

# Substance Use: Community Coalitions to Prevent Substance Use among Youth—Findings from a Community Guide Systematic Review

## Summary Evidence Table

### Abbreviations Used in This Document:

- Intervention components
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- Measurement terms
  - CI: Confidence interval
  - OR: Odds Ratio
  - IRR: Incidence rate ratio
  - RRR: Relative risk reduction or relative risk ratio
  - ARR: Adjusted risk ratio
- Study design and Risk of Bias
  - RCT: randomized controlled trial
- Other terms:
  - NA: not applicable
  - NR: not reported
  - NS: not significant
  - SES: socioeconomic status
  - Int: Intervention
  - Cont: Control
- Other terms (cont):
  - pct pts: percentage points
  - yrs: years
  - m: months
  - hr: hours
  - min: minutes

### Notes:

- Suitability of design includes three categories: greatest, moderate, or least suitable design. [Read more](#)
- Race/ethnicity of the study population: The Community Guide only summarizes race/ethnicity for studies conducted in the United States.
- For population characteristics, if a study reported intervention and control separately, intervention population characteristics were reported.

Study	Population Characteristics	Intervention Characteristics	Results
<p><b>Author (Year):</b> Anderson-Carpenter 2016</p> <p><b>Location:</b> Kansas (8 communities), USA</p> <p><b>Period for Study:</b> 6 years (72 months)</p> <p><b>Study Design:</b> Other design with concurrent comparison</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution (# of limitations):</b> Fair (4 limitations)</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Rural and urban</p> <p><b>Number of communities or school districts:</b> 25 school districts (11 intervention and 14 control)</p> <p><b>Inclusion/Exclusion:</b> intervention school districts were required to have Kansas CTC student survey data with participation rates of 50% or higher for at least two years prior to the intervention period and throughout the duration of the study. School districts were excluded if less than 50% of students in grades 6, 8, 10, and 12 participated in the KCTC Survey</p> <p><b>Sample size:</b> Entire accessible population 52,507 participants</p>	<p><b>Brief description of intervention and content:</b> Communities were funded to implement Strategic Prevention Framework. Community coalitions selected evidence-based prevention strategies to prevent underage drinking</p> <p>School-based interventions included: -School policies on alcohol and defined penalties -Collaborative activities</p> <p><b>Intervention/program name:</b> Strategic Prevention Framework (Kansas)</p> <p><b>Focus of intervention content or activities:</b> Alcohol use prevention</p> <p><b>Interventions selected for implementation:</b> School, community, retailer, enforcement, policy</p> <p><b>Intervention duration or intervention exposure period:</b> 36 months (24-47 months)</p> <p><b>Comparison group:</b> Usual care. Comparison communities were not funded</p>	<p><b>Outcome: Alcohol use-binge drinking</b> Measure: Prevalence of student in grades 6,8,10,12 self-reported binge drinking (five or more alcoholic drinks in a row) one or more times within a two-week period. Absolute change: -2.0 percentage points Relative change: -15.7% Narrative results: Both groups reported a reduction in binge drinking, with the decrease slightly larger in intervention communities. No significant differences between districts in the intervention versus comparison groups, <math>F(1,27) = 0.14, p = .713</math></p>

Study	Population Characteristics	Intervention Characteristics	Results
	<p><b>Study population:</b>  <b>Participants</b>  <b>Age:</b> NR  <b>Grade level:</b> 5<sup>th</sup>-12<sup>th</sup>  <b>Sex:</b> NR  <b>Race/ethnicity:</b> White 84%, Hispanic 6%  <b>Education:</b> NR  <b>Income:</b> NR  <b>Community characteristics:</b>  School district student participation in free/reduced lunch  Intervention districts: 37%  Comparison districts: 35%</p>	<p>to implement coalitions and SPF intervention process.</p>	
<p><b>Author (Year):</b> Chilenski 2019</p> <p><b>Location:</b> Pennsylvania, USA</p> <p><b>Period for Study:</b> 11 years (132 months)</p> <p><b>Study Design:</b> Other design with concurrent comparison</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations): Fair (4 limitations)</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Rural and suburban</p> <p><b>Number of communities or school districts:</b> 388 school districts</p> <p><b>Inclusion/Exclusion:</b> Included participating students in grades 6, 8, 10, and 12th grades in participating school/school districts.</p> <p><b>Sample size:</b> 470,795</p>	<p><b>Brief description of intervention and content:</b>  Communities that Care model implemented from 1995 and 2002 with the majority of coalitions continued beyond 3 years.</p> <p>The coalition matches existing evidence-based programs (EBPs) to their identified priorities and demographics.</p> <p>Interventions varied by community but CTC guidance favored universal interventions. Some CTC communities implemented programs targeting children and families (not adolescents).</p>	<p><b>Outcome: Alcohol use</b>  Measure: Students in grades 6,8,10, 12 self-reporting alcohol use in the past 30 day  Absolute change: -1.0 percentage points  Relative change: 5.0%  Narrative results: Adjusted OR=0.95 (95% CI 0.91, 0.99)</p> <p><b>Outcome: Alcohol use-binge drinking</b>  Measure: Students in grades 6,8,10, 12 self-reporting binge drinking in the past 2 weeks  Absolute change: -0.39 percentage points  Relative change: -6.0%  Narrative results: Adjusted OR=0.94 (95%CI 0.89, 0.99)</p> <p><b>Outcome: Alcohol use initiation</b>  Measure: Students in grades 6,8,10, 12 self-reporting alcohol use in lifetime  Absolute change: -1.96 percentage points  Relative change: -5.0%  Narrative results: Adjusted OR=0.95 (95%CI 0.89, 1.01)</p> <p><b>Outcome: Tobacco use</b></p>

