine use (2.4% vs. 7.6%) when combined with the Strengthening Families Program: For Parents and Youth 10–14.	
School Health and Alcohol Harm Reduction Project (SHAHRP)	Universal	School	N = 14 public secondary schools in metropolitan Perth, Australia; 2,300 students aged 12 to 14 (1997-1999) QED/NTC	At 17-month follow-up (after two years of intervention), reduced weekly drinking (5%) and harm from alcohol use.	McBride, et al. (2000) ²⁶ and (2004) ²⁷
Prevention/Adventure	Selective (by Personality Risk)	School	Study 1: N = 13 UK secondary schools; 732 youth aged 13 to 16. Wave 2 youth only (N = 364) Study 2: N = 21 UK secondary schools; 1,210 high-risk students in Grade 9. Selected as in Study 1, lower risk sample = 1,433 students	Study 1: At 2-year follow-up, reduced initiation of cocaine (OR = 0.20) and other drugs (OR = 0.50). No effect on marijuana use. Strongest effects on impulsive subsample. Effects on quantity and binge drinking fade after 6 months. At 24 months, still an effect on problem drinking (ES=0.33; Rutgers Scale). Study 2: At 24-month follow-up, high-risk students had lowered quantity of drinking (29% reduction), binge drinking (43% reduction), and problem drinking (29% reduction). Low risk students had lower quantity of drinking (29% reduction) and lower rates of binge drinking (35% reduction). At 24-month follow-up, effects on marijuana use fade and are unclear. 24-month effects maintained in the sensation-seeking subsample only (OR = 0.25).	Conrod, et al. (2010) ²⁸ and (2011) ²⁹ Conrod, et al. (2013) ³⁰ Mahu, et al. (2015) ³¹

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
			Study 3: N = 15 Schools in The Netherlands; 699 high-risk students aged 13 to 15 All Studies: RCT/ NTC	Study 3: At 12-month follow-up, effects were ambiguous. Regression models revealed no significant effects on alcohol use, binge drinking, or problem drinking. Latent growth model showed effect on binge drinking.	Lammers, et al. (2015) ³²
Unplugged	Universal	School	N = 170 schools in 7 European countries; 7,079 students aged 12 to 14	At 18-month follow- up, reductions in any drunkenness (3.8% reduction), frequent drunkenness (2.5% reduction), any cannabis use (2.9% reduction), and frequent cannabis use (2.2% reduction).	Faggiano, et al. (2010) ³³
keepin' It REAL	Universal	School	Study 1: N = 35 public schools in Phoenix, Arizona; 4,235 multiethnic/ urban students in Grade 7 (1998-2000) Study 2: N = 30 public schools in Phoenix, Arizona; 3,038 students in Grade 7 (74.3% were Mexican-American) All Studies: RCT/ NTC	Study 1: At 19-month follow- up, lower increases in past- month alcohol and marijuana use for the Mexican American and multicultural version of the program. No effects on the Black/White version. Study 2: At 1-year follow-up, no significant difference in alcohol or marijuana use.	Hecht, et al. (2003) ³⁴ and (2006) ³⁵ Kulis, et al. (2007) ³⁶ Marsiglia, et al. (2012) ³⁷
ATLAS (Athletes Training and Learning to Avoid Steroids)	Universal	School	N = 31 high school football teams from Portland, Oregon; 3,207 athletes (1994- 1996) RCT/NTC	At 1-year follow-up, reduced use of alcohol and illicit drug use, and lower rate of drinking and driving.	Goldberg, et al. (2000) ³⁸

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Strengthening Families Program: For Parents and Youth 10-14	Universal	Family and School/ Multicomponent	<p>Study 1: N = 33 Midwestern public schools; 667 primarily White, rural students in Grade 6</p> <p>Study 2: N = 36 public schools, 1,650 primarily White students in Grade 7 from rural Iowa (1998-2004)</p> <p>All Studies: RCT/NTC</p>	<p>Study 1: At 4-year follow-up, lower lifetime alcohol use (50% vs. 68%), drunkenness (26% vs. 44%), marijuana use (7% vs. 17%), and lower rates of amphetamine use (0% vs. 3.2%).</p> <p>At 6-year follow-up, lower rates of substance use initiation (OR = 2.34), lower drunkenness (41% reduction) and lower illicit drug use.</p> <p>At age 21, lower rates of substance use initiation (27.5% vs. 28.3%), drunkenness (19% reduction) and illicit drug use (31% reduction).</p> <p>Study 2: At 2.5-year follow-up, shows significantly less alcohol initiation (25.7% vs. 36.7%), marijuana initiation (4.1% vs. 7.9%), and slower growth in weekly drunkenness (39% reduction) when combined with Life Skills Training.</p> <p>At 5.5-year follow-up, lower rate of SU initiation, marijuana initiation (23% reduction), polydrug use, and lifetime methamphetamine use (2.5% vs. 7.6%) when combined with Life Skills Training.</p> <p>At age 25, lower rates of prescription opioid misuse (6.0% vs. 8.8%) and lifetime prescription drug misuse overall (6.3 vs. 9.4) when combined with Life Skills Training.</p>	<p>Spoth, et al. (2001)³⁹</p> <p>Spoth, et al. (2004)⁴⁰</p> <p>Spoth, et al. (2009)⁴¹ and (2012)⁴²</p> <p>Spoth, et al. (2002)⁴³ and (2005)²³</p> <p>Spoth, et al. (2008)²⁵</p> <p>Spoth, et al. (2013)⁴⁴</p>

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Guiding Good Choices	Universal	Family	N =33 rural, Midwestern schools; 883 students in Grade 7 RCT/NTC	Effects on substance use initiation through high school and alcohol-related problems and illicit drug use through early adulthood. No effects on drunkenness. At age 22, lower rate of alcohol misuse for women (6% vs. 16%); no effect for men.	Spoth, et al. (2009) ⁴¹ Mason, et al (2009) ⁴⁵
Strong African American Families	Universal	Family	N = 667 Southern U.S. rural African American students in Grade 7 RCT/NTC	At 2-year follow-up, slower rate of initiation of alcohol (37% vs. 43%). Effect on growth trajectory of alcohol use through 4.5-year follow-up.	Brody, et al. (2006) ⁴⁶ and (2010) ⁴⁷
SODAS City	Universal	Family	N = 43 community agencies in New York, New Jersey, and Delaware; 514 urban youth (1991-2010) RCT/NTC	At 3-year follow-up, CD-ROM alone and CD-ROM plus parent intervention showed significantly lower past-month alcohol use. At 7-year follow-up, lower past-month alcohol use, heavy drinking, and marijuana use.	Schinke, et al. (2004) ⁴⁸ Schinke, et al. (2010) ⁴⁹
I Hear What You're Saying	Universal (Mother-Daughter)	Family	Study 1: N = 591 adolescent girls and their mothers Study 2: N = 108 Asian American girls and their mothers (2007-2010) All studies: RCT/ NTC	Study 1: At 1-year follow-up, reductions in use of alcohol, marijuana, and prescription drugs. Study 2: At 2-year follow-up, reductions in use of alcohol, marijuana, and prescription drugs.	Schinke, et al. (2009) ⁵⁰ Fang & Schinke (2013) ⁵¹

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Familias Unidas	Universal/ Brief Version Selective	Family	Study 1: N = 160 Hispanic students in Grade 8 Study 2: N = 213 Hispanic students in Grade 8 with behavior problems All studies: RCT/TAU	Study 1: At 2-year follow-up, lower substance use initiation (28.6% vs. 65.2%) and substance use initiation (30.4% vs. 64.0%) among girls. Study 2: Significantly lower past 30-day substance use at 18-month (ES = 0.25) and 30-month follow-ups (25% vs. 34%).	Estrada, et al. (2015) ⁵² Pantin, et al. (2009) ⁵³
Bicultural Competence Skills Program (BCSP)	Universal	Clinic/School	N = 27 public and tribal schools; 1,396 students from an American Indian Reservation in the Midwest (1986-1999) RCT/NTC	At 42-month follow-up, weekly alcohol use (22% vs. 30%) and weekly marijuana use (7 % vs. 15%) was lower in BCSP-only group. Results for a BCSP plus community group were not significant.	Schinke, et al. (2000) ⁵⁴
Project Chill	Universal	Primary Care	N = 7 urban health centers; 714 youth with no prior use aged 12 to 18 RCT/NTC	At 12-month follow-up, computer-based participants had lower rates of marijuana use at any point during the year (16.8% vs. 24.2%), but non-significant effect on 12 month use. No effects on alcohol.	Walton, et al. (2014) ⁵⁵
Positive Family Support (Family Check Up)	Selective	Family	N = 593 Grade 6-8 urban youth and their parents RCT/TAU	Lower rates of marijuana use through age 23. No effect on adult tobacco or alcohol use. For the 42% of families who engaged in the intervention, CACE analysis showed significantly less growth in tobacco, alcohol, and marijuana use across two years	Véronneau, et al. (in press) ⁵⁶ Stormshak, et al. (2011) ⁵⁷
Keep Safe	Selective	School and Family	N = 100 girls in foster care entering middle school	At 18-month follow-up lower rate of substance use (ES = 0.47).	Kim et al (2011) ⁵⁸

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Coping Power	Selective	School	<p>Study 1: N = 245 high-aggression African American and White students in Grade 5</p> <p>Study 2: N = 183 high-aggression African American and White students in Grade 5</p> <p>Study 3: N = 77 Dutch youth</p> <p>All Studies: RCT/TAU</p>	<p>Study 1: At 1-year follow-up (7th grade), lower self-reported past-month use of substances (ES = 0.58).</p> <p>Study 2: At 1-year follow-up (7th grade), lower parent-reported substance use (ES = 0.31).</p> <p>Study 3: At 4-year follow-up, lower use of marijuana (13% vs. 35%), no differences in alcohol use.</p>	<p>Lochman & Wells (2003)⁵⁹</p> <p>Lochman & Wells (2004)⁶⁰</p> <p>Zonneville, et al. (2007)⁶¹</p>
Project Toward No Drug Abuse (TND)	Selective and Indicated	School	<p>Study 1: N = 42 schools in Southern California; 2,468 high school students</p> <p>Study 2: N = 1,186 alternative high school students</p> <p>All studies: RCT/TAU</p>	<p>Study 1: At 1-year follow-up, reduction in levels of alcohol use among baseline users.</p> <p>At 5-year follow-up, reduced hard drug use.</p> <p>Study 2: At 1-year follow-up, reductions in alcohol use (OR = 0.68), drunkenness (OR = 0.67), and hard drug use (OR = 0.68).</p>	<p>Sussman, et al. (2002)⁶²</p> <p>Sun, et al. (2006)⁶²</p> <p>Sussman, et al. (2012)⁶³</p>

Abbreviations: RCT - Randomized Controlled Trial, QED - Quasi-Experimental Design, TAU - Control Group Received Treatment As Usual, NTC - No Treatment Control, ES - Effect Size, OR - Odds Ratio

Table B.3: Evidence-Based Interventions for Age 18+

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Workplace, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
BASICS	Indicated	College	<p>Study 1: N = 508 heavy drinking college freshmen</p> <p>Study 2: N = 159 Fraternity-connected college students (81% White)</p> <p>Study 3: N = 550 heavy drinking college students</p> <p>All studies: RCT/TAU</p>	<p>Study 1: At 1- and 2- year follow-ups, reductions in drinking frequency., At 4 year follow-up, reduction in drinking consequences.</p> <p>Study 2: At 1-year follow-up, reductions in average drinks per week (ES = 0.42) and typical peak BAC levels (ES = 0.38).</p> <p>Study 3: At 1-year follow-up, lower typical drinking (ES = 0.11) and peak drinking (ES = 0.42), and alcohol problem (ES = 0.56) for both volunteer and mandated students.</p>	<p>Marlatt, et al. (1998)⁶⁴ and Baer, et al. (2001)⁶⁵</p> <p>Larimer, et al. (2001)⁶⁶</p> <p>Terlecki, et al. (2015)⁶⁷</p>
Parent Handbook	Universal	College	<p>Study 1: N = 882 college-bound students (79% White)</p> <p>Study 2: N = 1,900 college-bound students (87% White)</p> <p>Study 3: N = 1,275 college-bound students, high-risk, athletes (80% White)</p> <p>All studies: RCT/NTC</p>	<p>Study 1: At 8-month follow-up, females were less likely to transition into heavy drinking status, but males were more likely to do so. No effects on rate of alcohol-related problems.</p> <p>Study 2: Reduced the odds of continuing to be a heavy drinker for the first two years of college for students who came to campus with prior high-risk drinking habits (OR = 0.05).</p> <p>Study 3: At 10-month follow-up, reduced alcohol peak consumption (ES = 0.26) .and alcohol-related consequences (ES = 0.20) for PH and BASICS combined.</p> <p>At 22 months, reduction in the onset of alcohol consequences (ES = 0.21). No effect for PH alone.</p>	<p>Ichiyama, et al. (2009)⁶⁸</p> <p>Turrisi, et al. (2013)⁶⁹</p> <p>Turrisi, et al. (2009)⁷⁰</p> <p>Wood, et al. (2010)⁷¹</p>

