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National Evaluation of the Enforcing Underage Drinking Laws Randomized Community Trial

Final Report
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Section 1 Executive Summary

This is the final report of the National Evaluation of the Enforcing Underage Drinking Laws Program Randomized Community Trial, covering the entire project period (2003-2009). The report describes the goals and objectives of the study, outlines the design and methods used in the evaluation, and summarizes the results. In addition, it provides a discussion of challenges and accomplishments of the study, as well as recommendations for future research and practice

The report is divided into eight major sections.

Section 1: Executive Summary
Section 2: Overview and Methods
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Sections 2 through 8 are summarized in this Executive Summary.

Section 2: Overview and Methods

Background

Alcohol use by underage youth is pervasive in the United States. It is associated with widespread health, developmental, legal, and economic consequences. These consequences include injuries from motor vehicle crashes, as well as drownings and (sometimes fatal) injuries from house fires and falls. Alcohol use is also associated with unsafe sex practices, placing youth at risk of HIV infection and other sexually transmitted diseases, as well as non-use of contraceptives.

In addition to consequences for physical health, alcohol use by youth can have deleterious effects on psycho-social development. Early onset of alcohol use is a risk factor for progression to illicit drug use, and may have deleterious effects on cognitive

and psychosocial development. Finally, alcohol use by youth may impede their ability to reach education and occupational goals.

Alcohol use by youth may also be associated with significant legal consequences. Violations of "liquor laws" frequently pull youth into the justice system. Enforcement of laws prohibiting driving under the influence of alcohol is a major component of the work of state and local law enforcement authorities. Alcohol use by youth is a risk factor for commission of violent crime and for being the victim of violent crime. Alcohol use also has important economic consequences.

Despite the positive effects of a universal 21-year-old drinking age, large numbers of persons under the age of 21 drink, and many experience negative consequences associated with underage drinking, as described above. One important reason for continuing high levels of youth drinking is the ease with which they can obtain alcoholic beverages. One contributing factor to the ready availability of alcohol to youth has been relatively low levels of enforcement activities, especially enforcement efforts targeting illegal sales of alcoholic beverages to individuals under the age of 21

The Enforcing Underage Drinking Laws Program

The OJJDP Enforcing Underage Drinking Laws Program (EUDL) has been funded by an annual appropriation of $25 million since its inception in Fiscal Year 1998. Block and discretionary grants are awarded to states to "support and enhance efforts by States, in cooperation with local jurisdictions, to prohibit the sale of alcoholic beverages to, or the consumption of alcoholic beverages by, minors (persons under the age 21)." In addition, the program includes training and technical assistance provided by the Underage Drinking Enforcement Training Center of the Pacific Institute for Research and Evaluation (PIRE) and program evaluation efforts conducted by Wake Forest University School of Medicine (WFUSM), PIRE, and ICF International.

In the first six years of the EUDL program (FY 1998 through FY 2002 appropriations), OJJDP awarded discretionary grants every year to selected states on a competitive basis. These two-year, $400,000 grants were to be used by states to "encourage comprehensive community programs that have a special emphasis on law enforcement related to the sale of alcohol to minors." The main objectives of these grants were to "establish or encourage comprehensive community programs to reduce underage drinking, with a special emphasis on increasing law enforcement activity regarding sale of alcohol to underage youth, to encourage youth leadership, to build upon the activities developed under the [Block Grant] funding, and to evaluate these programs." Types of local programs that could be supported by the discretionary grants included "community task forces; current needs assessments and strategic plans; a special emphasis on increased law enforcement efforts; review and improvement of policies, regulations, and laws; prevention and awareness efforts; and documentation of accomplishments and process by which they were achieved."

Applying a Community Trials Approach to the FY 2003 EUDL Discretionary Grant Program

The EUDL Randomized Community Trial, which was funded under the FY 2003 appropriation, represented a significant evolution of the EUDL discretionary program. As the name implies, it reflected a shift to what is known as a "community trial" design. Over the past 20 years, community trials—which are systematic experiments evaluating the impact of interventions applied at the community level--have gained currency in scientific research funded by the National Institutes of Health, the National Institute of Justice, and other agencies. Community trials treat "intact social units"—such as neighborhoods, schools, work-sites, or entire communities—as the units of analysis in experimental research. This approach allows the rigorous assessment of the effects of a wide variety of community interventions on the population of neighborhoods, schools, work-sites, or communities.

Systematic community trials were first used to assess population-level interventions focusing on the prevention of heart disease, but have more recently been applied to the evaluation of efforts to prevent underage drinking, alcohol-related injury, youth access to tobacco products, and youth violence and victimization. The hallmarks of community trials are (1) interventions are applied to entire communities, (2) interventions are standardized, to the extent possible (allowing for adaptation to local circumstances), and (3) appropriate statistical methods that take account of the "nesting" of individuals within communities are used. Ideally, eligible communities are identified and then randomly assigned to either an "Intervention" or "Comparison" condition. Community trials are particularly well-suited to assessing interventions focused on entire communities and interventions that focus on prevention.

The EUDL program was seen as providing an excellent opportunity for the application of a community trials approach for a number of reasons:

- The manner in which funding is structured in the discretionary grant program lent itself to the application of a community trials design (i.e., funding of local communities to implement interventions to reduce underage drinking).

- OJJDP was in a good position to specify the program elements that would go into an exemplary intervention that could be implemented at the local level.

- Systematic implementation and evaluation of "best" or "most promising" practices using a community trials approach would provide extremely useful models that other states and local communities could emulate.

- A community trials approach would allow a state-of-the-art evaluation of the effectiveness of "best" or "most promising" practices implemented in the context of the EUDL program.

As a result of these considerations, OJJDP decided to use the discretionary grant portion of the FY 2003 appropriation to coordinate funding to the States, technical assistance, and evaluation efforts to support a randomized community trial.

Overall Goals and Objectives of the EUDL Community Trial

This project was a collaborative effort between OJJDP, WFUSM, and PIRE to implement and rigorously evaluate the impact of a subset of "best" or "most promising" practices implemented in the context of the EUDL program, and disseminate this information to EUDL stakeholders, including OJJDP, and the state, territorial, and DC programs**.** WFUSM conducted the evaluation using a community trials approach, where nominated communities in states selected for participation in the trial were paired using background characteristics, with one member of each pair randomly assigned to be either an intervention or comparison community.

The overall goal of the evaluation was to determine the effects of a local, coalition-based approach to implementing "best" or "most promising" strategies for increasing enforcement of laws related to underage drinking and reducing underage drinking.

Selection of Communities

A solicitation for the EUDL Community Trial was released in May 2003. States responding to the solicitation were required to provide a list of 14 to 28 cities/towns that were interested in, and eligible for, participation in the Community Trial should the state be funded. Eligibility requirements included the following:

1. Must be an incorporated city or town with population between 25,000 and 200,000.
2. Must not have implemented two or more of the following strategies in the two years preceding the date of the solicitation:
    - At least two compliance checks per year conducted in at least 90 percent of off-premise alcohol outlets.
    - One additional enforcement operation from a table provided in the solicitation under the heading "other enforcement approaches."
    - Adoption of one new local policy or improvement in at least one existing local policy (which may include college or other institutional policies as well as public policies) related to underage drinking.
    - One or two DWI enforcement operations with a focus on youth.

Based on their proposals, 5 states were funded to participate in the EUDL-CT. The evaluation team matched the nominated communities within each funded state based on population, median family income, the percentages of the population that are Black, Hispanic, speak Spanish, and are currently in college, and arrest rate for liquor law violations by 16-20 years olds (per 100,000 of total population). Following creation of pairs, communities were randomly assigned to either the intervention or comparison condition. This process resulted in good balance on community-level characteristics. (Note: one State A intervention community dropped out prior to funding; the comparison site to which it was paired was also removed from the study).

Intervention

The 34 intervention sites received substantial funding, intensive technical assistance and training (provided by PIRE's Underage Drinking Enforcement Training Center), and program oversight to support the implementation of best and most promising practices for reducing underage drinking using an environmental approach.

Five grants were awarded in the amount of $960,000 each for a 3-year period. (Approximately $125,000 was granted to the intervention communities selected.) Each state receiving discretionary funding for the Community Trial grant was required to provide a manager for the EUDL-CT program. The state program manager (DSM) was responsible for monitoring, coordinating, and providing training and support for the implementation sites, with OJJDP's technical assistance and training support provided by PIRE

The DSM worked with the seven randomly assigned intervention communities (six in State A) to ensure that each had at least a part-time local coordinator. The local coordinator was responsible for developing and maintaining a local coalition to select and implement best and most promising practices described above.

Within 90 days of executing the subcontracts with the intervention communities, each funded site was expected to have developed and submitted a document that included an assessment of environmental factors related to underage drinking in the community and a systematic workplan. The plan described how to address the problem through the use of best and most promising practices to increase the enforcement of underage drinking laws and reduce underage drinking. However, because of variation across the states in award dates for the state's grant and in the award dates for subcontracts to local communities, as well as other factors, there was variability in the timing of the workplan approval dates and in when sites would complete their grant requirements

Each site is required to achieve the following objectives by the end of the intervention period:

- Implement at least two compliance check operations in at least 90% of off-premise alcohol outlets per year.
- Conduct at least one DWI enforcement operation with a focus on youth.
- Conduct at least one additional enforcement operation focused on social availability of alcohol (which could be selected from the following: alcohol outlet parking lot monitoring/patrolling; enforcement of ordinances focused on parents and landlords who permit underage drinking parties to take place; education of parents, landlords about their rights and responsibilities related to underage drinking parties on their property; train officers to promote better enforcement; conduct "shoulder tap" operations).
- Adopt at least one new institutional or public policy (or improvement in at least one existing policy) related to underage drinking (from a specified list of policies that had been identified as promising or effective practices).

Intervention communities had numerous resources available to implement their workplans. Each intervention site was awarded approximately $125,000 to implement the specified best and most promising practices. The grant provided funding for a local coordinator and funds for program implementation. The DSM provided the first line of assistance to local coordinators and their community coalitions. DSMs worked with their communities to establish coalitions, troubleshoot issues, and set up training and technical assistance through PIRE. The Evaluation team also provided feedback of data to the intervention sites.

Data Collection Activities

The evaluation of the community trial included both a Process Evaluation and an Impact Evaluation component. The Process Evaluation included a Local Coalition Survey, Policy Tracking, and an Activity Tracking system (see Table 1.1).

Table 1.1 Process Evaluation Design

Methods	Year			
	2004	2005	2006	2007
Local Coalition Survey	34 I	34 I	34 I	34 I
Site Visits	Orientation	N/A	Sample of I	Sample of I
Policy Tracking	34 I, 34 C			
Activity Tracking	34 I			N/A

I = Intervention Communities, C = Comparison Communities

Data collection methods for the Impact Evaluation include a Youth Survey and a Law Enforcement Agency Survey (see Table 1.2).

Table 1.2 Impact Evaluation Design

Methods	Year			
	2004	2005	2006	2007
Youth Survey	34 I 34 C	34 I 34 C	34 I 34 C	34 I 34 C
Law Enforcement Agency Survey	34 I 34 C	34 I 34 C	34 I 34 C	34 I 34 C

I = Intervention Communities, C = Comparison Communities

Conclusion to the Overview and Design Section

The EUDL Randomized Community Trial represented an innovative approach, in that it was the first time that a randomized community trial was undertaken in the context of an

existing Federal program. A solid evaluation design and a comprehensive set of methods were developed to evaluate the trial

Section 3: EUDL-CT Grant Requirements

Overview of Grant Requirements
The overall goal of the EUDL-CT evaluation was to determine the effects of a local, coalition-based approach to implementing "best" or "most promising" strategies for increasing enforcement of laws related to underage drinking and reducing underage drinking.

Each site was required to achieve the following objectives by the end of the intervention period:

- Implement at least two compliance check operations in at least 90% of off-premise alcohol outlets per year.
- Conduct at least one DWI enforcement operation with a focus on youth.
- Conduct at least one additional enforcement operation focused on social availability of alcohol to youth (from a specified list of operations that had been identified as promising or effective practices).
- Adopt at least one new institutional or public policy, or improvement in at least one existing policy, related to underage drinking (from a specified list of policies that had been identified as promising or effective practices).

Section 3 reports the extent to which the EUDL CT sites exceeded, met, or failed to meet each of the grant requirements.

Compliance Checks
Fulfillment of the compliance check requirement was assessed using the *Community Trials Compliance Check Worksheet.* This Excel worksheet was filled out by the Local Coordinator in each site and then used by the local coalition, Discretionary State Manager, and national partners to assess compliance with the 90% grant requirement.

Overall, 24 of the 34 EUDL CT sites (71%) met the grant requirement of conducting compliance checks in 90% of off-site premises twice a year for each of two implementation years. As might be expected, sites were more successful in reaching the 90% goal for a first check (97% in both Year 1 and Year 2) than for a second check (Year 1, 76%; Year 2, 87%). Conducting the checks outside of the implementation year (i.e., before workplan approval) and manpower issues were the most common reasons given for not meeting the grant requirements.

Social Availability Enforcement
Fulfillment of the social availability enforcement requirement was assessed using a web-based Activity Tracking system. Local Coordinators were responsible for entering activities in the web-based Activity Tracking system on a monthly basis.

Overall, all 34 sites (100%) met the requirement of completing at least one social availability enforcement operation during the two-year intervention period. Twenty-eight

sites conducted multiple social availability operations, and six sites conducted one operation. Party patrols were conducted by the greatest number of sites (23), followed by parking lot patrols (15) and shoulder taps (10).

DWI Enforcement

Fulfillment of the DWI enforcement requirement was also assessed using the web-based Activity Tracking system.

Overall, 33 of the 34 sites (97%) met the requirement to conduct at least one DWI enforcement operation with a focus on youth over the course of the 2-year intervention period. Twenty-nine of 34 (85%) sites conducted DWI enforcement in Year 1, and 27 of 34 (79%) conducted DWI enforcement in Year 2. The majority of the sites conducted Emphasis Patrols (19 sites in Year 1 and 18 sites in Year 2). Fifteen sites conducted Sobriety Checkpoints in Year 1, and 14 did so in Year 2.

Policy Implementation

Fulfillment of the policy requirement was assessed using our policy tracking system. The Evaluation Team gathered information about local public policies adopted or amended during the intervention period by using on-line sources, such as city government websites, supplemented by emails for clarification sent to city clerks, where necessary. For the intervention communities, on-line municipal codes were also cross-referenced with policy outcomes that were entered into the Activity Tracking system by local coordinators or mentioned by local coordinators or coalition members during evaluation team site visits.

Overall, 29 of 34 (85%) sites met the requirement to adopt or improve a local policy to reduce underage drinking. Fifteen of 34 (44%) sites passed or amended public policies, and 19 (56%) adopted institutional policies. With respect to public policies, social host policies were the most frequently passed (8 sites in 3 states), followed by policies that addressed minor in possession/intoxication (6 sites in 4 states), penalties for providers (3 sites in 1 state), limited hours of sale (3 sites in 2 states), and rezoning (2 policies in 2 states).

The most common institutional policies dealt with responsible retailer protocols for verifying age of patrons entering taverns and bars (9 policies in 4 sites, all in the same state), followed by law enforcement agency internal policies (e.g., party dispersal protocols and increased enforcement during key holidays or community events) (6 sites in 4 states); penalties for retailers, which included uniform guidelines for plea offers (5 sites in 3 states); and school policies (e.g., use of breathalyzers in schools, closing a high school campus to freshmen during lunch, requiring parents of prom attendees to attend information sessions, banning alcohol at a university's football games) (5 sites in 4 states).

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The magnitude of the policy effort stimulated by the EUDL CT is illustrated by a comparison of Intervention and Comparison communities with respect to passage of public policies. Intervention communities passed 26 public policies during the

intervention period, compared to only three public policies passed in comparison communities

Summary of Grant Requirements
The EUDL CT set a high standard with respect to intervention strategies to be implemented during the implementation period. By and large, the states and sites were somewhat successful in meeting this standard. All 34 sites met the requirement for social availability enforcement, 33 of 34 (97%) met the requirement for DWI enforcement, 29 met the requirement for policy, and 24 met the requirement for compliance checks (for which the bar was set the highest). Overall, 18 of 34 sites, or 53%, met all four requirements of the EUDL CT.

Section 4: Impact Evaluation Results

Section 4 reports the results from the analyses of impact, which involved examination of data from the Youth Survey, the Site Level Dose Analysis, and the Law Enforcement Agency Survey.

Section 4.1: Youth Survey

The first set of analyses examined change over time in the cohorts of youth in the Intervention and Comparison communities. Of the 10 measures of drinking behavior examined, only one, self-reported past 30-day drunkenness, showed a statistically significant difference between youth in the Intervention and Comparison communities. However, this difference favored the Comparison communities (i.e., as youth in the cohort aged, there was a 31% increase in drunkenness in the Intervention condition compared to a 23% increase in the Comparison condition). Of nine measures of drinking norms and perceptions, we found two statistically significant differences, both favoring youth in the Intervention communities. As youth aged, there was a smaller reduction in the Intervention communities compared to the Comparison communities in the perception that their parent would talk to them, or "yell" at them, if they were found to be drinking.

The second set of analyses examined changes over time in the repeated cross-sectional samples of youth in the Intervention and Comparison communities. Again, we examined 10 measures of drinking behavior. We found no differences between the Intervention and Comparison communities in change over time in these analyses. We also examined changes over time in drinking norms and perceptions in the repeated cross section. We found one statistically significant difference, which favored youth in the Intervention communities. Specifically, there was a slight increase over time in the Intervention communities in a perception that it is very likely that school officials would catch you drinking (from 28% to 30%), with a slight decrease in the Comparison communities (from 31% to 30%).

In summary, these analyses yielded limited evidence of the efficacy of the EUDL CT. Across the cohort and repeated cross-sectional samples, the only evidence of change in actual drinking behaviors favored the Comparison communities (past 30-day drunkenness). There was some evidence of changes favoring the Intervention communities in perceptions and norms (youths' expectations about the response of parents and school officials to drinking).

Section 4.2: Site Level Dose Analysis

The purpose of the Site Level Dose (SLD) analysis was to offer a secondary analysis examining the relationship between degree of implementation of the EUDL intervention and youths' drinking attitudes and behaviors. The SLD analysis point out where higher level of implementation resulted in "better" outcomes.

There were three findings in which sites that had higher levels of implementation of the EUDL intervention showed more favorable outcomes. In the cohort sample, youth in sites that showed high levels of implementation of core strategies showed less of a reduction as they aged in the perception that parents would yell at them if they were caught drinking than youth living in sites with lower levels of implementation. In the cross sectional sample, youth who lived in sites with high levels of SLD showed larger increases over time in perceptions that it is likely that they would be caught by police for underage drinking than youth living in other sites. There were comparable increases in the high SLD sites in the perception that the community "cares a great deal" about underage drinking.

Thus, the SLD analyses provide some evidence that sites with higher levels of implementation of the EUDL intervention also had better outcomes. However, this evidence is limited to normative outcomes—including expectations about parental and police sanctions, and about the community's level of concern about underage drinking. It did not extend to behavioral outcomes, such as actual drinking practices, and experiencing negative consequences from underage drinking.

Section 4.3: Law Enforcement Agency Survey

The purpose of the Law Enforcement Agency (LEA) Survey was to assess the impact of the EUDL Community Trial (EUDL-CT) on law enforcement agencies. The survey focused on the level and form of enforcement efforts related to youth alcohol use in the community, as well as perceived support for, and barriers to, underage drinking enforcement. Within the EUDL-CT program, the focus of local community efforts was primarily at the city level rather than the county level. Therefore, the LEA data was analyzed using only police department data.

Three of the four grant requirements for intervention communities involved the implementation of law enforcement strategies to reduce underage drinking. The discussion of results is organized around fulfillment of these grant requirements.

Grant Requirement 1: Compliance Checks

By the end of the intervention period, communities participating in the EUDL discretionary grant program were expected to have implemented at least two compliance check operations in at least 90% of off-premise alcohol outlets per year. Based on data from the LEA survey, the percentage of agencies that reported conducting compliance checks in the Intervention communities grew from 74% at baseline to 97% by the end of the grant period, while Comparison communities decreased from 72% at baseline to only 69% at follow-up (this change is statistically significant: p=0098). Additionally, the average number of off-premise outlets that received two or more compliance checks increased in the intervention communities from 20.9 to 35.0 and decreased in the comparison communities from 21.1 to 15.9 (this difference approached statistical significance: p=0.07).

Grant Requirement 2: DWI Enforcement

By the end of the intervention period, communities participating in the EUDL discretionary grant program were expected to have conducted at least one Driving While Intoxicated (DWI) enforcement operation with a focus on youth. These DWI operations could take two forms: emphasis/saturation patrols or sobriety checkpoints. Based on LEA data, the percentage of agencies that reported conducting emphasis/saturation patrol operations in the Intervention communities fell from 100% at baseline to 86% by the end of the grant period, while Comparison communities remain unchanged at 89% at baseline and follow-up (this difference was not statistically significant). The percentage of agencies that reported conducting sobriety checkpoint operations in the Intervention communities increased slightly (from 85% at baseline to 88% by the end of the grant period), while decreasing slightly in Comparison communities (86% at baseline to 84% at follow-up) (this difference was not statistically significant).

Grant Requirement 3: Social Availability Enforcement

By the end of the intervention period, communities participating in the EUDL discretionary grant program were expected to conduct at least one additional enforcement operation focused on social availability. These operations could include parking lot surveillance, shoulder taps, or party patrols. The percentage of agencies that reported conducting party patrol operations in the Intervention communities grew from 43% at baseline to 79% by the end of the grant period, while decreasing in Comparison communities from 52% to 46% (this change was statistically significant: p=.027). The percentage of agencies that reported conducting shoulder tap operations in the Intervention communities grew from 22% at baseline to 42% by the end of the grant period, while decreasing in Comparison communities from 37% at baseline to only 26% at follow-up (see Table 5-12). This change was not statistically significant (p=.336).

Section 5: Process Evaluation Results

Section 5 describes the results of the Process Evaluation, including the Local Coalition Survey, Activity Tracking, and Site Visits.

Section 5.1: Local Coalition Survey

Each EUDL-CT coalition was directed by a governing board whose members represented a variety of community sectors. Law enforcement was the most represented sector, followed by education, local government, substance abuse prevention and community at large members. Over half of the governing boards included at least one youth representative. College educated, white males who lived in the community represented the majority of coalition members. Local coordinators were more likely to be white, college educated females living in the community. Over 50% of the coalitions grew out of pre-existing coalitions.

The EUDL-CT coalitions benefited from the past experiences of their members, with the majority of LCs and CMs who participated in our survey having been involved in underage drinking or substance abuse prevention and having participated in a coalition before they became involved in their EUDL-CT coalition. Respondents reported high levels of involvement in working with others at local and state levels to address underage drinking issues prior to their involvement in the EUDL-CT coalition. Both LCs and CMs reported that underage drinking became a higher priority for their host agencies following the inception of their EUDL-CT coalition, and remained high for the duration of the community trial.

It was important for the coalitions to become involved in promoting and conducting the required intervention strategies. Both LCs and CMs reported that compliance checks was the enforcement strategy with which coalitions had the greatest involvement during the intervention. Just under half of LCs and CMs agreed their coalitions were very involved in DWI strategies (sobriety checkpoints and DUI emphasis patrols), but differed on the level of involvement in enforcement related to social availability (shoulder taps and parking lot monitoring). A possible explanation for this is that LCs, who were responsible for reporting coalition activities, had a greater level of awareness than coalition members of what enforcement activities were actually being conducted by local law enforcement. Another explanation is that the grant requirements for compliance checks were more specific (to complete checks in 90% of off-premise outlets, twice in each year of the intervention) while requirements for DWI and enforcement related to social availability (one DWI and one "Other Enforcement" operation during course of intervention period) could be spread across different activities.

Fewer than half of LCs and CMs reported that their coalition was very involved in advocating for policy change.

LCs and CMs strongly agreed that the overall activities of the coalition related to the goals of grant. However, fewer than half of LCs and CMs viewed the community as strongly supportive of enforcement of underage drinking laws, and only a third of LCs and CMs viewed the community as strongly supportive of developing underage drinking policies.