Study	Population Characteristics	Intervention Characteristics	Results
	<p>(Number of student-reported observations across 6 survey waves)</p> <p><b>Study population: Participants</b>  <b>Age:</b> NR  <b>Grade level:</b> 6th, 8th, 10th, 12th  <b>Sex:</b> female 50% male 50%  <b>Race/ethnicity:</b> NR  <b>Education:</b> NR  <b>Income:</b> NR  <b>Community characteristics:</b>            Pennsylvania: Median household income is \$53,599, with a poverty rate of 12.9%</p>	<p><b>Intervention/program name:</b> Communities that Care (CTC) Pennsylvania</p> <p><b>Focus of intervention content or activities:</b>            General substance use prevention</p> <p><b>Interventions selected for implementation:</b>            School, family, community</p> <p><b>Intervention duration:</b>            Variable</p> <p><b>Comparison group:</b>            Comparison school districts did not have Communities that Care programs, but may have implemented other interventions</p>	<p><b>Measure:</b> Students in grades 6,8,10, 12 self-reporting cigarette use in the past 30 days            Absolute change: -0.56            Relative change: -11.0%            Narrative results: Adjusted OR=0.89 (95%CI 0.82, 0.95)</p> <p><b>Outcome: Tobacco use initiation</b>  <b>Measure:</b> Students in grades 6,8,10, 12 self-reporting cigarette use in lifetime            Absolute change: -1.28 percentage points            Relative change: -11.0%            Narrative results: Adjusted Odds ratio=0.89 (95%CI 0.83, 0.95)</p> <p><b>Outcome: Cannabis use</b>  <b>Measure:</b> Students in grades 6,8,10, 12 self-reporting marijuana use in the past 30 days            Absolute change: -0.75 percentage points            Relative change: -15.0%            Narrative results: Adjusted Odds ratio=0.85 (95%CI 0.79, 0.91)</p> <p><b>Outcome: Cannabis use initiation</b>  <b>Measure:</b> Students in grades 6,8,10, 12 self-reporting marijuana use in lifetime            Absolute change: -1.54 percentage points            Relative change: -15.0%            Narrative results: Adjusted Odds Ratio=0.85 (95%CI 0.80, 0.90)</p> <p><b>Outcome: Substance use (combined)</b>  <b>Measure:</b> Students in grades 6,8,10, 12 self-reporting use of any drug in past 30 days            Absolute change: -1.37 percentage points            Relative change: -3.0%            Narrative results: Adjusted OR=0.97 (95%CI 0.92, 1.01)</p> <p><b>Outcome: Substance use initiation (combined)</b>  <b>Measure:</b> Students in grades 6,8,10, 12 self-reporting use of any drug in lifetime            Absolute change: -5.23 percentage points            Relative change: -12.0%            Narrative results: Adjusted OR=0.88 (95%CI 0.81, 0.95)</p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p><b>Outcome: Delinquency</b>                      Measure: Students in grades 6,8,10, 12 self-reporting arrested in the past 12 months                      Absolute change: 0.24 percentage points                      Relative change: -5.7%                      Narrative results: Adjusted OR= 0.89 (95%CI 0.83, 0.96)</p> <p>Measure: Students in grades 6,8,10, 12 self-reporting suspended from school in the past 12 months                      Absolute change: -0.61 percentage points                      Relative change: -7.2%                      Narrative results: Adjusted Odds Ratio=0.91 (95%CI 0.84, 0.98)</p> <p><b>Outcome: Mental Health</b>                      Measure: Students in grades 6,8,10, 12 self-reporting depression symptoms (from a set of 4 questions) in the past 12 months                      Absolute change: -0.022 (scale points)                      Relative change: NR                      Narrative results: Students in CTC districts reported significantly fewer depression symptoms than students in non-CTC districts p-value=0.046</p>
<p><b>Author (Year):</b> Eddy 2012</p> <p><b>Location:</b> Wisconsin, USA</p> <p><b>Period for Study:</b> 8 years (96 months)</p> <p><b>Study Design:</b> Uncontrolled before-after</p> <p><b>CG Suitability:</b> Least</p> <p><b>Quality of Execution</b> (# of limitations): Fair (4 limitations)</p>	<p><b>Community organization:</b> Partnership</p> <p><b>Urbanicity:</b> Urban, suburban and rural</p> <p><b>Number of communities or school districts:</b> 1</p> <p>School (and community)</p> <p><b>Inclusion/Exclusion:</b> Middle and High school students in participating schools implementing the All-Stars school-based program but excluded if in Life skills program</p>	<p><b>Brief description of intervention and content:</b>                      Alliance for Substance Abuse Prevention (ASAP) and followed SPF tool                      -Assessment of community needs                      -Selected evidence-based interventions</p> <p>County Health Department, school districts, law enforcement, physicians, and youth organizations throughout the county collaborated on this initiative</p> <p>School (and community)-based intervention: All Stars program curriculum and Life Skills curriculum</p>	<p><b>Outcome: Alcohol Use</b>                      Measure: Percent of middle and high school students self-reporting monthly (or more) alcohol use (in the past year)                      Absolute change: - 8.6 percentage points                      Relative change: -37.7%                      Narrative results: Substantial and significant reduction in student self-reported monthly alcohol use                      -Subset results: Middle school students: -4.3 percentage points (-55.8%) p&lt;=0.05                      -Subset results: High school students: -11.4 percentage points (-29.8%) p&lt;=0.05</p> <p><b>Outcome: Alcohol Use-binge drinking</b>                      Measure: Percent of middle and high school students self-reporting ever drinking 5 or more alcohol drinks in one occasion                      Absolute change: - 5.8 percentage points                      Relative change: -25.7%                      Narrative results: Substantial and significant reduction in student self-reported binge drinking (ever)                      -Subset results: Middle school students: -2.2 percentage points (-35.4%) p&lt;=0.05</p>

Study	Population Characteristics	Intervention Characteristics	Results
	<p><b>Sample size:</b> 3,419 survey Participants</p> <p><b>Study population: Participants</b></p> <p><b>Age:</b> 12-17 years as per survey</p> <p><b>Grade level:</b> 9th-12th</p> <p><b>Sex:</b> NR</p> <p><b>Race/ethnicity:</b></p> <p><b>Education:</b> NR</p> <p><b>Income:</b> NR</p> <p><b>Community characteristics:</b> NR</p>	<p>Parent/Family interventions: Guiding Good Choices and Staying Connected with Your Teen for families</p> <p>Community interventions: Communities Mobilizing for Change on Alcohol, multi-faceted environmental program to decrease youth access to alcohol by raising community awareness</p> <p><b>Intervention/program name:</b> Strategic Prevention Framework (SPF)</p> <p><b>Focus of intervention content or activities:</b> Alcohol use prevention</p> <p><b>Interventions selected for Implementation:</b> School, family, community, retailer, enforcement, policy</p> <p><b>Intervention duration:</b> 60 months (48-72 months) (A few interventions 96 months)</p> <p><b>Comparison group:</b> No comparison group</p>	<p>-Subset results: High school students: -11.6 percentage points (-26.9%) p&lt;=0.05</p> <p><b>Outcome: Alcohol use initiation</b></p> <p>Measure: Student self-reported age for first use of any alcohol (average)</p> <p>Absolute change: + 0.8 years</p> <p>Relative change: NA</p> <p>Narrative results: Students were an average of 0.8 years older at first use of alcohol p=0.05 level</p>
<p><b>Author (Year):</b> Flewelling 2005</p> <p><b>Location:</b> Vermont, USA</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Rural</p>	<p><b>Brief description of intervention and content:</b> Existing community coalitions were utilized and did planning and needs assessments, developing goals and objectives, and selecting,</p>	<p><b>Outcome: Substance Use-Cannabis</b></p> <p>Measure: Percentage who used marijuana past 30 days</p> <p>Absolute change: -2.7 percentage points</p> <p>Relative change: -9.25%</p> <p>Narrative change: Self-reported marijuana use in the past 30 days decreased significantly in intervention communities compared to control communities p&lt;0.05</p>

