

Substance Use: Family-based Interventions to Prevent Substance Use Among Youth

Summary Evidence Tables - Systematic Economic Review

This table outlines information from the studies included in the Community Guide economic review of family-based interventions to prevent substance use among youth. The table details study design and economic analysis, population and intervention characteristics, and economic outcomes considered in this review. Complete references for each study can be found in the Included Studies section of the [Substance Use: Family-based Interventions to Prevent Substance Use Among Youth \(thecommunityguide.org\)](https://www.thecommunityguide.org/finding/substance-use-family-based-interventions-to-prevent-substance-use-among-youth.html). [https://www.thecommunityguide.org/finding/substance-use-family-based-interventions-to-prevent-substance-use-among-youth.html]

This review included studies from the peer-reviewed literature and two government reports from Washington State Institute for Public Policy (WSIPP) and the Substance Abuse and Mental Health Services Administration (SAMHSA 2008). The peer-reviewed studies are listed first, followed by a description of the methods used by WSIPP and SAMHSA 2008 along with results from the specific programs they evaluated.

Abbreviations Used in This Document:

- Economic outcomes:
 - QALY: quality-adjusted life year
- Other terms:
 - a.k.a, also known as
 - FPL, federal poverty line
 - GED, general education development
 - NGO, non-government organization
 - NR: not reported
 - PSA, probabilistic sensitivity analysis
 - SAMHSA, Substance Abuse and Mental Health Services Administration
 - WSIPP, Washington State Institute for Public Policy

Notes:

Quality of economic estimates – Studies are assessed to be of good, fair, or limited quality. This valuation is based on two domains: Quality of Capture, and Quality of Measurement. Read more [Methods Manual - Part 2: Economic Review Process | The Community Guide](https://www.thecommunityguide.org/pages/economic-review-methods.html) [https://www.thecommunityguide.org/pages/economic-review-methods.html]

Race/ethnicity of the study population: The Community Guide only summarizes race/ethnicity for studies conducted in the United States.

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Author (Year): Barton et al. (2018)</p> <p>Design: RCT</p> <p>Economic Outcome: Intervention cost</p> <p>Substances Focus: Alcohol, tobacco, cannabis</p> <p>Funding Source: National Institute on Drug Abuse</p> <p>Monetary Values: Assumed reported in 2014 U.S. dollars.</p>	<p>Location: Georgia, USA</p> <p>Setting: Home</p> <p>Population: Low-income African American families (couples) with children 9-14. Families recruited by phone or advertisements in community and from school lists.</p> <p>Sample Size (families): Intervention 172 Usual care 174</p> <p>Characteristics: Mean parent age: Male 39.9 y and Female 36.6 y Mean child age: 10.9 y Race: African American 100% Median parent education</p>	<p>Protecting Strong African American Families (ProSAAF)</p> <p>Intervention: African American facilitator provided skills training, behavior rehearsal and feedback, and reinforcement. Primary focus on couple and outcomes of couple relation functioning, coparenting, and parenting process. Secondary outcomes were related to youth including substance use. Facilitator-led 6 2-hour sessions over 6 weeks in homes. End of each session, facilitator met with youth separately for 15 minutes on peer pressure or understanding parents, followed by another 15-min of joint activity with parent-child in discussion or a game.</p> <p>Comparison: Informational materials on marriage</p>	<p>Improved couple satisfaction, communication, and confidence at 9 months.</p> <p>Odds of reporting substance use were 89% lower for youth in the ProSAAF condition, and count of conduct problems was 44% lower for ProSAAF youth (Beach 2016).</p> <p>Data Source: Effectiveness in couple rations based on validated instruments. Substance use based on self-report.</p>	<p>Intervention cost: \$1,927 per family (Min \$725, Max \$3,248)</p> <p>Components of intervention cost: Facilitator wages, travel, training; supplies, equipment, and overheads; financial incentives for participation.</p> <p>Source: Study records, facilitator logs, expenditure receipts.</p> <p>Quality: Good</p>	<p>NR</p>	<p>NR</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
	<p>attainment: High School or GED Urbanicity: 100% rural Income: 51% below 100% of FPL</p> <p>Time Horizon: intervention length was 6 consecutive sessions over 6 weeks plus 2 boosters.</p>					
<p>Author (Year): Bauman et al. (2001)</p> <p>Design: RCT</p> <p>Economic Outcome: Intervention cost</p> <p>Substances Focus: Alcohol, tobacco</p> <p>Funding Source: National Institute on Drug Abuse</p> <p>Monetary Values: Assumed reported in</p>	<p>Location: National, USA</p> <p>Setting: Home</p> <p>Population: Families with children 12 to 14 years old were recruited from randomly picked list of 2395 phone numbers.</p> <p>Sample Size (youth): Total NR</p> <p>Intervention size in analysis: cigarettes use 400; chewing tobacco 505; alcohol 193.</p> <p>Control size in analysis: cigarettes use 428; chewing</p>	<p>Family Matters</p> <p>Intervention: Booklet materials focused on alcohol and tobacco use prevention followed by telephone discussion led by health educators. Booklet 1 taught negative consequences of youth substance use and what families can do to prevent use. Booklet 2 covered family characteristics in terms of supervision, support, communication, skills. Booklet 3 covered what families can do to discourage substance use through monitoring, rule setting, and mutually agreed sanctions. Booklet 4 covered social and peer pressures and building resistance.</p> <p>Comparison: No treatment</p>	<p>16.4% significantly fewer smoking initiators at 1-year follow-up versus control. Non-whites had no effect due to intervention. Alcohol initiation at 1-year follow-up was 11.1% lower for intervention versus control, but not significant. Note baseline alcohol use was high for both groups. No difference in chewing tobacco</p> <p>Data Source: Self-report.</p>	<p>Intervention cost per family: \$140</p> <p>Components of intervention cost: NR</p> <p>Source: NR</p> <p>Quality: Fair</p>	NR	NR

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1998 U.S. dollars.	tobacco 570; alcohol 223. Characteristics: Urbanicity: Mixed Time Horizon: Baseline interviews June 1996 through February 1997. First booklet mailed July 1997 and final parent-child dyad completed program in September 1997. 4 booklets covered in sequence. Sessions not reported.					
Author (Year): Corso et al. (2013) Design: RCT Economic Outcome: Intervention cost Substances Focus: Alcohol, cannabis, tobacco Funding Source: NR	Location: Georgia, USA Setting: Community facilities Population: African American 10th graders in public school rosters and caregiver dyads chosen from 6 rural Georgia counties with large African American populations. Cost data was for 16 sites in 4 counties.	Program Name: Strong African American Families - Teen (SAAF-T) Intervention: Targets adolescent skill building, parenting skills training, and family interactions training to prevent substance abuse and sexual risk behavior. 5 weekly meetings at community facilities. Concurrent sessions for youth and parents separately followed by joint parent-youth session where they practice what they learned in separate sessions. Comparison: Attention control intervention (ACI)	Baseline at age 16 y and post test at 17 y 10 m. 32% reduction in composite substance use and 47% decrease in substance use problems versus control (Brody 2012). Data Source: Self-report.	Mean societal cost per site By multiple imputation SAAF-T \$16,251 ACI \$14,102 By PSA (random selection) SAAF-T \$16,405 ACI \$13,854 By PSA (bootstrap selection) SAAF-T \$16,419 ACI \$13,836 Components of intervention cost: Wages, training, client	NR	NR