The LCs and CMs were positive on the usefulness of the training and conferences attended and resources provided. Media advocacy, youth leadership and engaging retailers were areas for which both LCs and CMs said they would have benefited from additional technical assistance.

Section 5.2: Activity Tracking System

EUDL CT intervention sites reported 7,651 activities in the AT system during the 2-year intervention period. There was considerable variability in the level of reporting and types of activities conducted. Twenty-two percent of activities logged reflected a specific step toward achieving a EUDL CT grant objective (i.e., changing a public or institutional policy, or conducting an enforcement operation). The majority of activities (77.6%) were more general in nature, including building the coalition's capacity to implement its workplan, raising public awareness about underage drinking and solutions to reduce its prevalence and consequences, and undertaking the planning and preparatory activities necessary for the coalition to implement its workplan.

Activity levels generally increased from Year 1 to Year 2 for policy and enforcement efforts, with the exception of compliance check operations. The highest level of activity entered into AT was related to the pursuit of policy change, followed by compliance check operations. Sites recorded fewer enforcement activities related to social availability and DWI.

States varied in focus. State E sites conducted the most policy-related activities, State C sites conducted the most compliance check operations, State A sites reported the greatest number of social availability enforcement operations, and Connecticut sites reported the most DWI operations.

In terms of policy-related activities, sites focused more on planning for policy change in Year 1. Media advocacy and policy advocacy efforts increased in Year 2, as would be expected. Overall, 23 sites reported in the AT system that 14 public policies were adopted or amended, and 27 institutional policies were implemented. While coalitions planned to pursue more public policies (as expressed in their initial workplans submitted to OJDDP), the majority of policies ultimately achieved were institutional.

The types of policies passed differed depending on whether they were adopted publicly, through ordinance change, or institutionally. The public policy successes reported in AT focused predominately on increasing the accountability of social hosts and other

providers, and expanding the definitions of minor in possession/intoxication. The institutional policies primarily addressed ways for retailers to more accurately check IDs and for law enforcement agencies to emphasize its priorities (e.g., where, when and how to use its manpower to address underage drinking problems). These areas of emphasis appear to reflect the current priorities of the alcohol policy field in general.

In terms of enforcement, coalitions conducted over a thousand operations (n=1,142) during the EUDL-CT intervention. Most of these involved off-campus compliance checks (n=443). This was expected, given the EUDL grant requirement that sites check at least 90% of off-premise alcohol outlets at least twice per year, for both years of intervention. While more than half of off-premise compliance check operations occurred in year 1, the average number of businesses checked per operation was higher in year 2, perhaps pointing to greater efficiency during these operations. Compliance rates ranged from 75% to 92%. Most states on average cited the clerks 8 out of 10 times when there was a violation. However, sites varied considerably in the proportion of non-compliant businesses that received a citation (14% to 90%), and the rates of citation for businesses generally decreased from year 1 to year 2. In future efforts, there should be greater focus and consistency in holding the business accountable when its employees sell alcohol to underage persons.

A total of 280 DWI enforcement operations were conducted by all 34 sites across the five EUDL-CT states. Sites reported 83 sobriety checkpoints, during which they checked 29,745 cars (average=358 cars per checkpoint), and 116 emphasis patrols (average number of cars checked=29). As a result of these DWI operations, 604 drivers were arrested or cited for DWI. At a state level, the percent of arrests and citations involving people under 21 ranged from 5% to 17% during sobriety checkpoints, and 17 – 38% during emphasis patrols. State D sites generally yielded the highest arrest rates for DWI among underage persons, which was the focus emphasized by the EUDL-CT grant.

In 2005, a total of 380 social availability enforcement operations (e.g., party patrol operations, shoulder tap operations and alcohol outlet surveillance) were reported by 31 sites across the five EUDL-CT states. There appear to be similar trends over time related to operational efficiency and outcomes for these social availability enforcement operations. There were increases in the number of parties dispersed and contacts made per shoulder tap operation from year 1 to year 2, suggesting that the enforcement agencies conducting them grew more efficient and effective in their efforts. Similarly, an increase in the number of parking lot surveillance operations over time was associated with an increase in violations.

In terms of outcomes, there was a disproportionate number of youth who were cited or arrested as a result of party patrol operations (550 youth compared to 51 adults). These numbers likely reflected the reality that a parent or other adult was hosting (or tacitly allowing) a party involving numerous youth. When an enforcement action was taken (either a warning or a citation/arrest), youth were more likely to receive an arrest than a warning, compared to adults. However, this discrepancy decreased over time.

Similarly, more youth were cited or arrested during parking lot surveillance operations than were adults. Not enough information was provided by sites to ascertain to what the increased youth violation rate might be attributed.

Overall, the Activity Tracking results demonstrate that sites can implement an intensive intervention focused on increasing enforcement and improving policies to address underage drinking. Despite the fairly prescriptive nature of the EUDL Community Trial, however, site implementation varied in focus and intensity. The variation in reporting levels among sites makes it difficult to determine how much activity (including what focus, and in what combination) is optimal to bring about changes in policy or enforcement practices.

Section 5.3: Site Visits

The purpose of the Site Visits was to collect qualitative data from the State Coordinator (SC), Discretionary Site Manager (DSM), Local Coordinator (LC) and coalition members regarding implementation of the EUDL-CT. Site visits were conducted in 2006 and 2007. The evaluation team attempted to schedule a visit to each site at least once during the grant period. If a visit was not possible, key individuals at the state or site were interviewed by telephone. The interviewees were asked questions regarding program definition, their relationship with the funding agency, the evaluation process, planning and implementation of the grant requirements, the impact of the grant on the community, and the sustainability of the program at the end of the intervention.

Common themes were found across the states, with sites facing similar challenges and successes. These themes included the following:

(1) Grant Requirements and Focus. The grant requirements were generally well received by the coalitions. The requirements provided focus and direction. If the grant were less structured, they felt less progress would be made. However, some sites also wanted greater flexibility.

(2) Cross-Cutting Challenges. These included the challenge of getting the public to see underage drinking as a problem, bringing together law enforcement and other sectors of the community (this was often cited as an important success story), the tradeoffs between having a pre-existing versus a new coalition, and time spent on public awareness activities.

(3) Operational Issues. Staff and coalition member turnover, and getting coalition members (beyond the coordinator) to contribute in a substantive way, were sometimes cited as challenges.

(4) Organizational Structure of the CT. State level coordination and involvement at the local level varied from state to state. Most of those interviewed saw PIRE as helpful and available. PIRE was not seen as a major force at the local level in many cases, but those who did interact with PIRE reported they were appreciated and available when needed. Most felt the training and reporting structure was adequate.

(5) Sustainability. Sustainability was a major concern. Most of the people interviewed indicated that the impact of the EUDL-CT on law enforcement would not last if alternative sources of funding could not be secured.

Section 6: Sustainability

Overall, 83% of the EUDL CT Intervention sites (28/34) reported sustaining some type of activity related to the EUDL-CT model. Over half (18, or 53%) sustained both the coalition focused on underage drinking and one or more of the enforcement strategies (i.e., compliance checks, DWI operations such as emphasis patrols or sobriety checkpoints, and social availability enforcement). Ten sites (29%) reported sustaining either the coalition (five sites) or the enforcement operations (five sites), but not both.

In communities that reported sustaining only the coalition, the reason cited most often for discontinuing enforcement efforts was the financial burden associated with maintaining these activities. Officers were often paid overtime to implement the various enforcement operations. Without the input of funds from the grant, many law enforcement agencies did not have another source of funding to sustain these activities. Another reason for not continuing enforcement efforts was that the law enforcement agency had taken on new priorities, such as gang activity in the community. Other sites sustained coalitions by "turning over" the EUDL-CT coalition to another community group that was addressing substance use in the community. Some sites reported that the youth portion of the coalition existed, but adult input was difficult to maintain.

Sites that reported sustaining the enforcement aspect of the program but not the coalition did so for different reasons. One site reported that the coalition fell apart because the program "champion," who had coordinated the effort, left at the end of the grant. Some coalitions were based in law enforcement agencies that did not have strong coalitions throughout the grant. Because of the grant, however, they developed strong partnerships with other local law enforcement agencies (e.g., University Police) that enabled them to sustain some level of enforcement operations at the end of the program.

Sites that reported not sustaining any activity post- EUDL-CT cited many of the same reasons as listed above. Enforcement efforts returned to their pre-EUDL-CT levels because no funds had been identified to keep the activities going. Additionally, four of the six sites had difficulty bringing diverse groups of people together for their coalitions to implement activities.

Section 7: Late Breaking: Crash Data Analysis

The purpose of the crash data analysis was to assess the impact of the Enforcing Underage Drinking Laws-Community Trial (EUDL-CT) on driving after drinking among underage youth in the general population. While this analysis was not part of the original

scope of work of the EUDL-CT, stakeholders from NIAAA and OJJDP requested that it be added. Consequently, obtained crash data were it was available (from four of the five CT states) in order to measure any possible impact of the CT on alcohol involvement in crashes among underage drivers.

The Fatality Analysis Reporting System (FARS) is often used in studies of multiple states with large populations to evaluate alcohol safety laws, ordinances or programs. FARS provides a census of fatal crashes and blood alcohol concentration (BAC) data on all drivers in fatal crashes. However, in studies such as EUDL-CT with smaller populations, the number of fatal crashes is too limited to obtain valid results. In this situation, it is necessary to rely on more numerous non-fatal crash data. Because drivers in non-fatal crashes are not consistently tested for BAC, we consider a surrogate measure of alcohol-involvement in addition to the BAC data. Specifically, we use single-vehicle nighttime non-fatal crashes that have been used and validated as a surrogate measure for alcohol involvement in non-fatal crashes and multiple-vehicle daytime crashes were a surrogate for non-alcohol involved crashes (Fell et al., 2008; Voas et al., 2009).

Using data from four of the five EUDL CT states, we found that intervention communities exhibited a 35% greater decrease in the crash incidence ratio (CIR) from pre to post intervention compared to the control communities. This difference was statistically significant ($p=0.0362$). The crash analysis provided evidence that the EUDL CT had a significant impact on alcohol-related crashes involving underage drivers.

Section 8: Conclusions and Recommendations

The EUDL Randomized Community Trial represents an innovative approach, in that it is the first time that a randomized community trial has been undertaken in the context of an existing Federal program. A solid evaluation design and a comprehensive set of methods were developed and implemented.

The EUDL CT set a high standard with respect to intervention strategies to be implemented during the implementation period. By and large, the states and sites were somewhat successful in meeting this standard. All 34 sites met the requirement for social availability enforcement, 33 of 34 (97%) met the requirement for DWI enforcement, 29 met the requirement for policy, and 24 met the requirement for compliance checks (for which the bar was set the highest). Overall, 18 of 34 sites, or 53%, met all four requirements of the EUDL CT.

Despite increases in enforcement levels, there was limited evidence of the efficacy of the EUDL CT with respect to outcomes among youth. In the "main effects" analysis, across the cohort and repeated cross-sectional samples, the only evidence of change in actual drinking behaviors favored the Comparison communities (past 30-day drunkenness). There was some evidence of changes favoring the Intervention communities in perceptions and norms.

In addition, we examined whether sites that showed high levels of implementation of the program model had better outcomes than those that did not. These "site-level dose" analyses provide some evidence that sites with higher levels of implementation of the EUDL intervention also had better outcomes. However, this evidence is limited to normative outcomes—including expectations about parental and police sanctions, and about the community's level of concern about underage drinking. The evidence does not extend to behavioral outcomes, such as actual drinking practices, and experiencing negative consequences from underage drinking.

Finally, we expanded our scope of work late in the evaluation grant period in order to obtain and analyze crash data. We obtained crash data where it was available (from four of the five EUDL CT states) in order to measure any possible impact of the CT on alcohol involvement in crashes among underage drivers. Using these data from four of the five EUDL CT states, we found that intervention communities exhibited a 35% greater decrease in the crash incidence ratio from pre to post intervention compared to the control communities. This difference was statistically significant ($p=0.0362$). The crash analysis provided evidence that the EUDL CT had a significant impact on alcohol-related crashes involving underage drivers.

Recommendations

Based on our experience conducting the EUDL CT, and the findings conveyed in this report, we have a number of recommendations.

1. **Consider having a strong program definition in future iterations of the EUDL discretionary grant program.** The EUDL CT had such a strong and explicit program design, still allowing for adaptation to local circumstances. The strong program model was embraced by individuals at most of the sites participating in the EUDL CT. We believe that this is one of the best ways to encourage the application of evidence-based practices in local communities, maximizing the chances of favorable impact.

2. **Convene a group of experts to provide input on the design of future iterations of the EUDL discretionary grant program.** OJJDP now has relationships with a number of researchers and evaluators with expertise in underage drinking prevention, including the groups responsible for evaluation of the EUDL Rural Initiative (PIRE) and Air Force EUDL (ICF, International), as well as the EUDL CT (our group at Wake Forest University School of Medicine). With over 10 years of experience with the program, and with the advent of a number of related programs (such as those funded under the STOP Act), we believe that it is timely to involve these evaluation and research teams, other researchers, the TA and Training provider for the program (the Underage Drinking Education and Training Center at PIRE), and others in formulating the best possible program—and evaluation—design for moving forward.

3. **Continue supporting rigorous evaluation of the EUDL discretionary grant program.** Evaluation has played an important role in establishing accountability, promoting the evolution of the program, and bringing public visibility to the program. It is especially helpful to bring evaluators into the discussions early on, as the program for a given fiscal year is being developed and planned. In addition, it would be helpful to catalyze and support research in important areas that could inform the program moving forward—for example, the most effective ways of reducing the social (as opposed to the commercial) availability of alcohol.

4. **Find ways to promote linkage of the EUDL discretionary grant program with the EUDL block grant program.** To our knowledge, there are not many bridges between the two arms of EUDL. We believe it would be extremely advantageous to promote transfer of lessons learned across the two arms.

5. **Support research and practice related to improving sustainability of EUDL supported interventions at the local level.** Our qualitative and quantitative data repeatedly point to the vulnerability of EUDL-supported activities after the EUDL funds dry up. This is a huge problem for the field—it is unclear what long term good is done by supporting enforcement, policy, or other initiatives for a year or two, if these activities will disappear after the funding ends.

Section 9: Appendices

The Appendices include all of the data collection instruments that were used in the evaluation and a project bibliography.

Section 2.1 Background

Problem to be Addressed

Alcohol use by underage youth is pervasive in the United States. The 2002 Monitoring the Future study found that 47.0% of 8th graders, 66.9% of 10th graders, and 78.4% percent of 12th graders reported lifetime alcohol use (University of Michigan, 2002). This national study also found that 12.4% of 8th graders, 22.4% of 10th graders, and 28.6% of 12th graders reported binge drinking in the two weeks preceding the survey (i.e., having five or more drinks in a row on at least one occasion during a two week period). Nearly one-fifth (19.6%) of 8th graders, 35.4% of 10th graders, and 48.6% of 12th graders reported drinking at least once in the 30 days preceding the survey. Although a relatively small number of 8th graders reported having "been drunk" in the past 30 days, this proportion increased dramatically with age to 18.3% of 10th graders and 30.3% of 12th graders. A study by the National Center on Addiction and Substance Abuse (CASA) at Columbia University, using data from a number of national sources, estimated that in 1999 underage drinking accounted for 19.7% of total alcohol consumption and 19.4% ($22.5 billion) of total consumer expenditures on alcohol (Foster, Vaughan, Foster, & Califano, Jr., 2003)

These high levels of alcohol use are associated with widespread health, developmental, legal, and economic consequences. For example, motor vehicle crashes, a little over one-third of which involve alcohol, are the leading cause of death for adolescents in the United States (Baker et al., 1992; National Highway Safety Administration, 2000). Adolescent alcohol use is also associated with a variety of unintentional injuries that are not related to motor vehicles, including drowning and (sometimes fatal) injuries from house fires and falls (Jones et al, 1992). Alcohol use is also associated with unsafe sex practices, placing individuals at risk of HIV infection and other sexually transmitted diseases, as well as non-use of contraceptives (Graves and Leigh, 1995; Leigh et al., 1995).

In addition to consequences for physical health, alcohol use by youth can have deleterious effects on psycho-social development. Early onset of alcohol use is a risk factor for progression to illicit drug use (Kandel and Yamaguchi, 1993). Moreover, alcohol use at an early age may have deleterious effects on cognitive and psychosocial development (Semlitz and Gold, 1986). Finally, alcohol use by youth may impede their ability to reach education and occupational goals (Braun et al., 2000; Roman and Johnson, 1996; Kandel and Yamaguchi, 1987).

Alcohol use by youth may also be associated with significant legal consequences. Violations of "liquor laws" (most often involving underage purchase, possession, or consumption of alcoholic

beverages) frequently pull youth into the justice system (Wagnenaar and Wolfson, 1994). For example, in 2001, violation of liquor laws was the second most common (non-traffic), arrest charge for 18, 19 and 20 year olds, surpassed only by drug violations. For 17 year olds, liquor law violations were the third most common arrest charge, behind drug violations and larceny-theft (non-traffic). For 16 year olds, liquor law violations were the fourth most common arrest charge. Arrests of 16- to 20-year-olds for liquor law violations (which do not include drunkenness or driving under the influence) totaled more than 260,000 in 2001 and constituted almost 12.8% of all (non-traffic) arrests for this age group (Federal Bureau of Investigation, 2002).

Enforcement of laws prohibiting driving under the influence of alcohol is a major component of the work of state and local law enforcement authorities. For example, there were approximately 1.4 million arrests for DUI in 2001, the most for any single offense (U.S. Department of Justice, 2001). While only a small number (under 14,000) of these arrests involved a child under the age of 18, this number rises to almost 97,000 (or 9.3% of these arrests) if 18 to 20 year olds are included in the total. State passage of lower legal blood alcohol content (BAC) limits for persons under the age of 21 (sometimes referred to as "zero tolerance laws"), which has accelerated due to passage of 1998 federal legislation, is likely to dramatically increase the numbers of youth arrested for driving under the influence of alcohol, based on the experience of states that have previously passed such legislation (Hingson et al., 1994).

DUI law enforcement represents a significant burden for the criminal justice system (Harris, 1990; NIJ, 1984). A National Institute of Justice study examined the effects of mandatory confinement laws for alcohol-impaired driving in jurisdictions in Washington State, Tennessee, Ohio, and Minnesota. While this study suggested that these laws resulted in a decline in traffic fatalities, it also found that the increased arrests stimulated by these laws carried new and heavy demands on courts, incarceration facilities, and probation services.

Alcohol use by youth is a risk factor for commission of violent crime and for being the victim of violent crime. For example, alcohol use by youth has been found to be associated with intention to use violence in hypothetical situations, weapons carrying on school (DuRant et al., 1996; DuRant et al., 1997; DuRant et al., 1999). Despite the evidence provided by these and other studies, it is important to note that the causal role of alcohol and other drugs in violence is unclear (National Research Council, 1996).

Alcohol use also has important economic consequences. One study estimated that the economic cost of alcohol abuse and alcoholism in the United States in 1992 (the most recent year for which data were available) was $148 billion (USDHHS, 1998). About two-thirds of these costs were related to lost productivity, either due to alcohol-related illness (45.7%) or premature death (21.2%). Costs to the criminal justice system were estimated at $6.2 billion, 37.8% of which was for local corrections, 29.1% for state and federal corrections, 25.1% for police protection, and 9.0% for legal and adjudication costs. This report does not break out costs associated with alcohol use by underage persons. However, the previously cited figures on the sizable proportion of arrests of older juveniles and young (under 21-year-old) adults for underage liquor law violations suggests that underage alcohol use contributes significantly to these economic costs (also see Sickmund, 1988). Moreover, alcohol-related injury deaths of youth contribute

significantly to economic costs associated with lost productivity due to premature death.

Youth Access to Alcohol

After a decade of advocacy by citizens' organizations, health and safety organizations, and educational organizations, and passage in 1984 of the National Minimum Drinking Age Act (Public Law 98-363), all 50 states came to have a minimum legal drinking age of 21 by the end of 1988 (Wolfson, 1995; Wolfson and Hourigan, 1997). These laws showed (and continue to show) some variation from state to state. For example, states have laws which may prohibit some or all of the following: sales to a person under the age of 21, purchase by a person under the age of 21, possession by a person under the age of 21, possession with intent to consume by a person under the age of 21, consumption by a person under the age of 21, misrepresentation of age by a person under the age of 21, and furnishing alcohol to a person under the age of 21 (Wagenaar and Wolfson, 1995). Nevertheless, it is fair to characterize the United States as having a universal minimum drinking age of 21 (Wagenaar and Wolfson, 1995).

Several studies have linked states' enactment of higher minimum legal drinking ages to substantial reductions in youth drinking and youth involvement in alcohol-related fatal traffic crashes (Jones, Pieper, and Robertson, 1992; O'Malley and Wagenaar, 1991; see U.S. General Accounting Office, 1987 for a review). Moreover, there is some evidence that in states that raised their drinking age to 21, lower levels of alcohol use persisted into the early 20s (O'Malley and Wagenaar, 1991). There is also evidence suggesting that the 21-year-old drinking age is associated with reduced adolescent death rates for unintentional injuries beyond motor vehicle injuries (Jones et al., 1992).

Despite the positive effects of a universal 21-year-old drinking age, large numbers of persons under the age of 21 drink, and many experience negative consequences associated with underage drinking, as described above. One important reason for continuing high levels of youth drinking is the ease with which they can obtain alcoholic beverages. Studies employing underage or underage-appearing study confederates have demonstrated the widespread propensity of on and off-sale alcohol outlets to sell alcohol to youth. The first systematic study of this kind was conducted in two areas in New York state and in Washington, DC (Preusser and Williams, 1992). Underage males (age 18 to 20) followed a protocol for attempting to purchase beer in a random sample of 100 grocery stores in each area. Nearly three-quarters (73.6%) of the purchase attempts were successful overall; in Washington DC an astounding 97% of the sampled stores sold beer to the underage study confederates. In a second study, 21-year-old female buyers who appeared to be age 19 or younger attempted three beer purchases without age identification in all retail outlets licensed to sell distilled spirits and/or full strength beer and wine in 28 communities in northern Minnesota (Forster et al., 1994; Wolfson et al., 1996a). These study confederates were able to purchase beer without age identification in 47% of the 336 purchase attempts; 79% of the outlets sold to the confederate in at least one of the three attempts.

These same procedures were used to conduct two purchase attempts per outlet in a sample of all outlets licensed for off-premise sales and a 40% random sample of outlets licensed for on-premise sale of alcoholic beverages in 24 small to medium-sized communities in Minnesota and Wisconsin (Forster et al., 1995; Wolfson et al., 1996b). Fifty-two percent of purchase attempts in off-sale outlets and 50% of attempts in on-sale outlets resulted in successful purchases without

age identification; almost 75% of outlets sold beer to the buyers in at least one of the two attempts.

Surveys of youth also indicate that alcohol is readily available to many youth. Wagenaar and colleagues (1996) found that 9th graders, 12th graders, and 18 to 20-year-olds in a sample of 15 communities in Minnesota and Wisconsin perceived it to be relatively easy to obtain alcohol either from a sibling over the age of 21, another person (not a store clerk or server at a bar or restaurant) over the age of 21, or at a party. A study by the Office of Inspector General of the U.S. Department of Health and Human Services estimated that almost seven million underage students purchase their own alcohol from stores (USDHHS, 1991a).

Why does alcohol continue to be readily available to many youth? One contributing factor is relatively low levels of enforcement activities, especially enforcement efforts targeting illegal sales of alcoholic beverages to individuals under the age of 21 (USDHHS, 1991b; Wagenaar and Wolfson, 1994; Wagenaar and Wolfson, 1995; Mosher, 1995; Wolfson and Hourigan, 1997). Research has identified a number of factors underlying these low levels of enforcement. Law enforcement officials often cite resource limitations as a key factor underlying low levels of enforcement of drinking age laws (USDHHS, 1991b; Wolfson et al., 1995), although an analysis of criminal and administrative drinking age enforcement in 295 counties in four states found that the number of law enforcement officers per population was unrelated to arrest rates for underage drinking and for alcohol sales to minors (Wagenaar and Wolfson, 1995). Moreover, counties with higher general arrest rates were found to have higher arrest rates for violations of the drinking age and sales to minors laws, suggesting that the often-heard argument: that focusing greater attention on general or "serious" crime enforcement detracts from underage drinking law enforcement, may lack merit. Other obstacles to higher levels of enforcement that have been cited include a perception that the punishments that result from enforcement actions are too lenient, the time and effort required for processing cases, low status accorded to enforcement of the minimum drinking age, evidentiary and procedural hurdles, lack of alcoholic beverage comparison (ABC) agency jurisdiction over minors, and lack of community support (USDHHS, 1991b; Wolfson et al., 1995).