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Workplace, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design	Summary Results	Citations: Key Outcome Research/ Program Information Source
Yale Work and Family Stress Project	Universal	Workplace	N = 4 job sites; 239 primarily White female secretarial employees from Connecticut-based corporations RTC/NTC	At 22-month follow-up, reduced number of drinks per month.	Snow, et al. (2003) ⁷²
Brief Motivational Intervention in Emergency Department	Universal and Selective	Community	N = 539 injured patients treated in the ED; mostly males from urban, Southern New England (72% White) RCT/TAU	At 1-year follow-up, patients receiving brief intervention (BI) with booster reduced alcohol-related negative consequences and alcohol-related injuries; no differences were observed for heavy drinking days. No effects of BI without booster.	Longabaugh, et al. (2001) ⁷³
Team Awareness	Universal	Workplace	N = 235 employees in 28 restaurants RCT/NTC	At 1-year follow-up, the odds of recurring heavy drinking declined by 50%, and the number of work-related problem areas declined by one-third.	Broome and Bennett (2011) ⁷⁴
Computerized Alcohol-Related Problems Survey (CARPS)	Universal	Primary Care	N = 771 Primary care patients aged 65 and older RCT/TAU	At 1-year follow-up, participants decreased their harmful drinking 23% and increased their nonhazardous drinking 12%.	Fink, et al. (2008) ⁷⁵
Project Share	Selective	Primary Care	N = 1,186 Primary care patients aged 60 or older screened for at-risk drinking patterns RCT/TAU	At 1-year follow-up, and reductions in at-risk drinking (56% vs. 67%), lower rates of alcohol consumption.	Ettner, et al. (2014) ⁷⁶

Abbreviations: RCT - Randomized Controlled Trial, QED - Quasi-Experimental Design, TAU - Control Group Received Treatment As Usual, NTC - No Treatment Control, ES - Effect Size, OR - Odds Ratio

Table B.4: Evidence-Based Community Implementation Systems/ Coalition Models and Environmental Interventions

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design)	Summary Results	Citations: Key Outcome Research/ Program Information Source
COMMUNITY COALITION MODELS					
Communities That Care (CTC)	Universal	Multi-component	N = 24 communities in 7 States; 4,407 students in Grade 5 (20% Hispanic, 67% White, 3% African American) RCT/TAU	By Grade 10, students in CTC communities were less likely to initiate alcohol (OR = 0.62). At 10 th grade there were no differences rates of binge drinking or in past-month alcohol, marijuana, prescription, or other illicit drug use. By Grade 12, fewer CTC students had initiated any drug (OR = 0.71), alcohol (OR = 0.70), or cigarette (OR = 0.80) use. There were no differences in past-month or past-year alcohol, marijuana, or other illicit drug use, with the exception of higher rate of ecstasy use in the CTC condition.	Hawkins, et al. (2012) ⁷⁷ Hawkins, et al. (2014) ⁷⁸
PROMoting School-community-university Partnerships to Enhance Resilience (PROSPER)	Universal	Multi-component	N = 28 rural and small town communities in Pennsylvania and Iowa; 10,849 primarily White students in Grade 6 RCT/TAU	At 3.5-year and 4.5-year follow-up (Grades 11 and 12) youth in PROSPER communities showed lower past-year marijuana (13.5% reduction) and methamphetamine use (30.9% reduction). At Grade 12 only, PROSPER youth showed lower past-year inhalant use (28.3% reduction). Six-year growth curve effects lower for marijuana, amphetamine use, and drunkenness. By Grade 12, lower lifetime rates of prescription opioid misuse (22.1% vs. 27.8%) and lifetime prescription drug misuse overall (23.1% vs. 29.0%).	Spoth, et al. (2013a) ⁷⁹ and (2013b) ⁴⁴ Spoth, et al. (2013a) ⁷⁹

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design)	Summary Results	Citations: Key Outcome Research/ Program Information Source
Project Northland	Universal	Multi-component	N = 24 multiethnic urban, rural, and tribal school districts in Northern Minnesota RCT/TAU	The Phase 1 intervention was conducted when the targeted cohort was in Grade 6 to Grade 8. At 2.5 years past baseline, lower past-month and past-week alcohol use. The Phase 2 intervention was conducted when the cohort was in Grade 11 to Grade 12. At 6.5 years past baseline, reductions in binge drinking.	Phase 1: Perry, et al. (1996) ⁸⁰ and Klepp, et al. (1995) ⁸¹ Phase 2: Perry, et al. (2002) ⁸²
Project Star (Midwestern Prevention Project)	Universal	School and Community/ Multicomponent	N = 42 urban public middle and junior high schools in Kansas City, Missouri and Indianapolis, Indiana; 3,412 White and African American students RCT/TAU	At 1-year follow-up, lower proportion of students reporting past-week and past-month use of alcohol. Secondary prevention effects on baseline users were observed up to 1.5 years past baseline, not at 2.5 and 3.5 years past baseline. Reductions in growth of amphetamine use through age 28.	Report 1: Pentz, et al. (1989) ⁸³ Report 2: Pentz & Valente (1993) ⁸⁴ Report 3: Pentz, et al. (1990) ⁸⁵ Report 4: Chou, et al. (1998) ⁸⁶ Report 5: Riggs, et al. (2009) ⁸⁷
ENVIRONMENTAL INTERVENTIONS					
Reducing Underage Drinking Through State Coalitions	Universal	Community	N = National data from the Monitoring the Future Survey of students in Grades 8, 10, and 12 in ten states compared to all others QED	At posttest, significant effects in the proportion of Grade 8 and Grade 12 students reporting past month drunkenness (ES = 1.36; ES = 1.29) and in Grade 12 students reporting binge drinking (ES = 2.18) and past year drinking (ES = 0.75).	Wagenaar, et al. (2006) ⁸⁸
Safer California Universities	Universal	Community	N=14 California universities; 19,791 students (49% White) RCT/TAU	At posttest, significant effects in the proportion of students reporting intoxication (ORs = 0.76 to 0.81).	Saltz, et al. (2010) ⁸⁹

Intervention	Type (Universal, Selective, Indicated)	Domain/Level (Family, School, Community, Multicomponent)	Sample (at pretest)/ Ethnicity/ Setting/Design)	Summary Results	Citations: Key Outcome Research/ Program Information Source
Saving Lives	Universal	Community	N = 6 Massachusetts communities compared to all others in the state; 15,188 surveys of adults and youth aged 16 to 19 (90% White) QED	At posttest, a 42% reduction in fatal alcohol-related motor vehicle crashes and a 40% reduction in self-reported DUI among 16- to 19-year-olds.	Hingson, et al. (1996) ⁹⁰
Communities Mobilizing for Change on Alcohol	Universal	Community	Report 1: N = 15 Minnesota & Wisconsin communities Report 2: N = 1,721-3,095 surveys of 18-20 year-olds (96% White) RCT/TAU	Report 1: At posttest, a 17% reduction in the proportion reporting that they provided alcohol to minors. Report 2: At posttest, a reduction in the number of arrests for DUI.	Wagenaar, et al. (2000) ⁹¹ Wagenaar, et al. (2000) ⁹²
Study to Prevent Alcohol Related Consequences (SPARC)	Universal	Community	N = 10 colleges/universities in North Carolina; 3,811 students (80% White) RCT/TAU	At posttest, significant reductions in student reports of alcohol-related personal harms and causing injuries to others.	Wolfson, et al. (2012) ⁹³
Sacramento Neighborhood Alcohol Prevention Project (SNAPP)	Selective	Community	N = 2 low-income communities compared to all others in the city (35% Hispanic, 18% African American) QED	At posttest, fewer arrests for assaults (ES = 0.48), Emergency Medical Services (EMS) calls for assaults (ES = 0.57), and car accidents (ES = 0.55).	Treno, et al. (2007) ⁹⁴

Abbreviations: RCT - Randomized Controlled Trial, QED - Quasi-Experimental Design, TAU - Control Group Received Treatment As Usual, NTC - No Treatment Control, ES - Effect Size, OR - Odds Ratio

Table B.5: Community Preventive Services Task Force Recommendations for Preventing Alcohol Misuse

Policy Interventions
Increase Alcohol Taxes
Regulate Alcohol Outlet Density
Dram Shop (Commercial Host) Liability
Avoid Further Privatization of Alcohol Sales
Maintain Limits on Days of Sale
Maintain Limits on Hours of Sale
Enhanced Enforcement of Laws Prohibiting Sales to Minors
Electronic Screening and Brief Intervention (e-SBI)

Source: Community Preventive Services Task Force, (2016).⁹⁵

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APPENDIX C.

RESOURCE GUIDE

U.S. Department of Health and Human Services Resources and Publications: 2013-2016

Topic	Title	Description	Target Audience
ADHD and Substance Use Disorders	<u>SAMHSA Advisory: Adults With Attention Deficit Hyperactivity Disorder and Substance Use Disorders</u>	This <i>Advisory</i> defines ADHD in adults. It discusses the interaction and relationship between ADHD and substance use disorders and provides information on screening for ADHD in adults, treatment of co-occurring ADHD and substance use disorders, and prevention of stimulant abuse in clients with ADHD.	Primary Care Doctors, Nurses, Drug and Alcohol Counselors, Mental Health Clinicians
Complementary Health Approaches	<u>SAMHSA Advisory: Complementary Health Approaches: Advising Clients About Evidence and Risks</u>	This <i>Advisory</i> provides behavioral health practitioners a brief overview of complementary health approaches, gives examples of the types of practices and products considered complementary, and discusses how practitioners can offer guidance to clients regarding the benefits and risks of adopting such approaches.	Prevention Professionals, Public Health Professionals, People with Substance Use or Misuse Problems, People with Alcohol Use or Misuse Problems, People with Mental Health Problems, Patients

Topic	Title	Description	Target Audience
Cultural Competence	<u>TIP 59: Improving Cultural Competence</u>	This <i>Treatment Improvement Protocol (TIP)</i> uses a multidimensional model for developing cultural competence. Adapted to address cultural competence across behavioral health settings, this model serves as a framework for targeting three organizational levels of treatment: individual counselor and staff, clinical and programmatic, and organizational and administrative. The chapters target specific racial, ethnic, and cultural considerations along with the core elements of cultural competence highlighted in the model. These core elements include cultural awareness, general cultural knowledge, cultural knowledge of behavioral health, and cultural skill development.	Professional Care Providers, Program Planners, Administrators, Project Managers
Disaster Planning	<u>TAP 34: Disaster Planning Handbook for Behavioral Health Treatment Programs</u>	This <i>Technical Assistance Publication (TAP)</i> offers guidance in creating a disaster preparedness and recovery plan for programs that provide treatment for mental illness and substance use disorders. It also covers the planning process, preparing for disaster, roles and responsibilities, training, and testing.	Professional Care Providers, Disaster Response Workers, Program Planners, Administrators, Project Managers
Gambling	<u>SAMHSA Advisory: Gambling Problems: An Introduction for Behavioral Health Services Providers</u>	This <i>Advisory</i> provides an introduction to pathological gambling, gambling disorder, and problem gambling; it also explores their links with substance use disorders. It describes tools available for screening and diagnosis of gambling disorder as well as strategies for treating people with gambling problems.	Drug and Alcohol Counselors, Mental Health Clinicians, Peer Counselors
Homelessness	<u>TIP 55: Behavioral Health Services for People Who Are Homeless</u>	This <i>TIP</i> is for behavioral health service providers and program administrators who want to work more effectively with people who are homeless or at risk of homelessness and who need, or are currently in, substance use disorder or mental health treatment. The <i>TIP</i> addresses treatment and prevention issues. The approach advocated by the <i>TIP</i> is integrated and is aimed at providing services to the whole person to improve quality of life in all relevant domains.	Public Officials, Public Health Professionals, Program Planners, Administrators, Project Managers, Professional Care Providers, Non-Profits & Faith-Based Organizations, Community Coalitions

