Name of Program/Strategy: Community Trials Intervention to Reduce High-Risk Drinking

Report Contents

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1. Overview and description

Community Trials Intervention To Reduce High-Risk Drinking is a multi-component, community-based program developed to alter the alcohol use patterns and related problems of people of all ages. The program incorporates a set of environmental interventions that assist communities in (1) using zoning and municipal regulations to restrict alcohol access through alcohol outlet density control; (2) enhancing responsible beverage service by training, testing, and assisting beverage servers and retailers in the development of policies and procedures to reduce intoxication and driving after drinking; (3) increasing law enforcement and sobriety checkpoints to raise actual and perceived risk of arrest for driving after drinking; (4) reducing youth access to alcohol by training alcohol retailers to avoid selling to minors and those who provide alcohol to minors; and (5) forming the coalitions needed to implement and support the interventions that address each of these prevention components. The program aims to help communities reduce alcohol-related accidents and incidents of violence and the injuries that result from them.

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2. Implementation considerations (if available)

The program typically is implemented over several years, gradually phasing in various environmental strategies; however, the period of implementation may vary depending on local conditions and goals.

3. Descriptive information

Areas of Interest	Substance abuse prevention
Outcomes	1: Alcohol consumption patterns and related problems 2: Alcohol-related traffic crashes 3: Alcohol-related assaults
Outcome Categories	Alcohol Crime/Delinquency Environmental Change
Ages	13-17 (Adolescent) 18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)
Gender	Data were not reported/available
Races/Ethnicities	Black or African American Hispanic or Latino Race/ethnicity unspecified
Settings	Other community settings
Geographic Locations	Urban Suburban Rural and/or frontier
Implementation History	Implementation of Community Trials Intervention To Reduce High-Risk Drinking began in 1992 as the Community Trials Project. Over the past 5 years, approximately 15 sites, regional bodies, and State-level agencies have been trained on implementing the program.

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NIH Funding/CER Studies	Partially/fully funded by National Institutes of Health: Yes Evaluated in comparative effectiveness research studies: No
Adaptations	The intervention has been adapted for use with various ethnic groups living in implementation sites; for example, some presentations and brochures have been translated into Hmong and Spanish.
Adverse Effects	No adverse effects, concerns, or unintended consequences were identified by the developer.
IOM Prevention Categories	Universal

4. Outcomes

Outcome 1: Alcohol consumption patterns and related problems

Description of Measures	Alcohol consumption patterns were assessed using self-report measures administered via telephone surveys to randomly selected individuals from households in each intervention and comparison site. Among persons who drank, average frequencies of drinking were obtained from responses to a series of drinking questions (i.e., numbers of occasions drinking 2, 3, 6, and 9 or more drinks). These data were used to estimate quantities consumed per drinking occasion as well as variances in drinking quantities over time, known to be related to probabilities of heavy drinking and alcohol-related problems. Frequencies of driving while intoxicated were obtained from answers to a question about the number of days in the past 6 months a person had driven after having "too much to drink." Frequencies of drunk driving were obtained from responses to a question asking when the respondent felt he or she had driven when "over the legal limit." Responses to all these items were averaged across respondents within each 3-month period and community.
Key Findings	Individuals living in intervention sites had significant reductions in drinking quantities ($p = .008$), variances in drinking quantities ($p < .001$), rates of driving when having had too much to drink ($p = .009$), and rates of driving over the legal limit ($p = .002$) relative to

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	individuals living in comparison sites (communities that were similar to intervention sites in sociodemographics but were not exposed to the intervention). Differences between intervention and comparison sites in average frequency of drinking were not statistically significant.
Studies Measuring Outcome	Study 1
Study Designs	Quasi-Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