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Monetary Values: Reported in 2009 U.S. dollars.</p>	<p>Sample Size (families): Intervention 102 Control 97</p> <p>Characteristics: African American 100%</p> <p>Mean age Parent 42.6 y Child 16 y</p> <p>Percent female Parent 94% Child 60%</p> <p>Parent education less than High School 28%</p> <p>Income Mean annual household income \$24,502 Percent below 100% of FPL 64% Urbanicity: Rural</p> <p>Time Horizon: Intervention took place in 2009. 5 weekly 2-hour meetings.</p>	<p>focused on healthy diet and exercise</p>		<p>transport and childcare, catering, supplies, overheads, participant time.</p> <p>Source: Trial and administrative records</p> <p>Quality: Good</p>		
<p>Author (Year): Crowley et al. (2014)</p> <p>Design: RCT</p> <p>Economic Outcome:</p>	<p>Location: Iowa, Pennsylvania, USA</p> <p>Setting: School</p> <p>Population: Communities for the PROSPER trials</p>	<p>Strengthening Families Program (SFP) in Grade 6 and one school-based intervention in Grade 7: Life Skills Training (LST), All Stars, or Project Alert.</p> <p>Intervention:</p>	<p>Grade 6 to grade 12 opioid misuse prevalence versus control: SFP+LST -9.3 SFP+All Stars -5.3</p>	<p>Mean societal cost per participant SFP+LST \$457 SFP+All Stars \$532</p> <p>Components of intervention cost: Wages, family</p>	<p>Societal cost-savings per averted case of opioid misuse \$7,500</p>	<p>Authors state SFP+LST is cost-effective: Cost to avert opioid misuse (\$3,959) < societal</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Intervention cost and cost per intermediate health outcome</p> <p>Substances Focus: Benefits modeled for opioids</p> <p>Funding Source: National Institute on Drug Abuse</p> <p>Monetary Values: Assumed reported in 2006 U.S. dollars.</p>	<p>chosen based on: school enrollment 1301 to 5200; ≥15% eligible for reduced school lunch; ≤50% employed at or attending college/university; no other ongoing university-sponsored youth programs.</p> <p>Sample Size (students): Intervention Life Skills Training 1,166 All Stars 1,936 Project Alert 924 Control 5,292 (No details)</p> <p>Characteristics: White 98% Dual parent 50.2% Child female 50% Child mean age 11.9y Urbanicity: Rural Household Annual Income \$50,174</p> <p>Time Horizon: Pre-test from 2002-2010 during 6th grade. Follow-up through grade 12. Family component</p>	<p>Multiple interventions delivered within the PROSPER delivery system: SFP plus school-based intervention: SFP +LST SFP+All Stars SFP+Project Alert.</p> <p>SFP develops parenting skills, parent-child relationships, and adolescent skills. LST develops youth attitudes, norms, information, and substance use resistance and refusal skills.</p> <p>All Stars is school-based program for adolescents age11-14 designed to prevent substance abuse and other high risk behaviors as well as promote healthy and positive behaviors of decision-making, goal setting, and peer pressure resistance.</p> <p>Project ALERT is school-based substance use prevention program to identify and resist the internal and social pressures that encourage substance use.</p> <p>Comparison: No intervention</p>	<p>SFP+Project Alert +0.9.</p> <p>Change in probability that a youth would report missing prescription before grade 12 versus control: SFP+LST -9.5 (significant) SFP+All Stars -7.6% (significant); SFP+Project Alert -1.6% (Not significant)</p> <p>Note SFP+Project Alert SFP was not effective and hence not considered for further economic analysis.</p> <p>Data Source: Self-report.</p>	<p>financial incentives, supplies, volunteer and in-kind donations.</p> <p>Source: Budget data, trial records, volunteer time.</p> <p>Quality: Good</p> <p>Incremental intervention cost to prevent 1 prescription opioid misuse before Grade 12: SFP+LST \$3,959 SFP+All Stars \$4,923</p> <p>Quality: Good</p>	<p>Components of intervention benefit: healthcare, productivity, crime, mortality</p> <p>Source and Method: Societal burden literature for opioid misuse</p> <p>Quality: Good</p>	<p>savings from averted opioid misuse (\$7,500)</p> <p>Authors state SFP+All Stars is cost-effective: Cost to avert opioid misuse (\$4,923) < societal savings from averted opioid misuse (\$7,500)</p> <p>Quality: Good</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
	Strengthening Families Program (SFP) offered in Grade 6 and the school-based interventions offered in Grade 7. Follow-up in grades 7 though 12.					
<p>Author (Year): Dembo et al. (2002)</p> <p>Design: Pre to Post</p> <p>Economic Outcome: Intervention cost and intervention benefit</p> <p>Substances Focus: Alcohol</p> <p>Funding Source: National Institute on Drug Abuse</p> <p>Monetary Values: Assumed reported in 2000 U.S. dollars.</p>	<p>Location: Hillsborough County, Florida, USA</p> <p>Setting: Home</p> <p>Population: Recruited from juvenile offenders arrested on misdemeanor or felony charges in Hillsborough County Juvenile Assessment Center. Recruitment based on gender and race by White, Latino, African American. Latino and female oversampled.</p> <p>Sample Size (participants): Intervention 315 Control NR</p> <p>Characteristics:</p>	<p>Program Name Intervention & Comparison: Family Empowerment Intervention (FEI) as part of Youth Support Project (YSP).</p> <p>Intervention: 24-hour access to YSP staff who provided access and referrals to community resources. Personalized home visits by consultants to: restore family hierarchy; set parent-child boundaries; encourage parent responsibility; set rules and consequences; improve parent skills; set parent expectations; improve problem-solving skills among youth; improve communications; improve family contacts with school, church, community activities. Family interventions delivered by trained consultants who were not therapists, where training and supervision was by licensed clinicians.</p>	<p>Effectiveness: No difference between intervention and control.</p> <p>Significant decrease in getting high or drunk on alcohol comparing FEI completers to all other youth and to non-completers.</p> <p>Data Source: Self-report.</p>	<p>Intervention Costs: Mean cost per Family \$1,500</p> <p>Components of intervention cost: NR</p> <p>Source: NR</p> <p>Quality: Fair</p>	<p>Intervention Benefits: Justice system savings due to averted incarcerations (diversion to FEI program) \$95 per day per person detained</p> <p>Components of intervention benefit: savings to justice system due to avoided incarcerations</p> <p>Source and Method: Hillsborough County Sheriff, Public Defender, State</p>	<p>Economic Summary Measure: Justice system 2-year net cost (savings – program cost): \$934,000</p> <p>Quality: Limited</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
	<p>Race African American 41% White 56% Other 3%</p> <p>Ethnicity Hispanic or Latino 26% Parent mother only 51% Child female 44% Child mean age 14.5 y Child in special education 44% Urbanicity: Urban Parent semi-skilled or unskilled occupation 37%</p> <p>Reason for arrest: Felony property 52% Misdemeanor property 41% Felony 17% Misdemeanor violence or drug 6%</p> <p>Time Horizon: Initial interviews September 1, 1994 through January 31, 1998. Three 1-hour meeting per week for 10 weeks (30 sessions) with entire family.</p>	<p>Comparison: YSP services and referrals. Received monthly calls to maintain contact.</p>			<p>Attorney's Office</p> <p>Quality: Limited</p>	