Topic	Title	Description	Target Audience
Medication-Assisted Treatment	CMCS Informational Bulletin: Medication Assisted Treatment for Substance Use Disorders	This <i>Bulletin</i> highlights the use of FDA-approved medications in combination with evidence-based behavioral therapies, commonly referred to as “Medication Assisted Treatment” (MAT), to help persons with substance use disorders (SUD) recover in a safe and cost-effective manner. Specifically, the <i>Bulletin</i> provides background information about MAT, examples of state-based initiatives, and useful resources to help ensure proper delivery of these services.	People with Substance Use or Misuse Problems, People in Recovery, People in Treatment
Medication-Assisted Treatment	DrugFacts: Treatment Approaches for Drug Addiction	This website describes research findings on effective medication and behavioral treatment approaches for drug addiction and discusses special considerations for the criminal justice setting.	General public
Medication-Assisted Treatment	In Brief: Adult Drug Courts and Medication-Assisted Treatment for Opioid Dependence	This <i>In Brief</i> highlights the use of MAT for opioid dependence in drug courts. It reviews effective medications, including methadone, buprenorphine, and naltrexone and provides strategies to increase the use of MAT in drug court programs.	Public Health Professionals, Program Planners, Administrators, Project Managers, Policymakers, Public Officials
Medication-Assisted Treatment	MATx Mobile App	This mobile app supports the practice of health care practitioners who provide MAT. MATx features include resources to support ongoing MAT practices, guidance on attaining a Drug Addiction Treatment Act of 2000 (DATA) waiver for treatment with buprenorphine, and tips for conducting effective patient assessments.	Physicians
Medication-Assisted Treatment	Medication-Assisted Treatment of Opioid Use Disorder Pocket Guide	This pocket guide offers guidelines for physicians using MAT for patients with opioid use disorder. It includes a checklist for prescribing medication, approved medications in the treatment of opioid use disorder, screening and assessment tools, and best practices for patient care.	Physicians
Medication-Assisted Treatment	Medication for the Treatment of Alcohol Use Disorder: A Brief Guide	This guide provides evidence on the effectiveness of available medications for the treatment of alcohol use disorder and guidance for the use of medications in clinical practice.	Physicians

Topic	Title	Description	Target Audience
Opioid Prevention	CMCS Informational Bulletin: Best Practices for Addressing Prescription Opioid Overdoses, Misuse and Addiction	This <i>Bulletin</i> highlights emerging Medicaid strategies for preventing opioid-related harms and provides background information on overdose deaths involving prescription opioids, describes several Medicaid pharmacy benefit management strategies for mitigating prescription drug abuse and discusses strategies to increase the provision of naloxone to reverse opioid overdose, thereby reducing opioid-related overdose deaths. Wherever possible, the <i>Bulletin</i> provides examples of methods states can use to target the prescribing of methadone for pain relief, given the disproportionate share of opioid-related overdose deaths associated with methadone when used as a pain reliever.	People with Substance Use or Misuse Problems, People in Recovery, People in Treatment
Opioid Prevention	Opioid Overdose Prevention Toolkit (updated 2016)	This toolkit provides guidance to develop practices and policies to help prevent opioid-related overdoses and deaths.	Health Care Professionals, First Responders, Treatment Providers, Local Governments, Communities, Those Recovering from Opioid Overdose
Opioid Prevention	Opioid and Pain Management CMEs/CEs: Safe Prescribing for Pain and Managing Pain Patients Who Abuse Rx Drugs	These CME courses developed by NIDA and Medscape Education, with funding from the White House Office of National Drug Control Policy provide practical guidance for physicians and other clinicians in screening pain patients for substance use disorder risk factors before prescribing, and in identifying when patients are abusing their medications.	Health Care Professionals
Recovery	Motivation for Change: John's Story—Consequences of His Heavy Drinking and His Recovery	This comic book/fotonovela uses photographs with captions to help the reader recognize the dangers people face when they have a substance use disorder. It tells the troubles of a family as the son, John, faces his substance use problem, enters treatment, and moves into recovery.	People with Alcohol Use or Misuse Problems, People With Substance Use or Misuse Problems

Topic	Title	Description	Target Audience
Recovery	<u><i>You Can Manage Your Chronic Pain To Live a Good Life: A Guide for People in Recovery from Mental Illness or Addiction</i></u>	This consumer brochure equips people who have chronic pain and mental illness or addiction with tips for working with their health care professional to decrease their pain without jeopardizing their recovery. It also explores counseling, exercise, and alternative therapy, as well as medications.	People in Recovery, People in Treatment
Screening and Brief Intervention	<u><i>Alcohol Screening and Brief Intervention for Youth: A Practitioner's Guide</i></u>	This Guide helps health care professionals who manage the health and well-being of children and adolescents conduct fast, effective alcohol screens and interventions with patients ages 9-18.	Health Care Professionals
Screening and Referral to Treatment	<u><i>SAMHSA Advisory: Hepatitis C Screening in the Behavioral Healthcare Setting</i></u>	This Advisory explains why behavioral health services programs should consider screening clients for Hepatitis C if clients have known risk factors for Hepatitis C viral infection or if they have signs and symptoms of liver disease. The Advisory explains how onsite screening, or referral to screening, can be incorporated into existing intake and monitoring procedures. It also offers guidance on providing clients with viral hepatitis prevention education, counseling, and referral to follow-up evaluation and medical treatment as needed.	Public Health Professionals, Program Planners, Administrators, Project Managers, Health Care Professionals
Screening and Referral to Treatment	<u><i>NIDA Drug Use Screening Tool</i></u>	This tool features a one-question Quick Screen as well as the full NIDA-Modified Alcohol, Smoking and Substance Involvement Screening Test.	Health Care Professionals
Screening, Brief Intervention, and Referral to Treatment	<u><i>TAP 33: Systems-Level Implementation of Screening, Brief Intervention, and Referral to Treatment (SBIRT)</i></u>	This TAP describes core elements of SBIRT programs for people with or at risk for substance use disorders and also describes SBIRT services implementation, covering challenges, barriers, cost, and sustainability.	Public Health Professionals, Program Planners, Administrators, Project Managers, Professional Care Providers, Grant Seekers and Grantees, Public Officials
Substance Misuse and Mental Health	<u><i>In Brief: An Introduction to Co-Occurring Borderline Personality Disorder and Substance Use Disorders</i></u>	This <i>In Brief</i> introduces professional care providers to borderline personality disorder. It covers signs and symptoms, with or without co-occurring substance use disorder; monitoring clients for self-harm and suicide; and referrals to treatment.	Professional Care Providers, Public Health Professionals

Topic	Title	Description	Target Audience
Substance Misuse and Mental Health	National Prevention Week	National Prevention Week is an annual health observance dedicated to increasing public awareness of, and action around, substance use and mental health issues.	Businesses, Communities, Educators, Health Care Professionals, Law Enforcement, Parents and Caregivers, Prevention Specialists, Youth
Substance Misuse and Mental Health	No Longer Alone (A Story About Alcohol, Drugs, Depression, and Trauma): Addressing the Specific Needs of Women	This comic book tells the stories of three women with substance misuse and mental health problems who have received treatment and improved their quality of life. Featuring flashbacks, the fotonovela is culturally relevant and dispels myths around behavioral health disorders.	Adolescents, Young Adults, Mature Adults
Substance Misuse Prevention	Alcohol Overdose: The Dangers of Drinking Too Much	This fact sheet provides information about the signs and symptoms of alcohol overdose.	Individuals
Substance Misuse Prevention	Center for the Application of Prevention Technologies (CAPT)	SAMHSA's CAPT is a national training and technical assistance (T/TA) system committed to strengthening prevention systems and building the nation's behavioral health workforce.	SAMHSA Substance Use Prevention Grantees and Prevention Professionals
Substance Misuse Prevention	CMCS Informational Bulletin: Prevention and Early Identification of Mental Health and Substance Use Conditions	This Bulletin helps inform states about resources available to help them meet the needs of children under Early and Periodic Screening, Diagnostic, and Treatment (EPSDT), specifically with respect to mental health and substance use disorder services.	Public Officials
Substance Misuse Prevention	Harmful Interactions	This resource provides information about medications that can cause harm when taken with alcohol and describes the effects that can result.	Adolescents, Young Adults, Mature Adults, Health Care Professionals
Substance Misuse Prevention	Health Education Curriculum Analysis Tool (HECAT) and HECAT Module AOD	This tool can help school districts, schools, and others conduct a clear, complete, and consistent analysis of health education curricula based on the National Health Education Standards and CDC's Characteristics of an Effective Health Education Curriculum. Results of the HECAT can help schools select or develop appropriate and effective health education curricula and improve the delivery of health education. The HECAT can be customized to meet local community needs and conform to the curriculum requirements of the state or school district.	Educators

Topic	Title	Description	Target Audience
Substance Misuse Prevention	Marijuana Facts for Teens and Marijuana Facts Parents Need to Know	The teen booklet is presented in question-and-answer format and provides facts about marijuana and its potential harmful effects. The parent booklet provides important facts about marijuana and offers tips for talking with children about the drug and its potential harmful effects.	Teens, parents, caregivers, general public
Substance Misuse Prevention	National Drug & Alcohol Facts Week	This online guide gives organizers everything they need to plan, promote, and host their own National Drug & Alcohol Facts Week (NDAFW) event. NDAFW is a national health observance for teens to promote local events that use NIDA science to SHATTER THE MYTHS about drugs.	Teens, parents, educators, general public
Substance Misuse Prevention	Principles of Substance Abuse Prevention for Early Childhood	This guide begins with a list of 7 principles addressing the specific ways in which early interventions can have positive effects on development; these principles reflect findings on the influence of intervening early with vulnerable populations, on the course of child development, and on common elements of early childhood programs.	Parents, health care providers, and policymakers
Substance Misuse Prevention	Rethinking Drinking	This website is a tool for individuals who want to assess and/or change their drinking habits.	Individuals, Family Members
Substance Use Disorder Services	CMCS Informational Bulletin: Coverage of Behavioral Health Services for Youth with Substance Use Disorders	This <i>Bulletin</i> , based on evidence from scientific research and the results of a Substance Abuse and Mental Health Services Administration (SAMHSA)-supported technical expert panel consensus process, is intended to assist states to design a benefit that will meet the needs of youth with substance use disorders (SUD) and their families and help states comply with their obligations under Medicaid's Early and Periodic Screening, Diagnostic, and Treatment (EPSDT) requirements. The services described in this document are designed to enable youth to address their substance use disorders, to receive treatment and continuing care and to participate in recovery services and supports. This <i>Bulletin</i> also identifies resources that are available to states to facilitate their work in designing and implementing a benefit package for these youth and their families.	Public Officials