Outcome 2: Alcohol-related traffic crashes

Description of Measures	Alcohol-related traffic crashes were assessed using several sources: • Archival crash data from the California Statewide Integrated Traffic Reporting System and South Carolina Department of Public Safety traffic records. Monthly aggregate crash rates were computed for each community for three types of crashes: nighttime injury crashes (8:00 p.m. to 4:00 a.m.), which tend to be alcohol related; all crashes in which the driver was cited for driving under the influence (DUI) of alcohol; and, as a control, daytime crashes (4:00 a.m. to 8:00 p.m.), which are rarely alcohol related. Each crash series was adjusted for change in population size using annual estimates from the California Department of Finance and NPA Data Services, Inc. • Local police department data on alcohol-related traffic crashes. These data were aggregated on a monthly basis, which allowed for examination of changes in the neighborhoods over time. • Local emergency medical services (EMS) data, which consisted of EMS responses to injuries in which incident reports identified the source of injury as an assault, motor vehicle accident, alcohol or other drug problem, or suicide.
Key Findings	In one study, intervention sites had a significant decrease in the number of nighttime crashes per month (p = .009) relative to

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	comparison sites (communities that were similar to the intervention sites in sociodemographics but were not exposed to the intervention). In addition, during and after the active phase of the intervention, intervention sites had a significant decrease in monthly rates of DUI crashes relative to comparison sites (p = .001). In contrast, no decline in daytime motor vehicle crashes was observed. In another study, intervention sites (two neighborhoods in Sacramento, California) had a significant reduction in motor vehicle accidents (p = .28) relative to the comparison site (Sacramento at large).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Quasi-Experimental
Quality of Research Rating	3.4 (0.0-4.0 scale)

Outcome 3: Alcohol-related assaults

Description of Measures	Alcohol-related assaults were assessed using several sources: • Archival hospital discharge data, which were used to measure the observed number of alcohol- related assault cases admitted into hospitals every month from each community. Assault cases included in the analysis were limited to those that were serious and resulted in at least one overnight stay at the hospital. • Emergency department surveys conducted in one matched intervention and comparison site and in one additional intervention site. Interviewers were present in emergency departments on a weekly or biweekly basis on Friday and Saturday evenings from 9:00 p.m. to 2:00 a.m. Completed interviews included a breath test of blood alcohol content and a self-report of the cause of the injury. • Local police department data on incidents related to assault and public drunkenness. These data were aggregated on a monthly basis, which allowed for examination of changes in the neighborhoods over time.

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	• Local emergency medical services data, which consisted of EMS responses to injuries in which incident reports identified the source of injury as an assault, motor vehicle accident, alcohol or other drug problem, or suicide.
Key Findings	In one study, intervention sites had a significant decline in alcohol-related assault cases observed in emergency departments ($p = .05$) relative to comparison sites (communities that were similar in sociodemographics to intervention sites but were not exposed to the intervention). Intervention sites also had a significant decline in serious alcohol-related assault cases relative to comparison sites ($p < .001$). In another study, intervention sites (two neighborhoods in Sacramento, California) had a significant reduction in alcohol-related assaults as reported by police data ($p < .001$) and EMS data ($p = .019$) relative to the comparison site (Sacramento at large).
Studies Measuring Outcome	Study 1, Study 2
Study Designs	Quasi-Experimental
Quality of Research Rating	3.3 (0.0-4.0 scale)

5. Cost effectiveness report (Washington State Institute of Public Policy – if available)

6. Washington State results (from Performance Based Prevention System (PBPS) – if available)

7. Who is using this program/strategy

Washington Counties	Oregon Counties
Kittitas	

8. Study populations

The following populations were identified in the studies reviewed for Quality of Research.

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Study	Age	Gender	Race/Ethnicity
Study 1	13-17 (Adolescent) 18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	Data not reported/available	Data not reported/available
Study 2	13-17 (Adolescent) 18-25 (Young adult) 26-55 (Adult) 55+ (Older adult)	Data not reported/available	62% Race/ethnicity unspecified 21% Hispanic or Latino 17% Black or African American

9. Quality of studies

The documents below were reviewed for Quality of Research. Other materials may be available. For more information, contact the developer(s).