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Author (Year): Guyll et al. (2011)</p> <p>Design: RCT</p> <p>Economic Outcome: Cost-benefit</p> <p>Substances Focus: Methamphetamine</p> <p>Funding Source: National Institute on Drug Abuse, National Institute on Alcohol Abuse and Alcoholism</p> <p>Monetary Values: Assumed reported in 2006 U.S. dollars.</p>	<p>Location: Iowa, USA</p> <p>Setting: School, community</p> <p>Population: Communities for the PROSPER trials chosen based on: school enrollment 1,301 to 5,200; ≥15% eligible for reduced school lunch; ≤50% employed at or attending college/university; no other ongoing university-sponsored youth programs.</p> <p>Sample Size (youth): Intervention and Control Study 1 446 Study 2 2,679</p> <p>Characteristics (Study 1 and Study 2): White 98% and 99% Mean mother age 37.2 y and 39 y Dual parent 86% and 87%</p>	<p>Iowa Strengthening Families Program (ISFP) and Strengthening Families Program+Lifeskills Training (SFP+LST)</p> <p>Intervention: ISFP in Study 1 and SFP+LST in Study 2. ISFP included both parents and adolescents focused on parenting skills, parent-child relationships, and adolescent skills. LST for adolescents only and concentrated on youth attitudes, norms, information, and substance use resistance and refusal skills. The SFP is an adaptation of ISFP where both parents and youth participate with the same focus areas as ISFP.</p> <p>Comparison: No intervention</p>	<p>Number of methamphetamine use averted: ISFP 0.039 SFP+LST 0.0178</p> <p>Data Source: Self-report.</p>	<p>Mean cost per youth ISFP \$990 SFP+LST \$1,116</p> <p>Components of intervention cost: Wages, training, advertisements, childcare, parent travel, overheads, family financial incentives for ISFP. Wages, training, supplies for LST.</p> <p>Source: Trial records</p> <p>Quality: Good</p> <p>Intervention cost per averted case of methamphetamine use: ISFP \$25,385 SFP+LST \$62,697</p> <p>Source: Trial records</p> <p>Quality: Good</p>	<p>Employer savings per averted case of methamphetamine use \$97,532</p> <p>Components of intervention benefit: healthcare, productivity, worksite crime</p> <p>Source and Method: National Survey on Drug Use and Health (2001-2006). Prevented methamphetamine use from effectiveness analysis. BLS and Association of Certified Fraud Examiners for cost of employment-related behaviors.</p> <p>Quality: Good</p>	<p>Benefit to Cost Ratio (benefit over cost per averted case of methamphetamine use) ISFP 3.84 SFP+LST 1.56</p> <p>Quality: Good</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
	<p>Child female 52% and 46% Urbanicity: Rural Mean Household Annual Income \$34,000 and \$43,000</p> <p>Time Horizon: Pretest for the 2 studies were in 1993 and 1998, respectively. ISFP had 7 sessions. SFP+LST had 22 sessions.</p>					
<p>Author (Year): Haggerty et al. (2015)</p> <p>Design: RCT</p> <p>Economic Outcome: Intervention cost</p> <p>Substances Focus: Alcohol, cannabis, unspecified drugs</p> <p>Funding Source: National Institute on Drug Abuse</p>	<p>Location: Seattle, Washington, USA</p> <p>Setting: School, home for self-managed</p> <p>Population: White and African American parent and child in 8th grade in Seattle public schools</p> <p>Sample Size (families): Group sessions 118 Self-managed 106 Control 106</p> <p>Characteristics White 51% African American 49%</p>	<p>Staying Connected with Your Teen</p> <p>Intervention: Consists of 108-page workbook and 117-min video. Improve family management through guidelines, monitoring, and consistent and fair positive and negative consequences for behavior, and prevention if communication dropoff in high school. One arm was self-managed and second arm was group based. One chapter per week from workbook. Parent and child viewed video, separated to practice skills, and met again for structured family interaction tasks. Self-administered groups were</p>	<p>Measurements taken at baseline (8th grade) and 9th and 10th grades and at age 20.</p> <p>For group sessions, there was small but significant reduction in young adult drug use frequency.</p> <p>For self-administered among Whites, there was significant reduction in young adult drug use frequency and not</p>	<p>Mean cost per family Group sessions cost \$728 Self-administered sessions \$254</p> <p>Components of intervention cost: NR</p> <p>Source: NR</p> <p>Quality: Fair</p>	NR	NR