Study	Population Characteristics	Intervention Characteristics	Results
<p><b>Period for Study:</b> 3 years (36 months)</p> <p><b>Study Design:</b> Other design with concurrent comparison</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Fair (2 limitations)</p>	<p><b>Number of communities or school districts:</b> 21 intervention communities in a state-wide study</p> <p><b>Inclusion/Exclusion:</b> Participating students in schools in Vermont participating in the YRBS survey in all 3 survey years (1997, 1999, 2001)</p> <p><b>Sample size:</b> 24,684 survey participants</p> <p><b>Study population: Participants</b> <b>Age:</b> NR <b>Grade level:</b> 8th-12th <b>Sex:</b> female 50.1% male 49.9% <b>Race/ethnicity:</b> White 90.2%, other 9.8% <b>Education:</b> Mother's education: 63.1% the intervention group had beyond a high school education <b>Income:</b> NR <b>Community characteristics:</b> NR</p>	<p>implementing, and evaluating research-based programs and strategies.</p> <p>Coalitions were required to implement a core set of prevention programs and activities selected from a menu of programs and strategies that had been identified by CSAP as effective or promising on the basis of the research literature (selected and implemented 2 to 4 such research-based programs or activities).</p> <p>Full-time coalition coordinators were hired and trained.</p> <p><b>Intervention/program name:</b> New Directions</p> <p><b>Focus of intervention content or activities:</b> General substance use prevention</p> <p><b>Interventions selected for Implementation:</b> School, family, community</p> <p><b>Intervention duration:</b> 24 months (24-47 months)</p> <p><b>Comparison group:</b> Usual care communities (school districts)</p>	<p><b>Outcome: Substance use-alcohol</b> Measure: Percentage who used alcohol past 30 days Absolute change: -0.9 percentage points Relative change: -2.1% Narrative results: Self-reported past 30 alcohol use decreased in intervention communities but the difference was not statistically significant.</p> <p><b>Outcome: Substance use-binge drinking alcohol</b> Measure: Percentage who binge drank past 30 days Absolute change: -0.5 percentage points Relative change: -1.9% Narrative results: Self-reported binge drinking in the past 30 days decreased in intervention communities, but the difference was not statistically significant</p> <p><b>Outcome: Substance use-tobacco</b> Measure: Percentage who smoked cigarettes past 30 days Absolute change: -2.4 percentage points Relative change: -9.7% Narrative results: Self-reported cigarette smoking in the past 30 days decreased significantly in intervention students compared to control p&lt;0.05</p> <p><b>Outcome: Substance use initiation: cannabis</b> Measure: Percentage who ever used marijuana Absolute change: -1.3 percentage points Relative change: -2.9 Narrative results: Self-reported ever use of cannabis decreased among intervention students compared to controls, but differences were NS p&lt;0.10</p> <p><b>Outcome: Substance use initiation: alcohol</b> Measure: Percentage who ever used alcohol Absolute change: -0.7 percentage points Relative change: -1.0% Narrative results: Self-reported ever use of alcohol decreased among intervention students, but differences were NS</p> <p><b>Outcome: Substance use initiation: tobacco</b> Measure: Percentage who ever smoked cigarettes Absolute change: -1.5 percentage points Relative change: -3.2%</p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p>Narrative results: Self-reported ever use of cigarettes decreased among intervention students, but differences were NS, <math>p &lt; 0.10</math></p> <p><b>Outcome: Substance use initiation: inhalants</b>  Measure: Percentage who ever used inhalants  Absolute change: -1.1 percentage points  Relative change: -3.9%  Narrative results: Self-reported ever use of inhalants among intervention students decreased, but differences were NS</p> <p><b>Outcome: Substance use initiation: Other drugs (cocaine, steroids, heroin, methamphetamines, and hallucinogens).</b>  Measure: Percentage who ever used other drugs (cocaine, steroids, heroin, methamphetamines, and hallucinogens).  Absolute change: -0.8 percentage points  Relative change: -7.3%  Narrative results: Self-reported ever use of other drugs among intervention students decreased, but differences were NS</p>
<p><b>Author (Year):</b> Hallgren 2013</p> <p><b>Location:</b> Sweden</p> <p><b>Period for Study:</b> 5 years (60 months)</p> <p><b>Study Design:</b> Controlled Before-After</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Fair (4 limitations)</p>	<p><b>Community organization</b> Coalition</p> <p><b>Urbanicity:</b> Urban and rural</p> <p><b>Number of communities or school districts:</b> 12</p> <p><b>Inclusion/Exclusion:</b> Surveyed youth: ages 15-19 in study communities</p> <p><b>Sample size:</b> 8,092 survey participants</p> <p><b>Study population: Participants</b> <b>Age:</b> range ages 15-19 <b>Grade level:</b> NR</p>	<p><b>Brief description of intervention and content:</b> Selected Intervention communities had a prevention coordinator; a local steering committee, including senior elected officials; and an alcohol and drugs prevention policy adopted by the municipal council.</p> <p>Each trial community was provided with a menu of evidence-based prevention methods and offered training and technical support for the implementation of these.</p> <p><b>Intervention/program name:</b> Sweden 6-communities program</p>	<p><b>Outcome: Alcohol use</b>  Measure: Self-reported alcohol consumption by year 11 male students  Absolute change: -16 centiliters/year  Relative change: -2.3%  Narrative results: No significant group by time effect <math>F(3,2207)=0.988</math>  <math>p=0.39</math></p> <p><b>Outcome: Alcohol use</b>  Measure: Self-reported alcohol consumption by year 11 female students  Absolute change: -204 centiliters/year  Relative change: -38.5%  Narrative results: No significant group by time effect <math>F(3, 2978)=0.30</math>  <math>p=0.82</math></p> <p><b>Outcome: Alcohol binge drinking</b>  Measure: Proportion of youth self-reporting binge drinking (year 11 male students)  Absolute change: -3 percentage points  Relative change: -6.8%  Narrative results: Binge drinking among intervention community year 11 male students decreased (<math>p=0.005</math>)</p>



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	<p><b>Sex:</b> female 57.3% male 42.7%</p> <p><b>Race/ethnicity:</b> NR</p> <p><b>Education:</b> NR</p> <p><b>Income:</b> NR</p> <p><b>Community characteristics:</b> NR</p>	<p><b>Focus of intervention content or activities:</b> General substance use prevention</p> <p><b>Interventions selected for Implementation:</b> School, family retailer, enforcement</p> <p><b>Intervention duration:</b> 60 months (48-72 months)</p> <p><b>Comparison group:</b> The six control communities were also engaged in alcohol prevention during the project period but with considerably less support and fewer programs overall based on national program funding</p>	<p><b>Outcome: Alcohol binge drinking</b> Measure: Proportion of youth self-reporting binge drinking (year 11 female students) Absolute change: 0 percentage points Relative change: 0% Narrative results: Binge drinking went down in both groups NS p=0.079</p> <p><b>Outcome: Morbidity-alcohol related hospitalizations</b> Measure: Number of adolescents (per 10,000) aged 15–19 years hospitalized with a primary or secondary alcohol-related diagnosis Absolute change: +12.3 adolescent alcohol-related hospitalizations per 10,000 adolescents Relative change: +93.2% Narrative results: Alcohol related hospitalizations increased among adolescents in intervention communities' statistical significance NR</p>
<p><b>Author (Year):</b> Hawkins 2014</p> <p><b>Location:</b> 7 states (CO, IL, KS, ME, OR, UT, WA), USA</p> <p><b>Period for Study:</b> 12 years (144 months)</p> <p><b>Study Design:</b> Group Randomized Controlled Trial</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Rural (12 communities)</p> <p><b>Number of communities or school districts:</b> 24</p> <p><b>Inclusion/Exclusion:</b> 5th grade students in study communities in 2003-2004 who consented to participation in annual school-based surveys.</p>	<p><b>Brief description of intervention and content:</b> CTC provided organizational support, training and technical assistance, and a community plan approval and funding process.</p> <p>CTC system organizes community coalitions (or identified an existing one). Coalitions followed a series of assessment and planning steps. This included selecting interventions from a CTC identified set of evidence-based programs to implement, drafting an implementation plan, and receiving CTC approval for funding.</p>	<p>Kuklinski 2021 outcomes</p> <p><b>Outcome: Substance use initiation-alcohol</b> Measure: Survey participants (grade 5 to age 23) self-reporting sustained abstinence from alcohol use (positive sign=favorable) Absolute change: +3.5 percentage points Relative change: +3.7% Narrative results: Sustained abstinence at age 23 was higher among survey participants in intervention communities than control communities. t-value =3.34; p=0.01</p> <p><b>Outcome: Substance use initiation-cigarettes</b> Measure: Survey participants (grade 5 to age 23) self-reporting sustained abstinence from cigarette use (positive sign=favorable) Absolute change: +4.1 percentage points Relative change: +5.7% Narrative results: Sustained abstinence from cigarettes was higher among intervention community survey participants, but difference was not statistically significant t-value 1.67; p=0.13</p>

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limitations) Good (1 limitation)	<p><b>Sample size:</b> 4,068 survey participants</p> <p><b>Study population: Participants</b></p> <p><b>Age:</b> NR</p> <p><b>Grade level:</b> 5th grade with follow-up in 12th grade, age 21, and age 23</p> <p><b>Sex:</b> female 50% male 50%</p> <p><b>Race/ethnicity:</b> Black or African American 3% Asian 1% White 64% American Indian 5% Other 6% Hispanic or Latino 20%</p> <p><b>Education:</b> NR</p> <p><b>Income:</b> NR</p> <p><b>Community characteristics:</b> Free-Reduced Price Lunch Participation 34.9%</p>	<p>Coalitions were asked to prioritize evidence-based interventions for youth aged 10-14 years .</p> <p>Each year, community coalitions implemented 1 to 5 evidence-based programs.</p> <p>School-based programs: (All-Stars, Life Skills Training, Lion's Quest Skills for Adolescence, Project Alert, Olweus Bullying Prevention Program, Program Development Evaluation Training).</p> <p>Family-based programs: (Strengthening Families 10-14, Guiding Good Choices, Parents Who Care, Family Matters, Parenting Wisely).</p> <p>Community-based youth-focused programs: (Participate and Learn Skills, Big Brothers Big Sisters, Stay Smart, academic tutoring).</p> <p><b>Intervention/program name:</b> Communities that Care (CTC)</p> <p><b>Focus of intervention content or activities:</b> General substance use prevention</p> <p><b>Interventions selected for Implementation:</b></p>	<p><b>Outcome: Substance use initiation-cannabis</b>            Measure: Survey participants (grade 5 to age 23) self-reporting sustained abstinence from marijuana use (positive sign=favorable)            Absolute change: +3.7 percentage points            Relative change: +5.2%            Narrative results: Sustained abstinence from marijuana was higher among intervention community survey participants, with the difference approaching statistical significance. t-value=2.02; p=0.07</p> <p><b>Outcome: Substance use initiation illicit drugs (Note: list includes prescription drug misuse)</b>            Measure: Survey participants (grade 5 to age 23) self-reporting sustained abstinence from illicit drug use (one or more of the following: cocaine, LSD, stimulants, opioids, other prescription drugs, heroin, MDMA, inhalants). (positive sign=favorable)            Absolute change: +6.1 percentage points            Relative change: +9.5%            Narrative results: Sustained abstinence from use of illicit drugs was significantly higher among intervention community survey participants than controls. t-value 3.22; p=0.01</p> <p><b>Outcome: Delinquency (lifetime at age 23 never engaged)</b>            Measure: Survey participants (grade 5 to age 23) self-reporting sustained abstinence from one or more antisocial behaviors (one or more of the following: stealing, damaging property, shoplifting, attacking someone with intent to harm, carrying a handgun [other than while hunting or as part of their job], being arrested, and beating up someone so badly that they probably needed medical attention).            Absolute change: +4.9 percentage points            Relative change: NR            Narrative results: Self-reported never engaged in antisocial behaviors was higher among intervention community survey participants than controls with the difference approaching statistical significance); t-value 2.27; p=0.05</p> <p><b>Outcome: Mental health-depression (lifetime at age 23)</b>            Measure: Survey participants (grade 5 to age 23) self-reporting no symptoms of depression in the past 2 weeks on all surveys (PHQ-9 score for major depressive disorder)            Absolute change: -0.3 percentage points            Relative change: NR</p>