Study 1

Holder, H. D., Gruenewald, P. J., Ponicki, W. R., Treno, A. J., Grube, J. W., Saltz, R. F., et al. (2000). Effect of community-based interventions on high-risk drinking and alcohol-related injuries. Journal of the American Medical Association, 284(18), 2341-2347.

Study 2

Treno, A. J., Gruenewald, P. J., Lee, J. P., & Remer, L. G. (2007). The Sacramento Neighborhood Alcohol Prevention Project: Outcomes from a community prevention trial. Journal of Studies on Alcohol and Drugs, 68(2), 197-207.

Supplementary Materials

Gruenewald, P. J., & Johnson, F. W. (2006). The stability and reliability of self-reported drinking measures. Journal of Studies on Alcohol, 67(5), 738-745.

Holder, H. D., Saltz, R. F., Grube, J. W., Treno, A. J., Reynolds, R. I., Voas, R. B., et al. (1997). Summing up: Lessons from a comprehensive community prevention trial. Addiction, 92(Suppl. 2), S293-S301.

Holder, H. D., Saltz, R. F., Grube, J. W., Voas, R. B., Gruenewald, P. J., & Treno, A. J. (1997). A community prevention trial to reduce alcohol-involved accidental injury and death: Overview. Addiction, 92(Suppl. 2), S155-S171.

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Holder, H. D., Saltz, R. F., Treno, A. J., Grube, J. W., & Voas, R. B. (1997). Evaluation design for a community prevention trial. An environmental approach to reduce alcohol-involved trauma. Evaluation Review, 21(2), 140-165.

Information on the reliability and validity of measures used in the studies

Treno, A. J., & Holder, H. D. (2001). Prevention at the local level. In N. Heather, T. J. Peters, & T. R. Stockwell (Eds.), International handbook of alcohol dependence and problems (pp. 771-783). New York: John Wiley & Sons.

Treno, A. J., Lee, J. P., Freisthler, B., Remer, L. G., & Gruenewald, P. J. (2005). Application of evidence-based approaches to community interventions. In T. Stockwell, P. J. Gruenewald, J. W. Toumbourou, & W. Loxley (Eds.), Preventing harmful substance use: The evidence base for policy and practice (pp. 177-189). New York: John Wiley & Sons.

Quality of Research Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the Quality of Research for an intervention's reported results using six criteria:

1. Reliability of measures
2. Validity of measures
3. Intervention fidelity
4. Missing data and attrition
5. Potential confounding variables
6. Appropriateness of analysis

For more information about these criteria and the meaning of the ratings, see Quality of Research.

Outcome	Reliability of Measures	Validity of Measures	Fidelity	Missing Data/Attrition	Confounding Variables	Data Analysis	Overall Rating
1: Alcohol consumption patterns and related problems	3.5	3.5	2.5	4.0	2.5	4.0	3.3
2: Alcohol-related traffic crashes	4.0	4.0	2.0	4.0	2.5	4.0	3.4
3: Alcohol-related assaults	3.8	3.8	2.0	3.5	2.8	4.0	3.3

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Study Strengths

The reliability and validity of measures used in the studies are well established. Missing data and attrition were taken into account in the analyses, and threats to internal validity were minimal. The analyses conducted across the studies were in concert with the intended outcomes and support the statistical significance of the results. The evaluation of the intervention was well conducted, and data collection methods were appropriate.

Study Weaknesses

There is little if any solid information indicating whether the five components of the intervention were delivered with fidelity to the intervention plan. In addition, it is not clear whether adjustments were made to account for potential confounding variables resulting from, for example, nonrandom selection of intervention and comparison sites and unsolicited responses on the telephone survey.

10. Readiness for Dissemination

The materials below were reviewed for Readiness for Dissemination. The implementation point of contact can provide information regarding implementation of the intervention and the availability of additional, updated, or new materials.