Three comparison led community trials of local initiatives to reduce youth access to alcohol and youth drinking provide some evidence supporting an approach that attempts to reduce youth access to alcohol. Project Northland was a randomized community trial based on a social influences model that used a school curriculum, peer leadership, parent education, and community task forces to prevent the onset of alcohol use by a cohort of students beginning in 6th grade (Perry et al., 1996). The program was effective in reducing the prevalence of alcohol use after three years of intervention (6th through 8th grade), especially among nonusers of alcohol at baseline. However, these effects decayed in subsequent years. As a result, the second phase of Project Northland, which intervened with the same cohort of students as they progressed through high school, focused on generating community action to reduce the availability of alcohol to teenagers (Perry et al., 1998).

A second community trial, which included intervention communities in Northern California, Southern California, and South Carolina, included a component focused on reducing underage drinking by reducing the retail availability of alcohol to minors as part of a larger effort designed

to reduce alcohol-related injuries and deaths (Holder et al., 1997a). This project achieved increased implementation of responsible beverage service policies by bars and restaurants as well as significant reductions in sales of alcohol to underage persons (Holder et al., 1997b).

Finally, the Communities Mobilizing for Change on Alcohol (CMCA) project was a randomized community trial testing the efficacy of community organizing, policy, and enforcement efforts designed to reduce youth access to alcohol (Wagenaar et al., 1994). The CMCA intervention was effective in reducing drinking by 18 to 20-year-olds and in reducing the propensity of on-sale alcohol outlets to sell alcohol to minors (Wagenaar et al., 2000).

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Section 2.2 Overview

The Enforcing Underage Drinking Laws Program

The OJJDP Enforcing Underage Drinking Laws Program (EUDL) has been funded by an annual appropriation of $25 million since its inception in Fiscal Year 1998. Under the program, block and discretionary grants are awarded to states to "support and enhance efforts by States, in cooperation with local jurisdictions, to prohibit the sale of alcoholic beverages to, or the consumption of alcoholic beverages by, minors (persons under the age 21)." In addition, the program includes training and technical assistance provided by the Underage Drinking Enforcement Training Center of the Pacific Institute for Research and Evaluation (PIRE), and program evaluation efforts conducted by Wake Forest University School of Medicine (WFUSM), PIRE, and ICF International.

In the first six years of the EUDL program (FY 1998 through FY 2002 appropriations), OJJDP awarded discretionary grants every year to selected states on a competitive basis. These two-year, $400,000 grants were to be used by states to "encourage comprehensive community programs that have a special emphasis on law enforcement related to the sale of alcohol to minors" (OJJDP, 1998). The main objectives of these grants were to "establish or encourage comprehensive community programs to reduce underage drinking, with a special emphasis on increasing law enforcement activity regarding sale of alcohol to underage youth, to encourage youth leadership, to build upon the activities developed under the [Block Grant] funding, and to evaluate these programs." Each state receiving discretionary grant funding was required to distribute the funds through sub-grants of varying amounts to 2 - 8 local communities. Types of local programs that could be supported by the discretionary grants included "community task forces; current needs assessments and strategic plans; a special emphasis on increased law enforcement efforts; review and improvement of policies, regulations, and laws; prevention and awareness efforts; and documentation of accomplishments and process by which they were achieved."

Applying a Community Trials Approach to the FY 2003 EUDL Discretionary Grant Program

The EUDL Randomized Community Trial, which was funded under the FY 2003 appropriation, represented a significant evolution of the EUDL discretionary program. As the name implies, it reflected a shift to what is known as a "community trial" design. Over the past 20 years, community trials—which are systematic experiments evaluating the impact of interventions applied at the community level—have gained currency in scientific research funded by the National Institutes of Health, the National Institute of Justice, and other agencies. Community trials treat "intact social units"—such as neighborhoods, schools, work-sites, or entire communities—as the units of analysis in experimental research (Murray, 1998; Sorensen et al., 1998). This approach allows the rigorous assessment of the effects of a wide variety of community interventions on the population of neighborhoods, schools, work-sites, or communities (Murray, 1998).

Systematic community trials were first used to assess population-level interventions focusing on the prevention of heart disease (Blackburn, 1983), but have more recently been applied to the evaluation of efforts to prevent underage drinking (Wagenaar et al., 2000; Perry et al., 1996), alcohol-related injury (Holder et al., 1997), youth access to tobacco products (Foster et al., 1998), and youth violence and victimization (Foshee et al., 2000). The hallmarks of community trials are (1) interventions are applied to entire communities, (2) interventions are standardized, to the extent possible (allowing for adaptation to local circumstances), and (3) appropriate statistical methods that take account of the "nesting" of individuals within communities are used (Murray, 1998; Sorensen et al., 1998). Ideally, eligible communities are identified and then randomly assigned to either an "Intervention" or "Comparison" condition (Murray, 1998). Community trials are particularly well-suited to assessing interventions focused on entire communities and interventions that focus on prevention.

The EUDL program was seen as providing an excellent opportunity for the application of a community trials approach. Under the discretionary grant program, states pass through funds to local communities to support community-level interventions. Thus, **the manner in which funding is structured in the discretionary grant program**, funding of local communities to implement interventions to reduce underage drinking, **lent itself to the application of a community trials design**.

In addition, **OJJDP was in a good position to specify the program elements that would go into an exemplary intervention that could be implemented at the local level**. PIRE has extensively documented promising practices in its EUDL publications and training materials. In addition, WFUSM completed a "best and most promising" practices component as part of the national evaluation of EUDL (Williams et al., 2001; also see the Appendices to this final report).

Systematic implementation and evaluation of "best" or "most promising" practices using a community trials approach would provide extremely useful models that

other states and local communities could emulate. One of the key findings of both the first and second annual reports of the National Evaluation of EUDL is that the program is supporting a very wide range of activities by the states (Wolfson et al., 2000, 2001). These activities include a wide variety of education, media, prevention, enforcement, and (to a limited extent) policy development efforts. While there is some value in allowing the states flexibility to respond to state and local priorities, opportunities, and constraints, there is also a risk of programmatic efforts lacking a coherent focus and not reflecting the best practices in the field. As part of the EUDL program, PIRE and WFUSM have helped identify and disseminate information on promising practices in enforcing underage drinking laws. The EUDL Community Trial was seen as a complementary effort, to be carried out collaboratively by OJJDP, WFUSM, and PIRE, to implement and rigorously evaluate the impact of a coalition-based approach that involved the implementation of best practices, and disseminate this information to EUDL stakeholders, including OJJDP, and the state, territorial, and DC programs.

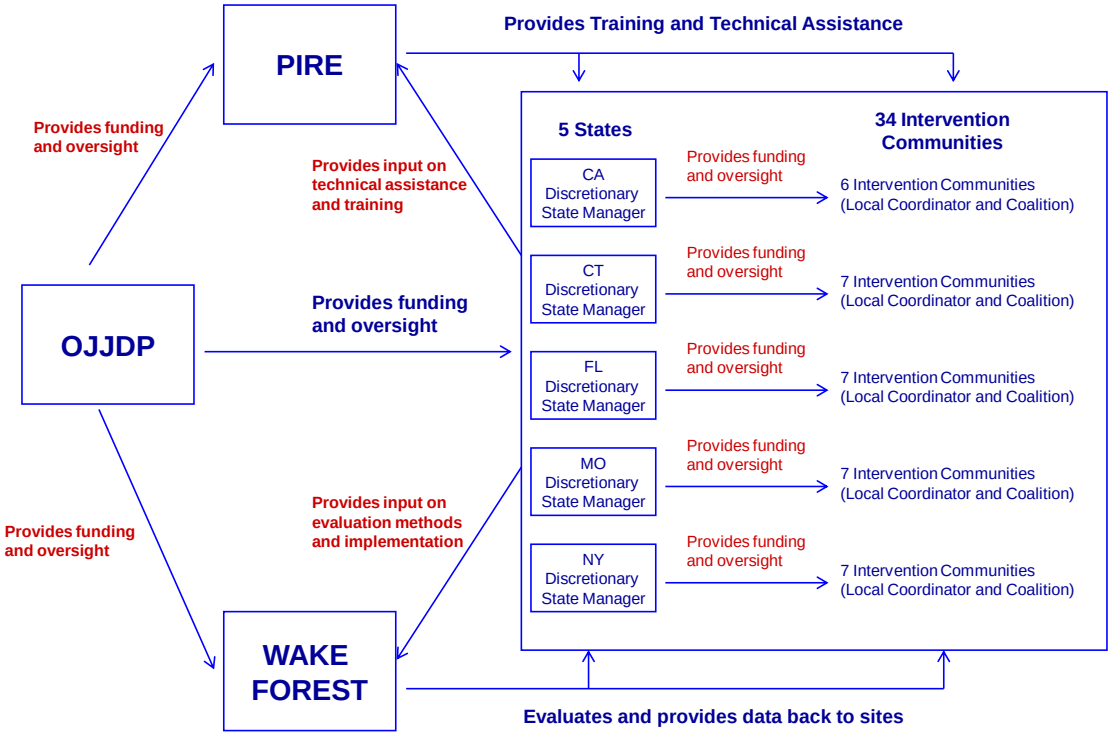
A community trials approach would allow a state-of-the-art evaluation of the effectiveness of "best" or "most promising" practices implemented in the context of the EUDL program. While results from the National Evaluation suggested that the EUDL program had had favorable effects on activating state and local actors to implement underage drinking prevention programs, including enforcement efforts, the wide variability in the programs that are implemented made it difficult to demonstrate an impact of the program on more distal outcomes, such as youth behavior. In addition, the lack of random selection of communities to receive interventions presented challenges in the evaluation of the program.

As a result of these considerations, OJJDP decided to use the discretionary grant portion of the FY 2003 appropriation to coordinate funding to the States, technical assistance, and evaluation efforts to support a randomized community trial.

Evaluation Design of the EUDL Community Trial

This project was a collaborative effort between OJJDP, WFUSM, and PIRE to implement and rigorously evaluate the impact of a subset of "best" or "most promising" practices implemented in the context of the EUDL program, and disseminate this information to EUDL stakeholders, including OJJDP, and the state, territorial, and DC programs (see Figure 2-1)**.** WFUSM conducted the evaluation using a community trials approach, where nominated communities in states selected for participation in the trial were paired using background characteristics, with one member of each pair randomly assigned to be either an intervention or comparison community.

Figure 2-1
Organizational Structure of the EUDL Randomized Community Trial



Overall Goals and Objectives of the Evaluation

The overall goal of the evaluation was to determine the effects of a local, coalition-based approach to implementing "best" or "most promising" strategies for increasing enforcement of laws related to underage drinking and reducing underage drinking. The results of the trial will be disseminated widely using printed documents (e.g., OJJDP Bulletins, journal articles) and by posting articles and reports in downloadable form on the WFUSM, PIRE, and OJJDP Websites.

Selection of Communities and Assignment to the Intervention or Comparison Condition

A solicitation for the EUDL Community Trial was released in May 2003 (Office of Juvenile Justice and Delinquency Prevention, 2003). States responding to the solicitation were required to provide a list of 14 to 28 cities/towns that were interested in, and eligible for, participation in the Community Trial should the state be funded. Eligibility requirements included the following:

1. Must be an incorporated city or town with population between 25,000 and 200,000.
2. Must not have implemented two or more of the following strategies in the two years preceding the date of the solicitation:
   - At least two compliance checks per year conducted in at least 90 percent of off-premise alcohol outlets

- One additional enforcement operation from the table provided on the solicitation under the heading "other enforcement approaches"
- Adoption of one new local policy or improvement in at least one existing local policy (which may include college or other institutional policies as well as public policies) related to underage drinking
- One or two DWI enforcement operations with a focus on youth

Based on their proposals, 5 states were funded to participate in the EUDL CT. Using Mahalanobis's Distance (D'Agostino, 1998), the evaluation team at WFUSM matched the nominated communities within each funded state based on population; median family income; the percentages of the population that are Black, Hispanic, speak Spanish, and are currently in college; and arrest rate for liquor law violations by 16-20 years olds (per 100,000 total population). Following creation of pairs, a random number generator was employed to assign communities to either the intervention or comparison condition. This process resulted in good balance on community-level characteristics, as shown in Table 2-1, below (note: one intervention community in state A dropped out prior to funding; the comparison site to which it was paired was also removed from the study).

Table 2-1 Comparability of Community Characteristics of EUDL Community Trial Intervention Communities and Comparison Communities*

	Intervention (34 Communities)	Comparison (34 Communities)	P-Value of Difference
Population	58,370	61,470	0.73
	(33,693)	(39,839)	
Median Family Income	56,109	63,587	0.13
	(16,774)	(23,530)	
Percent Black	12.7	11.4	0.67
	(13.6)	(12.4)	
Percent Hispanic	9.4	11.7	0.37
	(9.7)	(11.6)	
Percent Spanish Speaking	7.9	9.8	0.37
	(8.0)	(10.1)	
Percentage of Population in College	7.6	5.6	0.19
	(7.0)	(4.4)	
Number of Arrests for Liquor Law violations of 16-20 year olds per 100,000 population	47.0 (70.0)	43.4 (111.7)	0.89

*mean values (standard deviations in parentheses)

Intervention

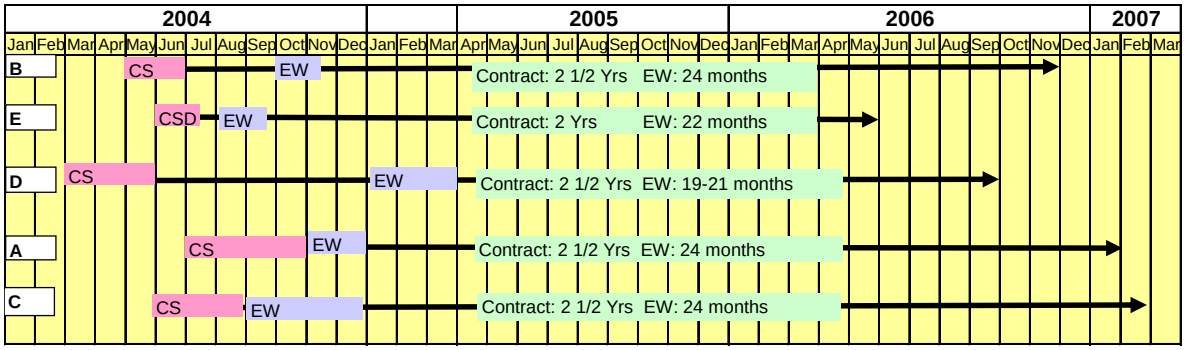
The 34 intervention sites received substantial funding, intensive technical assistance and training provided by the Underage Drinking Enforcement Training Center (www.udetc.org) of the Pacific Institute for Research and Evaluation (PIRE), and program oversight to support the implementation of best and most promising practices for reducing underage drinking using an environmental approach.

Five grants were awarded in the amount of $960,000 each for a 3-year period. (Approximately $125,000 was granted to each intervention community selected.) Each state receiving discretionary funding for the Community Trial grant was required to provide a manager for the EUDL-CT program. The state program manager (DSM) was responsible for monitoring, coordinating, and providing training and support for the implementation sites, with OJJDP's technical assistance and training support provided by PIRE (see Figure 2-1).

The DSM worked with the seven randomly assigned intervention communities (six in state A) to ensure that each had at least a part-time local coordinator. The local coordinator was responsible for developing and maintaining a local coalition to select and implement best and most promising practices described above.

Within 90 days of executing the subcontracts with the intervention communities, each funded site was expected to have developed and submitted a document that included an assessment of environmental factors related to underage drinking in the community and a systematic workplan. The plan described how to address the problem through the use of best and most promising practices to increase the enforcement of underage drinking laws and reduce underage drinking. However, because of variation across the states in award dates for the state's grant and in the award dates for subcontracts to local communities, as well as other factors, there was variability in the timing of the workplan approval dates and in when sites would complete their grant requirements (see Figure 2-2).

Figure 2-2
Timeline of EUDL CT Evaluation



CS: Contracts Signed **EW: Enforcement Workplans Approved**

The *Best and Most Promising Practices*, along with the specific expectations of the sites,

are listed in Table 2-2.

Table 2-2 EUDL-CT Best and Most Promising Practices Environmental Strategies

Strategy	Grant Requirement
1. Compliance Checks	**1**. By the end of the intervention period, communities participating in the EUDL discretionary grant program will have implemented **at least 2 compliance check operations in at least 90% of off-premise alcohol outlets per year**.
2. DWI Enforcement Operations • Conduct sobriety checkpoints • Conduct driving under the influence "emphasis/saturation patrols" • Enhance enforcement of drinking and driving laws	**2.** By the end of the intervention period, communities participating in the EUDL discretionary grant program will conduct **at least 1 DWI enforcement operation with a focus on youth.**
3. Other Enforcement Approaches • Monitor or patrol alcohol outlet parking lots to enforce laws prohibiting furnishing alcohol to underage individuals • Conduct "party patrols" to identify and direct law enforcement efforts at underage parties • Enforce ordinances focused on parents and landlords who allow underage drinking parties to take place on their property • Educate parents, landlords about their rights and responsibilities related to underage drinking parties on their property • Train officers to promote better enforcement • Conduct "shoulder tap" operations	**3.** By the end of the intervention period, communities participating in the EUDL discretionary grant program will conduct a**t least 1 additional enforcement operation to be selected from the list to the left.**
4. Local Policy • Restrict zoning (outlet locations, density) • Prohibit persons under 21 into bars/nightclubs and/or other "adult" locations • Require or encourage the use of driver's license scanners • Enact keg registration laws or ordinances • Restrict the availability of alcohol at community festivals and other community events • Restrict alcohol industry sponsorship of public events • Restrict hours of sale • Require conditional use permits • Ban concurrent sales of alcohol and gasoline • Restrict alcohol marketing • Increase penalties for retail/commercial providers • Increase penalties for social providers • Enact social host liability ordinances • Enact dram shop liability ordinance	**4 & 5**. By the end of the intervention period, communities participating in the EUDL discretionary grant program will have **adopted at least one new institutional or public policy** (or improvement in at least one existing policy) related to underage drinking.
5. School Policy • Enact alcohol policies on secondary school grounds and at school-sponsored events • Enact policies establishing substance free dorms in colleges • Enact policies on college grounds & at college-sponsored events	

Intervention communities had numerous resources available to implement their workplans. Each intervention site was awarded approximately $125,000 to implement the specified best and most promising practices. The grant provided funding for a local coordinator and funds for program implementation. The DSM provided the first line of assistance to local coordinators and their community coalitions. DSMs worked with their communities to establish coalitions, troubleshoot issues, and set up training and technical assistance through PIRE (see Table 2-3). The Evaluation team also provided feedback of data to the intervention sites.

Table 2-3 Underage Drinking and Enforcement Center Trainings for Community Trials Participants
Orientation to the Community Trial and Training on the Environmental Approach – State B (January 27-29, 2004)
Orientation to the Community Trial and Training on the Environmental Approach – State D (March 31-April 1, 2004)
Orientation to the Community Trial and Training on the Environmental Approach – State A (May 11-12, 2004)
Orientation to the Community Trial and Training on the Environmental Approach – State E (May 19-20, 2004)
Orientation to the Community Trial and Training on the Environmental Approach – Florida Melbourne, FL (May 27-28, 2004)
Community Trial Meeting held during the National Leadership Conference (San Diego, CA, August 27, 2004)
Plenary and/or Breakout Sessions during the National Leadership Conference (San Diego, CA, August 26-28, 2004)
Party Prevention & Controlled Dispersal Operations (training conducted during the statewide enforcement conference), State B (April 13, 2004)
Party Prevention & Controlled Dispersal Operations (training conducted during the statewide enforcement conference), State B (November 15-16, 2004)
Workshops during the Florida statewide prevention conference, Orlando, FL (November 16-20, 2004)
Community Trials Meeting for State Leads during the National Leadership Conference, Tucson, AZ (August 17, 2005)
National Leadership Conference: "Law Enforcement and Communities: Sustaining Progress, Blazing New Trails" Tucson, AZ (August 18-20, 2005)

Data Collection

The evaluation of the community trial included both a Process Evaluation and an Impact Evaluation component. The Process Evaluation included a Local Coalition Survey, Policy Tracking, and an Activity Tracking system (see Table 2-4). These methods are described in Section 5 of this report.

Table 2-4 Process Evaluation Design

Methods	Year			
	2004	2005	2006	2007
Local Coalition Survey	34 I	34 I	34 I	34 I
Site Visits	Orientation	N/A	Sample of I	Sample of I
Policy Tracking	34 I, 34 C			
Activity Tracking	34 I			N/A

I = Intervention Communities, C = Comparison Communities

In addition to these data collection efforts, WFUSM also conducted visits to a sample of sites in each participating state to assess program implementation. Visits were conducted as follows: once to provide participants with an overview of the evaluation and training on the activity tracking system, once during the second year in the early stage of program implementation, and a final time near the end of the program. All sites were visited at least once.

Data collection methods for the Impact Evaluation include the Youth Survey and the Law Enforcement Agency Survey. These methods are described in Section 4 of this report.

Table 2-5 Impact Evaluation Design

Methods	Year			
	2004	2005	2006	2007
Youth Survey	34 I 34 C	34 I 34 C	34 I 34 C	34 I 34 C
Law Enforcement Agency Survey	34 I 34 C	34 I 34 C	34 I 34 C	34 I 34 C

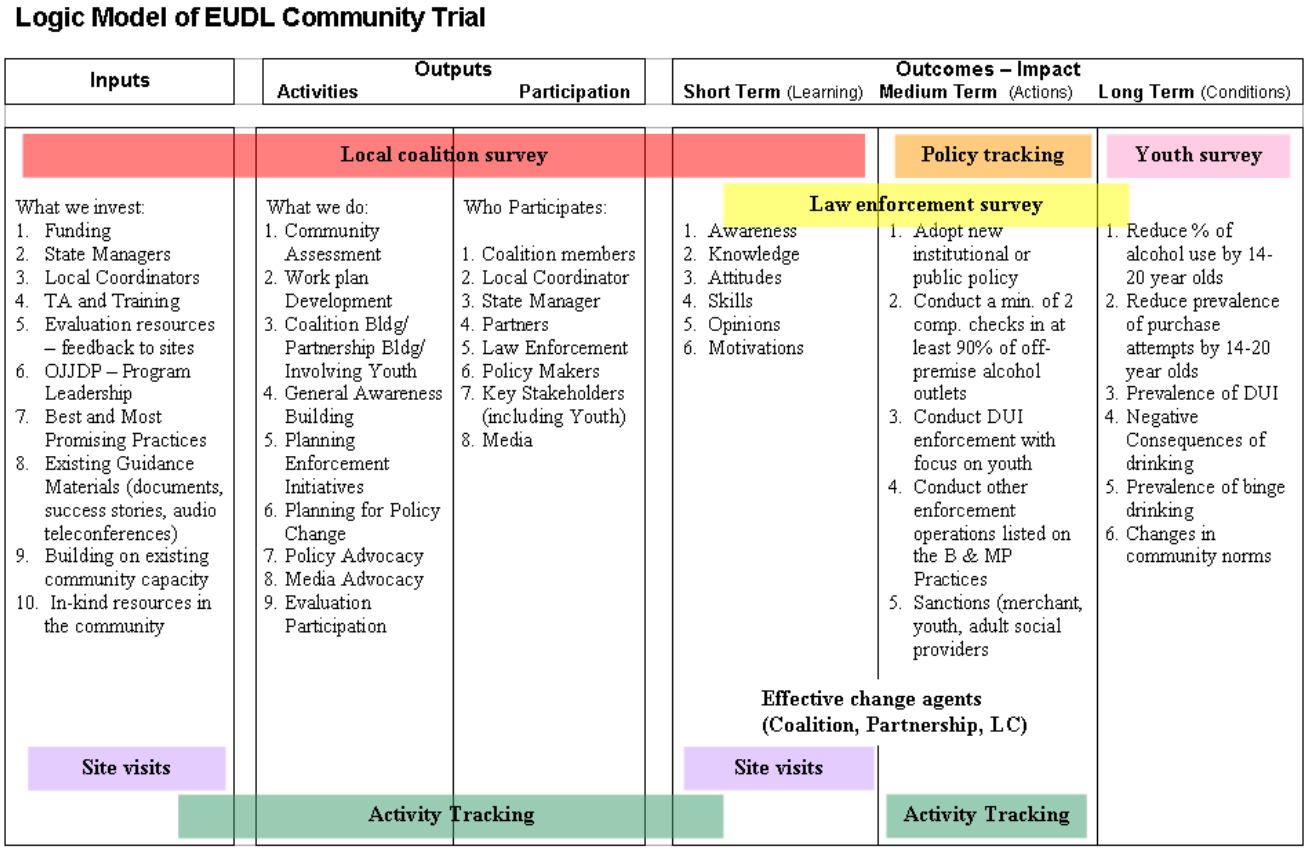
I = Intervention Communities, C = Comparison Communities

Conclusion

The EUDL Randomized Community Trial represented an innovative approach, in that it was the first time that a randomized community trial was undertaken in the context of an existing Federal program. A solid evaluation design and a comprehensive set of methods were developed to evaluate the trial, as illustrated in the logic model for the evaluation (see Figure 2-3). The remainder of this report will focus on the methods and results of the EUDL Community Trial.