Topic	Title	Description	Target Audience
Substance Use Disorder Services	New Service Delivery Opportunities for Individuals with a Substance Use Disorder	This State Medicaid Director Letter informs states of opportunities to design service delivery systems for individuals with substance use disorder (SUD), including a new opportunity for demonstration projects approved under section 1115 of the Social Security Act (Act) to ensure that a continuum of care is available to individuals with SUD.	Public Officials
Substance Use Disorder Treatment	In Brief: Treating Sleep Problems of People in Recovery From Substance Use Disorders	This <i>In Brief</i> discusses the relationship between sleep disturbances and substance use disorders and provides guidance on how to assess for and treat sleep problems for people in recovery. It also reviews nonpharmacological as well as over-the-counter and prescription medications.	Professional Care Providers
Substance Use Disorder Treatment	Principles of Adolescent Substance Use Disorder Treatment: A Research-Based Guide	This guide presents research-based principles of adolescent substance use disorder treatment; covers treatment for a variety of drugs including, illicit and prescription drugs, alcohol, and tobacco; presents settings and evidence-based approaches unique to treating adolescents.	Professional Care Providers, Administrators, Public Health Professionals, individuals and families
Substance Use Disorder Treatment	Principles of Drug Abuse Treatment for Criminal Justice Populations - A Research-Based Guide	This guide presents research-based principles of addiction treatment that can inform drug treatment programs and services in the criminal justice setting.	Professional Care Providers, Administrators, Public Health Professionals, individuals and families
Substance Use Disorder Treatment	SAMHSA Advisory: Diabetes Care for Clients in Behavioral Health Treatment	This <i>Advisory</i> reviews diabetes and its link with mental illness, stress, and substance use disorders, and it discusses ways to integrate diabetes care into behavioral health treatment, such as screening and intake, staff education, integrated care, and counseling support.	Professional Care Providers, Program Planners, Administrators, Project Managers, Public Health Professionals
Substance Use Disorder Treatment	SAMHSA Advisory: Spice, Bath Salts, and Behavioral Health	This <i>Advisory</i> equips professional health providers with an introduction to spice and bath salts in the context of treating people with substance use disorders and mental illness. It discusses adverse effects of use, patient assessment, and abstinence monitoring, among other issues.	Prevention Professionals, Professional Care Providers, Public Health Professionals, Public Officials

Topic	Title	Description	Target Audience
Substance Use Disorder Treatment	SAMHSA Advisory: Sublingual and Transmucosal Buprenorphine for Opioid Use Disorder: Review and Update	This <i>Advisory</i> provides an overview of data on the use of sublingual (medicine that dissolves under the tongues) and transmucosal (medicine that dissolves between the cheeks and gums) buprenorphine to treat opioid use disorder and discusses the implications of using MAT as a recovery support.	Primary Care Doctors and Nurses, Drug and Alcohol Counselors
Substance Use Disorder Treatment	Seeking Drug Abuse Treatment: Know What To Ask	This guide offers guidance in seeking drug abuse treatment and lists five questions to ask when searching for a treatment program.	General Public
Substance Use Disorder Treatment	TIP 56: Addressing the Specific Behavioral Health Needs of Men	This <i>TIP</i> is a companion to TIP 51, <i>Substance Abuse Treatment: Addressing the Specific Needs of Women</i> . It examines how gender-specific treatment strategies can improve outcomes for men. It also covers differences between men and women in the effects of substance use and misuse and the implications these differences have in behavioral health services. It provides practical information based on available evidence and clinical experience that can help counselors more effectively treat men with substance use disorders.	Public Health Professionals, Program Planners, Administrators, Project Managers, Professional Care Providers, Prevention Professionals, Researchers
Substance Use Disorder Treatment	TIP 51: Substance Abuse Treatment: Addressing the Specific Needs of Women	This <i>TIP</i> assists treatment providers in offering treatment to adult women with substance use disorders. It reviews gender-specific research and best practices, such as common patterns of initiation of substance use among women and specific treatment issues and strategies.	Public Health Professionals, Program Planners, Administrators, Project Managers, Professional Care Providers, Prevention Professionals, Researchers
Substance Use Disorder Treatment	Treatment for Alcohol Problems: Finding and Getting Help	This guide is written for individuals, and their family and friends who are looking for options to address to address alcohol problems.	Individuals, Families, Friends
Suicide Prevention	In Brief: Substance Use and Suicide: A Nexus Requiring a Public Health Approach	This <i>In Brief</i> summarizes the relationship between substance use and suicide and provides state and tribal prevention professionals with information on the scope of the problem, an understanding of traditional barriers to collaboration and current programming, and ways to work together on substance use and suicide prevention strategies.	State and Tribal Prevention Professionals working in the fields of substance use and suicide prevention

Topic	Title	Description	Target Audience
Suicide Prevention	Suicide Prevention Resource Center (SPRC)	SAMHSA's SPRC provides technical assistance, training, and materials to increase the knowledge and expertise of suicide prevention practitioners and other professionals serving people at risk for suicide. While multiple factors influence suicidal behaviors, substance use—especially alcohol use—is a significant factor that is linked to a substantial number of suicides and suicide attempts.	Professionals in a variety of settings (e.g., tribal communities, schools, colleges and universities, primary care, emergency departments, behavioral health care, workplace, and faith communities)
Technology-Assisted Care	TIP 60: Using Technology-Based Therapeutic Tools in Behavioral Health Services	This TIP provides an overview of current technology-based behavioral health assessments and interventions, and it summarizes the evidence base supporting the effectiveness of such interventions. It also examines opportunities for technology-assisted care (TAC) in the behavioral health arena. It emphasizes use of TAC with clients who might not otherwise receive treatment or whose treatment might be impeded by physical disabilities, rural or remote geographic locations, lack of transportation, employment constraints, or symptoms of mental illness. The TIP covers programmatic, technological, budgeting, vendor selection, data management, privacy and confidentiality, and regulatory considerations likely to arise during adoption of technology-based interventions.	Program Planners, Administrators, Project Managers, Prevention Professionals, Professional Care Providers
Trauma-Informed Care	TIP 57: Trauma-Informed Care in Behavioral Health Services	This TIP presents fundamental concepts that behavioral health service providers and program administrators can use to initiate trauma-related screening and assessment, implement collaborative strengths-based interventions, learn the core principles and practices that reflect trauma-informed care, decrease inadvertent retraumatization, and evaluate and build a trauma-informed organization and workforce.	Professional Care Providers, Program Planners, Administrators, Project Managers
Underage Drinking	College Alcohol Intervention Matrix (CollegeAIM)	This matrix is a resource to help colleges and universities address harmful and underage student drinking. Developed with leading college alcohol researchers and staff, it is an easy-to-use and comprehensive tool to identify effective alcohol interventions.	Higher Education Officials, particularly alcohol and other drug program and student life staff

Topic	Title	Description	Target Audience
Underage Drinking	<u>Stop Underage Drinking website</u>	This interagency Web portal provides key federal resources targeting the prevention of underage alcohol use.	Businesses, Communities, Educators, Health Care Professionals, Law Enforcement, Parents and Caregivers, Prevention Specialists, Youth
Underage Drinking	<u>Talk. They Hear You. - Underage Drinking Prevention</u>	This underage drinking prevention campaign sponsored by SAMHSA provides parents and caregivers with information and resources they need to start addressing the dangers of alcohol with their children, 9 to 15 years old.	Parents and Other Caregivers of Youth 9 to 15 years old

APPENDIX D.

IMPORTANT FACTS ABOUT ALCOHOL AND DRUGS



Appendix D outlines important facts about the following substances:

- [Alcohol](#)
- [Cocaine](#)
- [GHB \(gamma-hydroxybutyric acid\)](#)
- [Heroin](#)
- [Inhalants](#)
- [Ketamine](#)
- [LSD \(lysergic acid diethylamide\)](#)
- [Marijuana \(Cannabis\)](#)
- [MDMA \(Ecstasy\)](#)
- [Mescaline \(Peyote\)](#)
- [Methamphetamine](#)
- [Over-the-counter Cough/Cold Medicines \(Dextromethorphan or DXM\)](#)
- [PCP \(Phencyclidine\)](#)
- [Prescription Opioids](#)
- [Prescription Sedatives \(Tranquilizers, Depressants\)](#)
- [Prescription Stimulants](#)
- [Psilocybin](#)
- [Rohypnol® \(Flunitrazepam\)](#)
- [Salvia](#)
- [Steroids \(Anabolic\)](#)
- [Synthetic Cannabinoids \(“K2”/”Spice”\)](#)
- [Synthetic Cathinones \(“Bath Salts”\)](#)

Sources cited in this Appendix are:

- Drug Enforcement Administration’s *Drug Facts Sheets*¹.
- Inhalant Addiction Treatment’s *Dangers of Mixing Inhalants with Alcohol and Other Drugs*²
- National Institute on Alcohol Abuse and Alcoholism’s (NIAAA’s) *Alcohol’s Effects on the Body*³
- National Institute on Drug Abuse’s (NIDA’s) *Commonly Abused Drugs*⁴
- NIDA’s *Treatment for Alcohol Problems: Finding and Getting Help*⁵
- National Institutes of Health (NIH) National Library of Medicine’s *Alcohol Withdrawal*⁶
- Rohypnol® Abuse Treatment FAQs⁷
- Substance Abuse and Mental Health Services Administration’s (SAMHSA’s) *Keeping Youth Drug Free*⁸
- SAMHSA’s Center for Behavioral Health Statistics and Quality’s (CBHSQ’s) *Results from the 2015 National Survey on Drug Use and Health: Detailed Tables*⁹

The substances that are considered controlled substances under the Controlled Substances Act (CSA) are divided into five schedules. An updated and complete list of the schedules is published annually in Title 21 Code of Federal Regulations (C.F.R.) §§ 1308.11 through 1308.15.¹⁰ Substances are placed in their respective schedules based on whether they have a currently accepted medical use in treatment in the United States, their relative abuse potential, and likelihood of causing dependence when abused. A description of each schedule is listed below.

- **Schedule I (1):** Substances in this schedule have no currently accepted medical use in the United States, a lack of accepted safety for use under medical supervision, and a high potential for abuse.
- **Schedule II/IIN (2/2N):** Substances in this schedule have a high potential for abuse which may lead to severe psychological or physical dependence.
- **Schedule III/IIIN (3/3N):** Substances in this schedule have a potential for abuse less than substances in Schedules I or II and abuse may lead to moderate or low physical dependence or high psychological dependence.
- **Schedule IV (4):** Substances in this schedule have a low potential for abuse relative to substances in Schedule III.
- **Schedule V (5):** Substances in this schedule have a low potential for abuse relative to substances listed in Schedule IV and consist primarily of preparations containing limited quantities of certain narcotics.

Alcohol				
<i>Ethyl alcohol, or ethanol, is an intoxicating ingredient found in beer, wine, and liquor. Alcohol is produced by the fermentation of yeast, sugars, and starches.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Various	Booze, Juice, Sauce, Brew	Beer, Wine, Liquor/ Spirits/Malt Beverages	Ingested by drinking	Not scheduled / Illegal for purchase or use by those under age 21 ⁱⁱ
Uses & Possible Health Effects ⁱⁱⁱ				
Short-term Symptoms of Use	Injuries and risky behavior, memory and concentration problems, coma, breathing problems, slurred speech, confusion, impaired judgment and motor skills, drowsiness, nausea and vomiting, emotional volatility, loss of coordination, visual distortions, impaired memory, changes in mood and behavior, and depression. Impaired judgment can result in inappropriate sexual behavior, sexually transmitted infections, and reduced inhibitions.			
Long-term Consequences of Use and Health Effects	Some studies have found benefits associated with moderate alcohol consumption, ^{iv,v} while other studies do not support a role for moderate alcohol consumption in providing health benefits. ^{vi,vii} Studies have shown alcohol misuse use can lead to: an inability to control drinking; a high tolerance level; changes in mood and behavior; difficulty thinking clearly; impaired coordination; cardiovascular problems including heart muscle injury, irregular heartbeat, stroke, and high blood pressure; liver problems including steatosis (fatty liver), alcoholic hepatitis, fibrosis, and cirrhosis; pancreatitis; increased risk of various cancers (including of the mouth, esophagus, larynx, pharynx, liver, colon, and rectum); weakened immune system; depression; interference with personal relationships; coma, and death due to alcohol overdose. For breast cancer, even moderate drinking may increase the risk.			
Other Health-related Issues	Pregnancy-related: sudden infant death syndrome (SIDS), fetal alcohol spectrum disorders (FASD).			
In Combination with Alcohol	N/A			
Withdrawal Symptoms	Alcohol withdrawal symptoms usually occur within 8 hours after the last drink, but can occur days later. Symptoms usually peak by 24 to 72 hours, but may go on for weeks. Common symptoms include: anxiety or nervousness, depression, fatigue, irritability, jumpiness or shakiness, mood swings, nightmares, and not thinking clearly. Other symptoms may include: clammy skin, enlarged (dilated) pupils, headache, insomnia, loss of appetite, nausea and vomiting, pallor, rapid heart rate, sweating, and tremor of the hands or other body parts. A severe form of alcohol withdrawal called delirium tremens can cause: agitation, fever, hallucinations, seizures, and severe confusion.			