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<p>Monetary Values: Reported in 2005 U.S. dollars.</p>	<p>Parent female 80% Annual household income African American \$7,807 White \$21,970. Single parent African American 57% White 24% College graduate African American 13% White 61% Urbanicity: urban</p> <p>Time Horizon: Three 2.5-hr sessions and 4 2-hr sessions over 7 weeks during grade 8.</p>	<p>mailed materials and given 10 weeks to complete video and workbook, with phone discussions.</p> <p>Comparison: No intervention</p>	<p>significant for African Americans.</p> <p>Data Source: Self-report. Structural equations latent variable modeling</p>			
<p>Author (Year): Kuklinks et al. (2015)</p> <p>Design: Model</p> <p>Economic Outcome: Cost-benefit</p> <p>Substances Focus: Alcohol, tobacco</p> <p>Funding Source: National</p>	<p>Location: Colorado, Illinois, Kansas, Maine, Oregon, Utah, Washington, USA</p> <p>Setting: School, community</p> <p>Population: Students ages 10-14 years and their families in communities where schools agree to implement intervention.</p>	<p>Communities that Care (CTC)</p> <p>Intervention: 12 communities chose interventions they would implement. The family-based interventions that were implemented during grades 5 through 6 were (in order of decreasing frequency): Guiding Good Choices, Strengthening Families, Family Matters, Parenting Wisely, and Parents Who Care. School-based curriculum interventions included: All Stars, Life Skills</p>	<p>Odds ratio for abstinence at Grade 12 from: Delinquency 1.29 Alcohol use 1.43 Cigarette smoking 1.25</p> <p>All odds ratios were significant.</p> <p>Data Source: Self-report. Generalized linear mixed model adjusting for baseline</p>	<p>Mean cost per youth \$556 (Min \$376, Max \$761)</p> <p>Components of intervention cost: Staff wages, CTC and coalition staff wages, curriculum materials, program implementation, training, technical assistance, monitoring, incentives-meals-child</p>	<p>Mean total benefits per youth: \$4,477 with 95% CI (\$4,413, \$4,540)</p> <p>Components of intervention benefit: Labor market earnings, and averted crime, healthcare, property loss,</p>	<p>Benefit to Cost Ratio 8.22</p> <p>Low 8.08 and high 8.36</p> <p>100% of Monte Carlo simulations showing benefits exceed cost.</p> <p>Quality: Good</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Institute on Drug Abuse, National Institute of Child Health and Human Development, National Cancer Institute, National Institute of Mental Health, Center for Substance Abuse Prevention, National Institute on Alcohol Abuse and Alcoholism</p> <p>Monetary Values: Reported in 2011 U.S. dollars.</p>	<p>Sample Size (students): Intervention 2,193 Control 1,797</p> <p>Characteristics White 64% African American 3% Native American 5% Asian 1% Hispanic or Latino 20% Other 7% Child female 50% Urbanicity: Small to midsize towns</p> <p>Time Horizon: 5-year trial started in 2003 and ended in 2008. Follow-up in Grade 12, 3 years after support ended.</p>	<p>Training, Lion's Quest for Adolescents, Program development evaluation, Project Alert, Olweus Bullying Prevention, Project Towards, No drug Abuse. After school interventions were: Stay Smart, Participate and Learn Skills, Big Brother/ Big Sister, tutoring, Valued Youth.</p> <p>Comparison: No intervention</p>	<p>characteristics and demographics</p>	<p>care in certain communities</p> <p>Source: Invoices and documentation from participating communities, logs and documentation from CTC staff</p> <p>Quality: Good</p>	<p>mortality, negative benefit of deadweight loss due to tax.</p> <p>Source and Method: WSIPP model parameters and inputs based on program evaluation studies and program implementers.</p> <p>Quality: Good</p>	
<p>Author (Year): McCollister et al. (2014)</p> <p>Design: RCT</p> <p>Economic Outcome: Family financial incentives</p> <p>Substances Focus:</p>	<p>Location: Miami-Dade, Florida, USA</p> <p>Setting: School, community</p> <p>Population: Hispanic families with adolescents</p> <p>Sample Size (families): Intervention 109</p>	<p>Familias Unidas</p> <p>Intervention: Objective of present study is to determine whether financial incentives sufficient to cover opportunity cost for parents and adolescent participation and engagement. Uses Caretaker Drug Abuse Treatment Cost Analysis Program (Caretaker DATCAP).</p>	<p>Participation was 88% for family sessions and 79% for group sessions.</p> <p>Attendance rate for the uncompensated Prado 2012 study was 49% for group sessions</p>	<p>Opportunity cost per family \$571.57 with SD \$409.39</p> <p>Components of intervention cost: transport, time to participate, child-care, time on phone calls, work loss</p>	<p>NR</p>	<p>NR</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Unspecified substances</p> <p>Funding Source: National Institute on Drug Abuse</p> <p>Monetary Values: Reported in 2009 U.S. dollars.</p>	<p>Control 104</p> <p>Characteristics: Hispanic or Latino 100% Annual household income < \$30,000 86% Resident in US > 10 years 72% Urbanicity: Urban</p> <p>Time Horizon: Cost study ran from August through September 2009. Intervention was 4 months duration with booster every 6 months. 9 2-hour sessions for parents and 10 1-hour sessions for parents and adolescents together.</p>	<p>Familias Unidas is Hispanic-specific family-based intervention to prevent adolescent problem behaviors and substance use and HIV. Intervention improves awareness, promotes communication, and provides skills to raise adolescents in the US.</p> <p>Comparison: No intervention</p>	<p>and 75% for family sessions.</p> <p>Compensation appears to increase participation and engagement.</p> <p>Data Source: Self-report on surveys</p>	<p>Source: Self-report on surveys</p> <p>Quality: Fair</p>		
<p>Author (Year): Segrott et al. (2022)</p> <p>Design: RCT</p> <p>Economic Outcome: Cost-effectiveness</p> <p>Substances Focus:</p>	<p>Location: Wales, United Kingdom</p> <p>Setting: Community</p> <p>Population: Families with children age 10-14 y. Recruitment through fliers and information in schools, community events, community centers, and social</p>	<p>Strengthening Families Program (SFP) adapted to United Kingdom</p> <p>Intervention: Universal provision with intensity based on need (risk). Structured intervention with manuals delivered through existing UK channels that tended to be targeted based</p>	<p>Alcohol use and alcohol drunkenness past 30 days at 24 months increased but not significant (OR 1.11 and 1.46). Similarly, there were no statistically significant differences</p>	<p>Total cost was for intervention and control £1,163,278. Per participant cost for intervention and control £1,240.</p> <p>Components of intervention cost: Staff time, training, participant time, facilities and</p>	<p>No difference in healthcare utilization or utilization of other services at 9, 15, and 24 months.</p> <p>No difference in quality of life for adults.</p>	<p>Incremental EQ-5D for adults</p> <p>Incremental cost £904</p> <p>Hence, intervention was dominated, that is QALY</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Alcohol, cannabis, tobacco, unspecified drugs</p> <p>Funding Source: Welsh government, Medical Research Council, NICE, Alzheimers Research trust, Alzheimers Society, British Heart Foundation, Cancer Research UK, Scottish Government, Cardiff Strengthening Families Program, Wellcome Trust</p> <p>Monetary Values: Assumed reported in 2010 U.K. pounds</p>	<p>media. Families were referred or self-referred.</p> <p>Sample Size: Intervention Families 361, Children 477 Control Families 354, Children 454</p> <p>Characteristics White 99.6% Median parent age 37 y Parent female 22.3% Single parent 14.8% Child female 56.4% and 46% Median child age 12 y Urbanicity: Mixed Family affluence: Low 21.0%, Medium 48.8%, High 30.2%</p> <p>Time Horizon: Recruitment February 8, 2010 through June 18, 2012.7 weekly sessions of 2 hours each.</p>	<p>on need. Objective was preventing alcohol misuse, followed by drug misuse, smoking, alcohol initiation and problems, and school performance. Delivered by existing multi-agency trained staff responsible for supporting families or substance misuse prevention. 7 weekly sessions of 2 hours each. First hour for child and parent separately and second hour for parent/child joint session. Implemented in 56 programs/sites.</p> <p>Comparison: Usual services provided in area for family, school, mental health, substance use.</p>	<p>between groups or subgroups.</p> <p>Data Source: Self-report.</p>	<p>equipment, promotion and recruitment</p> <p>Source: Trial records and interviews with implementers</p> <p>Quality: Good</p>	<p>Increase of quality of life for children by 0.013 per child at 24 months.</p> <p>Components of intervention benefit: healthcare, quality of life</p> <p>Source and Method: healthcare cost from claims, quality of life from EQ-5D</p> <p>Quality: Good</p>	<p>were lost with increased cost.</p> <p>Quality: Fair</p>
<p>Author (Year): Spoth et al. (2002)</p> <p>Design: RCT</p>	<p>Location: Iowa, USA</p> <p>Setting: School, community</p>	<p>Iowa Strengthening Families Program (ISFP) Preparing for the Drug Free Years (PDFY a.k.a. Guiding Good Choices)</p>	<p>Incremental alcohol disorders prevented per</p>	<p>Mean cost per family ISFP \$688.56 PDFY \$555.67</p>	<p>Lifetime benefit per alcohol-use disorder</p>	<p>Benefit to Cost Ratio (benefit over cost per averted)</p>