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		<p>School, family, community</p> <p><b>Intervention duration:</b> 36 months (24-47 months)</p> <p><b>Comparison group:</b> No CTC coalitions, interventions, resources, training or technical assistance. Communities participated in school-based surveys and received survey data every 2 years.</p>	<p>Narrative results: No meaningful difference in self-reported symptoms of depression t-value=-0.26; p=0.80</p> <p><b>Outcome: Mental health-anxiety (lifetime at age 23)</b> Measure: Survey participants (grade 5 to age 23) self-reporting no symptoms of generalized anxiety disorder in the past 2 weeks on all surveys (GAD-7 score of less than 10) Absolute change: -0.2 percentage points Relative change: NR Narrative results: No meaningful difference at age 23 t-value=-0.16; p=0.88</p> <p><b>Outcome: Educational attainment-college (age 23)</b> Measure: Survey participants (age 23) self-reporting highest level of educational attainment (subset reporting 4-year college completion) Absolute change: +1.9 percentage points Relative change: NR Narrative results: Self-reported completion of 4-years of college was higher among intervention community survey participants than controls with the difference approaching statistical significance t-value 2.15, p=0.06</p> <p>Oesterle 2018 outcomes not also examined in Kuklinski 2021 Current substance use prevalence comparisons for CTC at age 21</p> <p><b>Outcome: Substance use-alcohol</b> Measure: Survey participants (age 21) self-reporting alcohol use in the past year (negative=favorable) Absolute change: +0.1 percentage point Relative change: 0% Narrative results: No effect on prevalence of past year alcohol use among age 21 participants t-value=0.04 ARR=1.00 (95%CI 0.88, 1.14)</p> <p><b>Outcome: Substance use-alcohol binge drinking</b> Measure: Survey participants (age 21) self-reporting past year binge drinking Absolute change: -1.6 percentage points Relative change: -2.5% Narrative results: Difference in prevalence of binge drinking was not statistically significant; t-value=-0.48 ARR=0.98 (95%CI 0.87, 1.10)</p> <p><b>Outcome: Substance use-tobacco</b></p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p>Measure: Survey participants (age 21) self-reporting prevalence of past year use of cigarettes                      Absolute change: -2.4 percentage points                      Relative change: -6.0%                      Narrative results: Difference was favorable, but not statistically significant t-value= -0.86; ARR=0.94 (95%CI 0.81, 1.10)</p> <p><b>Outcome: Substance use-smokeless tobacco</b>                      Measure: Survey participants (age 21) self-reporting prevalence of past year use of smokeless tobacco                      Absolute change: -2.7 percentage points                      Relative change: NR                      Narrative results: Difference was favorable, but not statistically significant t-value= -1.43; ARR=0.87 (95%CI 0.69, 1.09)</p> <p><b>Outcome: Substance use-e-cigarette use</b>                      Measure: Survey participants (age 21) self-reporting prevalence of past year use of e-Cigarettes                      Absolute change: -2.4 percentage points                      Relative change: NR                      Narrative results: Difference was favorable, but not statistically significant t-value= -0.97; ARR=0.93 (95%CI 0.77, 1.11)</p> <p><b>Outcome: Substance use-cannabis</b>                      Measure: Survey participants (age 21) self-reporting past year use of marijuana                      Absolute change: -0.4 percentage points                      Relative change: -1.0%                      Narrative results: No effect; t-value=-0.16; ARR=0.99 (95%CI 0.84, 1.16)</p> <p><b>Outcome: Substance use-prescription drug misuse</b>                      Measure: Survey participants (age 21) self-reporting past year use non-medical prescription drugs                      Absolute change: +0.8 percentage points                      Relative change: NR                      Narrative results: No effect; t-value=0.72; ARR=1.08 (95%CI 0.84, 1.40)</p> <p><b>Outcome: Substance use -Illicit drugs</b>                      Measure: Survey participants (age 21) self-reporting past year use of each of the following (cocaine, LSD, stimulants, opioids, heroin, MDMA, inhalants).</p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p>Absolute change: NR  Relative change: NR  Narrative results: The prevalence of past year substance use did not differ significantly between CTC and control communities. Differences in past year use of each of these drugs (cocaine, LSD, stimulants, opioids, heroin, MDMA, inhalants) were not statistically significant NS</p> <p><b>Outcome: Violence</b>  (Note: subset of 3 items from antisocial behavior list)  Measure: Survey participants (age 21) self-reporting lifetime engaging in one or more violent behaviors (attacking someone with intent to harm, carrying a handgun, and beating up someone)  Absolute change: -4.7 percentage points  Relative change: Reported as -11%  Narrative results: Self-reported engaging in any of three specific behaviors was significantly lower among intervention community participants than control participants at age 21. t-value=-2.27 Adjusted risk ratio 0.89 (95%CI 0.79, 0.99)</p> <p>Note: Oesterle 2018 includes two combined measures examined for both initiation (sustained abstinence) and past year use (age 21).</p> <p><b>Outcome: Substance use initiation-any substance</b>  Measure: Survey participants (Grade 5 to age 21) self-reporting sustained abstinence from any drug use (positive=favorable)  Absolute change: +2.0 percentage points  Relative change: +2.1%  Narrative results: Intervention participants at age 21 reported higher rates of sustained abstinence from all substances than control community participants, though difference was not statistically significant t-value=1.55 ARR=1.33 (95%CI 0.89, 2.01)</p> <p><b>Outcome: Substance use-any substance</b>  Measure: Survey participants (age 21) self-reporting use of any substances in the past year (negative=favorable)  Absolute change: -2.3 percentage points  Relative change: -3.0%  Narrative results: Intervention community survey participants reported lower prevalence of use of any substance in the past year, but difference was not statistically significant ; t-value=-0.58 ARR=0.97 (95%CI 0.87, 1.09)</p>