Dissemination Materials

National Highway Traffic Safety Administration, U.S. Department of Transportation. (2001). Community how to guides: Underage drinking prevention. Retrieved from http://www.nhtsa.dot.gov/people/injury/alcohol/community%20guides%20html/guides_index.html

Pacific Institute for Research and Evaluation. (n.d.). Center for the Dissemination of Environmental Strategies To Reduce High Risk Drinking [Pamphlet]. Berkeley, CA: Author.

Prevention Research Center. (1992). Interviewers' manual for the Community Trials Project. Berkeley, CA: Author.

Prevention Research Center. (1994). Blood alcohol concentration and breathalyzers. Berkeley, CA: Author.

Prevention Research Center. (1996). Guide to responsible alcohol sales: Off-premise clerk, licensee, and manager training. Berkeley, CA: Author. Retrieved from http://www.pire.org/communitytrials/manuals/off-premise.pdf

Prevention Research Center. (1996). Responsible alcohol service (RAS) on-premise licensee/manager training: Trainer's guide. Berkeley, CA: Author. Retrieved from http://www.pire.org/communitytrials/manuals/on-premise.pdf

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Prevention Research Center. (n.d.). SNAPP management information system manual. Berkeley, CA: Author.

Prevention Research Center. (n.d.). Survey training manual: Oceanside roadside and emergency room survey. Berkeley, CA: Author.

Prevention Research Center, Pacific Institute for Research and Evaluation (Producer). (2002). Community Prevention Trials [Video]. Retrieved from http://www.prev.org/prc/outcomes.wmv

Program Web site, http://www.pire.org/communitytrials/index.htm

Remer, L., & Treno, A. (1999). SNAPP data manager's manual. Berkeley, CA: Prevention Research Center.

Roeper, P., Remer, L., & Holder, H. (1998). Community data manager's manual: Community Trials Program to prevent alcohol-involved trauma. Berkeley, CA: Prevention Research Center.

Treno, A. (n.d.). Community Trials Intervention To Reduce High Risk Drinking [PowerPoint slides]. Berkeley, CA: Prevention Research Center.

Readiness for Dissemination Ratings by Criteria (0.0-4.0 scale)

External reviewers independently evaluate the intervention's Readiness for Dissemination using three criteria:

1. Availability of implementation materials
2. Availability of training and support resources
3. Availability of quality assurance procedures

For more information about these criteria and the meaning of the ratings, see Readiness for Dissemination.

Implementation Materials	Training and Support Resources	Quality Assurance Procedures	Overall Rating
3.0	2.9	2.5	2.8

Dissemination Strengths

Program "how to" guides are clearly written with broad topical coverage. Initial consultation and assistance in selecting program components is provided through the developer. Many training and implementation materials are available at no charge through the developer's Web site. Training and technical assistance are available to implementers. Data management and evaluation tools are provided to support quality assurance.

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Dissemination Weaknesses

Program materials provide a conceptual framework but do not describe the step-by-step implementation of program components in detail. It is unclear whether step-by-step implementation is addressed during training because training is not standardized or required for implementers. More information is needed on how to evaluate and sustain each program component using the quality assurance tools provided.

11. Costs (if available)

The information below was provided by the developer and may have changed since the time of review. For detailed information on implementation costs (e.g., staffing, space, equipment, materials shipping and handling), contact the developer.

Item Description	Cost	Required by Program Developer
Implementation materials, training, technical assistance/consultation, and quality assurance materials	Contact the developer	Contact the developer

Additional Information

Training on program implementation is available from the developer and typically costs less than $10,000, including the cost of the training manual. Implementation minimally requires a full-time project manager. Other costs vary by community depending on the specific intervention components to be used (e.g., training for beverage servers, local media awareness campaigns) and plans for evaluation. Some materials, including a video describing the program, are available for free on the program Web site.

12. Contacts

For information on implementation:

Andrew J. Treno, Ph.D.
(510) 486-1111
andrew@prev.org

Learn More by Visiting: http://www.pire.org/communitytrials/index.htm

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