Figure 2-3

Logic Model of EUDL Community Trial



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Section 2.3 State Set-Up Summaries

The EUDL Randomized Community Trial was funded under the FY 2003 appropriation for the EUDL discretionary grant program. OJJDP awarded grants of roughly $960,000 for a 3-year period to each of five states. Each state awarded subcontracts to participating communities. There were six intervention communities in state A, and seven in the other four states. Approximately $125,000 was granted to each intervention community selected (see Section 2-2 of this report for details of the procedures used for selecting intervention communities within states).

Each state receiving was required to provide a full-time discretionary state manager (DSM) for the EUDL CT program. The DSM monitored, coordinated, and provided oversight for the provision of training and support for the intervention sites. This included coordination of technical assistance and training providedby the Underage Drinking Enforcement Training Center of the Pacific Institute for Research and Evaluation (PIRE) . Additionally, each community was expected to hire a part-time (50% FTE) local coalition coordinator**.**

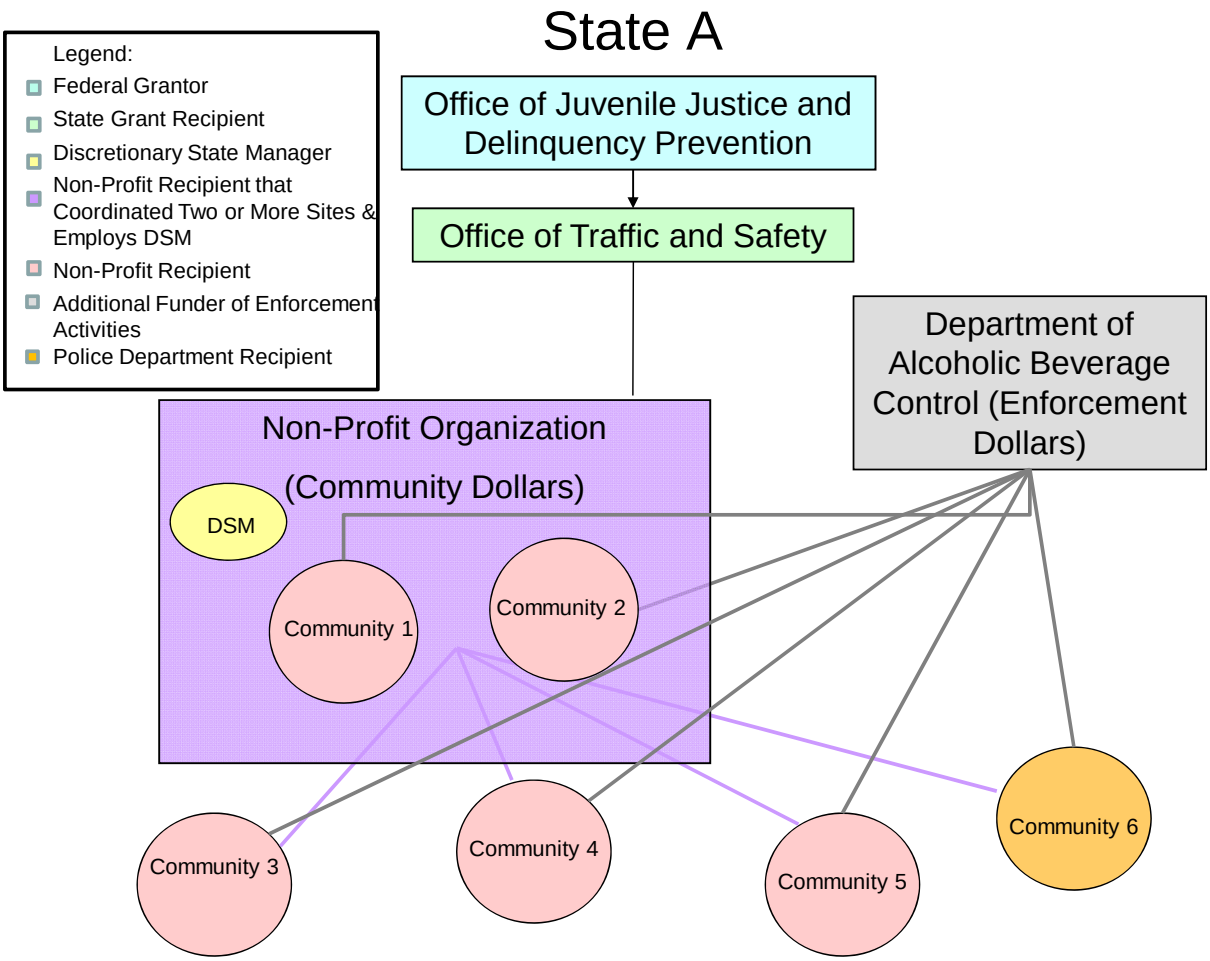
Each state had a unique set-up as to how the federal dollars flowed from the state to the participating local communities. Figures 2-4 through 2-8 depict how this process was structured in each of the five EUDL-CT funded states. Each state set-up is then explained in more detail.

State A

State A used a unique set-up to ensure adequate funding of the enforcement efforts in the state. Federal dollars were awarded by OJJDP to the state agency, which contracted with a non-profit organization to hire the coalition coordinators and provide coalition activity funds. The non-profit employed the DSM, as well as two of the six local coalition coordinators. The remaining four coalition coordinators were hired by agencies in their local communities. One of these agencies was a local police department.

The state also worked with the Department of Alcoholic Beverage Control to secure *additional* (non-EUDL-CT) funds to support the enforcement requirements of the grant. These supplemental funds were provided to each of the intervention sites under separate contracts. The coalition coordinators worked within the respective communities to implement the goals of the grant.

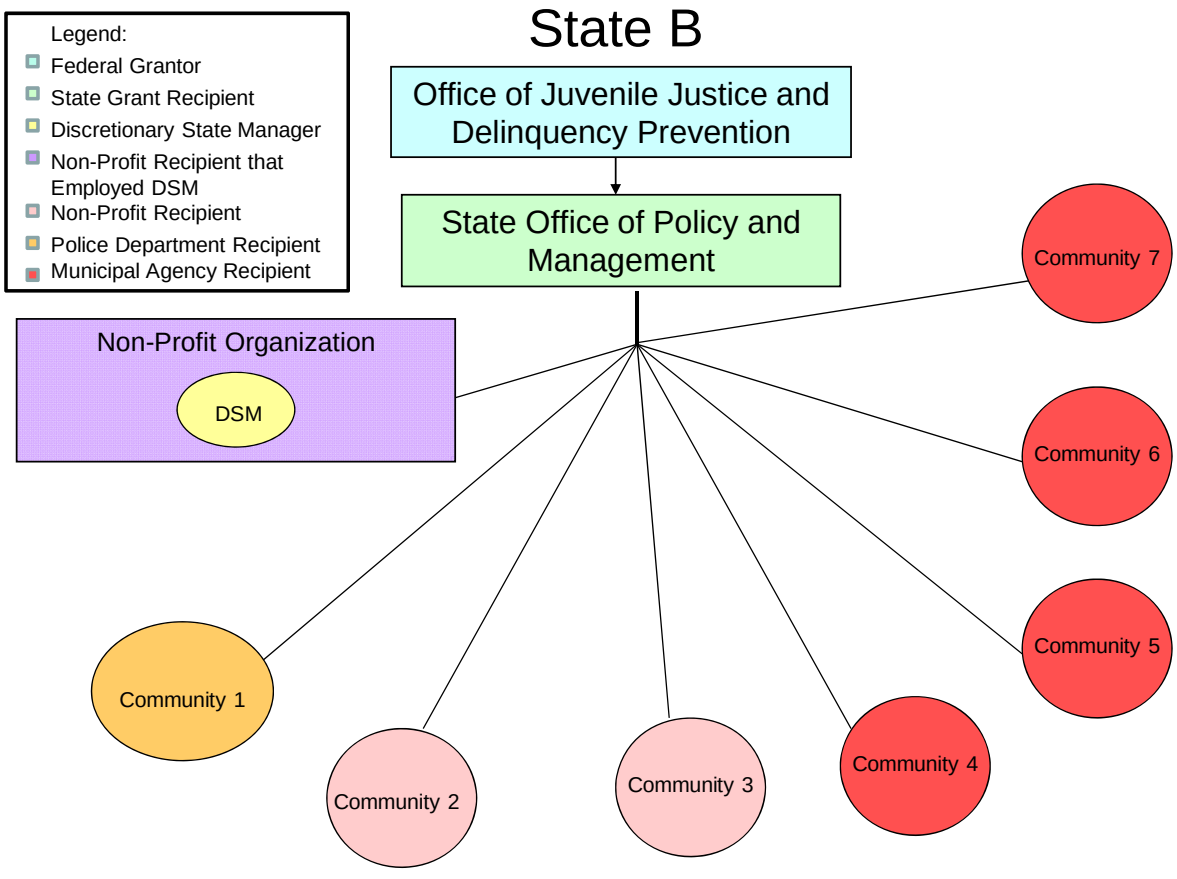
Figure 2-4



State B

In state B, funds were awarded from OJJDP to the designated state agency, which then contracted with a non-profit organization to employ the DSM. This non-profit served communities and organizations throughout the state, providing technical assistance and support on policy issues and other environmental strategies to prevent underage and high risk drinking. Through an RFP process, the state also contracted with the lead agencies, providing oversight and management to the EUDL Coalitions established in each of the seven communities. These were a mix of non-profit counseling and drug treatment programs and municipal agencies, including youth service bureaus, police departments and parks and recreation programs. Each agency/organization was allocated funding to hire a part time coalition coordinator and to support coalition expenditures related to enforcement and other activities designed to meet the identified program goals and objectives in each community.

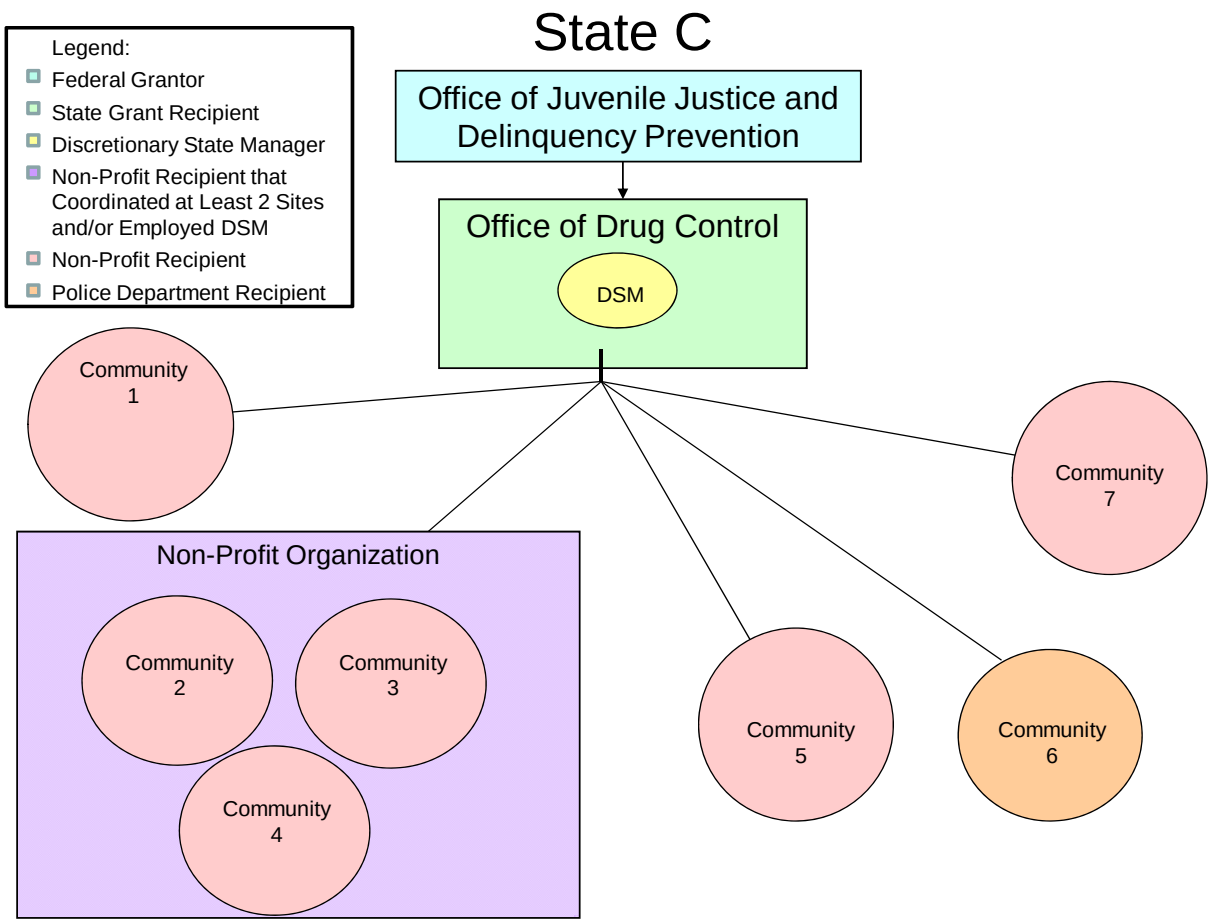
Figure 2-5



State C

In state C, funds were awarded by OJDDP to the state agency, which housed the DSM position. The state agency contracted with the local communities, one of which was a police department. In one case, one of the local non-profits with which the state contracted was responsible for coordinating three of the intervention sites. The coalition coordinators for these three communities were employees of this non-profit organization. All seven of the coalition coordinators then worked within the respective communities to implement the goals of the grant.

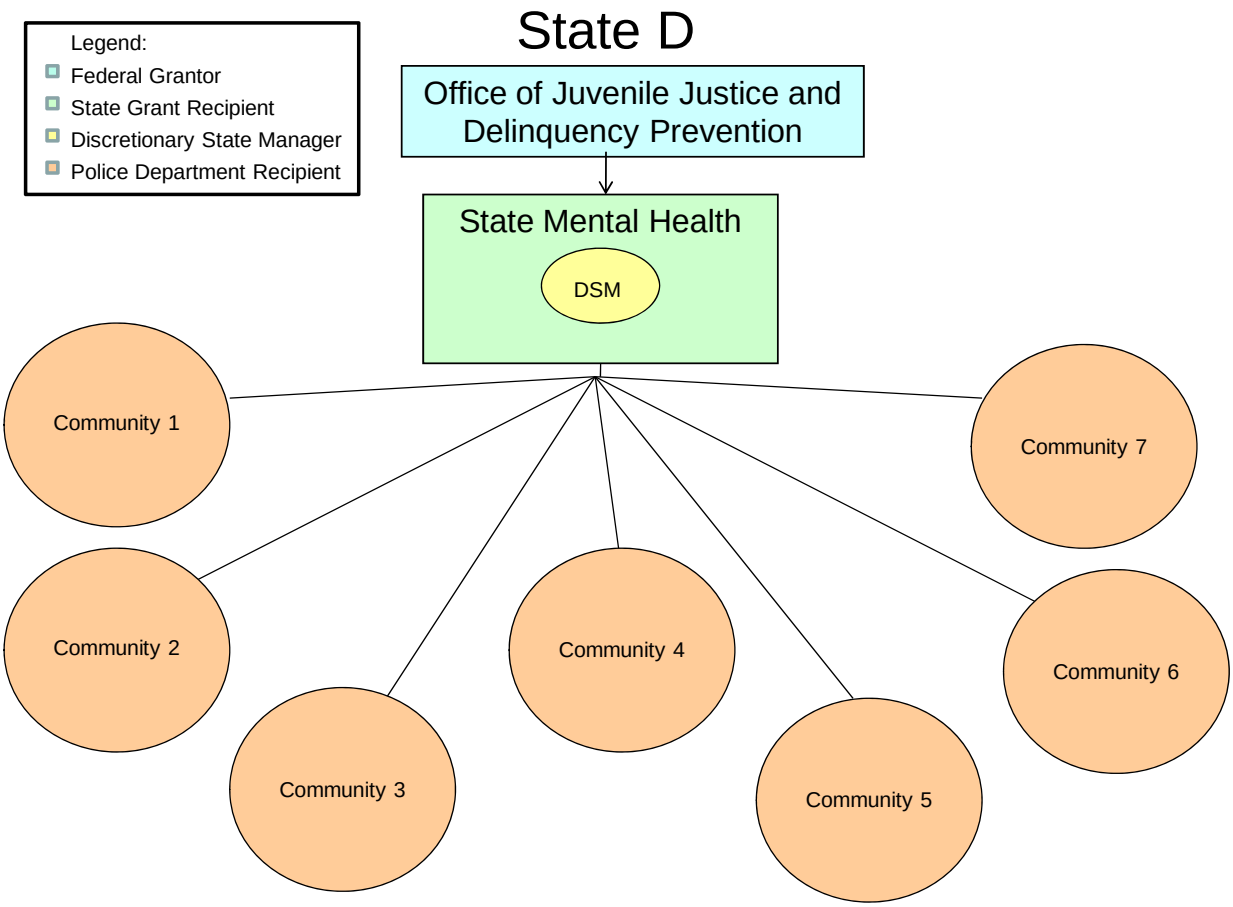
Figure 2-6



State D

In state D, federal dollars were awarded by OJJDP to a state agency that employed the DSM and provided sub-contracts to the local communities. In this state, sub-contract funds were awarded to local police departments to hire local coordinators responsible for developing the coalition and implementing the grant requirements. Oversight was provided by the state agency, through the DSM position. In most cases, the local coordinator role was assigned to a paid employee of the local police department.

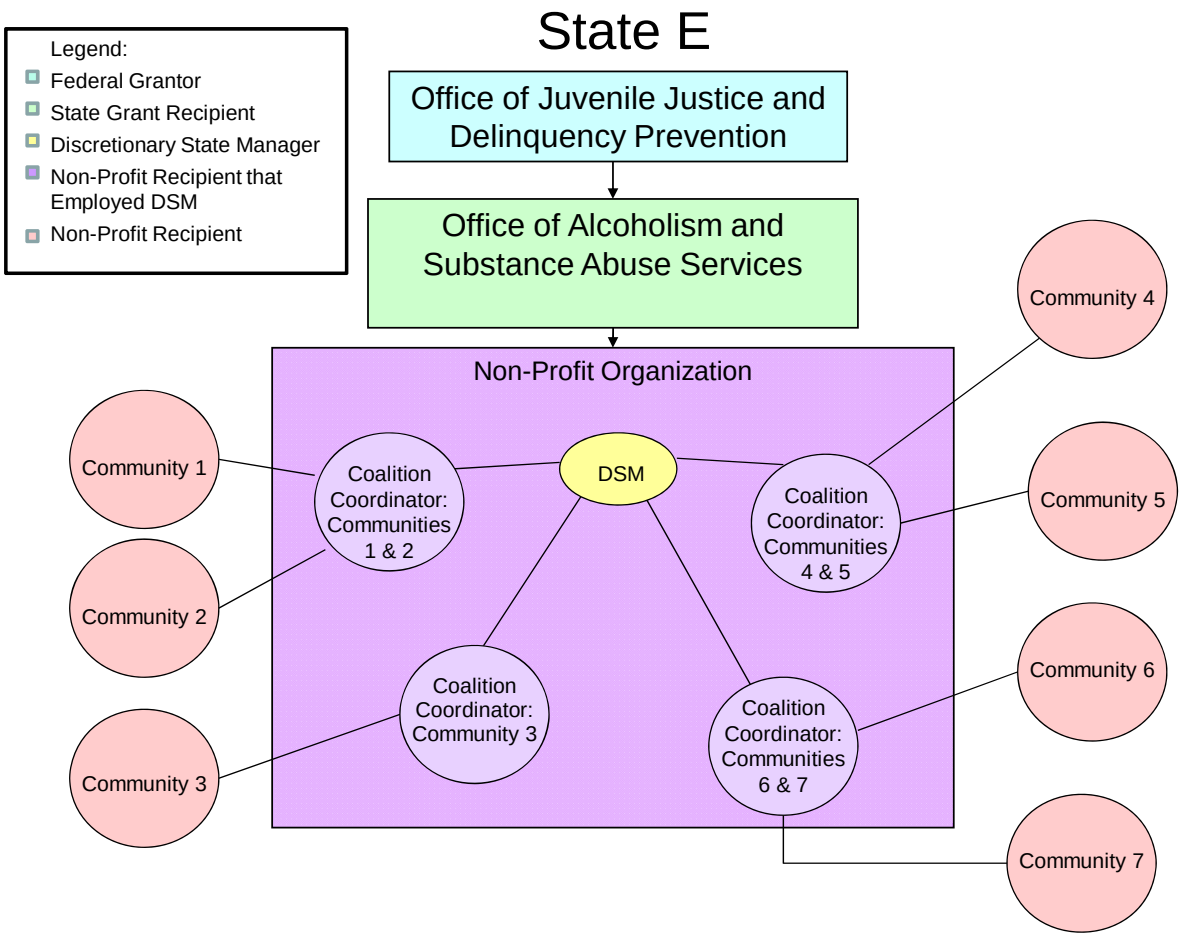
Figure 2-7



State E

In state E, federal dollars were awarded by OJDDP to the state agency, which appointed a DSM for the project. The state agency contracted with a non-profit organization, which appointed a Project Director for the project. The DSM and the Project Director worked closely to oversee all aspects of the project. The non-profit organization also hired and served as the employer of the local coalition coordinators. The Project Director served as the supervisor for the coordinators. This state hired four coordinators, three of whom worked with two communities each. The final coordinator worked with one community. The local coalition coordinators then worked within the respective communities to implement the goals of the grant

Figure 2-8



Section 2.4 Methods

Youth Survey

Purpose

The purpose of the Youth Survey was to assess the impact of the Enforcing Underage Drinking Laws-Community Trial (EUDL-CT) on youth. Specifically, the Youth Survey was used to measure changes in the perceived availability of alcohol to youth, social norms concerning underage alcohol use, actual use of alcohol by youth, and the prevalence of alcohol-related problems among youth. In addition to providing data on the impact of the community trial, key results from the youth survey have been shared with national stakeholders (OJJDP and PIRE) as well as individuals involved in the trial at the state and local level (the Discretionary State Manager in each of the five participating states, the local coordinator in each of the 34 Intervention communities) to inform implementation efforts. Finally, data from the Youth Survey have been used as the basis for more general analyses to inform policymakers, practitioners, and researchers on the etiology, consequences, and prevention of underage drinking.[1]

Methods

The sample for the Youth Survey included two components: (1) repeated cross-sections, and (2) a longitudinal cohort. The design of the survey is depicted in Table 2-6, below.