- i. Source: NIDA, (2016).
- ii. Most states prohibit possession and consumption of alcoholic beverages by those under age 21, though some make exceptions for possession or consumption in the presence, or with the consent, of family or on private property.
- iii. Sources: NIDA, (2016) & NIAAA, (n.d.). The uses and possible health effects that are listed are illustrative examples and not exhaustive.
- iv. Source: Gepner, et al. (2015).¹²
- v. Source: Howard, et al. (2004).¹³
- vi. Source: Stockwell, et al. (2016).¹⁴
- vii. Source: Fillmore, et al. (2006).¹⁵

Alcohol	
Treatment Options ^{viii}	
Medications	<p>The U.S. Food and Drug Administration (FDA) has approved three medications for treating alcohol dependence, and others are being tested to determine if they are effective.</p> <ul style="list-style-type: none"> • Naltrexone can help people reduce heavy drinking. • Acamprosate makes it easier to maintain abstinence. • Disulfiram blocks the breakdown (metabolism) of alcohol by the body, causing unpleasant symptoms such as nausea and flushing of the skin. Those unpleasant effects can help some people avoid drinking while taking disulfiram.
Behavioral Therapies	<p>Also known as alcohol counseling, behavioral treatments involve working with a health professional to identify and help change the behaviors that lead to heavy drinking. Behavioral treatments share certain features, which can include:</p> <ul style="list-style-type: none"> • Developing the skills needed to stop or reduce drinking • Helping to build a strong social support system • Working to set reachable goals • Coping with or avoiding the triggers that might cause relapse
Statistics as of 2015 ^{ix}	
Prevalence	<p><i>Lifetime:</i> 217 million persons (81.0%) aged 12 or older have used alcohol in their lifetime.</p> <p><i>Past Year:</i> 176 million persons (65.7%) aged 12 or older have used alcohol in the past year.</p>
Average Age of Initiation^x	17.6

viii. Source: NIDA, (2016).

ix. Source: CBHSQ, (2016).

x. Average age of initiation (for all substances) is based on respondents aged 12 to 49 years old.

Cocaine				
A powerfully addictive stimulant drug made from the leaves of the coca plant native to South America. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Cocaine hydrochloride topical solution (anesthetic rarely used in medical procedures)	<i>Cocaine</i> : Blow, Bump, C, Candy, Charlie, Coke, Crack, Flake, Rock, Snow, Toot, Dust <i>Crack cocaine</i> : Crack, Rock, Base, Sugar Block, Rox/Roxanne	White powder, whitish rock crystal	Snorted, smoked, injected, orally, topically	Schedule II / Illegal, except for use in hospital settings (however it's rarely used)
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Narrowed blood vessels; enlarged pupils; increased body temperature, heart rate, and blood pressure; headache; abdominal pain and nausea; euphoria; increased energy, alertness; insomnia; restlessness, irritability, anxiety; erratic and violent behavior, panic attacks, paranoia, psychosis; heart rhythm problems, heart attack; stroke, seizure, coma; and death from cardiac arrest, respiratory arrest, or suicide.			
Long-term Consequences of Use and Health Effects	Loss of sense of smell, nosebleeds, nasal damage and trouble swallowing from snorting; infection and death of bowel tissue from decreased blood flow; poor nutrition and weight loss from decreased appetite; and severe depression.			
Other Health-related Issues	Risk of HIV, hepatitis, and other infectious diseases from shared needles. Pregnancy-related: premature delivery, low birth weight, neonatal abstinence syndrome. ⁱⁱⁱ			
In Combination with Alcohol	Greater risk of overdose and sudden death than from alcohol or cocaine alone.			
Withdrawal Symptoms	Depression, tiredness, increased appetite, insomnia, vivid unpleasant dreams, slowed thinking and movement, restlessness.			
Medical Use	Cocaine hydrochloride topical solution is indicated for the introduction of local (topical) anesthesia of accessible mucous membranes of the oral, laryngeal and nasal cavities.			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat cocaine addiction.			
Behavioral Therapies	<ul style="list-style-type: none"> • Cognitive-behavioral therapy (CBT) • Community reinforcement approach plus vouchers • Contingency management, or motivational incentives • The Matrix Model • 12-Step facilitation therapy 			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) and DEA, (2015).

iii. Neonatal abstinence syndrome is a group of problems that occur in a newborn who was exposed to addictive opioid drugs while in the mother's womb. At birth, the baby is still dependent on the drug. Because the baby is no longer getting the drug after birth, symptoms of withdrawal may occur.¹¹

iv. Source: NIDA, (2016).

Cocaine	
Statistics as of 2015 ^v	
Prevalence	<p><i>Lifetime:</i></p> <ul style="list-style-type: none"> • Cocaine: 38.7 million persons (14.5%) aged 12 or older have used cocaine in their lifetime. • Crack: 9.0 million persons (3.4%) aged 12 or older have used crack cocaine in their lifetime. <p><i>Past Year:</i></p> <ul style="list-style-type: none"> • Cocaine: 4.8 million persons (1.8%) aged 12 or older have used cocaine in the past year. • Crack: 833,000 persons (0.3%) aged 12 or older have used crack cocaine in the past year.
Average Age of Initiation	<p>Cocaine: 21.5</p> <p>Crack: 21.3</p>

v. Source: CBHSQ, (2016).

GHB (gamma-hydroxybutyric acid)				
<i>A depressant approved for use in the treatment of narcolepsy, a disorder that causes daytime "sleep attacks".ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Gamma-hydroxybutyrate or sodium oxybate (Xyrem®)	G, Georgia Home Boy, Goop, Grievous Bodily Harm, Liquid Ecstasy, Liquid X, Soap, Scoop	Colorless liquid, white powder	Ingested (often combined with alcohol or other beverages)	Schedule I / Illegal; GHB products such as Xyrem®, are Schedule III substances
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Euphoria, drowsiness, decreased anxiety, confusion, memory loss, hallucinations, excited and aggressive behavior, nausea, vomiting, unconsciousness, seizures, slowed heart rate and breathing, lower body temperature, coma, and death.			
Long-term Consequences of Use and Health Effects	Unknown.			
Other Health-related Issues	Sometimes used as a date rape drug.			
In Combination with Alcohol	Nausea, problems with breathing, greatly increased depressant effects.			
Withdrawal Symptoms	Insomnia, anxiety, tremors, sweating, increased heart rate and blood pressure, and psychosis.			
Medical Use	Sodium Oxybate (Xyrem®) is approved for use in the treatment of narcolepsy, a disorder that causes daytime "sleep attacks."			
Treatment Options ⁱⁱⁱ				
Medications	Benzodiazepines			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat GHB addiction.			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime:</i> 1.2 million persons (0.4%) aged 12 or older have used GHB in their lifetime. <i>Past Year:</i> 136,000 persons (0.1%) aged 12 or older have used GHB in the past year.			
Average Age of Initiation	Sedatives in general: 28.3			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Sources: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Heroin				
<i>An opioid drug made from morphine, a natural substance extracted from the seed pod of the Asian opium poppy plant.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Brown sugar, China White, Dope, H, Horse, Junk, Skag, Skunk, Smack, White Horse <i>With OTC cold medicine and antihistamine: Cheese</i>	White or brownish powder, or black sticky substance known as “black tar heroin”	Injected, smoked, snorted	Schedule I / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Euphoria; warm flushing of skin; dry mouth; heavy feeling in the hands and feet; clouded thinking, impaired coordination; alternate wakeful and drowsy states; itching; nausea; vomiting; slowed breathing and heart rate; and fatal overdose.			
Long-term Consequences of Use and Health Effects	Collapsed veins; abscesses (swollen tissue with pus); infection of the lining and valves in the heart (endocarditis); constipation and stomach cramps; liver or kidney disease; and pneumonia.			
Other Health-related Issues	Pregnancy-related: miscarriage, low birth weight, neonatal abstinence syndrome. Risk of HIV, hepatitis, and other infectious diseases from shared needles.			
In Combination with Alcohol	Dangerous slowdown of heart rate and breathing, coma, and death.			
Withdrawal Symptoms	Restlessness, muscle and bone pain, insomnia, diarrhea, vomiting, and cold flashes with goose bumps.			
Treatment Options ⁱⁱⁱ				
Medications	Methadone, Buprenorphine, and Naltrexone.			
Behavioral Therapies	Contingency management, or motivational incentives 12-Step facilitation therapy			
Statistics as of 2015 ²³				
Prevalence	<i>Lifetime:</i> 5.1 million persons (1.9%) aged 12 or older have used heroin in their lifetime. <ul style="list-style-type: none"> • Heroin needle use: 2.2 million persons (0.8%) • Smoked heroin: 2.0 million persons (0.7%) • Sniffed or snorted heroin: 3.3 million persons (1.2%) <i>Past Year:</i> 828,000 persons (0.3%) aged 12 or older have used heroin in the past year.			
Average Age of Initiation	25.4			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Sources: NIDA, (2016).

Inhalants				
<p><i>Solvents, aerosols, and gases found in household products such as spray paints, markers, glues, and cleaning fluids; also nitrites (e.g., amyl nitrite), which are prescription medications for chest pain. Precise categorization of inhalants is difficult, however one classification system lists four general categories of inhalants — volatile solvents, aerosols, gases, and nitrites — based on the forms in which they are often found in household, industrial, and medical products.ⁱ</i></p>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Solvents (paint thinners, gasoline, glues, organic solvents, nail polish remover); gases (butane, propane, aerosol propellants), nitrous oxide, hair spray; and nitrites (isoamyl, isobutyl, and cyclohexyl)	Poppers, snappers, whippets, laughing gas	Paint thinners or removers, degreasers, dry-cleaning fluids, gasoline, lighter fluids, correction fluids, permanent markers, electronics cleaners and freeze sprays, glue, spray paint, hair or deodorant sprays, fabric protector sprays, aerosol computer cleaning products, vegetable oil sprays, butane lighters, propane tanks, whipped cream aerosol containers, refrigerant gases, ether, chloroform, halothane, nitrous oxide	Inhaled through the nose or mouth	N/A
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	<p>While symptoms vary by chemical, potential symptoms include: confusion; nausea or vomiting; slurred speech; loss of coordination; euphoria; dizziness; drowsiness; loss of inhibition, lightheadedness, hallucinations/delusions; headaches; sudden sniffing death due to heart failure (from butane, propane, and other chemicals in aerosols); death from asphyxiation, suffocation, convulsions or seizures, coma, or choking.</p> <p><i>Nitrites:</i> Enlarged blood vessels, enhanced sexual pleasure, increased heart rate, brief sensation of heat and excitement, dizziness, and headache.</p>			
Long-term Consequences of Use and Health Effects	<p>Liver and kidney damage; damage to cardiovascular and nervous systems; bone marrow damage; nerve damage; and brain damage from lack of oxygen that can cause problems with thinking, movement, vision, and hearing.</p> <p><i>Nitrites:</i> Increased risk of pneumonia.</p>			
Other Health-related Issues	<p>Pregnancy-related: low birth weight, bone problems, delayed behavioral development due to brain problems, altered metabolism and body composition.</p>			
In Combination with Alcoholⁱⁱⁱ	<p>Intensifies the toxic effects of inhalants; serious mental impairment can result, leading the user to engage in deadly behavior; and may lead to coma or death.</p> <p><i>Nitrites:</i> dangerously low blood pressure.</p>			
Withdrawal Symptoms	<p>Nausea, loss of appetite, sweating, tics, problems sleeping, and mood changes.</p>			
Medical Use^{iv}	<p>Nitrous oxide only, for anesthesia: amyl nitrate indicated for rapid relief of angina pectoris.</p>			
Treatment Options ^v				
Medications	<p>There are no FDA-approved medications to treat inhalant addiction.</p>			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016).

iii. Source: Inhalant Addiction Treatment, (n.d.).

iv. Source: SAMHSA, (2004).

v. Source: NIDA, (2016).