Study Information	Study and Population Characteristics	Program Name Intervention & Comparison	Effectiveness	Intervention Costs	Intervention Benefits	Economic Summary Measure
<p>Economic Outcome: Cost-benefit</p> <p>Substances Focus: Alcohol</p> <p>Funding Source: National Institute on Drug Abuse, National Institute of Mental Health</p> <p>Monetary Values: Reported in 1992 U.S. dollars.</p>	<p>Population: Families of 6th graders in 33 rural schools in 19 contiguous counties in Iowa.</p> <p>Sample Size (families): Intervention ISFP 162 (117 attended) PDFY 153 (124 attended) Control 163 (No details)</p> <p>Characteristics: White 98.8% Mean mother age 37.2 y Mean father age 40.1 y Dual parent 86.1% Child female 54.8% Urbanicity: Rural 97% of mothers and 96.3% of fathers completed high school Median household income \$34,000</p> <p>Time Horizon: 4 year study starting in 6th grade. Follow-up at grade 7, 8 and 10.</p>	<p>Intervention: ISFP and PDFY are small group with 7 sessions for ISFP and 5 sessions for PDFY. Both designed to enhance family protective factors and reduce family risk factors. Both were family focused but ISFP had more targeted sessions for children and more parent-child interactive activities.</p> <p>Comparison: No intervention</p>	<p>100 families versus control: ISFP 5.6 PDFY 2.7</p> <p>Data Source: Life-time alcohol ever use extrapolated from self-reported alcohol use onset from birthdate to test date.</p>	<p>Components of intervention cost: Wages, training, materials, family incentives, site management, facilitation, childcare, parent travel, advertisements</p> <p>Source: Project and trial records</p> <p>Quality: Good</p> <p>Intervention cost per alcohol disorder prevented ISFP \$12,459 PDFY \$20,439</p> <p>Source: Trial records and effectiveness data</p> <p>Quality: Good</p>	<p>prevented \$119,633</p> <p>Components of intervention benefit: healthcare, mortality, crime, injury, property</p> <p>Source and Method: Based on annual cost of alcohol disorders published elsewhere.</p> <p>Quality: Good</p>	<p>alcohol disorder) ISFP 9.60 PDFY 5.85</p> <p>Quality: Good</p>

Programs Evaluated by Washington State Institute for Public Policy (WSIPP)

WSIPP - Methods

Program Effect	Program Cost	Program Benefits	Cost-Benefit
<p>Candidate studies are searched from peer-reviewed, government, and NGO sources.</p> <p>Studies are classed in decreasing order of strength for causal inference: experiment, natural experiment, quasi-experiment, other (which are excluded from review)</p> <p>Individual study effects adjusted for:</p> <ul style="list-style-type: none"> • Methodological quality • Appropriateness to Washington population • Relevance for topic and cost-benefit assessment <p>Effect size obtained from adjusted estimates by meta-analysis and meta-regression, where possible.</p>	<p>Cost of program drawn from peer-reviewed studies or program developers.</p> <p>If primary studies or reports unavailable for program cost, the resources necessary are derived from program description and the resources are costed based on unit prices in State of Washington.</p> <p>Uncertainty of program cost estimates defined as bands ranging from +/-10% to +/-50%</p> <p>Program cost calculated for lifetime of participants and appropriately discounted.</p>	<p>Adjusted effect sizes converted to monetizable natural units (e.g., averted number of alcohol disorders or dependencies, high school graduation)</p> <p>Persistence or decay of effects accounted through second measurement of effect (e.g., at 10-year follow-up)</p> <p>Common monetizable effects in WSIPP-evaluated programs included in present review</p> <ul style="list-style-type: none"> • Substance use outcomes at end of middle school or at end of high school • Cannabis, opioids, and alcohol disordered use (DSM-defined abuse or dependency) • Regular (daily) tobacco use <p>Other outcomes reported in substance use studies or outcomes associated with substance use</p> <ul style="list-style-type: none"> • Test scores or high school graduation • Crime <p>Benefit and cost impacts on various sectors of society/economy calculated for lifetime of participants starting from year of intervention, appropriately discounted</p> <p>Areas or sectors of impact in WSIPP-evaluated programs included in present review</p> <ul style="list-style-type: none"> • Labor market earnings • Crime – for justice system and victims • Healthcare – associated morbidity and substance use treatment • Mortality • Property loss – alcohol related crashes • Deadweight loss of taxes – taxes to fund the program 	<p>Cost-benefit outcome calculated as the ratio of total benefits to total program cost.</p> <p>All cost-benefit input and outcome estimates are reported with their distributions, wherever possible</p> <ul style="list-style-type: none"> • mean and standard deviation • mode and range <p>Uncertainty of benefit to cost ratio expressed as probability that benefits will exceed cost, based on Monte Carlo simulations</p> <ul style="list-style-type: none"> • random draws from key inputs and parameter values and repeated 10,000 times

WSIPP – Programs

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
<p>CASASTART (California's Striving Together to Achieve Rewarding Tomorrows)</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol, illicit drugs</p> <p>Monetary Values: Reported in 2022 U.S. dollars.</p>	<p>Program to prevent use of drugs, alcohol, or encounter with the juvenile justice system. Composed of intensive case management; family services such as counseling and parent training; community-enhanced policing; after-school activities; tutoring; mentoring; vouchers; and special events. Monitored by a case manager that coordinates the youth, their families, their teachers, police officers, social service agencies, and neighborhood residents. Intervention approximately 24 months. Targets youth aged 11 to 13 in neighborhoods with lower socioeconomic status.</p>	<p>Program Cost \$14,768 per youth</p> <p>Components: Staff labor, staff training, parent or caregiver financial incentives</p> <p>Quality: Good</p> <p>Program benefits -\$4,917</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio -0.33</p> <p>Likelihood benefits exceed cost 9%</p> <p>Quality: Good</p>
<p>Communities That Care</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol</p> <p>Monetary Values: Reported in 2022 U.S. dollars.</p>	<p>Coalition-based community prevention to prevent youth problem behaviors including underage drinking, tobacco use, violence, delinquency, school dropout, and substance abuse. Works through a community board to assess risk and protective factors among the youth in their community using a population-based survey of young people. The board works to implement tested and effective programs to address the issues and needs that are identified.</p>	<p>Program Cost \$698 per youth</p> <p>Components: Staff labor, staff training, parent or caregiver financial incentives</p> <p>Quality: Good</p> <p>Program benefits \$3,967</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 5.69</p> <p>Likelihood benefits exceed cost 87%</p> <p>Quality: Good</p>
<p>Computer-based substance use prevention programs</p> <p>Setting: School, home, community</p> <p>Substances Focus: Alcohol, tobacco, cannabis</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Uses technology to deliver interactive materials to teach youth about the dangers of drug and tobacco use, encourage resistance skills, and change attitudes towards substance use. These programs generally include quizzes, surveys, and feedback. They can be implemented in schools, at home, community centers, or primary care facilities. Project ASPIRE and Smoking Zine are two name-brand programs included in this evaluation.</p>	<p>Program Cost \$84 per youth</p> <p>Components: NR</p> <p>Quality: Fair</p> <p>Program benefits \$2,411</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 28.83</p> <p>Likelihood benefits exceed cost 64%</p> <p>Quality: Fair</p>