[1] A number of papers based on data from the Youth Survey used in the National Evaluation of EUDL and in the EUDL-CT have been published or are in press (National Evaluation of EUDL - Preisser et al., 2003; Champion et al., 2004; Foley et al., 2004; Reboussin et al., 2006; Hammill & Preisser, 2006; Young et al., 2007; Lu et al., 2007; Preisser et al., 2007; Preisser & Perin, 2007; DuRant et al., 2008; EUL-CT - Reboussin et al., 2006; Champion et al., 2008; Reboussin et al., 2008; Song Et al., 2009).

Table 2-6. Combined Cross Sectional/Longitudinal Design for EUDL Community Trial Youth Survey

Age	Year 1 (2004)	Year 2 (2005)	Year 3 (2006)	Year 4 (2007)
14	CS/L		CS	CS
15	CS/L	L	CS	CS
16	CS	L	L/ CS	CS
17	CS		L/ CS	L/ CS
18	CS		CS	L/CS
19	CS		CS	CS
20	CS		CS	CS

L - Longitudinal cohort sample
CS - Cross Sectional sample

We applied formulae from Preisser et al. (2003) for cluster-unit trials to estimate the sample size needed in the repeated cross-sectional design to provide sufficient statistical power to detect meaningful changes in youth behavior outcomes. Based on prior data from the National Evaluation of EUDL, we assumed a within-community correlation of 0.021. Our power estimates indicated that a sample size of 100 youth per community in 68 communities (total N = 6,800 per wave - 3,400 in Intervention communities and 3,400 in Comparison communities) would provide sufficient statistical power (>80%) at an alpha level of 0.05 (2-sided test) to detect at least a 6% change in an outcome measure (e.g., last 30 day drinking) in the Intervention communities (as a group) compared to the Comparison communities (as a group).

In addition to the repeated cross-sectional design, the evaluation re-surveyed a longitudinal cohort of youth who were interviewed at age 14 and 15 in Year 1 as part of the repeated cross-sectional Youth Survey. The longitudinal component of the study was designed to facilitate our ability to estimate changes in youth drinking behavior at the individual level.

Because the sample size for the cohort component was smaller than that of the cross-sectional component, the power was somewhat less. Based on prior EUDL data, we assumed the correlation of outcomes within a community was 0.021 and the correlation within individual youths over time was 0.4. We also assumed there will be 34 communities per treatment group and we will interview 22 youths per community. We anticipated obtaining disproportionately more 14 and 15 year olds per community at baseline, but due to attrition we employed conservative estimates (22 per community was what we anticipated ending up with at year 3 interviews). Using the formula of Preisser et al (2003), we had at least 83% power at alpha level of 0.05 (2-sided test) to detect differences in this cohort between Intervention and Comparison communities at or above 10%. If we have more youths per community to begin with [we started with our target of 30 youths or more in 88% of the 68 study communities (the remaining communities had between 23-29 participants) per community but will lose some due to attrition], we should have at least this much statistical power to detect even smaller differences between the Intervention and Comparison cohort samples.

Sample

1. Repeated Cross-Section

The survey sample for each community was randomly selected from a sample of telephone numbers provided by Survey Sampling, Inc. in Westport, CT and Marketing Systems Group in Fort Washington, PA. In selecting the sample for this study, an age-targeted list sample was drawn in each of the intervention and comparison communities. Given the relatively low incidence of households that included a youth in the targeted age range, selecting a sample by random digit dialing and then screening to reach an eligible household would have been prohibitively expensive. As a result an age-targeted sample was drawn, with the initial samples selected by Survey Sampling, Inc. (SSI). SSI has developed a methodology based on records derived from multiple secondary sources that enables it to draw samples in which the telephone numbers selected have a higher probability of reaching a household that will include a respondent in a particular age group. This selection process greatly increased the efficiency of the sample. The principal drawback to this approach was that unlisted telephone numbers were not included in the sampling frame, so that there was a potential for bias resulting from the lack of complete coverage. The target for this study was to complete 100 interviews with youth between the ages of 14 and 20 in each study community. In several areas, the SSI sampling frame did not produce a sufficient quantity of numbers to achieve the desired number of completions. For these areas, a supplemental sample of numbers was obtained from Marketing Systems Group (MSG), which used similar procedures for identifying households that awere more likely to include someone in the targeted age range. These numbers from MSG were checked for duplicates against those from SSI, and call attempts were made to those non-duplicated numbers. In those areas in which the addition of the MSG numbers was still not sufficient to achieve the desired number of completions, a random sample of numbers was selected from telephone exchanges in the service area. After removing any duplicate numbers from the previous steps, calls were made to these numbers. The same procedures were used for each cross-sectional survey sample selection in all three years.

2. Longitudinal Cohort

As illustrated above, the evaluation re-surveyed a longitudinal cohort of youth who were interviewed at age 14 and 15 in 2004 (Year 1) as part of the cross-sectional Youth Survey. All respondents who were 14 or 15 years of age in Year 1 and who at the time of the interview consented to being called back in Year 2 were eligible. Attempts were made to interview these same individuals for three more waves of data collection, once in 2005, again in 2006, and in 2007 (represented by "L" cells in Table 1).

Survey Implementation

1. Repeated Cross-Section

The three waves of telephone survey were administered by trained interviewers at the University of South Carolina's Institute for Public Service and Policy Research (USC SPR), the Wake Forest University Survey Research Center (WFU SRC), and the University of New Hampshire Survey Center (UNH SR). USC SPR was responsible for the telephone interviews conducted in State C, State E, and State A in 2004, 2006, and 2007, while WFU SRC was responsible for conducting the youth interviews in State B and State D in 2004 and 2006 and UNH SR was responsible for conducting the youth interviews in State B and State D in 2007 due to the closure of WFU SRC in late 2006. Interviewers and supervisors working on this survey received a one

day training session on the instrument, which included background information on the study, a question-by-question review of the instrument, a mock interview, practice interviews, and a debriefing session. Calls were made between 9:00 AM and 9:30 PM Monday through Friday, from 10:00 AM to 4:00 PM on Saturdays, and from 3:00 to 8:00 PM on Sundays during the data collection period. Interviewing was done using the Sawtooth Ci3 computer-assisted telephone interviewing system from a central location on either the USC-Columbia or WFU-Reynolda/UNH campuses. Interviews were monitored periodically to make sure that questions were being asked properly and that probes were being used effectively. Each year's data collection period is provided in Table 2-7.

When a household was contacted, the informant was asked if there was anyone living in the household who was age 14, 15, 16, 17, 18, 19, or 20. If no one in the targeted age range lived at that number, the household was classified as ineligible. If more than one person age 14 - 20 lived in the household, a respondent was randomly selected using the next birthday method of respondent selection.

Table 2-7 Youth Survey Data Collection Period – EUDL Community Trial

	Cross-Section		Cohort	
	Start	End	Start	End
Year 1 (2004)	January 7	July 20	January 7	July 20
Year 2 (2005)	Data was not collected		February 8	June 24
Year 3 (2006)	January 6	August 7	February 8	July 18
Year 4 (2007)	January 13	August 8	February 15	August 7

2. Longitudinal Cohort

The same data collection methods used for Repeated Cross-Section survey were applied for Longitudinal Cohort survey. In 2004 and 2006, USC SPR was responsible for the telephone interviews conducted in State C, State E, and State A, while WFU SRC was responsible for conducting the youth interviews in State B, and State D. In 2007, USC SPR was responsible for the telephone interviews conducted in all five states, State C, State E, State A, State B, and State D due to the closure of WFU SRC in late 2006. Each year's data collection period is provided in Table 2.

Attempts were made to contact each of youth who were interviewed at age 14 and 15 in 2004 and who at the time of the interview agreed to participate in the cohort study during the three-year follow-up period. The initial attempt was made to the number at which they had been reached in 2004; if the respondent was no longer available at this number (e.g., number disconnected; respondent unknown at this number), multiple attempts were made to reach them at an alternate number, if they had provided one.

Response Rate

1. Repeated Cross-Section

A total of 18,063 youth ages 14-20 completed the survey and an additional 668 partially completed an interview for 3 waves of survey from all 68 communities (34 intervention and 34

comparison).

A summary of the final disposition of the sampled numbers is provided in Table 2-8. Given the screening needed to identify households that include a youth age 14 - 20, the response rate for this survey was difficult to calculate precisely. For example, in 2004, a very conservative response rate of 21% was generated by dividing the number of completed interviews by the number of completed interviews + partially completed interviews + refusals + unable to completes + unable to contact respondents. If those telephone numbers that were never answered (despite 20 or more attempts at different times of the day and on different days of the week) were included in the denominator, and the percentage of households for which it was unknown whether or not an individual in the targeted age range lived there or not were allocated as eligible in the same proportion as those households for which the presence of such an individual was identified, the response rate would be 46%. At the other extreme, if all households for which the presence of an eligible respondent was undetermined were treated as eligible, the response rate would be 17%.

Table 2-8 Youth Cross-Sectional Survey Final Dispositions – EUDL Community Trial

	Year 1	**Year 2**	**Year 3**	**Year 4**
	2004	2005	2006	2007
Completed interviews	6,692	Data was not collected.	5,921	5,450
Partially completed interviews	267		212	189
Refusals	11,750		11,370	18,938
Unable to complete interview				
Ill; Not capable physically/mentally	84		79	180
Language barrier	350		403	1,324
Unable to contact respondent				
Not available-fielding period	915		2,924	2,890
Consistent answering machine	11,332		17,299	17,065
Ineligible				
No one age 14-20 living in household	32,833		48,374	59,198
Telephone number not in target area	119		306	441
TOTAL	**64,381**		**86,888**	**105,688**

2. Longitudinal Cohort

In 2004, we surveyed a total of 2,555 youths ages 14-15 from all 68 communities (34 Intervention and 34 Comparison). Of those, 2,380 agreed to participate in annual follow-up cohort survey. We tried to contact these youths one-year follow-up for three more years, in 2005, 2006, and 2007. The cohort attained ages of 15-16 at the first follow-up, 16-17 during the second follow-up and then 17-18 during the third follow-up. A summary of the final disposition of these attempted contacts is provided in Table 2-9. The retention rate at the 3-year follow-up survey was 43%.

Table 2-9 Cohort Survey Final Dispositions Community Trial Youth Survey (2004 Baseline N=2,555)			
	2005	**2006**	**2007**
	1st year follow-up	2nd year follow-up	3rd year follow-up
Completed interviews	1,758	1,413	1,094
Partially completed interviews	16	3	4
Refusals	222	185	212
Never answered	10	26	33
Consistent answering machine	28	70	87
Fax/Data line	3	11	2
Disconnected/Not in service	117	185	202
Respondent not at number/no forwarding number	26	76	31
Respondent unknown at number/wrong number	57	55	90
Respondent/household reached-interview not completed during fielding period	120	177	222
Changed to a non-published number	3	5	4
Language barrier	6	6	1
Respondent deceased	1	0	1
TOTAL	**2,367**	**2,212**	**1,983**

Measures

We collected youth behaviors and norms on underage drinking and other health risk factors as well as demographic information. The logic model for Youth Survey data collection is provided in Table 2-10. Questions that focused on youth drinking behaviors included current alcohol use, heavy episodic or "binge" drinking, drunkenness, drinking and driving, riding with a driver who had been drinking, and alcohol related consequences (Table 2-11). Questions that focused on alcohol availability, purchase attempt, and drinking norms included perception of alcohol use among friends, perceived consequences from parents due to drinking, perception of community care of underage drinking, and perception of getting caught drinking or drinking and driving by school officials and police (Table 2-12).

A pretest of the instrument, in which telephone interviews of 40 respondents (separate from the actual sample), was conducted. The purpose of this pretest was to determine whether questions were understandable to both interviewers and respondents, to test the logical structure of the questionnaire, and to evaluate procedures for gaining respondent cooperation. The finalized youth survey instrument was administered each year with a few minor modifications.

Table 2-10 Logic Model of Youth Survey - EUDL Community Trial

Expected Secondary Outcomes	Measurements		Expected Primary Outcomes	Measurements
Reduce Social Availability of Alcohol	▪ Giving or Sold Alcohol to Someone Under Age 21[2] (past 12 months)		Reduce Drinking Behavior	▪ 30-Day Alcohol Use[1] ▪ Binge Drinking[1] ▪ Drunkenness[1] (past 30 days)
Reduce Commercial Availability of Alcohol	▪ Commercial Source of Alcohol[2] (last time) ▪ Purchase Attempt[1] (past 30 days) ▪ Successful Purchase Attempt[4] (past 30 days)			
Reduce Perceived Availability of Alcohol	▪ Perceived Difficulty to Obtain Alcohol[2]		Reduce Alcohol Related Harm	▪ Drinking Driving[3] (past 30 days) ▪ Riding with a Drunk Driver[1] (past 30 days) ▪ Alcohol Related Non-Violent Consequences[1] (past 12 months) ▪ Alcohol Related Violent Consequences[1] (past 12 months)
Changing Drinking Attitude /Norms	▪ Perceived Friends Drinking[1] ▪ Perceived Consequences from Parents[1] ▪ Perceived Consequences from School Officials[1] ▪ Perceived Consequences from Police[1] ▪ Perceived Community Care about Underage Drinking[1]			

[1]All sample
[2]Sub-sample (Limited to R who ever drunk)
[3]Sub-sample (Limited to R who ever drunk & ever drove)
[4]Sub-sample (Limited to R who ever attempted to purchase alcohol)

Table 2-11 Measurement of Youth Drinking Behaviors Survey Questions & Coding – EUDL Community Trial		
Measure Items	**Survey Questions**	**Coding**
Past 30-day alcohol use	When was the last time you drank any alcohol?	**1:** "in the last 7 days" or "in the last 30 days" **0:** "in the last 12 months," "more than 12 months ago", or "never"
Heavy Episodic Drinking (Binge Drinking)	Think back over the last two weeks. How many times have you had five or more drinks in a row?	**1:** "one or more" **0:** "zero," "no drinking in the last 30 days," or "never drank"
Drunkenness (past 30 days)	Over the past 12 months, on how many days have you gotten drunk or "very, very high" on alcohol?	**1:** "every day," "3-5 days a week," "1-2 days a week," "2-3 days a month," or "once a month or less," **0:** "1-2 days total in past 12 months," "never," or "never drank"
Drinking and Driving (past 30 days)	During the last 30 days, how many times (if any) have you driven after drinking 2 or more drinks in an hour or less?	**1:** "one or more" **0:** "zero," "never driven," or "never drank"
Riding with an Impaired Driver (past 30 days)	During the last 30 days, how many times (if any) have you ridden in a car after the driver had been drinking?	**1:** "one or more" **0:** "zero"
Alcohol Related Non-Violent Consequences (past 12 months)	(Q40a—Q40h Have you had any of the following experiences after you had been drinking?) ▪ Q40a Were you cited or arrested for drinking, possessing, or trying to buy alcohol? ▪ Q40aa Were you cited or arrested for driving under the influence of alcohol? ▪ Q40b Have you ever missed any school due to drinking?	**1:** "last 30 days" or "last year" **0:** "more than a year ago," "no," or "never drank"

	▪ Q40c Were you warned by a friend about your drinking? ▪ Q40d Have you passed out? ▪ Q40e Were you unable to remember what happened while drinking? ▪ Q40f Did you break or damage something? ▪ Q40g Have you had a headache or hangover? ▪ Q40h Were you punished by your parents or guardian? ▪ Q40ja/jj Have you ever had sex without using a condom?/Had you been drinking? ▪ Q40p/p2 Have you ever been involved in a motor vehicle crash?/Had you been drinking?	
Alcohol Related Violent Consequences (past 12 months)	▪ Q40k/kk Has someone tried to have sex with you or actually had sex with you against your will?/Had you been drinking? ▪ Q40l/ll Have you tried to have sex with someone when they did not want to have sex?/Had you been drinking? ▪ Q40lll/lllb Has a boyfriend/girlfriend or date ever started a physical fight with you?/Had you been drinking? ▪ Q40llm/llmc Have you ever started a physical fight with a boyfriend/girlfriend or date?/Had you been drinking? ▪ Q40no/nnoo Have you <u>threatened or tried</u> to hurt someone with a weapon, such as a knife, baseball bat, club, stick or gun?/Had you been drinking?	**1:** "last 30 days" or "last year" **0:** "more than a year ago," "no," or "never drank"

Table 2-12 Measurement of Youth Alcohol Availability and Attitudes/Norms Survey Questions & Coding – EUDL Community Trial		
Measure Items	**Survey Questions**	**Coding**
Giving or Sold Alcohol to Someone Under Age 21 (past 12 months)	Have you ever given or sold alcohol to someone else under 21 years of age?	**1:** "past 30 days" or "past 12 months" **0:** "more than 12 months ago" or "no"
Commercial Source of Alcohol	The last time you drank any alcohol, how did you get the alcohol?	**1:** "alcohol outlet,", "restaurants," or "bar" **0:** "friends," "parents," "family members," "co-workers," "acquaintances," or "strangers"
Purchase Attempt (past 30 days)	In the last 30 days, how many times did you try to buy alcohol from a bar, restaurant, or store (whether you were successful or not)?	**1:** "one or more" **0:** "0," or "never tried"
Successful Purchase Attempt (past 30 days)	▪ In the last 30 days, how many times did you try to buy alcohol from a bar, restaurant, or store (whether you were successful or not)? ▪ In the last 30 days, how many times did a bar, restaurant, or store refuse to sell you alcohol because of your age?	Number of success = (number of times try to buy) – (number of times store refuse to sell)
Perceived Difficulty to Obtain Alcohol	If you wanted to obtain alcohol, would it be extremely difficult, very difficult, somewhat difficult, not too difficult, or not at all difficult?	**1:** "extremely" or "very" **0:** "somewhat," "not too," "not at all," or "don't know"
Perceived Friends Drinking	How many of your friends do you think have had any alcohol to drink in the last 30 days?	**1:** "61-80%" or "81-100%" **0:** "0-20%," "21-40%," or "41-60%"
Perceived Consequences from Parents – Punishment, communication, Yelling	If your parent(s) (or guardian) caught you after you had been drinking, which of the following do you think they would do? 1. Talk with you about drinking: Yes, No 2. Yell at you: Yes, No 3. Ground/punish you: Yes, No	**1:** "yes" **0:** "No" or "don't know"

Perceived Consequences from School Officials	If you had been drinking before coming to class or to a school-sponsored event, how likely would it be for school officials to catch you?	**1:** "very likely" **0:** "somewhat," "not too," "not at all," or "don't know"
Perceived Consequences from Police	▪ If you had been drinking, how likely would it be for the police to catch you? ▪ If you had been driving after you had been drinking, how likely would it be for the police to catch you?	**1:** "very likely" **0:** "somewhat," "not too," "not at all," or "don't know"
Perceived Community Care about Underage Drinking	How much do you think people in your community care if people your age drink alcohol?	**1:** "a great deal" **0:** "somewhat," "not too," "not at all," or "don't know"

Statistical Analysis

In the EUDL-CT design, interventions are applied to intact social groups, in this case the 34 Intervention communities, which are being compared to 34 Comparison communities. Because community populations represent intact social groups, youths within a community are likely to be more like one another than they are to be like youths in other communities (Murray and Short, 1995, 1996). Statistical analysis comparing group means must account for this intraclass correlation. For the cohort design, there was an additional source of correlation, which involved the correlation between repeated measures taken on the same individual. The analysis plan for the longitudinal cohort reflected this doubly-nested design where youths were nested within communities and repeated observations were nested within youths.

Logistic regression models were fit using SUDAAN Version 9.0.1 (Research Triangle Institute, 2001) for the cohort component of the data to account for the additional source of correlation introduced by taking repeated measurements on the same individual. Robust variance estimates were obtained that accounted for the two different levels of correlation: between observations from youth in the same community and between observations from the same youth over time. The working correlation was such that the correlation between repeated observations within the same youth were assumed to be exchangeable and the correlation between youth from the same community were assumed to be independent. The robust variance estimation is valid for any arbitrary correlation structure within communities and youth. This regression approach enabled us to produce estimates of prevalence and prevalence change adjusting for individual and community level covariates. Logistic regression models were used to assess self-reported drinking behavior and attitude outcomes, with the exception of source of alcohol – commercial vs. social vs. non-drinkers. The three category response for source of alcohol was assessed using multinomial logistic regression.

Site Level Dose Analysis

Purpose

In community trials, the intensity and fidelity of the intervention is likely to vary across sites. Measuring the "dose" of the intervention is important in order to document variation in implementation across sites, and to conduct more nuanced *secondary* analyses that take into account variable implementation (see, for example, Weitzman et al., 2004; Hingson et al., 2005). For these reasons, we created site-level dose measures for the EUDL CT, as described in this section of the report.

Methods

Data from multiple sources, including the Law Enforcement Agency Survey, Local Coalition Survey, Activity Tracking System, Policy Tracking and Site Visits, were employed. A combination of data reduction algorithms and consensus meetings of evaluation team members produced dose measures for the core strategies for each site. These measures were used for secondary analyses that examined the relationship between degree of implementation of the EUDL CT intervention and outcomes (see Section 4.2 of this report).

The four core strategies of the intervention (compliance checks, driving while intoxicated law enforcement, reducing social availability of alcohol and policy) were assessed for each with respect to quantity, quality and support. A Site Level Dose (SLD) rating of 5 indicated that the site was an excellent example of the EUDL CT intervention model, 4 a strong example, 3 a modest approximation of the model, 2 for a slight approximation, and 1 where there was no more activity than would be expected of a typical community.

The Evaluation Team identified items across the various surveys that could be used to characterize implementation of each strategy. A scoring algorithm was determined for each measure based upon available data.

Missing data was handled in two ways. State mean within treatment condition of an item was used if the majority of the sites had non-missing data. If the minority of sites within a state and treatment condition had missing data, the assumption was made that the site had no more activity than was expected of a typical community.

Each of the measures was weighted to create an overall sum for each core strategy. In general, the majority of weight was given to the quantity of activities reported by the site and equal weights were assigned to quality and support of the community, if available. For compliance checks, quantity was assigned a weight of 0.5 while quality and support both had weights of 0.25. For the DWI and Social Availability strategies, 67% of the score was determined by quantity of activities and the remaining 33% was explained by support from the community, since measures of quality were not available in the data at hand. For public policy, 50% of the sum score was attributable to achievement and 25% each to activity and support. Within

achievement and activity, quantity and quality measures were weighted 67% and 33%, respectively.

To assess feasibility of an overall dose measure across years, the Pearson correlation coefficient of between year measurements for each core strategy was assessed. The Cronbach coefficient alpha was used to judge compatibility of core strategy measurements within a year. The correlation between years of the overall dose measure was assessed using the Pearson correlation coefficient.

In order to distinguish between high and low implementing sites, an analysis was conducted on the summed rating scores of all 68 sites. Reviewers referred to the rating scheme used during the expert review process to calculate the maximum rating a site could receive.

Raters defined a site as receiving a "high dose" of the intervention if they achieved a combined score of at least 16, which was the equivalent of scoring a 4 or higher for each core strategy. The cut off was dropped to 14 because sites would have received a score of 4 or 5 on at least 1 core strategy to achieve that score. Sites were further categorized into groups that fell into a high dose category for both years 1 and 2, low dose for both years 1 and 2, a third category for either high year 1 and low year 2 or low year 1 and high year 2, and a fourth category for comparison sites.

Multivariate models were used to assess impact of site level dose on youth outcomes. The four category dose measure was used in place of the treatment condition indicator from the main effects analysis to test the effect of dose over time. For the cohort data correlations between multiple observations on a respondent and between respondents within the same community and communities within a state were accounted for using SAS-callable SUDAAN (Research Triangle Institute, 2001) PROC RLOGIST. For cross-sectional data, similar models were employed that adjusted for correlation between individuals within a community and communities within a state. Both cross-sectional and cohort analyses included race (white versus nonwhite), gender and age of respondent and college enrollment in community, percent Hispanic in community, percent black in community, income quartile and community population quartile as covariates in the models. A second set of analyses was completed on the number of core strategies met over both years for both Intervention and Comparison sites.