Inhalants	
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat inhalant addiction.
Statistics as of 2015^{vi}	
Prevalence	<p><i>Lifetime:</i> 25.8 million persons (9.6%) aged 12 or older have used inhalants in their lifetime.</p> <ul style="list-style-type: none"> • Amyl Nitrite, Poppers, Locker Room Odorizers, or Rush: 7.4 million persons (2.8%) • Computer Cleaner/Air Duster: 3.0 million persons (1.1 %) • Correction Fluid, Degreaser, or Cleaning Fluid: 1.6 million persons (0.6%) • Felt-Tip Pens, Felt-Tip Markers, or Magic Markers: 6.8 million persons (2.5 %) • Gasoline or Lighter Fluid: 3.2 million persons (1.2%) • Glue, Shoe Polish, or Toluene: 3.2 million persons (1.2%) • Halothane, Ether, or Other Anesthetics: 809,000 persons (0.3%) • Lacquer Thinner or Other Paint Solvents: 1.5 million persons (0.6%) • Lighter Gases (Butane, Propane): 767,000 persons (0.3%) • Nitrous Oxide or Whippits: 12.4 million persons (4.6%) • Spray Paints: 1.9 million persons (0.7%) • Other Aerosol Sprays: 1.5 million persons (0.6%) <p><i>Past Year:</i> 1.8 million persons (0.7%) aged 12 or older have used inhalants in the past year.</p>
Average Age of Initiation	17.4

vi. Source: CBHSQ, (2016).

Ketamine				
<i>A dissociative drug, hallucinogen, which causes the user to feel detached from reality.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Ketalar	Cat Valium, K, Special K, Vitamin K	Liquid, white powder	Injected , snorted, smoked (powder added to tobacco or marijuana cigarettes), ingested	Schedule III / Legal by prescription only
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Problems with attention, learning, and memory; dreamlike states, hallucinations; sedation; confusion and problems speaking; memory loss; stiffening of the muscles and numbness; problems moving, to the point of being immobile; increased blood pressure; nausea; unconsciousness; slowed breathing (respiratory depression) that can lead to death.			
Long-term Consequences of Use and Health Effects	Ulcers and pain in the bladder; kidney problems; stomach pain; depression; flashbacks; and poor memory.			
Other Health-related Issues	Sometimes used as a date rape drug. Risk of HIV, hepatitis, and other infectious diseases from shared needles.			
In Combination with Alcohol	Increased risk of adverse effects.			
Withdrawal Symptoms	Unknown.			
Medical Use	Used as an anesthetic agent.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat addiction to ketamine or other dissociative drugs.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to dissociative drugs.			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime</i> : 3.0 million persons (1.1%) aged 12 or older have used ketamine in their lifetime. <i>Past Year</i> : Data not collected.			
Average Age of Initiation	Hallucinogens in general: 19.6			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

LSD (lysergic acid diethylamide)				
<i>A hallucinogen manufactured from lysergic acid, which is found in ergot, a fungus that grows on rye and other grains. LSD is an abbreviation of the scientific name lysergic acid diethylamide.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Acid, Blotter, Blue Heaven, Cubes, Microdot, Yellow Sunshine, A, Windowpane	Tablet; capsule; clear liquid; small, decorated squares of absorbent paper that liquid has been added to	Ingested, absorbed through mouth tissues (paper squares)	Schedule I / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Rapid mood swings; distortion of a person's ability to recognize reality, think rationally, or communicate with others; raised blood pressure, heart rate, body temperature; dizziness and insomnia; loss of appetite; dry mouth; sweating; numbness; weakness; tremors; enlarged pupils; and impulsive behavior.			
Long-term Consequences of Use and Health Effects	Frightening flashbacks (called Hallucinogen Persisting Perception Disorder [HPPD]); ongoing visual disturbances, disorganized thinking, paranoia, mood swings; and prolonged depression.			
Other Health-related Issues	Unknown.			
In Combination with Alcohol	May decrease the perceived effects of alcohol.			
Withdrawal Symptoms	Unknown.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat addiction to LSD or other hallucinogens.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to hallucinogens.			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime:</i> 25.3 million persons (9.5%) aged 12 or older have used LSD in their lifetime. <i>Past Year:</i> 1.5 million persons (0.6%) aged 12 or older have used LSD in the past year.			
Average Age of Initiation	19.6			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Marijuana (Cannabis)				
<i>Marijuana is Cannabis sativa, a plant with psychoactive properties. The main psychoactive (mind-altering) chemical in marijuana is delta-9-tetrahydrocannabinol, or THC.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Various brand names in states where the sale of marijuana is legal	Marijuana: Blunt, Bud, Dope, Ganja, Grass, Green, Herb, Joint, Mary Jane, Pot, Reefer, Sinsemilla, Skunk, Smoke, Trees, Weed Hashish: Boom, Gangster, Hash, Hemp, THC	Greenish-gray mixture of dried, shredded leaves, stems, seeds, and/or flowers; resin (hashish) or sticky, black liquid (hash oil)	Smoked, ingested (mixed in food or brewed as tea)	Schedule I/ Illegal ⁱⁱ for both marijuana and THC, the active ingredient in marijuana, which is listed separately from marijuana. Marinol [®] , containing THC as synthetically-derived dronabinol, is an FDA-approved drug product, controlled in Schedule III / Legal by prescription only
Uses & Possible Health Effects ⁱⁱⁱ				
Short-term Symptoms of Use	Enhanced sensory perception and euphoria followed by drowsiness/relaxation; disinhibition, increased sociability; dry mouth; slowed reaction time; time distortion; impaired balance and coordination; increased heart rate and appetite; decreased blood pressure; problems with learning and memory; heightened imagination, hallucinations and delusions; anxiety; panic attacks; and psychosis.			
Long-term Consequences of Use and Health Effects	Mental health problems, chronic cough, frequent respiratory infections, increased risk for cancer, and suppression of the immune system.			
Other Health-related Issues	Breathing problems and increased risk of cancer of the head, neck, lungs, and respiratory tract. <i>Youth:</i> Possible loss of IQ points when repeated use begins in adolescence. <i>Pregnancy-related:</i> Babies born with problems with attention, memory, and problem solving.			
In Combination with Alcohol	Increased heart rate, blood pressure; further slowing of mental processing and reaction time.			
Withdrawal Symptoms	Irritability, trouble sleeping, decreased appetite, anxiety.			
Medical Uses	Marino [®] is indicated for the treatment of: <ul style="list-style-type: none"> Anorexia associated with weight loss in patients with AIDS; and Nausea and vomiting associated with cancer chemotherapy in patients who have failed to respond adequately to conventional antiemetic treatments. 			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat marijuana addiction.			
Behavioral Therapies	<ul style="list-style-type: none"> Behavioral treatments tested with adolescents Cognitive-behavioral therapy (CBT) Contingency management, or motivational incentives Motivational Enhancement Therapy (MET) 			

Marijuana (Cannabis)	
Statistics as of 2015 ^v	
Prevalence	<i>Lifetime:</i> 117.9 million persons (44.0%) aged 12 or older have used marijuana in their lifetime. <i>Past Year:</i> 36.0 million persons (13.5%) aged 12 or older have used marijuana in the past year.
Average Age of Initiation	19.0

- i. Source: NIDA, (2016).
- ii. As of this writing, 25 states and the District of Columbia have legalized medical marijuana use, four states have legalized retail marijuana sales, and the District of Columbia has legalized personal use and home cultivation (both medical and recreational). See Chapter 3 - Prevention Programs and Policies for more detail on this issue.
- iii. Sources: NIDA, (2016) & DEA, (2015).
- iv. Source: NIDA, (2016).
- v. Source: CBHSQ, (2016).

MDMA (Ecstasy)				
A synthetic, psychoactive drug that has similarities to both the stimulant amphetamine and the hallucinogen mescaline. MDMA is an abbreviation of the scientific name 3,4-methylenedioxy-methamphetamine. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Adam, Clarity, Eve, Lover's Speed, Peace, Uppers, E, X, XTC, Molly	Colorful tablets with imprinted logos, capsules, powder, liquid	Ingested, snorted	Schedule I / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Lowered inhibition and coordination; sleep disturbances; enhanced sensory perception; confusion; depression; sleep problems; anxiety; increased heart rate and blood pressure; muscle tension; teeth clenching; increased motor activity, alertness; nausea; blurred vision; faintness; chills or sweating; sharp rise in body temperature leading to liver, kidney, or heart failure and death.			
Long-term Consequences of Use and Health Effects	Long-lasting confusion; depression; damage to the serotonin system; problems with attention, memory, and sleep; increased anxiety, impulsiveness, and aggression; loss of appetite; and less interest in sex.			
Other Health-related Issues	Unknown.			
In Combination with Alcohol	May increase the risk of cell and organ damage.			
Withdrawal Symptoms	Fatigue, loss of appetite, depression, and trouble concentrating.			
Treatment Options ⁱⁱⁱ				
Medications	There is conflicting evidence about whether MDMA is addictive. There are no FDA-approved medications to treat MDMA addiction.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat potential MDMA addiction.			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime:</i> 18.3 million persons (6.8%) aged 12 or older have used ecstasy in their lifetime. <i>Past Year:</i> 2.6 million persons (1.0%) aged 12 or older have used ecstasy in the past year.			
Average Age of Initiation	20.7			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Mescaline (Peyote)				
<i>A hallucinogen found in disk-shaped "buttons" in the crown of several cacti, including peyote, and can also be created synthetically.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Buttons, Cactus, Mesc, Peyote	Fresh or dried buttons, capsule	Ingested (chewed or soaked in water and drunk) or smoked	Schedule I / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Enhanced perception and feeling; hallucinations; euphoria; anxiety; increased body temperature, heart rate, blood pressure; sweating; headaches; and impaired motor coordination.			
Long-term Consequences of Use and Health Effects	Unknown.			
Other Health-related Issues	Unknown.			
In Combination with Alcohol	Unknown.			
Withdrawal Symptoms	Unknown.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat addiction to mescaline or other hallucinogens.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to hallucinogens.			
Statistics as of 2015 ^{iv}				
Prevalence	<p><i>Lifetime:</i></p> <ul style="list-style-type: none"> Mescaline: 8.0 million persons (3.0%) aged 12 or older have used mescaline in their lifetime. Peyote: 5.5 million persons (2.0%) aged 12 or older have used peyote in their lifetime. <p><i>Past Year:</i> 4.7 million persons (1.8%) aged 12 or older have used hallucinogens in the past year.</p>			
Average Age of Initiation	Hallucinogens in general: 19.6			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Methamphetamine				
An extremely addictive stimulant amphetamine drug. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Desoxyn®	Crank, Chalk, Crystal, Fire, Glass, Go Fast, Ice, Meth, Speed	White powder or pill; crystal meth looks like pieces of glass or shiny blue-white "rocks" of different sizes	Ingested, snorted, smoked, injected	Schedule II / Illegal (except for Desoxyn® by prescription only)
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Increased wakefulness and physical activity; decreased appetite; hyperthermia; increased breathing, heart rate, blood pressure, temperature; irregular heartbeat; and death from cardiac arrest, stroke, or suicide.			
Long-term Consequences of Use and Health Effects	Anxiety, confusion, insomnia, mood problems, violent behavior, paranoia, hallucinations, delusions, weight loss, severe dental problems ("meth mouth"), memory loss, intense itching leading to skin sores from scratching and high-risk for addiction.			
Other Health-related Issues	Sharing needles increases the risk of contracting infectious diseases like HIV and Hepatitis B and C. Pregnancy-related: premature delivery; separation of the placenta from the uterus; low birth weight; lethargy; heart and brain problems.			
In Combination with Alcohol	Masks the depressant effect of alcohol, increasing risk of alcohol overdose; may increase blood pressure and jitters.			
Withdrawal Symptoms	Depression, anxiety, tiredness.			
Medical Uses	Desoxyn® is indicated for the treatment of: <ul style="list-style-type: none"> • Attention Deficit Disorder with Hyperactivity • Exogenous Obesity 			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat methamphetamine addiction.			
Behavioral Therapies	<ul style="list-style-type: none"> • Cognitive-behavioral therapy (CBT) • Contingency management or motivational incentives • The Matrix Model • 12-Step facilitation therapy 			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime:</i> 14.5 million persons (5.4%) aged 12 or older have used methamphetamine in their lifetime. Methamphetamine needle use: 1.9 million persons (0.7%) <i>Past Year:</i> 1.7 million persons (0.6%) aged 12 or older have used methamphetamine in the past year.			
Average Age of Initiation	25.8			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Over-the-counter Cough/Cold Medicines (Dextromethorphan or DXM)				
<i>Psychoactive when taken in higher-than-recommended amounts.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Various (many brand names include "DM")	Robotripping, Robo, Triple C	Suspension, capsule	Ingested	Cough medicines with codeine are Schedule V. DXM is not Scheduled and is an over-the-counter medication
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Euphoria; slurred speech; increased heart rate, blood pressure, and body temperature; numbness; dizziness; nausea; vomiting; confusion; hallucinations; paranoia; agitation; altered visual perceptions; loss of coordination, problems with movement; buildup of excess acid in body fluids; liver damage; seizures; and coma.			
Long-term Consequences of Use and Health Effects	Unknown.			
Other Health-related Issues	Breathing problems, seizures, and increased heart rate may occur from other ingredients in cough/cold medicines.			
In Combination with Alcohol	Increased risk of adverse effects.			
Withdrawal Symptoms	Unknown.			
Medical Use ⁱⁱⁱ	Used for cough suppression.			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat addiction to over-the-counter cough/cold medicines.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to over-the-counter cough/cold medicines.			
Statistics as of 2015 ^v				
Prevalence	<i>Lifetime:</i> Data not collected. <i>Past Year:</i> Data not collected.			
Average Age of Initiation	Stimulants in general: 22.3			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: SAMHSA, (2004).

iv. Source: NIDA, (2016).

v. Source: CBHSQ, (2016).