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
<p>Familias Unidas</p> <p>Setting: School, home</p> <p>Substances Focus: Alcohol, tobacco, cannabis, unspecified substance, illicit drugs</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Family-based prevention program designed to prevent substance abuse, risky sexual behavior, and behavior problems. Sessions are facilitated by two therapists or counselors and focus on positive parenting, family communication, parental monitoring, and adolescent risk (substance use, HIV) behaviors. Included both a general population as well as adolescents with behavior or delinquency problems. Involves eight parent group meetings and four family visits, either in homes or schools. Program duration ranges from six weeks to six months, with most included studies evaluating the three-month version. For Hispanic and Latino adolescents</p>	<p>Program Cost \$1,756 per participant</p> <p>Components: Staff labor, staff training</p> <p>Quality: Fair</p> <p>Program benefits \$7,317</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 4.17</p> <p>Likelihood benefits exceed cost 69%</p> <p>Quality: Fair</p>
<p>Family Matters</p> <p>Setting: Home</p> <p>Substances Focus: Alcohol, tobacco</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Family-focused prevention program consisting of four booklets, describing activities for parents and youth to complete, mailed to participating families. Each booklet covers a different topic. The books are titled "Why Families Matter," "Helping Families Matter to Teens," "Alcohol and tobacco Rules Are Family Matters," and "Nonfamily Influences That Matter." Two weeks after each booklet is mailed, parents receive a phone call from a health educator to encourage completion of activities. The average family completes the program over the course of several months.</p>	<p>Program Cost \$231 per family</p> <p>Components: Staff labor, staff training</p> <p>Quality: Fair</p> <p>Program benefits \$2,124</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 9.19</p> <p>Likelihood benefits exceed cost 73%</p> <p>Quality: Fair</p>
<p>Guiding Good Choices (formerly Preparing for the Drug Free Years)</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol, tobacco, cannabis, illicit drugs</p>	<p>Program to improve parent-child interactions and reduce the risk for substance use initiation among middle school students. A trained group leader uses workbook and video-based discussion models to guide each session. Parents attend weekly group sessions lasting two hours for five weeks; youth accompany their parents to one of these sessions. The study in this evaluation included youth in 6th grade and their families.</p>	<p>Program Cost \$776 per family</p> <p>Components: Staff labor, staff training, parent or caregiver financial incentives</p> <p>Quality: Good</p> <p>Program benefits \$1,052</p> <p>Components:</p>	<p>Benefit-Cost Ratio 1.36</p> <p>Likelihood benefits exceed cost 51%</p> <p>Quality: Good</p>

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
Monetary Values: Reported in 2022 U.S. dollars		Crime, healthcare, labor market, property, mortality, deadweight loss Quality: Good	
New Beginnings for children of divorce Setting: Out-patient visit Substances Focus: Alcohol, cannabis, unspecified substance, illicit drugs Monetary Values: Reported in 2022 U.S. dollars	Parents attend group sessions in an outpatient setting to learn about problem-solving, discipline strategies, and other topics. Some programs also provide individual parent sessions, or both individual parent sessions and group therapy sessions for children. Weekly group sessions were provided for 10 or 11 weeks. On average, families received 17 hours of therapist time. Program to prevent adjustment problems for children whose parents have recently divorced. Programs served families with children who were 9 years old, on average.	Program Cost \$853 per participant Components: Staff labor, staff training, parent or caregiver financial incentives Quality: Good Program benefits -\$382 Components: Crime, healthcare, labor market, property, mortality, deadweight loss Quality: Good	Benefit-Cost Ratio 0.45 Likelihood benefits exceed cost 49% Quality: Good
Positive Family Support/Family Check-Up (a.k.a Adolescent Transitions) Setting: School Substances Focus: Alcohol, tobacco, cannabis, unspecified substance Monetary Values: Reported in 2022 U.S. dollars	Program is a three-tiered general prevention program implemented in middle schools. The first level is a universal school component that establishes a family resource center available to students and families. A six-week prevention curriculum delivered to students introduces them to this family resource. The second and third tiers provide more intensive services targeted to students with behavioral or emotional problems. The central component of these targeted services is the Family Check-Up, which includes a family assessment and motivational interviewing. Participating families received between 6 and 12 hours of services. Delivery by a variety of school staff, including school counselors, school psychologists, school social workers, administrators, teachers, etc.	Program Cost \$51 per family Components: Staff labor, staff training, supplies, family resource center Quality: Fair Program benefits \$11,652 Components: Crime, healthcare, labor market, property, mortality, deadweight loss Quality: Good	Benefit-Cost Ratio 227.16 Likelihood benefits exceed cost 71% Quality: Fair
Project Northland Setting: School, home	Multilevel, universal intervention designed to prevent substance use among adolescents in middle school. The 6 th grade home component targets parent-child communication via homework assignments, group discussions,	Program Cost \$114 per youth Components: Staff labor, staff training, supplies Quality: Fair	Benefit-Cost Ratio 3.21 Likelihood benefits exceed cost 56% Quality: Fair

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
<p>Substances Focus: Alcohol, tobacco, cannabis</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>and the establishment of a communitywide task force. The 7th grade school-based curriculum focuses on improving resistance skills and social norms regarding teen alcohol use, and includes class discussions, games, and role plays. The 8th grade components include the peer-led Powerlines curriculum, a mock town meeting, and a community action project.</p> <p>Targets families and their students in 6th, 7th, and 8th grades.</p>	<p>Program benefits \$367</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	
<p>Project STAR (Students Taught Awareness and Resistance, a.k.a the Midwestern Prevention Project)</p> <p>Setting: School, community</p> <p>Substances Focus: Alcohol, tobacco, cannabis, illicit drugs</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Comprehensive universal prevention program to prevent or reduce youth substance use. The school component is implemented at the transition to middle school and consists of 10-13 classroom lessons using active social learning techniques (e.g., role-playing and discussion) and homework, plus five booster sessions implemented in the following school year. Parent, community, and mass media components are also implemented over a three- to five-year period to address multiple influences on youth substance use. Starts with school-based component during transition to middle school.</p>	<p>Program Cost \$74 per youth</p> <p>Components: Staff labor, staff training, supplies</p> <p>Quality: Fair</p> <p>Program benefits \$3,067</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 41.37</p> <p>Likelihood benefits exceed cost 72%</p> <p>Quality: Fair</p>
<p>PROSPER (PROmoting School-community-university Partnerships to Enhance Resilience)</p> <p>Setting: School</p> <p>Substances Focus: Alcohol, tobacco, cannabis, illicit drugs</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Community-university partnership model is a delivery system designed to help communities implement effective programs to prevent substance use and problem behaviors in youth. Local teams comprising staff from the university Cooperative Extension System, representatives and service providers from the public school system, youth and parents, and other community stakeholders. These teams implement one school-based program and one family-based program from a menu of effective programs. PROSPER teams offer technical assistance, coordination, and other supports. In addition, this intervention includes needs</p>	<p>Program Cost \$402 per participant</p> <p>Components: Staff labor, staff training, parent or caregiver financial incentives, supplies, overhead, implementation</p> <p>Quality: Good</p> <p>Program benefits \$352</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 0.88</p> <p>Likelihood benefits exceed cost 44%</p> <p>Quality: Good</p>