Study	Population Characteristics	Intervention Characteristics	Results
<p><b>Author (Year):</b> Jonkman 2015</p> <p><b>Location:</b> Netherlands</p> <p><b>Period for Study:</b> 4 years (48 months)</p> <p><b>Study Design:</b> Controlled Before-After</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Fair (4 limitations)</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Urban</p> <p><b>Number of communities or school districts:</b> 10</p> <p><b>Inclusion/Exclusion:</b> Students ages 12, 13, of 14 in 2008 in study neighborhoods who provided individual and parental consent to participate in the 4-year study</p> <p><b>Sample size:</b> 643 survey participants</p> <p><b>Study population: Participants</b> <b>Age:</b> range 12-14 at baseline; 15-17 at follow-up <b>Grade level:</b> NR <b>Sex:</b> female 54.8% male 45.2% <b>Race/ethnicity:</b> Dutch 82.3% <b>Education:</b> NR <b>Income:</b> NR <b>Community characteristics:</b> NR</p>	<p><b>Brief description of intervention and content:</b> Organization: Community coalition (community board) with members primarily professionals from public health, municipal offices and public housing. (Note: Participation from students, business leaders, and volunteers was low on the Dutch CTC Boards)</p> <p>Coalition conducted assessments and selected interventions from a list of tested programs.</p> <p>Each CTC community had a full-time local coordinator</p> <p>Interventions per CTC and evidence-based resources provided to coalitions</p> <p><b>Intervention/program name:</b> Communities that Care (CTC)</p> <p><b>Focus of intervention content or activities:</b> General substance use prevention</p> <p><b>Interventions selected for Implementation:</b> School, family</p> <p><b>Intervention duration:</b> 36 months (24-47 months)</p>	<p><b>Outcome: Tobacco use</b> Measure: Adolescent self-reported smoking in the past month Absolute change: +3 percentage points Relative change: +11.5% Narrative results: Self-reported past month smoking was the same among intervention and comparison adolescents after 4 years NS post x condition coefficient = -0.817 (SE 19.382)</p> <p><b>Outcome: Initiation of tobacco use</b> Measure: Adolescent self-reported smoking lifetime Absolute change: +4 percentage points Relative change: +10% Narrative results: Self-reported lifetime smoking was the same in intervention and comparison adolescents after 4 years Survival analysis showed no significant influence of the intervention on smoking initiation (NS)</p> <p><b>Outcome: Alcohol use</b> Measure: Adolescent self-reported alcohol use in past month Absolute change: +6 percentage points Relative change: +9.7% Narrative results: Self-reported past month alcohol use increased among intervention adolescents after 4 years NS post x condition coefficient -0.444 (SE 60.86)</p> <p><b>Outcome: Alcohol use (binge drinking)</b> Measure: Adolescent self-reported binge drinking Absolute change: -3 percentage points Relative change: -60% Narrative results: Self-reported binge drinking decreased among intervention group adolescents after 4 years; NS post x condition coefficient -0.287 (5.830)</p> <p><b>Outcome: Initiation of alcohol use</b> Measure: Adolescent self-reported lifetime alcohol use Absolute change: +2 percentage points Relative change: +2.5% Narrative results: Self-reported lifetime alcohol increased slightly among intervention group adolescents; NS post x condition coefficient 0.077 (SE 0.391) Survival analysis also showed no significant intervention effect on alcohol use initiation</p>

Study	Population Characteristics	Intervention Characteristics	Results
		<p><b>Comparison group:</b> No additional interventions (usual care communities)</p>	<p><b>Outcome: Cannabis use</b>                      Measure: Adolescent self-reported marijuana use in the past month                      Comp (n=218): 4%                      Absolute change: +2 percentage points                      Relative change: +50%                      Narrative results: Self-reported past month marijuana use increased among intervention adolescents over 4 years Statistical significance NR</p> <p><b>Outcome: Initiation of cannabis use</b>                      Measure: Adolescent self-reported marijuana use lifetime                      Absolute change: +2 percentage points                      Relative change: +16.7%                      Narrative results: Self-reported lifetime marijuana use increased in intervention adolescents over 4 years Statistical significance NR</p> <p><b>Outcome: Illicit drug use</b>                      Measure: Self-reported "hard drug" use lifetime                      Absolute change: +0 percentage points                      Relative change: 0%                      Narrative results: Hard drug use did not change over 4 years Statistical significance NR</p> <p><b>Outcome: Delinquency</b>                      Measure: Adolescent self-reported antisocial behaviors                      Absolute change: +2 percentage points                      Relative change: NR                      Narrative results: Self-reported antisocial behaviors increased among intervention adolescents over 4 years; NS post x condition coefficient 0.816 (4.157)</p>
<p><b>Author (Year):</b> Komro 2017</p> <p><b>Location:</b> Cherokee Nation, USA</p> <p><b>Period for Study:</b> 3 years (36 months)</p>	<p><b>Community organization:</b> Partnership</p> <p><b>Urbanicity:</b> Rural</p> <p><b>Number of communities or school districts:</b> 6</p> <p><b>Inclusion/</b></p>	<p><b>Brief description of intervention and content:</b>                      Research-community partnership involving University of Florida researchers, Cherokee Nation Behavior Health staff, and study communities utilizing community-based participatory research principles. A member of the</p>	<p>Alcohol related results as per text of Komro 2017. Overall, three-way CMCA x CONNECT x Time interactions were statistically significant for current use (X<sup>2</sup>=24.79; P=.006), heavy episodic drinking (X<sup>2</sup>=18.58; P=.046), and alcohol consequences (X<sup>2</sup>=18.98; P=.041).</p> <p><b>CMCA interventions only</b></p> <p><b>Outcome: Alcohol use</b>                      Measure: Students (11-12th grade at follow-up) self-reporting alcohol use in the past 30 days                      Absolute change: -13 percentage points (95% CI = -20, -5)                      Relative change: -22% to -25%</p>

Study	Population Characteristics	Intervention Characteristics	Results
<p><b>Study Design:</b> Group Randomized Controlled Trial</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Fair (3 limitations)</p>	<p><b>Exclusion:</b> Selection of study communities: (1) served by a high school with 400 to 700 students; (2) had at least a 30-mile separation from other communities; and (3) had local businesses, including ones that sell alcohol. Students in study community school who assented to participation in surveys</p> <p><b>Sample size:</b> 1,369 survey participants</p> <p><b>Study population: Participants</b>  <b>Age:</b> mean 15.2 years at baseline  <b>Grade level:</b> cohort follow-up. baseline 9th-10th graders followed to 11-12th grades  <b>Sex:</b> female 50% male 50%  <b>Race/ethnicity:</b> White 46%, American Indian 38% Other 12%  <b>Education:</b> NR  <b>Income:</b> NR  <b>Community characteristics:</b> Household income: ranged from \$26,222 to \$38,000, below median income for the state (\$44,287)</p>	<p>CN team served as the intervention director and supervises all intervention staff.</p> <p>CMCA intervention:          -Hired local community organizer          -Recruited community leadership/action teams to select and implement intervention activities. Action teams initiated evidenced-based activities from a menu of options in the CMCA manual</p> <p>Note: The combined arm included CMCA interventions and CONNECT intervention which included a school counselor providing 1:1 motivational interviewing screening and brief intervention on alcohol use with every student with possible follow-up and referral to services.</p> <p><b>Intervention/program name:</b> Communities Mobilizing for Change (CMCA)</p> <p><b>Focus of intervention content or activities:</b> Alcohol use prevention</p> <p><b>Interventions selected for Implementation:</b>  <b>CMCA:</b> Family, community, retailer, enforcement, policy</p>	<p>Narrative results: Statistically significant: <math>t = -3.37</math>; <math>p &lt; .001</math></p> <p><b>Outcome: Alcohol use-binge or heavy</b>          Measure: Students (11-12th grade at follow-up) self-reporting binge or heavy alcohol use (5 or more drinks in a row on one occasion) in the past 30 days          Absolute change: -12 percentage points (95% CI = -19, -5)          Relative change: -22% to -25%          Narrative results: Statistically significant <math>t = -3.38</math>; <math>p &lt; .001</math></p> <p><b>Outcome: Alcohol related consequences</b>          Measure: Students (11-12th grade at follow-up) self-reporting alcohol related consequences (score for 5 items; e.g., academic, social, physical)          Absolute change: -8 percentage points (95% CI= -13, -2)          Relative change: -22% to -25%          Narrative results: Statistically significant <math>t = -2.81</math>; <math>p = .005</math></p> <p><b>CMCA + CONNECT interventions (combined)</b>  <b>Outcome: Alcohol use</b>          Measure: Students (11-12th grade at follow-up) self-reporting alcohol use in the past 30 days          Absolute change: -5 percentage points (95% CI= -11, 0)          Relative change: -12% to -15%          Narrative results Statistically significant: <math>t = -2.11</math>; <math>p = .035</math></p> <p><b>Outcome: Alcohol use-binge or heavy</b>          Measure: Students (11-12th grade at follow-up) self-reporting binge or heavy alcohol use (5 or more drinks in a row on one occasion) in the past 30 days          Absolute change: -5 percentage points (95% CI= -10, 0)          Relative change: -12% to -15%          Narrative results: Statistically significant <math>t = -2.01</math>; <math>p = .045</math>,</p> <p><b>Outcome: Alcohol related consequences</b>          Measure: Students (11-12th grade at follow-up) self-reporting alcohol related consequences (score for 5 items; e.g., academic, social, physical)          Absolute change: -4 percentage points (95% CI= -8, -1)          Relative change: -12 to -15%          Narrative results: Statistically significant: <math>t = -2.52</math>; <math>p = .012</math></p>