PCP (Phencyclidine)				
A dissociative drug developed as an intravenous anesthetic that has been discontinued due to serious adverse effects. Dissociative drugs are hallucinogens that cause the user to feel detached from reality. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Angel Dust, Boat, Hog, Love Boat, Peace Pill, Angel Mist	White or colored powder, tablet, or capsule; clear liquid	Injected, snorted, ingested, smoked (powder added to mint, parsley, oregano, or marijuana)	Schedule I, II / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	<p>Delusions, hallucinations, paranoia, problems thinking, a sense of distance from one's environment, anxiety.</p> <p><i>Low doses:</i> slight increase in pulse and breathing rate; increased blood pressure and heart rate; shallow breathing; face redness and sweating; numbness of the hands or feet; and loss of coordination.</p> <p><i>High doses:</i> lowered blood pressure, heart rate, and breathing; nausea; vomiting; blurred vision; flicking up and down of the eyes; drooling; loss of balance; dizziness; violence; suicidal thoughts; seizures, coma, and death.</p>			
Long-term Consequences of Use and Health Effects	Memory loss, problems with speech and thinking, depression, psychosis, weight loss, anxiety.			
Other Health-related Issues	<p>PCP has been linked to self-injury.</p> <p>Risk of HIV, hepatitis, and other infectious diseases from shared needles.</p>			
In Combination with Alcohol	Increased risk of coma.			
Withdrawal Symptoms	Headaches and sweating.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat addiction to PCP or other dissociative drugs.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to dissociative drugs.			
Statistics as of 2015 ^{iv}				
Prevalence	<p><i>Lifetime:</i> 6.3 million persons (2.4%) aged 12 or older have used PCP in their lifetime.</p> <p><i>Past Year:</i> 120,000 persons (<0.1%) aged 12 or older have used PCP in the past year.</p>			
Average Age of Initiation	15.3			

i. Source: NIDA, (2016).

ii. Source: NIDA, (2016).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Prescription Opioids				
<i>Pain relievers with an origin similar to that of heroin. Opioids can cause euphoria and are sometimes used nonmedically, leading to overdose deaths.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Codeine (various brand names)	Captain Cody, Cody, Lean, Schoolboy, Sizzurp, Purple Drank With glutethimide: Doors & Fours, Loads, Pancakes and Syrup	Tablet, capsule, liquid	Injected, ingested (often mixed with soda and flavorings)	Schedule II, III, V / Legal by prescription only
Fentanyl (Actiq [®] , Duragesic [®] , Sublimaze [®])	Apache, China Girl, China White, Dance Fever, Friend, Goodfella, Jackpot, Murder 8, Tango and Cash, TNT	Lozenge, sublingual tablet, film, buccal tablet	Injected, smoked, snorted	Schedule II / Legal by prescription only
Hydrocodone or dihydrocodeinone (Vicodin [®] , Lortab [®] , Lorcet [®] , and others)	Vike, Watson-387	Capsule, liquid, tablet	Ingested, snorted, injected	Schedule II / Legal by prescription only
Hydromorphone (Dilaudid [®])	D, Dillies, Footballs, Juice, Smack	Liquid, suppository	Injected, rectally inserted	Schedule II / Legal by prescription only
Meperidine (Demerol [®])	Demmies, Pain Killer	Tablet, liquid	Ingested, snorted, injected	Schedule II / Legal by prescription only
Methadone (Dolophine [®])	Amidone, Fizzies With MDMA: Chocolate Chip Cookies	Tablet	Ingested, injected	Schedule II / Legal by prescription only for pain indication
Morphine, various brand names	M, Miss Emma, Monkey, White Stuff	Tablet, liquid, capsule, suppository	Ingested, injected, smoked	Schedule II, III / Legal by prescription only
Oxycodone (OxyContin [®] , Percodan [®] , Percocet [®] , and others)	O.C., Oxycet, Oxycotton, Oxy, Hillbilly Heroin, Percs	Capsule, liquid, tablet	Ingested, snorted, injected	Schedule II / Legal by prescription only
Oxymorphone (Opana [®])	Biscuits, Blue Heaven, Blues, Mrs. O, O Bomb, Octagons, Stop Signs	Tablet	Ingested, snorted, injected	Schedule II / Legal by prescription only

i. Sources: NIDA, (2016) & DEA, (2015).

Prescription Opioids	
Uses & Possible Health Effects ⁱⁱ	
Short-term Symptoms of Use	<p>Pain relief, drowsiness, nausea, constipation, altered judgment and decision making, sedation, euphoria, confusion, clammy skin, muscle weakness, slowed breathing, lowered heart rate and blood pressure, coma, heart failure, and death.</p> <p>For oxycodone specifically: Pain relief, sedation, respiratory depression, constipation, papillary constriction, and cough suppression.</p> <p>For fentanyl specifically: Fentanyl is about 100 times more potent than morphine as an analgesic and results in frequent overdoses.</p>
Long-term Consequences of Use and Health Effects	Heart or respiratory problems. Extended or chronic use of oxycodone containing acetaminophen may cause severe liver damage. Abuse of opioid medications can lead to psychological dependence.
Other Health-related Issues	<p>Pregnancy-related: Miscarriage, low birth weight, neonatal abstinence syndrome.</p> <p>Older adults: higher risk of accidental misuse or abuse because many older adults have multiple prescriptions, increasing the risk of drug-drug interactions, and breakdown of drugs slows with age; also, many older adults are treated with prescription medications for pain.</p> <p>Risk of HIV, hepatitis, and other infectious diseases from shared needles.</p>
In Combination with Alcohol	Dangerous slowing of heart rate and breathing leading to coma or death.
Withdrawal Symptoms	Restlessness, anxiety, muscle and bone pain, insomnia, diarrhea, vomiting, cold flashes with goose bumps, and muscle tremors.
Medical Useⁱⁱⁱ	Used for pain relief. Methadone is also used to treat opioid use disorders.
Treatment Options ^{iv}	
Medications	<ul style="list-style-type: none"> • Methadone • Buprenorphine • Naltrexone (oral and extended-release injectable)
Behavioral Therapies	Behavioral therapies that have helped treat addiction to heroin may be useful in treating prescription opioid addiction.
Statistics as of 2015 ^v	
Prevalence	<p><i>Lifetime:</i> 36 million persons (13.6%) aged 12 or older have misused pain relievers in their lifetime.</p> <p><i>Past Year:</i> 12.5 million persons (4.7 %) aged 12 or older have misused pain relievers in the past year.</p> <ul style="list-style-type: none"> • OxyContin®: 1.7 million persons (0.7%) aged 12 or older have used OxyContin® non-medically in the past year.
Average Age of Initiation	Prescription Opioids: 25.8

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: SAMHSA, (2004).

iv. Source: NIDA, (2016).

v. Source: CBHSQ, (2016).

Prescription Sedatives (Tranquilizers, Depressants)				
<i>Medications that slow brain activity, which makes them useful for treating anxiety and sleep problems.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Barbiturates: pentobarbital (Nembutal [®]), phenobarbital (Luminal [®])	Barbs, Phennies, Red Birds, Reds, Tooies, Yellow Jackets, Yellows	Pill, capsule, liquid	Ingested, injected	Schedule II, III, IV / Legal by prescription only
Benzodiazepines: alprazolam (Xanax [®]), chlorodiazepoxide (Limbitrol [®]), diazepam (Valium [®]), lorazepam (Ativan [®]), triazolam (Halcion [®])	Candy, Downers, Sleeping Pills, Tranks	Pill, capsule, liquid	Ingested, snorted	Schedule IV / Legal by prescription only
Sleep Medications: eszopiclone (Lunesta [®]), zaleplon (Sonata [®]), zolpidem (Ambien [®])	Forget-me Pill, Mexican Valium, R2, Roche, Roofies, Roofinol, Rope, Rophies	Pill, capsule, liquid	Ingested, snorted	Schedule IV / Legal by prescription only
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Drowsiness, sedation; slurred speech; poor concentration, confusion, dizziness; clammy skin; impaired judgment, coordination and memory; reduced anxiety; lowered blood pressure; slowed breathing and central nervous system; coma, and death.			
Long-term Consequences of Use and Health Effects	Increased risk of respiratory distress.			
Other Health-related Issues	Sleep medications are sometimes used as date rape drugs. Risk of HIV, hepatitis, and other infectious diseases from shared needles.			
In Combination with Alcohol	Dangerous slowdown of heart rate and breathing, coma, and death.			
Withdrawal Symptoms	Must be discussed with a health care professional; barbiturate withdrawal can cause a serious abstinence syndrome that may even include seizures.			
Medical Use ⁱⁱⁱ	For tranquilization, sedation, and sleep.			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat addiction to prescription sedatives; lowering the dose over time must be done with the help of a health care professional.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to prescription sedatives.			
Statistics as of 2015 ^v				
Prevalence	<i>Lifetime:</i> Data not collected. <i>Past Year:</i> <ul style="list-style-type: none"> 1.5 million persons (0.6%) aged 12 or older have misused sedatives in the past year. 6.1 million persons (2.3%) aged 12 or older have misused tranquilizers in the past year. 			
Average Age of Initiation	Sedatives: 28.3 Tranquilizers: 25.9			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: SAMHSA, (2004).

iv. Source: NIDA, (2016).

v. Source: CBHSQ, (2016).

Prescription Stimulants				
<i>Medications that increase alertness, attention, energy, blood pressure, heart rate, and breathing rate.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Amphetamine (Adderall®, Benzedrine®)	Bennies, Black Beauties, Crosses, Hearts, LA Turnaround, Speed, Truck Drivers, Uppers	Tablet, capsule	Ingested, snorted, smoked, injected	Schedule II / Legal by prescription only
Methylphenidate (Concerta®, Ritalin®)	JIF, MPH, R-ball, Skippy, The Smart Drug, Vitamin R	Liquid, tablet, chewable tablet, capsule	Ingested, snorted, smoked, injected, chewed	Schedule II / Legal by prescription only
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Increased alertness, attention, energy; euphoria; insomnia, wakefulness; increased blood pressure and body temperature, metabolism, and heart rate; narrowed blood vessels; increased blood sugar; agitation; opened-up breathing passages; and violent and erratic behavior. High doses: dangerously high body temperature and irregular heartbeat; seizures; and death from heart failure or suicide. For amphetamines specifically: Paranoia, picking at the skin, preoccupation with one's own thoughts, and auditory and visual hallucinations.			
Long-term Consequences of Use and Health Effects	Heart problems, psychosis, anger, paranoia, addiction, and chronic sleep problems.			
Other Health-related Issues	Risk of HIV, hepatitis, and other infectious diseases from shared needles.			
In Combination with Alcohol	Masks the depressant action of alcohol, increasing risk of alcohol overdose; may increase blood pressure and jitters.			
Withdrawal Symptoms	Depression, tiredness, and sleep problems.			
Medical Use ⁱⁱⁱ	For narcolepsy, obesity, and hyperkinesis.			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat stimulant addiction.			
Behavioral Therapies	Behavioral therapies that have helped treat addiction to cocaine or methamphetamine may be useful in treating prescription stimulant addiction.			
Statistics as of 2015 ^v				
Prevalence	<i>Lifetime:</i> Data not collected. <i>Past Year:</i> 5.3 million (2.0%) aged 12 or older have misused stimulants in the past year.			
Average Age of Initiation	Stimulants in general: 22.3			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: SAMHSA, (2004).

iv. Source: NIDA, (2016).

v. Source: CBHSQ, (2016).