Law Enforcement Agency Survey

Purpose

The purpose of the Law Enforcement Agency (LEA) Survey was to assess the impact of the EUDL Community Trial (EUDL-CT) on law enforcement agencies. The survey focused on the level and form of enforcement efforts related to youth alcohol use in the community, as well as perceived support for, and barriers to, underage drinking enforcement. In addition to providing data on the impact of the EUDL-CT, key results from the LEA survey were shared with national stakeholders (OJJDP and PIRE) as well as individuals involved in the trial at the state and local level (the Discretionary State Manager in each of the five participating states, the local

coordinator in each of the 34 Intervention communities) to inform implementation efforts. Data from the LEA Survey were also used as the basis for more general analyses to inform policymakers, practitioners, and researchers on law enforcement practices related to underage drinking\

Methods

The protocol and instrument for this survey were adapted from the LEA survey used in the National Evaluation of EUDL (see Wolfson et al., 2004). The intended sample for the survey was the police chief (or another representative of the local police department) and the sheriff (or another representative of the county sheriff office) in each of the 68 Intervention and Comparison communities and the surrounding county (N=103).[2] Telephone interviews were conducted by the Survey Research Laboratory at the University of South Carolina in Columbia (USC).

The survey assessed the level of priority assigned by local law enforcement agencies to enforcing underage drinking laws, the underage drinking enforcement efforts that took place, and how enforcement priorities and practices changed over time. The survey was first conducted in 2004, and subsequently in 2005, 2006 and 2007. In each year, the sample of law enforcement agencies in the 34 Intervention and 34 Comparison communities was surveyed.

Pre-notification of Respondents

Each year, a pre-notification letter was sent to the police chief (or designee) and/or sheriff (or designee) in to inform them of the purpose and sponsorship of the study. A copy of the questionnaire, including consent text, was included in the mailing. This procedure allowed each jurisdiction to conduct any required record checks prior to the interview.

Survey Implementation

All interviewers at Survey Research Laboratory at USC participated in a one-day training session that included background information on the study, a question-by-question review of the instrument, a mock interview, practice interviews, and a debriefing session. Interviews were conducted in the Spring of each year, Monday through Friday, between 9:00 AM and 5:00 PM (respondents' time). All interviewing was done using a computer-assisted telephone interviewing system from a central location on USC's Columbia campus. Interviews were monitored periodically to make sure that questions were being asked properly and that probes were being used effectively.

Response Rate

The response rate for the LEA survey was high throughout EUDL-CT, ranging from 73% to 87%. A total of 343 law enforcement officials responded to the survey over the four years. Of those, 237 respondents completed interviews by telephone with interviewers from the USC

[2] The original total sample was 105 law enforcement agencies. Within the original 70 study communities, there were 70 police departments and 35 county-level law enforcement agencies. Because an Intervention community in CA dropped out of the EUDL-CT shortly after the trial began, it was dropped, along with its Comparison community, which left 68 study communities, and thus 68 police departments. Some of the county-level law enforcement agencies serve more than one of the study communities, and thus were only surveyed once.

Survey Center. An additional 106 respondents filled out the survey that was mailed to them and then mailed or faxed it back to the USC Survey Center. Table 2-13 shows the disposition of attempts to contact individuals in the sample, as well as the response rate by year:

Table 2-13 Annual Final Disposition of Contacts with Law Enforcement Officials					
Year	2004	2005	2006	2007	Total
Completed survey	75	90	90	88	343
Respondent refused to complete	17	8	8	10	43
USC unable to complete during fielding period	11	5	5	5	26
Total	103	103	103	103	412
Response Rate	73%	87%	87%	85%	73-87%

Over the four years the LEA survey was conducted, 83% (N=279) of the surveys were completed by a mid-level law enforcement official (i.e., Deputy Chief, Captain, Lieutenant, Sergeants, Undersheriff). In 9% (N=31) of the responding agencies, the respondent was the executive in charge (i.e., the Police Chief, the Sheriff, the County Police Chief, or the Superintendent of Police). The remaining 7% (N=26) of the surveys were completed by non-sworn agency personnel.

Measures

Data on enforcement practices focused on youth and providers of alcohol (including both commercial outlets and social providers) was collected. Questions on enforcement aimed at youth included enforcement of purchase and possession laws and laws related to use of false identification or furnishing alcohol to a minor (Table 2-14). Questions on enforcement efforts focused on outlets and third party transactions included use of compliance checks, priority of enforcement efforts related to sale of alcohol to underage persons, and enforcement outcomes (Table 2-15).

Table 2-14 Measurement of Enforcement Focused on Youth- Survey Questions	
Enforcement of Purchase/Possession Laws one of the Highest Priorities	We are interested in the priority your department gives to the enforcement of laws related to use and abuse of alcohol, illicit drugs, and tobacco. Please indicate whether each of the following is one of the highest enforcement priorities, a moderately high priority, a moderately low priority, or a very low priority of your department.
Citations/Arrests for False ID	In the past 12 months, has your department issued citations or made arrests of any underage people for using false identification to purchase or attempt to purchase alcohol?

Citations/Arrests for Purchase, Possession or Use of Alcohol	In the past 12 months, has your department issued citations or made arrests of any underage people for purchase, possession, or use of alcohol?
Citations/Arrests of Private Citizens for Furnishing Alcohol to Underage Person	In the past 12 months, how many citations or arrests of private citizens (not businesses) for furnishing alcohol to underage persons would you say your department made?

Table 2-15 Measurement of Enforcement Focused on Outlets and Third Party Transactions-Survey Questions	
Enforcement of Alcohol Sales to Underage Persons one of the Highest Priorities	We are interested in the priority your department gives to the enforcement of laws related to use and abuse of alcohol, illicit drugs, and tobacco. Please indicate whether each of the following is one of the highest enforcement priorities, a moderately high priority, a moderately low priority, or a very low priority of your department.
Enforcement of Alcohol Sales to Intoxicated Persons and Furnishing Alcohol to Underage Persons	We are interested in the priority your department gives to the enforcement of laws related to use and abuse of alcohol, illicit drugs, and tobacco. Please indicate whether each of the following is one of the highest enforcement priorities, a moderately high priority, a moderately low priority, or a very low priority of your department.
Compliance Checks	In the past 12 months, has your department conducted any compliance checks in your jurisdiction using an underage decoy to enforce the laws against alcohol sales to people under the legal drinking age?
**Businesses Cited	In the past 12 months have any businesses been cited for an administrative violation as a result of compliance checks conducted by your department?
**Businesses Were Fined For An Administrative Violation	In the past 12 months have any businesses been fined for an administrative violation as a result of compliance checks conducted by your department?
**Businesses Had Their Licenses Suspended	In the past 12 months, as a result of compliance checks conducted by your department, have any businesses had their licenses suspended?
**Clerks Cited	In the past 12 months have any individual sellers (CLERKS) been cited as a result of compliance checks conducted by your department?
**Only asked of those responders who reported conducting compliance checks.	

Policy

Purpose

The purpose for the Policy Tracking Survey was to document the distribution of local ordinances focused on alcohol within Intervention and Comparison communities. Of particular interest was the number and types of ordinances passed within the intervention communities contrasted with the comparison communities over the intervention period.

Method

Public policies (i.e., local ordinances) were tracked for the 68 EUDL-CT intervention and comparison communities (34 intervention and 34 comparison communities).[3] The Evaluation Team gathered information about local public policies adopted or amended during the intervention period by using on-line sources, such as city government websites. The team searched on-line municipal codes in all 68 communities for 21 specific policies that had previously been identified as best and most promising practices by the EUDL-CT (as explained in the Overview, these were the policies that intervention sites could include in their workplans; for a complete list of policies, refer to Section 5.2). When municipal codes were not available, or there appeared to be discrepancies between municipal code information and what was reported by sites, city clerks were emailed to request clarification. Policies that were enacted or amended during the timeframe of the EUDL-CT intervention were included in the policy tracking database.[4]

For the intervention communities, on-line municipal codes were cross-referenced with policy outcomes that were either entered into the Activity Tracking system by local coordinators or mentioned by local coordinators or coalition members during evaluation team site visits.

It was initially believed that compiling a comprehensive list of public policies at the local level would be challenging due to differing state and local standards for how policy changes are documented and how such information is made available to the public. However, after searching municipal government websites, the data available on-line appeared to be reliable and comprehensive, so no additional data collection methods were pursued.[5]

The Evaluation Team gathered information about institutional policies (adopted in intervention communities only) using the Activity Tracking system and site visit transcripts.

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[3] It was not possible to track institutional policy change in comparison communities, due to the number of institutions that could adopt changes (e.g., all restaurants, bars, grocery and convenience stores, schools, enforcement agencies, etc. in every EUDL-CT community).

[4] The EUDL-CT intervention time period varied by site. Refer to Section 2.2 for site-specific dates.

[5] Original evaluation plans called for WFUSM mailing city clerks in all 68 EUDL-CT Intervention and Comparison sites a survey on the underage drinking related ordinances currently enacted in each city. Once the survey responses were received, DSMs would be asked to review the compiled list for their state and local site and add additional data as needed.

Local Coalition Survey

Purpose

The Local Coalition Survey (LCS) provided data on the composition and operations of the coalitions that were a required element of the EUDL-CT intervention in each of the 34 Intervention communities. The focus of the survey included decision-making processes; which community sectors were involved in the coalition; the levels of collaboration among members; characteristics of the local host agency, coordinator, and coalition; coalition effectiveness; types of technical assistance and training received; and perceptions about barriers and facilitators.

The survey was intended to help us better understand how coalition members worked together, what skills and experience members brought to the coalition, what factors made the coalition more or less effective, and what resources the coalition leveraged to carry out its work plan.

Data from Wave 1, 2 and 3 of the LCS along with Intervention of Year1, Year 2, and Year 3 of Governing Board Data are presented in this report.

Methods

The sample for the LCS included the Local Coordinator and a random sample of active Governing Board members from each coalition. The survey was web-based. There were two versions of the survey: one for Local Coordinators and one for Governing Board members (Coalition Members). Most of the items were identical across the two surveys; however, there were a few questions that were tailored for the particular category of respondents.

The LCS sample is made up of the Local Coordinator and three active Governing Board members from each coalition.

All 34 Intervention communities were surveyed three times during the Intervention period. Collection of data for Wave 1, which provided baseline data for this report, began in February 2005 and concluded in May 2005. Wave 2 was completed in September 2006. Wave 3 concluded in September 2007.

Sample

The sample included the Local Coordinator and three (3) active Governing Board members from each coalition. The Governing Board members were chosen from a list that was maintained by the Local Coordinator on the Activity Tracking website. Of the Governing Board members whose names were included, the coalition sample was further stratified as follows:

- One law enforcement member (excluding members representing state enforcement agencies, such as ALE or ABC)
- Two other (non-enforcement) coalition members

Participants in these categories were selected by highest involvement level (as indicated by the Local Coordinator on the Activity Tracking website). In the event of a tie within a category, the participant was randomly selected.

Protocol for Fielding the Local Coalition Survey

Respondents were emailed a hyperlink to a web page where they entered their WFUSM-assigned unique identification and passcode in order to access the survey instrument. The web-based questionnaire took approximately 25-35 minutes to complete. In the event a respondent did not have email, a paper version of the survey was mailed along with a return, self-addressed, stamp envelope to encourage compliance. Multiple follow-ups with non-responders were conducted, first by email, and ultimately by telephone.

Survey Implementation

The Evaluation Team developed Wave 1 of the Local Coalition survey instrument in the 4th quarter of 2004. The Evaluation Team piloted the survey in December 2004 with Discretionary State Managers (DSMs) and PIRE UDETC staff. It was then programmed for the web.

The web-based survey was fielded from February until early May, 2005. The Evaluation Team mailed a paper version of the survey to a small sub-set of the sample with no email address. Shortly after putting the survey on-line, early responders experienced a programming glitch that prevented some of them from submitting a completed survey, so the Evaluation Team took the survey off-line for 2 weeks to fix the glitch and thoroughly re-test the system.

Once the survey went back on-line, the Evaluation Team offered a $10 gift card to the entire sample as an incentive for participation.[6] To increase response, the Evaluation Team enlisted the help of the DSMs to encourage LCs to complete the survey (and for LCs to further encourage their local coalition members to take the survey, should the member receive an invitation from the Evaluation Team to participate). Survey implementation for Wave 2 (May 2006) and Wave 3 (July 2007) was similar to the first year. Programming changes at the Evaluation Team resulted in the delay in fielding the survey for Wave 3.

Ninety-five out of 132 completed the survey in Wave 1, for an overall response rate of 72%. Of that, 33 LCs (97%) and 62 coalition members (63%) completed the survey. In Wave 2, the overall response rate was 69%, with 33 LC's (97%) and 57 coalition members (59%) responding. Due to the survey being administered after the completion of the intervention, it was expected that Wave 3 response rates would be lower. The overall response rate in Wave 3 was 50% with 20 LCs (65%) and 45 coalition members (45%) responding (Table 2-16).

[6] After this survey was already in the field, the Evaluation Team changed its institutional policy requiring in many surveys collection of W-9 information in order for participants to receive even a small incentive, e.g., a $10 gift card. This opened the door for the Evaluation Team to be able to offer incentives to non-responders (and a "token of appreciation" for those who had already completed the survey).

Table 2-16 Local Coalition Survey Implementation and Results						
	Data Collection Start	Data Collection End	Number of LC Respondents	Percent	Number of CM Respondents	Percent
Wave 1	Feb-05	May-05	33/34	97%	62/98	63%
Wave 2	May-06	Aug-06	33/34	97%	57/96	59%
Wave 3	Jul-07	Oct-07	20/31	59%	45/99	45%

Activity Tracking Methods

Purpose

One important component of the Process evaluation was to chronicle the methods and actions that communities take to implement the Community Trial grant objectives. Tracking the frequency and types of activities, outcomes of activities, and the process used to implement activities was intended to help measure the success of the EUDL Community Trial. Data from the Activity Tracking system provide a picture of how the program was implemented in diverse communities across the country.

Methods

The web-based Activity Tracking system was designed to capture coalition activities related to the four EUDL-CT grant objectives: (1) policy change, (2) compliance checks, (3) DWI enforcement, and (4) other enforcement related to social availability. The system provided a comprehensive classification of the types of activities a coalition might conduct. For instance, the Policy Change section outlined specific actions related to planning for policy change, media advocacy and policy advocacy, and required the Local Coordinator (LC) to select which policy (from a list of public and institutional policies identified by the EUDL-CT program as "best and most promising practices") the activity was addressing. The LC also tracked who was involved in the activity and whether there was a policy-related outcome.

In the law enforcement-related sections of the Activity Tracking system, LCs summarized the outcomes of enforcement actions (e.g., number of servers cited for providing alcohol to a minor; number of cars stopped during a sobriety checkpoint), specify who was involved in these operations, and whether the public or media were notified either before or after the operation occurs. In addition, on a quarterly basis, the Activity Tracking system prompted the LC to rate the degree to which several issues (e.g., public opinion, current personnel resources) were either

barriers or facilitators to conducting each type of enforcement operation during the previous three-month period.

The system also tracked activities the coalition engaged in to develop its work plan, build its coalition, and increase community awareness about the problems and solutions to reducing underage drinking.

Development and training on Activity Tracking web system:
The Evaluation Team developed the Activity Tracking web system in early 2004 and structured it around the EUDL CT grant objectives. The Evaluation Team elicited and incorporated extensive feedback from the DSMs, the LCs and PIRE staff during the development phase of this system.

Once development of the Activity Tracking system was completed, all LCs and DSMs received on-site training in how to use it, including an 87-page detailed Activity Tracking Guide that the Evaluation Team developed to help them navigate the system.

Several improvements were made to the web-based tracking system in October 2005 to more accurately capture the breadth of activities being conducted to implement workplans, and to allow sites to edit and review their entries. The Evaluation Team provided three booster trainings for all sites via audio conference call to provide an overview of the new fields and functions.

Data entry
The EUDL-CT intervention lasted 2 years. Due to differences in contract start dates, sites entered data into the AT system between May 2004 and March 2007.[7] The earliest activities entered into the web system were dated February 2004 (entered retrospectively). LCs were encouraged to log activities as they occurred and were responsible for entering activities at least on a monthly basis. Beginning in 2005, systems improvements were made to enable the user to edit recently entered data and view all entries logged into the system. Discretionary State Managers (DSMs) were able to view all entries made by sites in their state, which were displayed in summary tables and included a link to each individual activity. PIRE and OJJDP were able to view data from sites in every state.

Data Quality
There was variability in the frequency and level of reporting across the participating sites and states. After the first year of intervention, the Evaluation Team elicited feedback from participating sites to address this variability. In response to the feedback received, the Evaluation Team made several improvements in the web based system and provided additional training to local coordinators.

Feedback to the Local Coordinator and Coalition
Intervention sites received reports compiled by the Evaluation Team based on their Activity Tracking entries on a quarterly basis. Each feedback report provided summary and data from the previous quarter, as well as cumulative totals for the life of the intervention. The intent was to provide the LC and coalition with a "big picture" view of where they were so they could assess

[7] A site's start date was based on when its workplan was approved by OJJDP. For a review of start dates, refer to Section 2.2.

their progress, and if needed, make mid-course adjustments.

The Evaluation Team generated and posted all quarterly reports on a password-protected section of the National Evaluation website. LCs could view only their site's reports. DSMs were given access to site-specific reports for each coalition in their state. PIRE had access to site-specific reports for all 34 coalitions.

Site Visits

Purpose

The purpose of the Site Visits was to collect qualitative data from the State Coordinator (SC), Discretionary Site Manager (DSM), Local Coordinator (LC) and other coalition members regarding implementation of the grant requirement of the EUDL-CT grant. The visits focused on the grants progress at the state and site level, challenges coalitions faced implementing the grant requirements, and plans for sustainability of the grant projects. An observable measure such as attending a coalition meeting or participating in an enforcement operation was also incorporated in the site visit.

Methods

The site visits were conducted by a Site Visit team involving 2-3 members from the evaluation team. The site visits lasted 3-5 days in each state. The Evaluation Team made an effort to visit all sites at least once during the evaluation period. If it was not possible to visit a site, a telephone interview was conducted with the LC and CM. The site visit teams met for approximately one hour individually with the SC, DSM, LC and one to two coalition members and law enforcement representative from each site. Before each interview the site visit teams requested permission to audio tape the interviewee for quality assurance purposes.

Measures

Each interviewee was asked questions pertinent to their position, along with questions regarding program definition, their relationship with the funding agency, the evaluation process, planning and implementation of the grant requirements, the impact of the grant on the community, and the sustainability of the program at the end of the intervention (Table 2-17).

Table 2-17 Key Measurements and Description of Site Visit Questions	
Measurement	**Description of Questions Asked**
Experience with OJJDP	Questions asked to obtain interviewees background information and experience working with OJJDP and coalitions.
State and Local Structure Relationship	Questions related to reporting the local and state reporting structure and working relationship within the structure.
Program Definition	Questions related to the effectiveness of the grant and grant requirements
Strategic Planning and Implementation	Questions were asked regarding challenges such as the impact of the federal lobbying restrictions and how the coalitions were able to overcome the challenges. What policies were worked on, amended, passed? How were enforcement operations carried out? Who was involved in planning the operations?
Impact of EUDL on Community	Questions related to how the grant requirements impacted the community and how supportive the community was in carrying out the requirements of the grant.
Experience with Pacific Institute for Research and Evaluation (PIRE)	Questions regarding the use and effectiveness of training and conferences supposed by PIRE.
Experience With Evaluation	Questions on experience accessing and issues related to the Activity Tracking System and Local Coalition Survey.
Sustainability	Questions regarding the sustainability of the coalition, funding issues and enforcement operations.
Conclusion	Opportunity to discuss any other issues not covered in site visit questions

When planning the site visits, the site visit team requested to be allowed to attend a coalition meeting and/or ride along on an enforcement operation such as compliance checks or a shoulder tap operation. These observable measures allowed for the site visit team to obtain valuable insight into the dynamics of the coalition and what was involved in planning and carrying out an enforcement operation.

At the completion of the site visit, the site visit team debriefed to assess the major themes of the site visit. A thank you letter was sent to the site visit participants summarizing the action items for both the site and the site visit team. Audio tapes were transcribed and the data analyzed by the evaluation team to determine effectiveness of the EUDL-CT grant.

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Section 3.1 Overview of Grant Requirements

The overall goal of the EUDL-CT evaluation was to determine the effects of a local, coalition-based approach to implementing "best" or "most promising" strategies for increasing enforcement of laws related to underage drinking and reducing underage drinking.
Each site was required to achieve the following objectives by the end of the intervention period:

- Implement at least two compliance check operations in at least 90% of off-premise alcohol outlets per year.
- Conduct at least one DWI enforcement operation with a focus on youth.
- Conduct at least one additional enforcement operation focused on social availability of alcohol to youth (from a specified list of operations that had been identified as promising or effective practices).
- Adopt at least one new institutional or public policy, or improvement in at least one existing policy, related to underage drinking (from a specified list of policies that had been identified as promising or effective practices).

The next four sections give an assessment of the extent to which the EUDL CT sites exceeded, met, or failed to meet each of the grant requirements.

Section 3.2 Compliance Checks

Grant Requirement

By the end of the intervention period, intervention communities were required to conduct at least two compliance check operations in at least 90% of off-premise alcohol outlets per year.

Tracking Method

Local Coordinators (LC) compiled a list of off-sale alcohol outlets and entered the data in the *Community Trials Compliance Check Worksheet* provided to each LC. The LC was responsible for entering the off-sale outlets in his/her community *before* the first compliance check operation was completed. This database was used by the local coalition, Discretionary State Manager (DSM), and national partners to assess compliance with the 90% grant requirement. LCs kept the spreadsheets and updated them as compliance checks occurred. LC's submitted an electronic copy of the spreadsheet to their DSM once per quarter. DSMs kept electronic copies of the Excel spreadsheets for each of their intervention communities and submitted quarterly updates to the state EUDL Coordinator, OJJDP, and Wake Forest. Communities were responsible for conducting compliance checks in 90% of the off-premise outlets that were entered in the database prior to their first compliance check. Any off-sale alcohol outlets that went out of business or lost their off-sale license permanently were marked as "CLOSED" in the database and sites were not be responsible for checking them. Sites were also not responsible for checking any off-sale alcohol outlet that opened after the initial list was compiled. LC's had the option of excluding these businesses from the 90% compliance check requirement by labeling them as "Exclude New or Closed". To ensure the compliance check spreadsheets were complete and accurate Wake Forest followed up with all sites before the end of the intervention period.

Results

Overall, 24 of the 34 sites (71%) met the requirement to check 90% of stores twice each year. The chart below shows compliance check reporting by state, year and round of operation. Thirty three of 34 (97%) sites met the 90% requirement for checks in Y1 and Y2, round one. Round two checks declined in both Y1 and Y2 with 26/34 (76%) of sites meeting the requirement in Y1 and 28/34 (82%) meeting the requirement in Y2. Year 2 compliance checks showed an increase overall, with 28/34 (82%) meeting the requirement (Table 3-1).