Study	Population Characteristics	Intervention Characteristics	Results
	Free-Reduced price lunch participation: 57.6%	<p><b>CMCA + School:</b> School, family, community, retailer, enforcement, policy</p> <p><b>Intervention duration:</b> 30 months (24-47 months)</p> <p><b>Comparison group:</b> Comparison communities were noted to implement different community-wide interventions and school interventions over the study period</p>	<p>Additional substance outcomes reported in Livingston 2018; Note p-values were for intervention x time across three intervention arm comparisons</p> <p><b>CMCA only intervention arm</b> <b>Outcome: Tobacco use</b> Measure: Students (11-12th grade at follow-up) self-reporting cigarette use in the past 30 days Absolute change: -1.45 percentage points (95%CI -5.64, 2.74) Relative change: NR Narrative results: Not statistically significant p=0.39</p> <p><b>Outcome: Tobacco use</b> Measure: Students (11-12th grade at follow-up) self-reporting chewing tobacco use in the past 30 days Absolute change: -4.37 percentage points (95% CI=-7.97, -0.76) Relative change: NR Narrative results: Statistically significant p=0.005</p> <p><b>Outcome: Cannabis use</b> Measure: Students (11-12th grade at follow-up) self-reporting marijuana use in the past 30 days Absolute change: -6.75 percentage points (95%CI -10.08, -3.43) Relative change: NR Narrative results: Statistically significant: p=0.015</p> <p><b>Outcome: Prescription drug misuse</b> Measure: Students (11-12th grade at follow-up) self-reporting illegal prescription drug use in the past 30 days Absolute change: -5.01 percentage points (95%CI -7.57, -2.45) Relative change: NR Narrative results: Statistically significant p=0.029</p> <p><b>Outcome: Other (Illegal) drug use</b> Measure: Students (11-12th grade at follow-up) self-reporting other illegal Absolute change: -3.43 percentage points (95%CI -5.54, -1.32) Relative change: NR Narrative results: Statistically significant (95%CI -5.54, -1.32)</p> <p><b>CMCA+CONNECT (combined) intervention arm</b> <b>Outcome: Tobacco use</b></p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p>Measure: Students (11-12th grade at follow-up) self-reporting cigarette use in the past 30 days            Absolute change: -1.06 percentage points (95%CI -2.36, 4.47)            Relative change: NR            Narrative results: Not statistically significant p=0.39</p> <p><b>Outcome: Tobacco use</b>            Measure: Students (11-12th grade at follow-up) self-reporting chewing tobacco use in the past 30 days            Absolute change: -0.35 (95%CI -3.04, 2.34)            Relative change: NR            Narrative results: Not statistically significant (95%CI -3.04, 2.34)</p> <p><b>Outcome: Cannabis use</b>            Measure: Students (11-12th grade at follow-up) self-reporting marijuana use in the past 30 days            Absolute change: -4.00 percentage points (95%CI -7.10, -0.90)            Relative change: NR            Narrative results: Statistically significant p=0.015</p> <p><b>Outcome: Prescription drug misuse</b>            Measure: Students (11-12th grade at follow-up) self-reporting illegal prescription drug use in the past 30 days            Absolute change: -3.74 percentage points (95%CI -6.07, -1.41)            Relative change: NR            Narrative results: Statistically significant p=0.029</p> <p><b>Outcome: Other (Illegal) drug use</b>            Measure: Students (11-12th grade at follow-up) self-reporting other illegal drug use in the past 30 days            Absolute change: -2.41 percentage points (95%CI -4.29, -0.52)            Relative change: NR            Narrative results: Statistically significant (95%CI -4.29, -0.52)</p>
<p><b>Author (Year):</b> Spoth 2013</p> <p><b>Location:</b> Iowa and Pennsylvania. USA</p> <p><b>Period for Study:</b> 6.5+ years</p>	<p><b>Community organization:</b> Partnership</p> <p><b>Urbanicity:</b> Suburban and rural</p>	<p><b>Brief description of intervention and content:</b>            Community-University partnership. The three components of the PROSPER model consist of local community teams, state-level university researchers, and a</p>	<p><b>Outcome: Alcohol use behaviors-drunkenness</b>            Measure: 12th grade student self-reported past month drunkenness            Absolute change: - 3 percentage points            Relative change: Relative reduction rate (-)5.9%            Narrative results: Favorable but not statistically significant at both 11th and 12th grade; F (1,72) =1.40 p=0.120</p> <p><b>Outcome: Alcohol use risk behaviors-driving after drinking</b></p>

Study	Population Characteristics	Intervention Characteristics	Results
<p><b>Study Design:</b> Group Randomized Controlled Trials</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Good (1 limitation)</p>	<p><b>Number of communities or school districts:</b> 28</p> <p><b>Inclusion/Exclusion:</b> Initial eligibility criteria for communities in the study were: (a) school district enrollment between 1300 and 5200 students, and (b) at least 15% of students eligible for free or reduced cost school lunches.</p> <p><b>Sample size:</b> 7,774 survey participants</p> <p><b>Study population: Participants</b> <b>Age:</b> mean 11.8 years <b>Grade level:</b> 5th-8th grade <b>Sex:</b> female 51% male 49% <b>Race/ethnicity:</b> White 85% Other 15% <b>Education:</b> NR <b>Income:</b> NR <b>Community characteristics:</b> Free-Reduced price lunch participation: 31.0%</p>	<p>Prevention Coordinator team in the land grant university Cooperative Extension System.</p> <p>Community teams were comprised of a Cooperative Extension staff team leader, a public-school representative co-leader, and representatives of local human service agencies, along with other local community stakeholders (e.g., youth and parents).</p> <p>Community teams selected a universal family-based intervention from a menu with 3 evidence-based options and a universal school-based curricular intervention from a menu with 3 evidence-based options.</p> <p>Implementation support: -Prevention Coordinator team in the land grant university -Cooperative Extension staff team leader</p> <p>Interventions: Family-based: Strengthening Families Program: For Parents and Youth 10–14 (SFP 10–14). School-based: Community teams selected one of 3 All Stars Life Skills Training: Project Alert</p>	<p>Measure: 12th grade student self-reported past-year driving after drinking Absolute change: -1 percentage points Relative change: Relative reduction rate (-)4.9% Narrative results: Favorable (stronger at 11th grade) but not statistically significant; <math>F(1,72)=0.24</math>; <math>p=0.318</math></p> <p><b>Outcome: Substance use-cigarette smoking</b> Measure: 12th grade student self-reported past-month cigarette smoking Absolute change: -4 percentage points Relative change: Relative reduction rate (-)11.3% Narrative results: Significant reductions in both 11th and 12th grade; <math>F(1,72)=3.32</math>; <math>p=0.036</math></p> <p><b>Outcome: Substance use-cannabis</b> Measure: 12th grade student self-reported past-year marijuana use Absolute change: - 4 percentage points Relative change: Relative reduction rate (-)8.0% Narrative results: Significant reductions in both 11th and 12th grade; <math>F(1,72)=3.30</math>; <math>p=0.036</math></p> <p>Narrative for differences in frequency of marijuana use (text summary) Frequency of use/behavior findings showed significant point-in-time intervention effects on marijuana use at both grades; relative reduction rates were 15.1% and 14.4% at the 11th and 12th grade</p> <p><b>Outcome: Substance use-illicit substances</b> Measure: 12th grade student self-reported past-year use of inhalants Absolute change: -2 percentage points Relative change: Relative reduction rate (-)28.3% Narrative results: Significant reduction among 12th grade students; <math>F(1,72)=3.18</math>, <math>p=0.039</math></p> <p><b>Outcome: Substance use-illicit substances</b> Measure: 12th grade student self-reported past-year use of methamphetamines Absolute change: -1 percentage point Relative change: Relative reduction rate (-)31.4% Narrative results: Significant reduction in both 11th and 12th grade; <math>F(1,72)=4.55</math>, <math>p=0.018</math></p> <p><b>Outcome: Substance use initiation-lifetime use of illicit substances</b></p>