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
	assessments, quality assurance, fundraising support, and evaluation.		
<p>Strengthening Families for Parents and Youth 10-14</p> <p>Setting: School</p> <p>Substances Focus: Alcohol, tobacco, cannabis, unspecified substance, illicit drugs</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Program to Reduce behavior problems and substance use by enhancing parenting skills, parent-child relationships, and family communication. Trained group leaders use Strengthening Families curriculum and videos. Parents and youth attend weekly group sessions lasting two hours for seven weeks. Each session includes a separate, concurrent one-hour parent and youth skills-building session followed by a one-hour family session. The studies in this analysis included middle school students and their families.</p>	<p>Program Cost \$653 per participant</p> <p>Components: Staff labor, staff training, supplies, parent or caregiver financial incentives</p> <p>Quality: Good</p> <p>Program benefits \$3,836</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 5.87</p> <p>Likelihood benefits exceed cost 60%</p> <p>Quality: Good</p>
<p>Strong African American Families</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Program is a seven-week community-based program developed for African American youth ages 11-12 and their caregivers to prevent youth drug and alcohol abuse and postpone youth sexual involvement. Families meet in interactive small groups with trained facilitators once a week for 2 hours. Lessons are intended to promote regulated, communicative parenting (monitoring and setting limits, clear communication around expectations about alcohol and sex, and racial socialization), as well as youth protective factors. Duration is 7 weeks. Targets African American youth ages 11-12 years.</p>	<p>Program Cost \$850 per family</p> <p>Components: Staff labor, staff training, supplies, implementation</p> <p>Quality: Fair</p> <p>Program benefits \$1,944</p> <p>Components: Crime, healthcare, labor market, property, mortality, deadweight loss</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 2.29</p> <p>Likelihood benefits exceed cost 56%</p> <p>Quality: Fair</p>
<p>Strong African American Families—Teen</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol</p>	<p>Program is a five-week community-based program developed for 16 year old African American youth and their caregivers to deter youth substance use, conduct problems, and depressive symptoms. Families meet in interactive small groups with trained facilitators once a week for 2 hours. Lessons are intended to promote protective caregiving (setting limits, monitoring, racial pride and</p>	<p>Program Cost \$629 per family</p> <p>Components: Staff labor, staff training, supplies, implementation</p> <p>Quality: Fair</p> <p>Program benefits \$2,279</p> <p>Components:</p>	<p>Benefit-Cost Ratio 3.62</p> <p>Likelihood benefits exceed cost 59%</p> <p>Quality: Fair</p>

Program Name Monetary Values	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit
Monetary Values: Reported in 2022 U.S. dollars	strategies for dealing with discrimination, monitoring and supporting academic achievement, and cooperative problem solving), as well as youth self-regulation. Duration is 6 weeks. Targets African American youth aged 16 years.	Crime, healthcare, labor market, property, mortality, deadweight loss Quality: Good	

Programs Evaluated in Substance Abuse and Mental Health Services Administration 2008 (SAMHSA 2008)

SAMHSA 2008 - Methods

Program Effect	Program Cost	Program Benefits	Cost-Benefit	QALY	Cost per QALY
Intervention effect - meta-analysis using data from WSIPP 2004, ¹ Hansen 2005 ² (SAMHSA internal report), primary evaluation studies	Intervention Cost drawn from WSIPP 2004, primary evaluation studies, education and training resource, ³ Maryland governor's office on youth programs ⁴ No uncertainty.	Modeled outcomes from substance use outcomes to sectoral benefits using modified Rand model ⁵ No uncertainty.	Cost-benefit measured as benefit to cost ratio which is ratio of total benefits to program cost. No uncertainty.	QALY obtained by translating emergency department physician score on bending, grasping, lifting, cognitive, mobility, sensory, cosmetic, and pain dimensions in Databook on Nonfatal Injury. ⁶ Translation to QALY achieved using relationship between observable losses in quality of life and surveys measuring the losses on a 0 (death) to 1 (perfect health) scale. No uncertainty.	Cost per QALY gained = Net cost/QALY gained Net cost= program cost - averted healthcare cost No uncertainty

¹Benefits and Costs of Prevention and Early Intervention Programs for Youth - Summary Report (wa.gov).

wsipp.wa.gov/ReportFile/882/Wsipp_Benefits-and-Costs-of-Prevention-and-Early-Intervention-Programs-for-Youth_Appendix-A.pdf

²Hansen, W.B., et al., (2004). Analysis of the magnitude of effects of substance abuse prevention programs included in the National Registry of Effective Programs Through 2003: A core components analysis. Washington, DC. SAMHSA Internal document.

³[Center for the Application of Prevention Technologies \(CAPT\) | EDC](http://www.capt.edc.org/)

⁴<https://goccp.maryland.gov/>

⁵[School-Based Drug Prevention: What Kind of Drug Use Does It Prevent? | RAND](http://www.rand.org/pubs/monographs/2004/01/School-Based_Drug_Prevention_What_Kind_of_Drug_Use_Does_It_Prevent_.pdf)

⁶Miller, Ted R. Databook on nonfatal injury: Incidence, costs, and consequences. The Urban Insitute, 1995.

SAMHSA 2008 – Programs

Program Name	Program and Population Characteristics	Program Cost	Program Benefits	Cost-Benefit	Cost per QALY
Adolescent Transitions (a.k.a Positive Family Support)	Program is a three-tiered general prevention program implemented in middle schools. The first level is a universal school component that establishes a family resource center available to students and families.	Program cost per youth \$1,200	Components: Staff labor, staff training	Benefit-Cost Ratio 7.80	Quality: Fair
Setting: School	A six-week prevention curriculum delivered to students introduces them to this family resource. The second and third tiers provide more intensive services targeted to students with behavioral or emotional problems. The central component of	Quality: Fair	Program benefits \$9,500	Cost per QALY Gained \$10,300	Quality: Fair
Substances Focus:					