Table 3 -1 Sites per State per year that conducted complicance checks in at least 90 percent of off-premise alcohol outlets

	YEAR 1						YEAR 2						TOTAL	
State	1st CC	Percent	2nd CC	Percent	Met 90% Twice	Percent	1st CC	Percent	2nd CC	Percent	Met 90% Twice	Percent	Met 90% Twice Y1 & Y2	Percent
State A	6/6	100%	4/6	67%	4/6	67%	6/6	100%	5/6	83%	5/6	83%	**4/6**	**67%**
State B	7/7	100%	7/7	100%	7/7	100%	7/7	100%	7/7	100%	7/7	100%	**7/7**	**100%**
State C	6/7	86%	4/7	57%	4/7	57%	6/7	86%	6/7	86%	6/7	86%	**4/7**	**57%**
State D	7/7	100%	4/7	57%	4/7	57%	7/7	100%	3/7	43%	3/7	43%	**2/7**	**29%**
State E	7/7	100%	7/7	100%	7/7	100%	7/7	100%	7/7	100%	7/7	100%	**7/7**	**100%**
TOTAL	**33/34**	**97%**	**26/34**	**76%**	**26/34**	**76%**	**33/34**	**97%**	**28/34**	**82%**	**28/34**	**82%**	**24/34**	**71%**

Table 3-2 Compliance Checks Completed by Site

	Year1		Year2	
Site	**1st CC**	**2nd CC**	**1st CC**	**2CC**
State A				
473	98%	98%	98%	98%
475	100%	97%	100%	100%
476	93%	**74%**	91%	91%
481	100%	100%	91%	93%
482	98%	**88%**	95%	**82%**
483	100%	100%	96%	96%
State B				
517	100%	94%	94%	94%
518	100%	93%	100%	100%
519	96%	96%	100%	92%
520	100%	91%	100%	91%
521	90%	90%	100%	95%
522	93%	93%	93%	93%
523	100%	100%	100%	90%
State C				
447	97%	91%	95%	95%
448	100%	99%	90%	90%
449	93%	91%	91%	91%
450	92%	92%	100%	100%
451	98%	**69%**	100%	94%
452	100%	**45%**	**82%**	**58%**
453	**87%**	**75%**	98%	93%
State D				
547	100%	91%	100%	97%
548	100%	96%	96%	**76%**
549	100%	92%	100%	100%
550	100%	**71%**	100%	**0**
551	90%	**70%**	91%	100%
552	100%	**0**	100%	**0**
553	100%	91%	90%	**80%**
State E				
410	97%	91%	100%	90%
411	100%	90%	96%	90%
416	93%	93%	98%	90%
418	92%	92%	91%	91%
419	93%	91%	91%	91%
420	92%	92%	94%	92%
423	97%	90%	100%	97%

Table 3-2 shows by site, the percentage of compliance checks met by year and round.

Y1, Round 1:
33 of 34 sites met the grant requirement

Y1, Round 2:
26 of 34 sites met the grant requirement

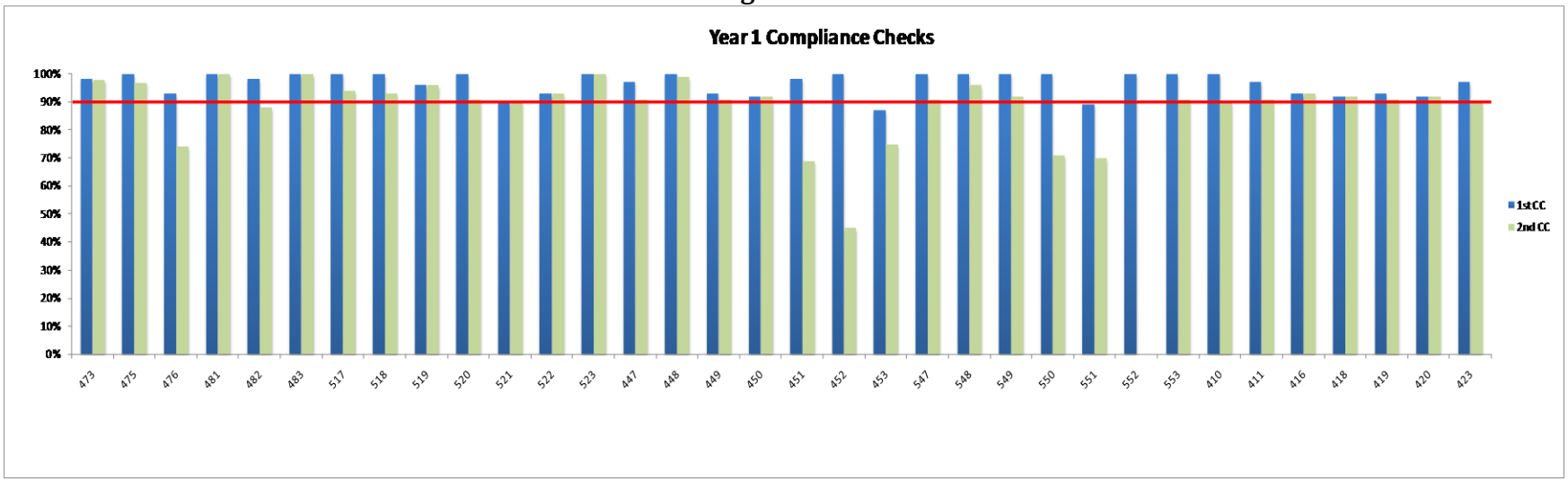
Y2, Round 1:
33 of 34 sites met the grant requirement

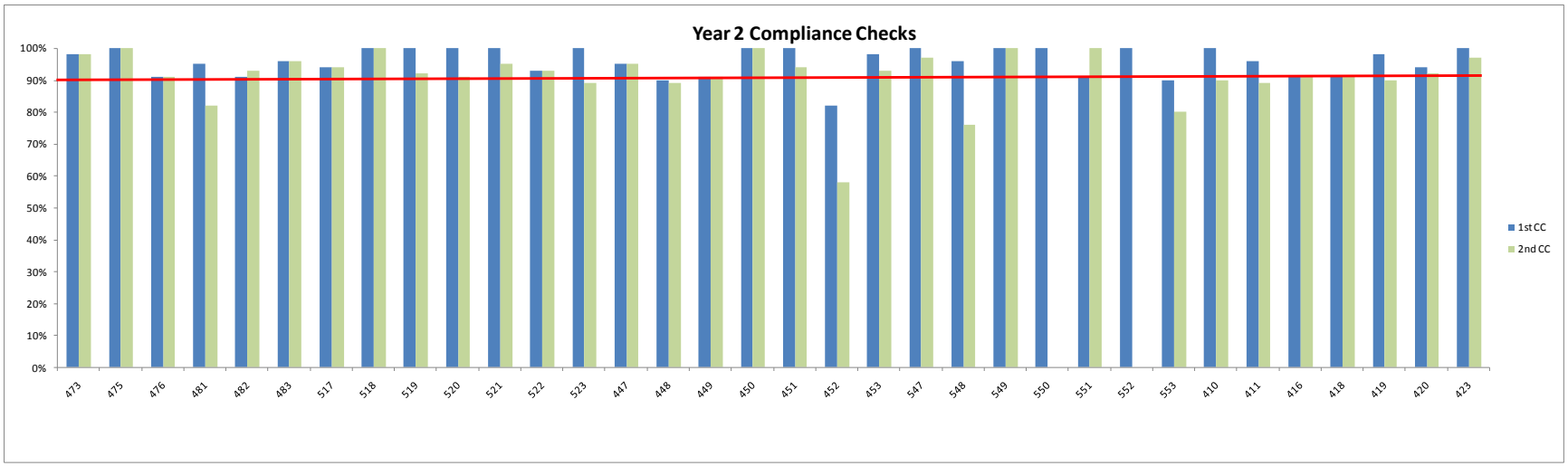
Y2, Round 2:
28 of 34 sites met the grant requirement

Figure 3-1, on the following page, indicates the number of sites (by year and round) that met or exceeded the grant requirement.

Sites Meeting or Exceeding 90% of Completed Checks

Figure 3-1





Summary

While 71% of sites met the grant requirement of checking 90% of off-site premises twice a year, only three rounds (two sites total) were not attempted at all. Sites were more successful in reaching the 90% goal in round one for Year 1 and Year 2 (97%) than in round two (Year 1, 76%; Year 2, 87%).

Discussion

This grant requirement was the most difficult for sites to reach. This level of enforcement was difficult for some grantees to reach simply due to the number of off-premise outlets in the community. Checking sites often and repeatedly is suggested in the literature (Preusser et al., 1994; Holder et al., 1997; Wagenaar et al., 2000) to increase the perception that law enforcement are checking sites frequently.

There were various reasons ten sites did not meet the grant requirement of checking 90% of the stores twice a year. Checks completed outside the contract year start/end date and manpower issues were the most common reason for not meeting the 90% goal. Two sites had to cancel scheduled checks due to inclement weather and were unable to reschedule before the year/grant ended. Scheduled checks were cancelled when a more pressing issue arose for law enforcement at another site. One site did more than one check at the same outlets on the same day which did not count as a check towards the 90% requirement. Finally, two sites did not give a reason for not completing compliance check requirement other than stating "they just fell short". The table (3-3) below shows a breakdown of reasons the 90% goal was not met by sites and the number of rounds not met.

Table 3-3 Reasons 90% Goal Not Met By Sites	**# Sites**	**# Rounds**
Checks completed outside of year start/end dates	3	4
Manpower issue	2	4
Weather	2	3
Law Enforcement Scheduling Conflict/CC cancelled	1	1
Same day duplicate checks	1	1
No reason given	2	3

Section 3.3 Social Availability Enforcement

Grant Requirement

By the end of the intervention period, communities participating in the EUDL-CT discretionary grant program were required to have implemented at least one enforcement operation focused on "social availability". These operations captured other coalition activities that were specifically related to social availability and the enforcement of underage drinking laws.

Tracking Method

A web-based Activity Tracking system was designed to track coalition activities related to the four EUDL-CT grant objectives: (1) policy change, (2) compliance checks, (3) DWI enforcement, and (4) additional enforcement operation focused on social availability. The system provided a comprehensive classification of the types of activities a coalition might conduct. The category of "social availability" enforcement activities included, but was not limited to, Parking Lot Surveillance (PL), Shoulder Tap Operations (ST), and Party Patrols (PP).

Local Coordinators (LCs) were responsible for entering activities in the web-based Activity Tracking system on a monthly basis. The LC could edit recently entered activities and view any entries logged into the system. The data entered into the Activity Tracking System for the social availability operations were: those persons involved in the operation; the number of underage persons receiving a warning; the number of adults receiving a warning (e.g. stranger, parents, landlords); the number of underage persons and/or adult providers cited or arrested; and the number of adults who refused to provide alcohol to underage youth during a ST operation. Discretionary State Managers (DSM's) were able to view all entries made by sites in their state, which were displayed in summary tables and included a link to each individual activity. PIRE and OJJDP had the ability to view all sites in all states.

Results

All sites (100%) met the requirement and completed at least one social availability operation within the intervention period. Table 3-4 shows, by state, the number of each type of operation completed, as well as the number of sites which completed the operations. Party patrols were conducted by the greatest number of sites (23), followed by parking lot patrols (15) and shoulder taps (10). With respect to sheer number of operations, parking lot patrols were the most common (119), followed by party patrols (23) and shoulder taps (10).

Table 3-4 Operations Completed by State

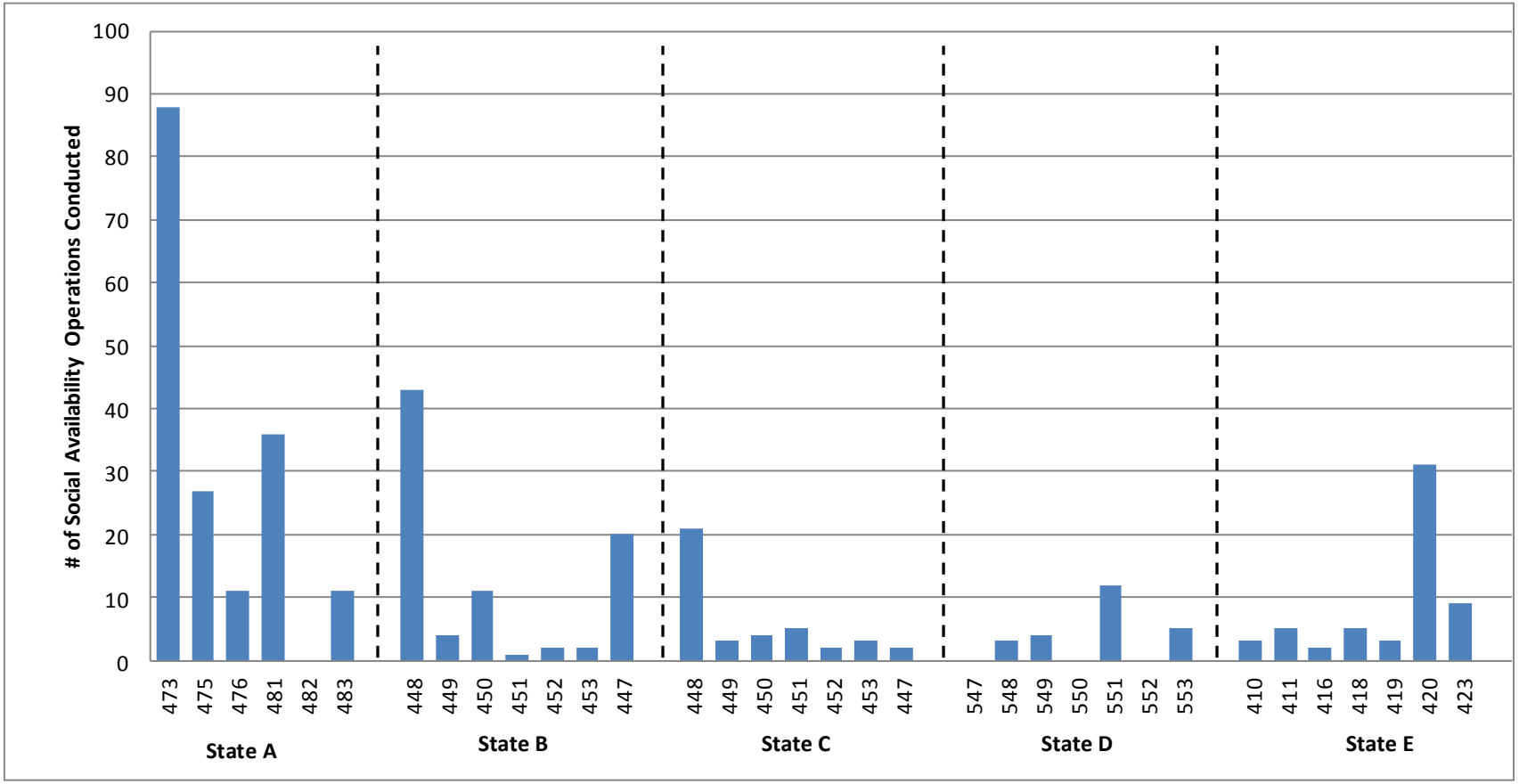
State	Parking Lots	Shoulder Taps	Party Patrols	Total
State A	37 (4 sites)	54 (5 sites)	46 (5 sites)	137
State B	59 (5 sites)	1 (1 site)	13 (3 sites)	73
State C	18 (3 sites)	4 (2 sites)	16 (5 sites)	38
State D	3 (1 site)	5 (1 site)	15 (6 sites)	23
State E	2 (2sites)	5 (1 site)	24 (5 sites)	31
Total	**119** (15 sites)	**69** (10 sites)	**113** (23 sites)	**302**

Table 3-5 shows the number of social availability operations conducted, by site and year.

Table 3-5 Social Availability: Parking Lot Surveillance (PL), Shoulder Tap (ST), Party Patrol (PP)

		PL	ST	PP	**Total**	PL	ST	PP	**Total**	**Total**
State	Site Codes	Year 1			**Yr. 1**	Year 2			**Yr. 2**	**Yrs. 1 & 2**
A	473	9	9	25	**43**	10	9	15	**34**	**77**
A	475	1	12		**13**	5	6	2	**13**	**26**
A	476		6		**6**		4	1	**5**	**11**
A	481	1		2	**3**	8			**8**	**11**
A	482				**0**		1		**1**	**1**
A	483		5		**5**	3	2	1	**6**	**11**
B	517	26			**26**	17			**17**	**43**
B	518	1		2	**3**	1		1	**2**	**5**
B	519	1			**1**	4		5	**9**	**10**
B	520	1			**1**	1			**1**	**2**
B	521				**0**	1			**1**	**1**
B	522				**0**	1	1		**2**	**2**
B	523	4		1	**5**	4		5	**9**	**14**
C	447				**0**	2			**2**	**2**
C	448	4			**4**	11		5	**16**	**20**
C	449			1	**1**		1	1	**2**	**3**
C	450		3		**3**	1			**1**	**42**
C	451			2	**2**			3	**3**	**5**
C	452				**0**			2	**2**	**2**
C	453			1	**1**			1	**1**	**2**
D	547				**0**			1	**1**	**1**
D	548	3			**3**				**0**	**3**
D	549				**0**			3	**3**	**3**
D	550				**0**			1	**1**	**1**
D	551		3	3	**6**		2	1	**3**	**9**
D	552			1	**1**				**0**	**1**
D	553			5	**5**				**0**	**5**
E	410			1	**1**	1		1	**2**	**3**
E	411			3	**3**			1	**1**	**4**
E	416				**0**	1			**1**	**1**
E	418			1	**1**			3	**3**	**4**
E	419	1	1		**2**	1	1		**2**	**4**
E	420			4	**4**			6	**6**	**10**
E	423			2	**2**		5	2	**7**	**9**

Figure 3-2
Number of Social Availability Operations Conducted by Site



Summary

All sites (100%) completed the grant requirement of conducting one social availability enforcement operation during the grant period. Twenty-eight sites conducted multiple social availability operations, and six sites conducted one operation.

Discussion

Sites were largely successful at meeting the grant requirement to implement one social availability operation during each year of the intervention. All sites were able to meet this requirement, indicating that (1) sites were familiar with this operation and (2) the threshold of implementing one operation over the course of the intervention was attainable. There is some evidence suggesting sites could go beyond the grant requirement and implement more social availability operations with the provided resources, as 28 of the 34 sites conducted multiple social availability operations during the intervention.

Section 3.4 DWI Enforcement

Grant Requirement

By the end of the intervention period, intervention communities were required to conduct at least one DWI enforcement operation.

Tracking Method

A web-based Activity Tracking system was designed to capture coalition activities related to the four EUDL-CT grant objectives: (1) policy change, (2) compliance checks, (3) DWI enforcement, and (4) other enforcement. The system provided a comprehensive classification of the types of activities a coalition might conduct. Sites targeted DWI enforcement by conducting Emphasis Patrols (EP) which involve law enforcement seeking out anyone driving over the legal limit of .08 and/or Sobriety Checkpoints (SC) which involve setting up road blocks, stopping every vehicle to determine if the driver too impaired to drive.

Sites began entering data in the AT system in May 2004. Local Coordinators (LC) were responsible for logging activities into the web-based system at least once a month. The user could edit recently entered data and view all entries logged into the system. Discretionary State Managers (DSM's) were able to view all entries made by sites in their state, which were displayed in summary tables and included a link to each individual activity. PIRE and OJJDP had the ability to view all sites in all states.

LCs summarized the outcomes of enforcement actions (e.g., number of servers cited for providing alcohol to a minor; number of cars stopped during a sobriety checkpoint); specified who was involved in the operations, and whether the public or media were notified either before or after the operation occurred.

Results

Overall, 33 of the 34 sites (97%) met the requirement to conduct at least one DWI enforcement operation with a focus on youth. Table 3-6 below shows DWI reporting by state, year and round of operation. Twenty-nine of 34 (85%) sites conducted DWI enforcement in Year 1. Twenty-seven of 34 (79%) conducted DWI enforcement in Year 2.

Table 3-6 DWI Enforcement Conducted by Sites Per State Per Year

	YEAR 1						YEAR 2						TOTAL	
State	**EP**	**Percent**	**SC**	**Percent**	**DWI-EP or SC**	**Percent**	**EP**	**Percent**	**SC**	**Percent**	**DWI-EP or SC**	**Percent**	**Y1 & Y2**	**Percent**
State A	4/6	67%	4/6	67%	6/6	100%	4/6	67%	3/6	50%	4/6	67%	**6/6**	**100%**
State B	3/7	43%	2/7	29%	4/7	57%	5/7	71%	3/7	43%	6/7	86%	**6/7**	**86%**
State C	5/7	71%	1/7	14%	6/7	86%	5/7	71%	2/7	29%	6/7	86%	**7/7**	**100%**
State D	4/7	57%	3/7	43%	7/7	100%	3/7	43%	2/7	29%	5/7	71%	**7/7**	**100%**
State E	3/7	43%	5/7	71%	7/7	100%	2/7	29%	4/7	57%	6/7	86%	**7/7**	**100%**
TOTAL	**19/34**	**56%**	**15/34**	**44%**	**29/34**	**85%**	**18/34**	**53%**	**14/34**	**41%**	**27/34**	**79%**	**33/34**	**97%**

Table Legend: EP – Enforcement Patrol
SC – Sobriety Checkpoints

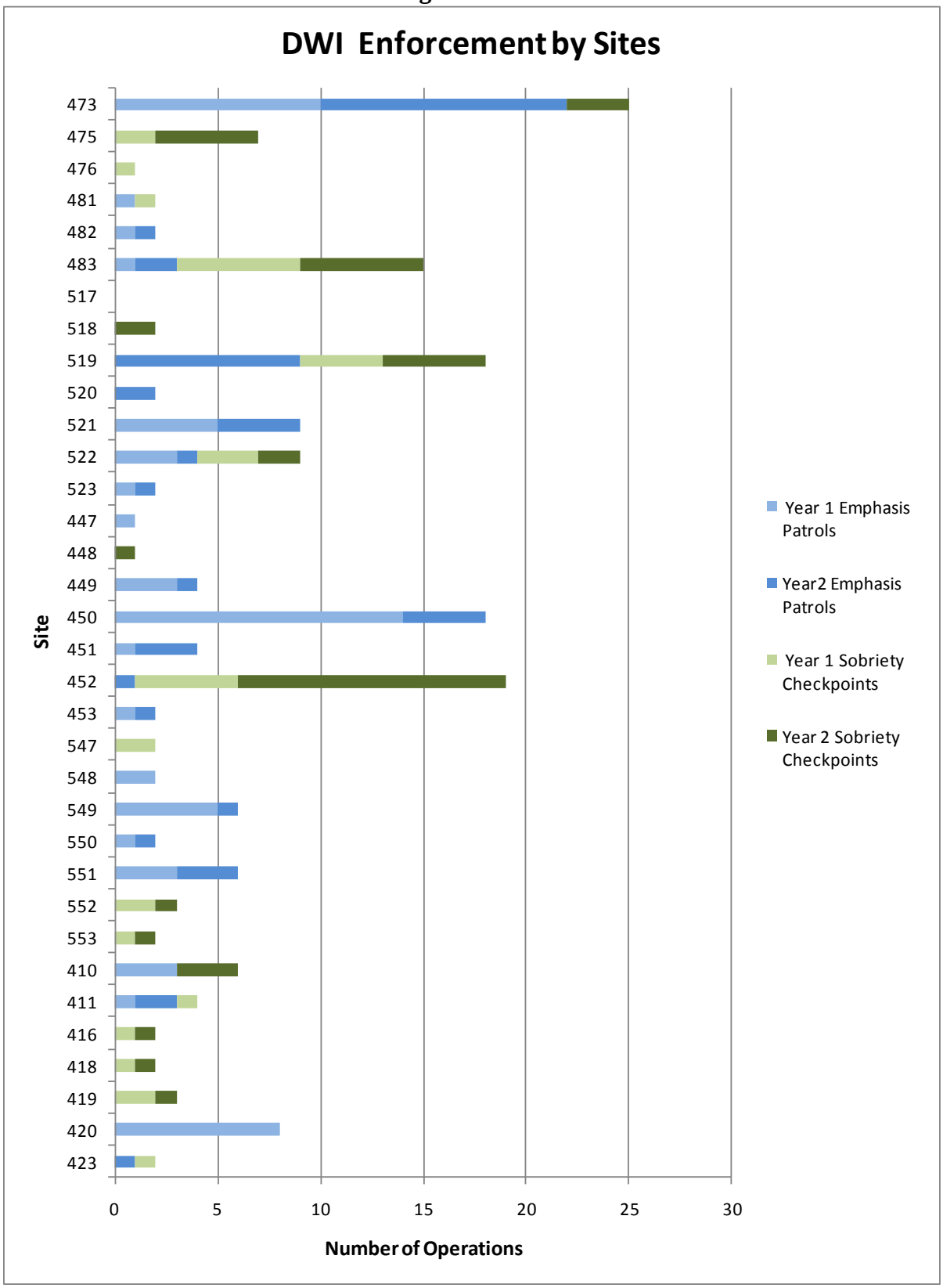
Table 3-7 DWI Enforcement Operations Completed by Site

Site	Year1 Emphasis Patrols	Year1 Sobriety Checkpoints	Year2 Emphasis Patrols	Year2 Sobriety Checkpoints	Total DWI Enforcement
State A					
473	10	0	12	3	**25**
475	0	2	0	5	**7**
476	0	1	0	0	**1**
481	1	1	0	0	**2**
482	1	0	1	0	**2**
483	1	6	2	6	**15**
State B					
517	0	0	0	0	**0**
518	0	0	0	2	**2**
519	0	4	9	5	**18**
520	0	0	2	0	**2**
521	5	0	4	0	**9**
522	3	3	1	2	**9**
523	1	0	1	0	**2**
State C					
447	1	0	0	0	**1**
448	0	0	0	1	**1**
449	3	0	1	0	**4**
450	14	0	4	0	**18**
451	1	0	3	0	**4**
452	0	5	1	13	**19**
453	1	0	1	0	**2**
State D					
547	0	2	0	0	**2**
548	2	0	0	0	**2**
549	5	0	1	0	**6**
550	1	0	1	0	**2**
551	3	0	3	0	**6**
552	0	2	0	1	**3**
553	0	1	0	1	**2**
State E					
410	3	0	0	3	**6**
411	1	1	2	0	**4**
416	0	1	0	1	**2**
418	0	1	0	1	**2**
419	0	2	0	1	**3**
420	8	0	0	0	**8**
423	0	1	1	0	**2**

Table 3-7 shows by site, the number of DWI Enforcements completed by year and round.
In Year 1, 29 sites met the grant requirement.
By the end of Year 2, 33 sites had met the grant requirement.