Study	Population Characteristics	Intervention Characteristics	Results																																												
		<p>Booster sessions were implemented in the following year</p> <p><b>Intervention/program name:</b> PROMoting School-community-university Partnerships to Enhance Resilience (PROSPER)</p> <p><b>Focus of intervention content or activities:</b> General substance use prevention</p> <p><b>Interventions selected for Implementation:</b> School, family</p> <p><b>Intervention duration:</b> 24 months (24-47 months)</p> <p><b>Comparison group:</b> Usual care. No additional interventions</p>	<p>Measure: Student self-reported use of one or more illicit substances (methamphetamine, ecstasy, marijuana, drugs, or medications that were prescribed by a doctor for someone else, and Vicodin, Percocet, or Oxycontin not prescribed by a doctor) in lifetime. Combined into lifetime illicit substance use index sum 0-5.</p> <p>Absolute change: -0.25 score points Relative change: Relative reduction rate (-)15.0%</p> <p>Narrative results: Significant reductions in combined score for illicit drug use for both 11th and 12th grade <math>F(1,72)=25.53, p=0.001</math></p> <p>Spoth 2015 study</p> <p><b>Outcome: Delinquency- adolescent conduct problem behaviors</b></p> <p>Measure: 12th grade student self-reported past year behaviors [12 items; summed into an index (0-12) and dichotomized for relative rate reduction estimates)</p> <p>Absolute change: -0.265 sum points (SE 0.102) Relative change: Relative reduction rate: (-)11.1%</p> <p>Narrative results: Significant reduction in 12th grade; Effect size 0.05 (95%CI 0.006 to 0.469); t-value 2.60, <math>p=0.012</math></p> <p>Subset Follow-up of Young Adults in the PROSPER Study (Spoth 2017/2022)</p> <p>Measure: Lifetime use at age 19, age 23, and age 25</p> <p>Relative change:</p> <table border="1" data-bbox="1050 941 1974 1315"> <thead> <tr> <th></th> <th>Age 19</th> <th>Age 23</th> <th>Age 25</th> </tr> </thead> <tbody> <tr> <td>Drink alcohol</td> <td>NR</td> <td>-1.7% ns</td> <td>-1.7% ns</td> </tr> <tr> <td>Drunkenness</td> <td>NR</td> <td>-1.3% ns</td> <td>-2.2% ns</td> </tr> <tr> <td>E-cigarettes</td> <td>NR</td> <td>+3.6% ns</td> <td>+3.4% ns</td> </tr> <tr> <td>Marijuana</td> <td>-9.4% <math>p&lt;.05</math></td> <td>+2.1% ns</td> <td>+1.1% ns</td> </tr> <tr> <td>Cocaine</td> <td>-30.3% <math>p&lt;.05</math></td> <td>-19.8% ns</td> <td>-13.2% ns</td> </tr> <tr> <td>Ecstasy</td> <td>-33.1% <math>p&lt;.05</math></td> <td>-21.1% ns</td> <td>-21.4% ns</td> </tr> <tr> <td>Methamphetamine</td> <td>-41.0% <math>p&lt;.05</math></td> <td>-36.4% <math>p&lt;.05</math></td> <td>-36.8% <math>p&lt;.05</math></td> </tr> <tr> <td>LSD/Hallucinogen</td> <td>-35.1% <math>p&lt;.05</math></td> <td>-23.0% <math>p&lt;.05</math></td> <td>-26.4% <math>p&lt;.05</math></td> </tr> <tr> <td>Narcotics (non-prescription)</td> <td>-25.8% <math>p&lt;.05</math></td> <td>-26.8% ns</td> <td>-24.9% <math>p&lt;.05</math></td> </tr> <tr> <td>Amphetamine (non-prescription)</td> <td>-7.7% ns</td> <td>+3.8% ns</td> <td>-3.0% ns</td> </tr> </tbody> </table> <p>Prescription drug misuse index Subset follow-up of higher-risk youth at age 19 (non-prescribed use of narcotics (e.g., Vicodin, Oxycontin, Percocet), amphetamines, and barbiturates): -19.9% <math>p&lt;0.05</math></p>		Age 19	Age 23	Age 25	Drink alcohol	NR	-1.7% ns	-1.7% ns	Drunkenness	NR	-1.3% ns	-2.2% ns	E-cigarettes	NR	+3.6% ns	+3.4% ns	Marijuana	-9.4% $p<.05$	+2.1% ns	+1.1% ns	Cocaine	-30.3% $p<.05$	-19.8% ns	-13.2% ns	Ecstasy	-33.1% $p<.05$	-21.1% ns	-21.4% ns	Methamphetamine	-41.0% $p<.05$	-36.4% $p<.05$	-36.8% $p<.05$	LSD/Hallucinogen	-35.1% $p<.05$	-23.0% $p<.05$	-26.4% $p<.05$	Narcotics (non-prescription)	-25.8% $p<.05$	-26.8% ns	-24.9% $p<.05$	Amphetamine (non-prescription)	-7.7% ns	+3.8% ns	-3.0% ns
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Study	Population Characteristics	Intervention Characteristics	Results																																												
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<p><b>Author (Year):</b> Tombourou 2019</p> <p><b>Location:</b> Australia</p> <p><b>Period for Study:</b> 16 years (192 months)</p> <p><b>Study Design:</b> Controlled Before-After</p> <p><b>CG Suitability:</b> Greatest</p> <p><b>Quality of Execution</b> (# of limitations) Fair (4 limitations)</p>	<p><b>Community organization:</b> Coalition</p> <p><b>Urbanicity:</b> Urban, suburban and rural</p> <p><b>Number of communities or school districts:</b> 109</p> <p><b>Inclusion/Exclusion:</b> All students in the selected year levels within the participating schools were invited to take part in the annual survey</p> <p><b>Sample size:</b> 41,328 survey participants</p>	<p><b>Brief description of intervention and content:</b> Community coalitions recruited to review local conditions and select interventions to meet local needs Coalition action plans focused on the prevention of adolescent alcohol use (and in three communities other drug use was also targeted)</p> <p>Interventions: Evidence-based programs were identified and regularly updated by the Australian Research Alliance which included: School-based drug use prevention education Parent and family education to reduce family risk factors</p>	<p>Total sample of student responses from 11 cross-sectional surveys of Grade 8 students in the period 1999-2015</p> <p><b>Outcome: Alcohol use initiation</b> Measure: Student self-reported lifetime alcohol use Absolute change: -16 percentage points Relative change: -6.0% Narrative results: OR=0.94 (95% CI 0.93, 0.95) The CTC sites had significantly higher rates of alcohol and cannabis use at the baseline in 1999 (e.g., alcohol use OR 1.88). The interaction (CTC Sites _ Survey Year) revealed significantly higher annual reductions in the CTC sites compared to other Australian localities in adolescent substance use behavior. p&lt;0.05</p> <p><b>Outcome: Tobacco use initiation</b> Measure: Student self-reported lifetime tobacco use Absolute change: NR Relative change: -3.0% Narrative results: OR=0.97 (95% CI 0.96, 0.99) The CTC sites had significantly higher rates of alcohol and cannabis use at the baseline in 1999 (e.g., alcohol use OR 1.88). The interaction (CTC Sites _ Survey Year) revealed significantly higher annual reductions in the CTC sites compared to other Australian localities in adolescent substance use behavior. p&lt;0.05</p>																																												

