

Table 1. Effectiveness of multicomponent programs with community mobilization for reducing alcohol-impaired driving

Study; (length of study period); design suitability: design, quality of execution, evaluation setting	Interventions; comparison groups	Program focus community participation community control	Outcomes ^a and results
Rhode Island Department of Health (1994) ¹² (30 months) Greatest: Group randomized trial Fair Woonsocket RI (pop. ~45,000)	Interventions included 1. Responsible beverage service policies and server training (5-hour session; trained about 61% of servers in the community) 2. Sobriety checkpoints and radar patrols for speeding, police training (funding ended in 1997 and economic problems resulted in severely limited police budgets) 3. Selective enforcement patrols of licensed establishments targeted at detecting underage drinkers Comparison to two other RI communities that applied for funding (Newport and Westerly)	Alcohol-related injuries Part-time organizer mobilized community support Community representatives had some input into intervention strategies	Rates of late-night or weekend single-vehicle crashes involving males aged <30 years decreased by 1% in the program and comparison communities, resulting in 0% net change (95% CI: -13%, +15%) Rates of total late-night crashes decreased by 16% (95% CI: -25%, -7%) in the program community relative to the comparison communities Alcohol-related arrests increased in the program community relative to comparison communities
Hingson (1996) ¹³ (60 months) Greatest: Before-and-after with concurrent comparison Fair Six communities in Massachusetts (pop. ~100,000 each)	Communities were awarded 5-year grants (\$70,000/year or about \$1/resident) to be used for reducing alcohol-impaired driving as well as other related problems such as speeding, other moving violations, and failure to wear safety belts. Fifty percent of funds were used to pay full-time coordinator, 20% for increased enforcement, and the balance for program activities Comparison to five matched communities (which also had qualifying grant proposals) and to the rest of Massachusetts	Traffic safety Coalitions primarily responsible for intervention implementation Interventions selected by coalitions	The number of alcohol-related fatal crashes declined by 42% relative to the comparison communities (95% CI: -68%, +8%) All program communities had greater decreases in fatal crashes than comparison communities or the rest of the state Self-reported driving after drinking decreased among adults and those aged 16-19 years in program communities relative to the comparison communities, resulting in a 21% net decline for adults (95% CI: -38%, -3%) and a 53% net decline for those aged 16-19 years (95% CI: -72%, -26%)
Holder (2000) ¹⁵ (66 months) Greatest: Time series with concurrent comparison Fair Three communities in Northern California, Southern California, and South Carolina (pop. ~100,000 each)	Interventions included 1. Community mobilization to support preventive interventions and raise community awareness (via formation of community coalitions and media advocacy) 2. Assist alcohol servers and retailers in implementing service policies to reduce intoxication and alcohol-impaired driving 3. Reduce underage access to alcohol from off-site premises through retailer training and increased enforcement of MLDA laws 4. Increase actual and perceived risk of arrest for alcohol-impaired driving through enhanced enforcement efforts (including checkpoints: 410 in the three communities over the program period) and attendant publicity 5. Assist communities in developing local policies to limit access, such as use of zoning regulations to limit outlet density Comparison to matched communities	Alcohol-related injury Coalitions primarily responsible for intervention implementation Basic intervention elements were mandatory	Nighttime injury crashes decreased by 10% relative to the comparison communities (95% CI: -14%, -4%) Self-reported driving while over the legal limit in the program communities decreased from 0.77 occasions per 6-month interval to 0.38 occasions per 6-month interval, for a net reduction of 51% (95% CI: -70%, -21%)

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Table 1. (continued)

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Hingson (2005) ¹⁶ (120 months) Greatest: Before-and-after with concurrent comparison Fair Milwaukee WI ^b Santa Barbara CA ^b Vallejo CA ^b Kansas City MO San Antonio TX	Evaluated a subset of five Fighting Back communities that implemented at least eight interventions to reduce alcohol availability or increase alcohol treatment Commonly implemented interventions included increased access to treatment, ED-based screening and referral, sting operations enforcing MLDA laws, responsible beverage service training, revised ordinances on public consumption or beverage sales, and actions to address problematic outlets or outlet density. One site implemented enhanced enforcement for alcohol-impaired driving Funding levels were \$3–4 million per program for first 5 years; \$0.2–0.3 million for next 5 Compared ratio of alcohol-related to non-alcohol-related fatal crashes in targeted cities with such ratios in matched cities in same states (at three BAC levels)	Limit alcohol availability and expand treatment services Coalitions were primarily responsible for intervention implementation Interventions were selected by coalitions	Relative odds of drivers in fatal crashes having BACs of $\geq 0.08\%$: Decreased by 9% (95% CI: –19%, +4%) across all five program communities Decreased by 25% (95% CI: –45%, +3%) across three communities where the program targeted the entire community Estimated effects were larger for fatal crashes with driver BACs $\geq 0.01\%$: –11% (95% CI: –21%, 0%) for five program communities and –30% (95% CI: –47%, –7%) for three communities where the program targeted the entire community Estimated effects were also larger for fatal crashes with driver BACs $\geq 0.15\%$: –12% (95% CI: –45%, 3%) for five program communities and –34% (95% CI: –46%, –2%) for three communities where the program targeted the entire community
Wagenaar (2000) ¹⁷ Wagenaar (1999) ²⁹ Wagenaar (2000) ²⁶ (30 months) Greatest: Group randomized trial Fair Seven communities in Minnesota and western Wisconsin (range: ~8000–65,000 pop.)	Communities were mobilized to change formal and informal policies and practices related to underage drinking, and to raise awareness of underage drinking as a serious problem Interventions included revised policies on public consumption or beverage sales at community events, responsible beverage service training, monitoring of underage purchase attempts at liquor stores, and public education Comparison to 8 communities randomly selected from a pool of 15 matched communities	Underage drinking Coalitions primarily responsible for intervention implementation Interventions selected by coalitions (with technical assistance)	Reduction in the numbers of crashes cannot be determined from data presented Linear regression modeling estimated the rate of change in single-vehicle nighttime injury crashes: Among those aged 18–20 years went from –0.18/quarter to –0.11/quarter in the program communities, versus a change from –0.14/quarter to –0.02/quarter in the control communities (net change in slope=–0.06/quarter; 95% CI: –0.69, +0.58) Among those aged 15–17 years went from –0.11/quarter to –0.08/quarter in the program communities, versus a change from –0.08/quarter to +0.18/quarter in the control communities (net change in slope=–0.23/quarter; 95% CI: –0.80, +0.34) On-sale alcohol establishments (e.g., bars) in program communities experienced a net increase of 17% ($p=0.06$) in the proportion checking age identification; off-sale establishments (e.g., liquor stores) experienced a net increase of 15% ($p=0.17$) Alcohol sales to buyers who appeared underage experienced a net decline of 24% ($p=0.06$) in on-sale establishments and 8% ($p=0.29$) in off-sale establishments Small, nonsignificant net decreases in prevalence and frequency of self-reported alcohol consumption were reported for both age groups

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