Psilocybin				
A hallucinogen in certain types of mushrooms that grow in parts of South America, Mexico, and the United States. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	Little Smoke, Magic Mushrooms, Purple Passion, Shrooms	Fresh or dried mushrooms with long, slender stems topped by caps with dark gills	Ingested (eaten, brewed as tea, or added to other foods)	Schedule I / Illegal
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Hallucinations, altered perception of time, inability to tell fantasy from reality, panic, muscle relaxation or weakness, loss of coordination, enlarged pupils, nausea, vomiting, and drowsiness.			
Long-term Consequences of Use and Health Effects	Risk of flashbacks, psychosis, and memory problems.			
Other Health-related Issues	Risk of poisoning if a poisonous mushroom is accidentally used.			
In Combination with Alcohol	May decrease the perceived effects of alcohol.			
Withdrawal Symptoms	Unknown.			
Treatment Options ⁱⁱⁱ				
Medications	It is not known whether psilocybin is addictive. There are no FDA-approved medications to treat addiction to psilocybin or other hallucinogens.			
Behavioral Therapies	More research is needed to determine if psilocybin is addictive and whether behavioral therapies can be used to treat addiction to this or other hallucinogens.			
Statistics as of 2014 ^{iv}				
Prevalence	<i>Lifetime:</i> 22.8 million persons (8.5%) aged 12 or older have used psilocybin in their lifetime. <i>Past Year:</i> Data not collected.			
Average Age of Initiation	Hallucinogens in general: 19.6			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Rohypnol® (Flunitrazepam)				
<i>A benzodiazepine chemically similar to prescription sedatives such as Valium® and Xanax®. Teens and young adults tend to abuse this drug at bars, nightclubs, concerts, and parties. It has been used to commit sexual assaults due to its ability to sedate and incapacitate unsuspecting victims.¹</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Flunitrazepam, Rohypnol®	Circles, Date Rape Drug, Forget Pill, Forget-Me Pill, La Rocha, Lunch Money, Mexican Valium, Mind Eraser, Pingus, R2, Reynolds, Rib, Roach, Roach 2, Roaches, Roachies, Roopies, Rochas Dos, Roofies, Rope, Rophies, Row-Shay, Ruffies, Trip-and-Fall, Wolfies	Tablet	Ingested (as a pill or as dissolved in a drink), snorted	Schedule IV / Rohypnol® is not approved for medical use in the United States; it is available as a prescription sleep aid in other countries
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Drowsiness, sedation, sleep; amnesia, blackout; decreased anxiety; muscle relaxation, impaired reaction time and motor coordination; impaired mental functioning and judgment; confusion; aggression; excitability; slurred speech; headache; slowed breathing and heart rate.			
Long-term Consequences of Use and Health Effects ⁱⁱⁱ	Physical and psychological dependence; cardiovascular collapse; and death			
Other Health-related Issues	Sometimes used as a date rape drug.			
In Combination with Alcohol	Exaggerated intoxication, severe sedation, unconsciousness, and slowed heart rate and breathing, which can lead to death.			
Withdrawal Symptoms	Headache; muscle pain; extreme anxiety, tension, restlessness, confusion, irritability; numbness and tingling of hands or feet; hallucinations, delirium, convulsions, seizures, or shock.			
Treatment Options ^{iv}				
Medications	There are no FDA-approved medications to treat addiction to Rohypnol® or other prescription sedatives.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat addiction to Rohypnol® or other prescription sedatives.			
Statistics as of 2015 ^v				
Prevalence	<i>Lifetime:</i> Data not collected. <i>Past Year:</i> Data not collected.			
Average Age of Initiation	Sedatives in general: 23.4			

- i. Source: NIDA, (2016).
- ii. Sources: NIDA, (2016) & DEA, (2015).
- iii. Source: Rohypnol Abuse Treatment, (n.d.).
- iv. Source: NIDA, (2016).
- v. Source: CBHSQ, (2016).

Salvia				
A dissociative drug (<i>Salvia divinorum</i>) that is an herb in the mint family native to southern Mexico. Dissociative drugs are hallucinogens that cause the user to feel detached from reality. ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Sold legally in most states as <i>Salvia divinorum</i>	Magic mint, Maria Pastora, Sally-D, Shepherdess's Herb, Diviner's Sage	Fresh or dried leaves	Smoked, chewed, or brewed as tea	Not scheduled; labeled drug of concern by DEA / Illegal in some states
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Short-lived but intense hallucinations; loss of coordination, dizziness, slurred speech; altered visual perception, mood, body sensations; mood swings, feelings of detachment from one's body; sweating; uncontrollable laughter; and paranoia.			
Long-term Consequences of Use and Health Effects	Unknown.			
Other Health-related Issues	Unknown.			
In Combination with Alcohol	Unknown.			
Withdrawal Symptoms	Unknown.			
Treatment Options ⁱⁱⁱ				
Medications	It is not known whether salvia is addictive. There are no FDA-approved medications to treat addiction to salvia or other dissociative drugs.			
Behavioral Therapies	More research is needed to determine if salvia is addictive, but behavioral therapies can be used to treat addiction to dissociative drugs.			
Statistics as of 2015 ^{iv}				
Prevalence	<i>Lifetime</i> : 5.1 million persons (1.9%) aged 12 or older have used salvia in their lifetime. <i>Past Year</i> : Data not collected.			
Average Age of Initiation	Hallucinogens in general: 19.6			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Steroids (Anabolic)				
<i>Man-made substances used to treat conditions caused by low levels of steroid hormones in the body and abused to enhance athletic and sexual performance and physical appearance.ⁱ</i>				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
Nandrolone (Oxandrin [®]), oxandrolone (Anadrol [®]), oxymetholone (Winstrol [®]), stanozolol (Durabolin [®]), testosterone cypionate (Depo-testosterone [®])	Juice, Gym Candy, Pumpers, Roids	Tablet, capsule, liquid drops, gel, cream, patch, injectable solution	Injected, ingested, applied to skin	Schedule III / Legal by prescription only
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Headache, acne, fluid retention (especially in the hands and feet), oily skin, yellowing of the skin and whites of the eyes, and infection at the injection site.			
Long-term Consequences of Use and Health Effects	Kidney damage or failure; liver damage; high blood pressure, enlarged heart, or changes in cholesterol leading to increased risk of stroke or heart attack, even in young people; hostility and aggression; extreme mood swings; anger ("roid rage"); paranoid jealousy; extreme irritability; delusions; impaired judgment.			
Other Health-related Issues	<p>Risk of HIV, hepatitis, and other infectious diseases from shared needles.</p> <p><i>Males:</i> shrunken testicles, lowered sperm count, infertility, baldness, development of breasts, increased risk for prostate cancer.</p> <p><i>Females:</i> facial hair, male-pattern baldness, menstrual cycle changes, enlargement of the clitoris, deepened voice.</p> <p><i>Adolescents:</i> stunted growth.</p>			
In Combination with Alcohol	Increased risk of violent behavior.			
Withdrawal Symptoms	Mood swings; tiredness; restlessness; loss of appetite; insomnia; lowered sex drive; depression, sometimes leading to suicide attempts.			
Medical Use	Used to treat conditions caused by low levels of steroid hormones in the body.			
Treatment Options ⁱⁱⁱ				
Medications	Hormone therapy			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat steroid addiction.			
Statistics as of 2015 ^{iv}				
Prevalence	Data not collected.			
Average Age of Initiation	Data not collected.			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Synthetic Cannabinoids ("K2"/"Spice")				
A wide variety of herbal mixtures containing man-made cannabinoid chemicals related to THC in marijuana but often much stronger and more dangerous. Sometimes misleadingly called "synthetic marijuana" and marketed as a "natural," "safe," legal alternative to marijuana. ¹				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial uses	K2, Spice, Black Mamba, Bliss, Bombay Blue, Fake Weed, Fire, Genie, Moon Rocks, Skunk, Smacked, Yucatan, Zohai	Dried, shredded plant material that looks like potpourri and is sometimes sold as "incense"	Smoked, ingested (brewed as tea)	Schedule I
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Increased heart rate and blood pressure; vomiting; agitation; confusion; hallucinations, anxiety, paranoia; euphoria, relaxation; headache; numbness and tingling; reduced blood supply to the heart; heart attack; and seizures.			
Long-term Consequences of Use and Health Effects	Kidney damage and psychosis.			
Other Health-related Issues	Use of synthetic cannabinoids has led to an increase in emergency department visits in certain areas.			
In Combination with Alcohol	Unknown.			
Withdrawal Symptoms	Headaches, anxiety, depression, irritability.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat K2/Spice addiction.			
Behavioral Therapies	More research is needed to determine if behavioral therapies can be used to treat synthetic cannabinoid addiction.			
Statistics as of 2015 ^{iv}				
Prevalence	Data not collected.			
Average Age of Initiation	Data not collected.			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

Synthetic Cathinones (“Bath Salts”)				
An emerging family of drugs containing one or more synthetic chemicals related to cathinone, a stimulant found naturally in the khat plant. Examples of such chemicals include mephedrone, methylone, and 3,4-methylenedioxypyrovalerone (MDPV). ⁱ				
Common Commercial Names	Street Names	Common Forms	Common Ways Taken	DEA Schedule / Legal Status
No commercial names for “bath salts”	Bloom, Cloud Nine, Cosmic Blast, Ivory Wave, Lunar Wave, Scarface, Vanilla Sky, White Lightning <i>MDPV</i> and <i>mephedrone</i> : Meow meow, MCAT, drone, plant feeder, bubbles, bliss, blue silk, cloud nine, energy-1, ivory wave, lunar wave, ocean burst, pure ivory, purple wave, red dove, snow leopard, stardust, vanilla sky, white dove, white night, and white lightning	White or brown crystalline powder sold in small plastic or foil packages labeled “not for human consumption” and sometimes sold as jewelry cleaner; tablet, capsule, liquid	Ingested, snorted, injected, ingested, smoked	Schedule I
Uses & Possible Health Effects ⁱⁱ				
Short-term Symptoms of Use	Increased heart rate and blood pressure; euphoria; increased sociability and sex drive; paranoia, agitation, and hallucinations; psychotic and violent behavior; nosebleeds; sweating; headaches; teeth grinding; nausea, vomiting; insomnia; irritability; dizziness; depression; suicidal thoughts; panic attacks; reduced motor control; and cloudy thinking.			
Long-term Consequences of Use and Health Effects	Breakdown of skeletal muscle tissue, kidney failure, psychosis, and death.			
Other Health-related Issues	Risk of HIV, hepatitis, and other infectious diseases from injecting with shared needles.			
In Combination with Alcohol	Unknown.			
Withdrawal Symptoms	Depression, anxiety, problems sleeping, tremors, paranoia.			
Treatment Options ⁱⁱⁱ				
Medications	There are no FDA-approved medications to treat addiction to bath salts.			
Behavioral Therapies	<ul style="list-style-type: none"> • Behavioral treatments geared to teens • Cognitive-behavioral therapy (CBT) • Contingency management, or motivational incentives • Motivational Enhancement Therapy (MET) 			
Statistics as of 2015 ^{iv}				
Prevalence	Data not collected.			
Average Age of Initiation	Data not collected.			

i. Source: NIDA, (2016).

ii. Sources: NIDA, (2016) & DEA, (2015).

iii. Source: NIDA, (2016).

iv. Source: CBHSQ, (2016).

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