Study	Population Characteristics	Intervention Characteristics	Results
	<p><b>Study population: Participants</b>  <b>Age:</b> mean 13.5 years (SD=1.7)  <b>Grade level:</b> 5th-8th grade  <b>Sex:</b> female 51.7% male 48.3%  <b>Race/ethnicity:</b> NR  <b>Education:</b> NR  <b>Income:</b> NR  <b>Community characteristics:</b> NR</p>	<p><b>Intervention/program name:</b> Communities that Care (CTC)  <b>Focus of intervention content or activities</b> General substance use prevention  <b>Interventions selected for Implementation:</b> School, family  <b>Intervention duration:</b> 72 months (48-72 months), (A few communities greater than 72 months)  <b>Comparison group:</b> Comparison communities did not implement Communities that Care (no additional interventions)</p>	<p><b>Outcome: Cannabis use initiation</b>  Measure: Student self-reported lifetime cannabis use  Absolute change: NR  Relative change: -4.0%  Narrative results: OR=0.96 (95% CI 0.93, 0.98) The CTC sites had significantly higher rates of alcohol and cannabis use at the baseline in 1999 (e.g., alcohol use OR 1.88). The interaction (CTC Sites _ Survey Year) revealed significantly higher annual reductions in the CTC sites compared to other Australian localities in adolescent substance use behavior. p&lt;0.05</p> <p><b>Outcome: Delinquency</b>  Measure: Student self-reported anti-social behaviors (5 item scale)  Absolute change: NR  Relative change: NR  Narrative results: The interaction term (CTC Sites _ Survey Year) was significant revealing larger annual changes in the CTC sites compared to other Australian communities for reduction of antisocial behavior (unstandardized regression coefficient [B] = -0.001, (95% CI -0.002, 0.000) p&lt;0.05</p>
<p><b>Author (Year):</b> Wolfson 2012  <b>Location:</b> North Carolina, USA  <b>Period for Study:</b> 3 years (36 months)  <b>Study Design:</b> Group Randomized Controlled Trial  <b>CG Suitability:</b> Greatest  <b>Quality of Execution</b> (# of</p>	<p><b>Community organization:</b> Coalition  <b>Urbanicity:</b> College/university communities  <b>Number of communities or school districts:</b> 10  <b>Inclusion/Exclusion:</b> Colleges: All 4-year, liberal arts colleges and universities in North Carolina with 2,500 or more full-time</p>	<p><b>Brief description of intervention and content:</b> Study funded a college-based community organizer (a small monthly budget) to recruit a college/community coalition and to work on intervention implementation  Coalitions included campus administrators, faculty, and staff, students, and community members.  The SPARC study team developed a matrix of "best and most promising" environmental strategies based on the</p>	<p><b>Outcome: Alcohol use</b>  Measure: Student self-reported number of days they drank alcohol in the past 30 days  Absolute change: -0.01 days  Relative change: NR  Narrative results: There was no change in self-reported days drank alcohol in the past month p=0.98</p> <p><b>Outcome: Alcohol use-heavy or binge drinking</b>  Measure: Student self-reported number of days Binge Drinking (defined as 4 or more drinks in a row for women and 5 or more for men; past 30 days).  Absolute change: +0.06 days  Relative change: NR  Narrative results: No change in self-reported binge drinking days in the past month p=0.83</p> <p><b>Outcome: Alcohol use-drunkness</b>  Measure: Student self-reported number of days drunk in a typical week.  Absolute change: +0.06 days</p>

Study	Population Characteristics	Intervention Characteristics	Results
<p>limitations) Fair (4 limitations)</p>	<p>undergraduates, and with at least 20% of students living on-campus, were considered for inclusion Military schools, single-gender schools, and seminaries or "Bible" schools were excluded.</p> <p><b>Sample size:</b> 3,811 survey participants</p> <p><b>Study population: Participants</b>  <b>Age:</b> NR  <b>Grade level:</b> College student  <b>Sex:</b> female 60.8% male 39.2%  <b>Race/ethnicity:</b> Black or African American 9.1% Asian 5.0% White 75.7% Other 6.0% Hispanic or Latino 4.2%  <b>Education:</b> NR  <b>Income:</b> NR  <b>Community characteristics:</b> NR</p>	<p>literature on reducing high-risk drinking and associated consequences on college campuses. The SPARC study team reviewed and, after any needed modifications, approved each plan.</p> <p>Interventions varied across colleges. Some interventions included:                      -Restrictions on provision of alcohol to underage or intoxicated students                      -Restrictions on alcohol purchases/possession                      -Restrictions on alcohol use at campus events                      -Education</p> <p><b>Intervention/program name:</b> Study to Prevent Alcohol Related Consequences (SPARC)</p> <p><b>Focus of intervention content or activities:</b> Alcohol use prevention</p> <p><b>Interventions selected for Implementation:</b> School, community, retailer, enforcement, policy</p> <p><b>Intervention duration:</b> 36 months (24-47 months)</p> <p><b>Comparison group:</b> No additional interventions for comparison</p>	<p>Relative change: NR                      Narrative results: No change in self-reported days drunk in a typical week p=0.25</p> <p><b>Outcome: Alcohol use related consequences- moderate consequences due to own drinking</b>                      Measure: Index of student self-reported items including: got drunk, had memory loss, had a hangover, did something later regretted, passed out, got into a verbal argument, rode with driver under the influence, missed a class, urinated in public, got sick/vomited, strained a relationship, drove a car under the influence, damaged property, was hurt or injured, and performed poorly on test or project.                      Absolute change: Estimate from random coefficient model= 0.12                      Relative change: NA                      Narrative results: Student self-reported moderate consequences due to own drinking increased in intervention communities p=0.65</p> <p><b>Outcome: Alcohol use related consequences- severe consequences due to own drinking</b>                      Measure: Index of student self-reported items including: required medical treatment, received a ticket for DUI/DWI, involved in an automobile/motorcycle accident, got into a physical fight, got into trouble with police, victim of a crime, had sex later regretted, was taken advantage of sexually, and took advantage of another sexually.                      Absolute change: Estimate from random coefficient model= -0.01 (SE0.003)                      Relative change: NA                      Narrative results: Student self-reported severe consequences due to own drinking decreased in intervention communities p=0.02                      NOTE: Authors estimated that by year 4, the observed decrease in the proportion of students experiencing 1 or more severe consequence because of their own drinking in the past 30 days translates into an average of 228 fewer students in each Intervention school experiencing these consequences</p> <p><b>Outcome: Alcohol use related consequences- interpersonal consequences due to others' drinking.</b>                      Measure: Index of student reported items including: pushed, hit, or assaulted; threatened with physical violence; physical fight; verbal argument; taken advantage of sexually; victim of sexual assault/rape; harassed because of sexual orientation, race/ethnicity, religion, or gender; personal property or residence damaged; and victim of another crime.</p>

Study	Population Characteristics	Intervention Characteristics	Results
			<p>Absolute change: Estimate from random coefficient model =-0.12 (SE 0.08)                      Relative change: NA                      Narrative results: Student reported interpersonal consequences due to other’s drinking decreased in intervention communities` -p=0.16                      NOTE: Authors found a significant dose-response interaction for this outcome (p=0.04).</p> <p><b>Outcome: Alcohol use related consequences- community consequences due to others’ drinking</b>                      Measure: Index of student self-reported items including: had sleep or studying interrupted; found cans, bottles, or other litter in or around own residence; found vomit in or around own residence; and considered transferring to another school.                      Absolute change: Estimate from random coefficient model =-0.13 (SE 0.16)                      Relative change: NA                      Narrative results: Student reported community consequences due to others’ drinking decreased in intervention communities p=0.41</p> <p><b>Outcome: Morbidity- alcohol-related injuries</b>                      Measure: Percent of students self-reported Experienced Alcohol-Related Injuries (one or more) including: automobile, motorcycle, bicycle, or all-terrain vehicle accidents; pedestrian hit by own motor vehicle; fall from height; sexual assault injuries; nonsexual assault injuries; and stab wound, gunshot wound, burn, or other serious injury.                      Absolute change: Estimate from random coefficient model =0.01% (SE 0.004)                      Relative change: NA                      Narrative results: Student self-reported alcohol related injuries increased slightly in study communities- p=0.15</p> <p><b>Outcome: Morbidity- alcohol-related injuries</b>                      Measure: Percent of student self-reported Caused Alcohol-Related Injuries to Others (one or more) including: automobile, motorcycle, bicycle, or all-terrain vehicle accidents; pedestrian hit by own motor vehicle; fall from height; sexual assault injuries; nonsexual assault injuries; and stab wound, gunshot wound, burn, or other serious injury.                      Absolute change: Estimate from random coefficient model =-0.01% (SE 0.001)                      Relative change: NA                      Narrative results: Student self-reported causing alcohol-related injuries to others decreased slightly in intervention communities p=0.03</p>



<b>Study</b>	<b>Population Characteristics</b>	<b>Intervention Characteristics</b>	<b>Results</b>
			NOTE: Authors found a significant dose-response interaction for this outcome (p<0.01)