Program Name	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit Cost per QALY
<p>Alcohol, tobacco, cannabis, unspecified substance</p> <p>Monetary Values: Reported in 2002 U.S. dollars</p>	<p>these targeted services is the Family Check-Up, which includes a family assessment and motivational interviewing. Participating families received between 6 and 12 hours of services. Delivery by a variety of school staff, including school counselors, school psychologists, school social workers, administrators, teachers, etc.</p>	<p>Components: Crime, healthcare, mortality</p> <p>Quality: Good</p>	
<p>CASA Start (Californians Striving Together to Achieve Rewarding Tomorrows)</p> <p>Setting: Community</p> <p>Substances Focus: Alcohol, illicit drugs</p> <p>Monetary Values: Reported in 2002 U.S. dollars</p>	<p>Program to prevent use of drugs, alcohol, or encounter with the juvenile justice system. Composed of intensive case management; family services such as counseling and parent training; community-enhanced policing; after-school activities; tutoring; mentoring; vouchers; and special events. Monitored by a case manager that coordinates the youth, their families, their teachers, police officers, social service agencies, and neighborhood residents.</p> <p>Intervention approximately 24 months.</p> <p>Targets youth aged 11 to 13 in neighborhoods with lower socioeconomic status.</p>	<p>Program cost per youth \$5,650</p> <p>Components: Staff labor, staff training</p> <p>Quality: Fair</p> <p>Program benefits \$4,900</p> <p>Components: Crime, healthcare, mortality</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 0.9</p> <p>Quality: Fair</p> <p>Cost per QALY Gained \$173,000</p> <p>Quality: Fair</p>
<p>Family Matters</p> <p>Setting: Home</p> <p>Substances Focus: Alcohol, tobacco</p> <p>Monetary Values: Reported in 2002 U.S. dollars</p>	<p>Family-focused prevention program consisting of four booklets, describing activities for parents and youth to complete, mailed to participating families. Each booklet covers a different topic. The books are titled "Why Families Matter," "Helping Families Matter to Teens," "Alcohol and tobacco Rules Are Family Matters," and "Nonfamily Influences That Matter."</p> <p>Two weeks after each booklet is mailed, parents receive a phone call from a health educator to encourage completion of activities. The average family completes the program over the course of several months.</p>	<p>Program cost per family \$160</p> <p>Components: Staff labor, staff training</p> <p>Quality: Fair</p> <p>Program benefits \$4,800</p> <p>Components: Crime, healthcare, mortality</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 30.0</p> <p>Quality: Fair</p> <p>Cost per QALY Gained Cost-saving</p> <p>Quality: Fair</p>
<p>Guiding Good Choices (a.k.a. Preparing for the Drus Free Years)</p> <p>Setting: Community</p> <p>Substances Focus:</p>	<p>Program to improve parent-child interactions and reduce the risk for substance use initiation among middle school students. A trained group leader uses workbook and video-based discussion models to guide each session. Parents attend weekly group sessions lasting two hours for five weeks; youth accompany their parents to one of these sessions.</p> <p>The study in this evaluation included youth in 6th grade and their families.</p>	<p>Program cost per Family \$710</p> <p>Components: Staff labor, staff training, parent or caregiver financial incentives</p> <p>Quality: Good</p>	<p>Benefit-Cost Ratio 3.40</p> <p>Quality: Good</p> <p>Cost per QALY Gained \$25,406</p> <p>Quality: Good</p>

Program Name	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit Cost per QALY
Alcohol, tobacco, cannabis, illicit drugs Monetary Values: Reported in 2002 U.S. dollars		Program benefits \$2,500 Components: Crime, healthcare, mortality Quality: Good	
Strengthening Families Setting: School Substances Focus: Alcohol, tobacco, cannabis, unspecified substance, illicit drugs Monetary Values: Reported in 2002 U.S. dollar	Program to Reduce behavior problems and substance use by enhancing parenting skills, parent-child relationships, and family communication. Trained group leaders use Strengthening Families curriculum and videos. Parents and youth attend weekly group sessions lasting two hours for seven weeks. Each session includes a separate, concurrent one-hour parent and youth skills-building session followed by a one-hour family session. The studies in this analysis included middle school students and their families.	Program cost per family \$880 Components: Staff labor, staff training, parent or caregiver financial incentives Quality: Good Program benefits \$10,000 Components: Crime, healthcare, mortality Quality: Good	Benefit-Cost Ratio 11.0 Quality: Good Cost per QALY Gained Cost-saving Quality: Good
Project Northland Setting: School, home Substances Focus: Alcohol, tobacco, cannabis Monetary Values: Reported in 2002 U.S. dollars	Multilevel, universal intervention designed to prevent substance use among adolescents in middle school. The 6 th grade home component targets parent-child communication via homework assignments, group discussions, and the establishment of a communitywide task force. The 7 th grade school-based curriculum focuses on improving resistance skills and social norms regarding teen alcohol use, and includes class discussions, games, and role plays. The 8 th grade components include the peer-led Powerlines curriculum, a mock town meeting, and a community action project. Targets families and their students in 6 th , 7 th , and 8 th grades.	Program cost per youth \$400 Components: Staff labor, staff training Quality: Fair Program benefits \$6,900 Components: Crime, healthcare, mortality Quality: Good	Benefit-Cost Ratio 17.0 Quality: Fair Cost per QALY Gained Cost-saving Quality: Fair
Project STAR (Students Taught Awareness and Resistance, a.k.a the Midwestern Prevention Project) Setting: School, community	Comprehensive universal prevention program to prevent or reduce youth substance use. The school component is implemented at the transition to middle school and consists of 10-13 classroom lessons using active social learning techniques (e.g., role-playing and discussion) and homework, plus five booster sessions implemented in the following school year. Parent, community, and mass media components are also	Program cost per youth \$400 Components: Staff labor, staff training Quality: Fair Program benefits \$4,100	Benefit-Cost Ratio 10.0 Quality: Fair Cost per QALY Gained \$2,300 Quality: Fair

Program Name	Program and Population Characteristics	Program Cost Program Benefits	Cost-Benefit Cost per QALY
<p>Substances Focus: Alcohol, tobacco, cannabis, illicit drugs</p> <p>Monetary Values: Reported in 2002 U.S. dollars</p>	<p>implemented over a three- to five-year period to address multiple influences on youth substance use. Starts with school-based component during transition to middle school.</p>	<p>Components: Crime, healthcare, mortality Quality: Good</p>	
<p>STARS for Families (Start Taking Alcohol Risks Seriously)</p> <p>Setting: School</p> <p>Substances Focus: Alcohol</p> <p>Monetary Values: Reported in 2022 U.S. dollars</p>	<p>Health promotion intervention designed to postpone alcohol. The two-year intervention includes a 20-minute nurse consultation, regular mailings to parents, and take-home lessons for parents and children. The program can be implemented in a variety of settings, including schools. Duration 2 years Targets at-risk middle and junior high school youth.</p>	<p>Program cost per youth \$120 Components: Staff labor, staff training Quality: Fair</p> <p>Program benefits \$490 Components: Crime, healthcare, mortality Quality: Good</p>	<p>Benefit-Cost Ratio 4.0 Quality: Fair</p> <p>Cost per QALY Gained Cost-saving Quality: Fair</p>

References

Beach SR, Barton AW, Lei MK, Mandara J, Wells AC, Kogan S.M, and Brody G.H. Decreasing substance use risk among African American youth: Parent-based mechanisms of change. *Prev Sci* 2016;17:572-583. <https://dx.doi.org/10.1007/s11121-016-0651-6>.

Prado G, Cordova D, Huang S, Estrada Y, Rosen A, Bacio GA, Jimenez GL, Pantin H, Brown C.H, Velazquez MR, and Villamar J. The efficacy of Familias Unidas on drug and alcohol outcomes for Hispanic delinquent youth: Main effects and interaction effects by parental stress and social support. *Drug and alcohol dependence* 2012;125:S18-S25. <http://dx.doi.org/10.1016/j.drugalcdep.2012.06.011>