Figure 3-3 shows the number of sites that met or exceeded the grant requirement, by year and activity.

Figure 3-3


DWI Enforcement by Sites
Site
473
475
476
481
482
483
517
518
519
520
521
522
523
447
448
449
450
451
452
453
547
548
549
550
551
552
553
410
411
416
418
419
420
423
0
5
10
15
20
25
30
Number of Operations
Year 1 Emphasis Patrols
Year2 Emphasis Patrols
Year 1 Sobriety Checkpoints
Year 2 Sobriety Checkpoints

Summary

The majority of sites (97%) met the grant requirement of conducting one DWI Enforcement operation. Sites chose emphasis patrols as a DWI enforcement operation (23 of 34 sites) more frequently than sobriety checkpoints (19 of 34 sites). Thirteen sites used emphasis patrols as their only means of enforcement. Ten sites chose sobriety checkpoints as their only focus on DWI enforcement.

Section 3.5 Policy Implementation

Grant Requirement

Sites were required to adopt one new local policy or improve at least one existing local policy related to underage drinking by the end of the intervention. Local policies could be either public (i.e., a policy that must be passed by an elected body, like a city council) or institutional (one adopted by a non-elected official—e.g., a police chief, city manager, business owner, college or university). The EUDL Community Trial provided a list of policies sites could choose from, which was based on identified best and most promising practices. (Refer to Appendix 4 for the complete list.)

Tracking Method

Public policies (i.e., local ordinances) were tracked for the 68 EUDL-CT intervention and comparison communities (34 intervention and 34 comparison communities).[1] The Evaluation Team gathered information about local public policies adopted or amended during the intervention period by using on-line sources, such as city government websites. The team searched on-line municipal codes in all 68 communities for 21 specific policies that had previously been identified as best and most promising practices by the EUDL-CT (as explained in the Overview, these were the policies that intervention sites could include in their workplans; for a complete list of policies, refer to Section 5.2). When municipal codes were not available, or there appeared to be discrepancies between municipal code information and what was reported by sites, city clerks were emailed to request clarification. Policies that were enacted or amended during the timeframe of the EUDL-CT intervention were included in the policy tracking database.[2]

For the intervention communities, on-line municipal codes were cross-referenced with policy outcomes that were either entered into the Activity Tracking system by local coordinators or mentioned by local coordinators or coalition members during evaluation team site visits.

[1] It was not possible to track institutional policy change in comparison communities, due to the number of institutions that could adopt changes (e.g., all restaurants, bars, grocery and convenience stores, schools, enforcement agencies, etc. in every EUDL-CT community).
[2] The EUDL-CT intervention time period varied by site. Refer to Section 2.2 for site-specific dates.

It was initially believed that compiling a comprehensive list of public policies at the local level would be challenging due to differing state and local standards for how policy changes are documented and how such information is made available to the public. However, after searching municipal government websites, the data available on-line appeared to be reliable and comprehensive, so no additional data collection methods were pursued.[3]

The Evaluation Team gathered information about institutional policies (adopted in intervention communities only) using the Activity Tracking system and site visit transcripts.

Results

Overall, 29 of 34 (85%) sites met the requirement to adopt or improve a local policy to reduce underage drinking. Specifically, 15 of 34 (44%) sites passed or amended public policies, and 19 (56%) adopted institutional policies. Table 3-8 summarizes the number of public and institutional policies that were either adopted or improved for each EUDL-CT intervention site, by intervention year.

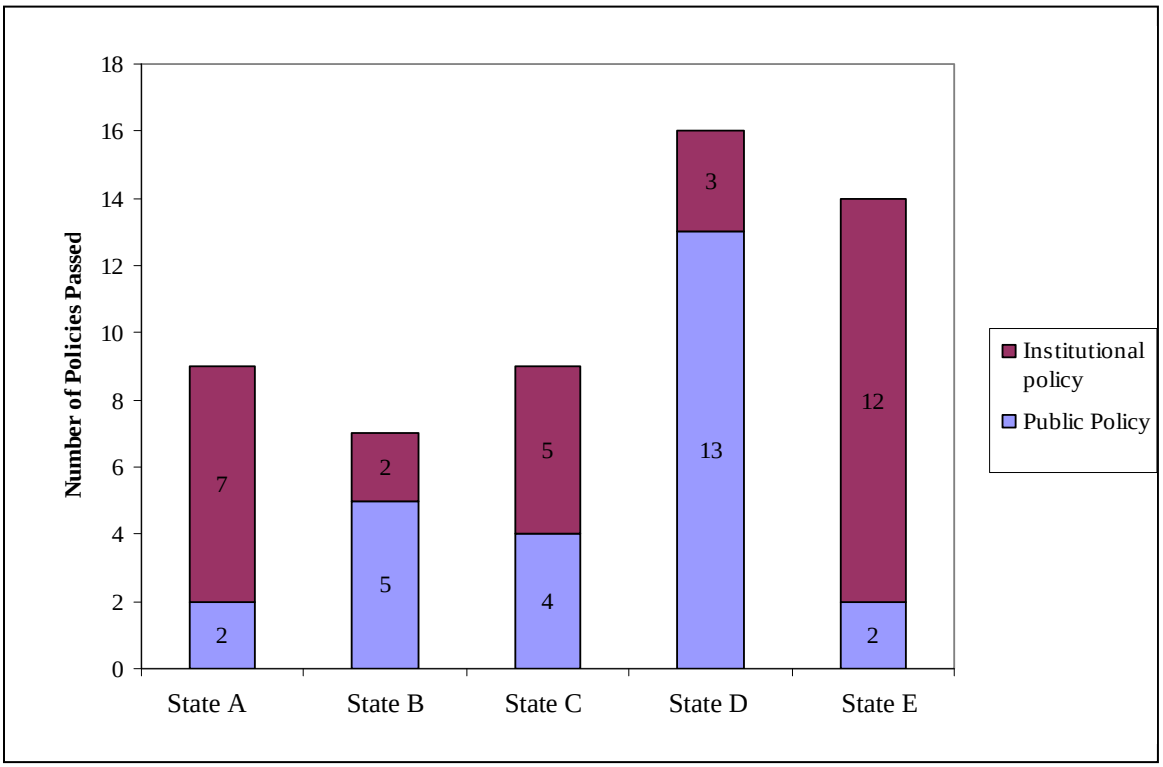
[3] Original evaluation plans called for WFUSM mailing city clerks in all 68 EUDL-CT Intervention and Comparison sites a survey on the underage drinking related ordinances currently enacted in each city. Once the survey responses were received, DSMs would be asked to review the compiled list for their state and local site and add additional data as needed.

Table 3-8 Local Policies Adopted or Improved, by Site					
Site Code	**Year 1**		**Year 2**		
State A	**Public**	**Institutional**	**Public**	**Institutional**	**Total**
473	0	0	0	0	**0**
475	0	0	0	0	**0**
476	0	1	0	0	**1**
481	0	3	0	2	**5**
482	1	0	1	0	**2**
483	0	0	0	1	**1**
State B					
517	1	0	0	0	**1**
518	1	0	0	0	**1**
519	1	0	0	0	**1**
520	0	0	0	1	**1**
521	0	0	0	0	**0**
522	2	0	0	1	**3**
523	0	0	0	0	**0**
State C					
447	2	0	0	0	**2**
448	1	0	0	1	**2**
449	0	1	0	0	**1**
450	0	0	0	1	**1**
452	1	0	0	0	**1**
453	0	1	0	0	**1**
State D					
547	2	0	0	0	**2**
548	0	0	0	1	**1**
549	1	0	0	0	**1**
550	0	0	1	0	**1**
551	0	0	2	0	**2**
552	3	0	0	1	**4**
553	1	1	3	0	**5**
State E					
410	0	0	2	1	**3**
411	0	0	0	1	**1**
416	0	0	0	2	**2**
418	0	0	0	6	**6**
419	0	0	0	0	**1**
420	0	0	0	0	**0**
423	0	1	0	0	**1**

As shown in Table 3-8, sites in State D adopted or amended the most public policies (13), as well as the greatest number of policies overall (16). Sites in State E adopted the most institutional polices (12).

Two states (State C and State D) met the grant requirement of achieving at least one policy change in each intervention site in the state.

Figure 3-4



Number of Policies Passed, by Method of Adoption and State

Fifteen intervention sites passed a total of 26 public policies

A total of 26 public policies were adopted in 15 intervention communities during the EUDL-CT. However, it is worth noting that EUDL-CT coalitions only reported being involved in working toward the passage of a sub-set of these public policies. Coalitions reported in Activity Tracking or during evaluation team site visits that they were involved in advocating for 14 (53.8%) of the public policies passed in intervention sites (see Section 5.2 for more discussion of policy-related activities and outcomes of the coalitions).

Figure 3-5
Number of Public Policies Passed, by Type of Policy

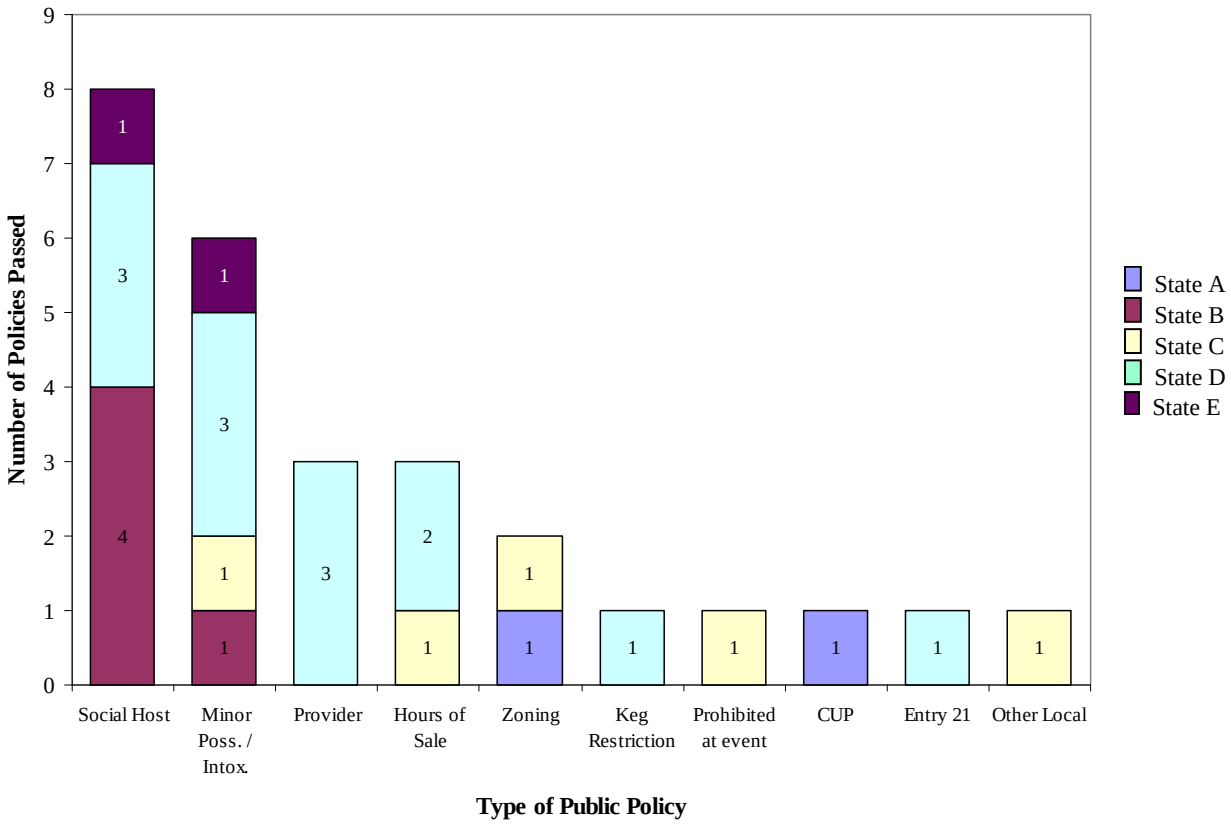
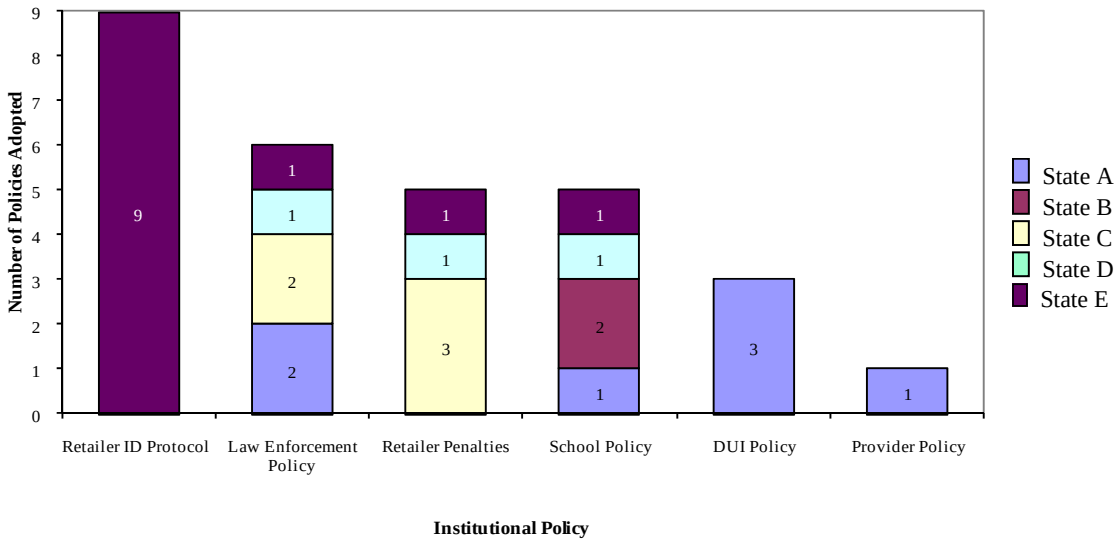


Figure 3-5 shows the variation in the types of public policies passed. Social host policies were the most frequently passed (8 sites in 3 states), followed by policies that addressed minor in possession/intoxication (6 sites in 4 states). Other policies that were passed by multiple sites include penalties for providers (3 sites in 1 state), limited hours of sale (3 sites in 2 states), and rezoning (2 policies in 2 states). A single policy was passed (by intervention sites across three states) for a number of issues, including restricting kegs, prohibiting alcohol at public events, requiring businesses to obtain a conditional use permit in order to sell or dispense alcohol; restricting entry into bars by underage persons, and prohibiting consumption outside of alcohol establishments ("other local policy").

A total of 29 institutional policies were adopted in 19 intervention sites, according to the Activity Tracking system and site visits. Figure 3-6 summarizes the types of institutional policies adopted, broken down by state.

Nineteen intervention sites adopted a total of 29 institutional policies

Figure 3-6
Number of Institutional Policies Adopted, by Type of Policy



Sites in NY were successful in adopting 9 institutional policies related to responsible retailer protocols for verifying age of patrons entering taverns and bars. In one intervention community alone, 6 different retail establishments adopted the use of such retailer ID protocols (which involve using driver license scanners).

Sites in 4 states adopted a total of 6 law enforcement agency internal policies, which included party dispersal protocols and increased enforcement during key holidays or community events.

Five policies addressed penalties for retailers. In three sites in the same state, their district attorney's offices received instruction to use uniform guidelines for plea offers for all cases involving a charge of sale of alcohol to a minor.

Five school policies passed in EUDL sites in 4 states. These included such diverse policies as allowing the use of breathalyzers in schools, closing a high school campus to freshmen during lunch, requiring parents of prom attendees to attend information sessions, and banning alcohol at a university's football games.

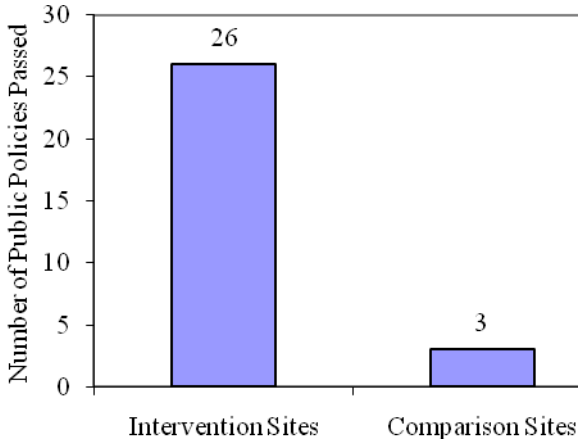
One site adopted 3 separate institutional policies specifically related to driving under the influence (DUI). These included increasing coordination among law enforcement agencies to conduct DUI checkpoints during holiday times, and redirecting additional funds toward enforcement targeting boating under the influence.

One site adopted an institutional policy that detailed procedures for emergency responders on how to trace the source of alcohol provided to an underage person.

Figure 3-7 shows the number of public policies passed in intervention and comparison communities. Intervention communities passed 26 public policies during the intervention period, compared to 3 public policies passed in comparison communities.[4]

Intervention sites passed 26 public policies, while comparison sites passed 3 public policies during the EUDL-CT

Figure 3-7
Public Policies Passed in Intervention and Comparison Communities



Further details are provided in Section 5.2 about how sites met their work plan goals in relation to the policy requirement of the grant.

Discussion

Sites were largely successful at meeting the grant requirement to change local policy around underage drinking. A total of 54 public and institutional policies were adopted or amended in 29 (85%) of the intervention sites. Interestingly, almost as many public policies were changed as institutional policies (26 and 29, respectively). This was somewhat unexpected, because public policy change typically requires a majority vote by an elected body, whereas an institutional policy can be adopted by a single individual with authority. However, public policy is often the preferred mechanism of change because it is can be more uniformly applied (e.g., limiting hours of sale at all stores in a community, rather than just at one), and can be enforced by law enforcement personnel.

[4] These 3 policies included restrictions on entry into an alcohol establishment by persons under 21, an amended policy related to possession of alcohol in public areas, and a policy related to sales in public parks.

More than eight times as many public policies passed in intervention sites as in comparison sites during the EUDL-CT intervention period. There appears to be a strong relationship between having a EUDL-CT coalition-based intervention and the successful passage of local ordinances to address underage drinking.

The public policies that were adopted or amended generally centered around three areas. The first concerned *increasing accountability of providers*. Eleven policies took this approach (these included the social host and provider ordinances). The second centered on *changing conditions in the environment to limit access* (e.g., through restrictions on hours of sale, kegs, zoning, alcohol at events, and underage entry into bars). A total of 10 policies took this approach. The third – and least used – area focused on *penalizing the underage drinker* (with five policies). The intervention sites' focus on addressing providers and limiting access (with less of a focus on increasing penalties on the underage drinker) reflects the prevailing wisdom among leaders in the alcohol prevention field about where policy priorities should be.[5]

[5] National Research Council and Institute of Medicine, 2003. *Reducing Underage Drinking: A Collective Responsibility.* National Academy o f Sciences.

Section 3.6 Summary

Overall, 18 of 34 Intervention sites (53%) met all four grant requirements (compliance checks, other enforcement focused on social availability, driving while intoxicated DWI enforcement, and policy). Table 3-9 shows the number of sites that met each of the grant requirements, and overall, by state. The number of sites that met all of the grant requirements varied by state, ranging from two to six.

Table 3-9 Number of Sites Meeting EUDL CT Grant Requirements, by State

State	Compliance Checks	Social Availability Enforcement	DWI Enforcement	Policy	All Grant Requirements
State A (6 sites)	4	6	6	4	2 (33%)
State B(7 sites)	7	7	6	5	4 (57%)
State C (7 sites)	4	7	7	7	4 (57%)
State D(7 sites)	2	7	7	7	2 (29%)
State E (7 sites)	7	7	7	6	6 (86%)
# of sites meeting requirements (34 sites)	**24 (71%)**	**34 (100%)**	**33 (97%)**	**29 (85%)**	**18 (53%)**

Table 3-10 provides a breakdown, by state and site, of the grant requirements met in each of the two implementation years (note that a site could meet the overall grant requirements for social availability enforcement, DWI enforcement, and policy in any one of the two years; meeting the compliance check grant requirement necessitated conducting the requisite checks in both years).

Table 3-10 Summary of Grant Requirement by Site													
Site	**Number of sites met compliance checks**			**Number of sites met social availability of alcohol enforcement**			**Number of sites met DWI**			**Number of sites met Policy**			**Total Number Met**
	Y1	**Y2**	**All**	**Y1**	**Y2**	**All**	**Y1**	**Y2**	**All**	**Y1**	**Y2**	**All**	
State A													
473	√	√	Yes	√	√	Yes	√	√	Yes	x	x	No	**3**
475	√	√	Yes	√	√	Yes	√	√	Yes	x	x	No	**3**
476	x	√	No	√	√	Yes	√	x	Yes	√	x	Yes	**3**
481	√	√	Yes	√	√	Yes	√	x	Yes	√	√	Yes	**4**
482	x	x	No	x	√	Yes	√	√	Yes	√	√	Yes	**3**
483	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
State B													
517	√	√	Yes	√	√	Yes	x	x	No	√	x	Yes	**3**
518	√	√	Yes	√	√	Yes	x	√	Yes	√	x	Yes	**4**
519	√	√	Yes	√	√	Yes	√	√	Yes	√	x	Yes	**4**
520	√	√	Yes	√	√	Yes	x	√	Yes	x	√	Yes	**4**
521	√	√	Yes	x	√	Yes	√	√	Yes	x	x	No	**3**
522	√	√	Yes	x	√	Yes	√	√	Yes	√	√	Yes	**4**
523	√	√	Yes	√	√	Yes	√	√	Yes	x	x	No	**3**
State C													
447	√	√	Yes	x	√	Yes	√	x	Yes	√	x	Yes	**4**
448	√	√	Yes	√	√	Yes	x	√	Yes	√	√	Yes	**4**
449	√	√	Yes	√	√	Yes	√	√	Yes	√	x	Yes	**4**
450	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
451	x	√	No	√	√	Yes	√	√	Yes	√	x	Yes	**3**
452	x	x	No	x	√	Yes	√	√	Yes	√	x	Yes	**3**
453	x	√	No	√	√	Yes	√	√	Yes	√	x	Yes	**3**
State D													
547	√	√	Yes	x	√	Yes	√	x	Yes	√	x	Yes	**4**
548	√	x	No	√	x	Yes	√	x	Yes	x	√	Yes	**3**
549	√	√	Yes	x	√	Yes	√	√	Yes	√	x	Yes	**4**
550	x	x	No	x	√	Yes	√	√	Yes	x	√	Yes	**3**
551	x	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**3**
552	x	x	No	√	x	Yes	√	√	Yes	√	√	Yes	**3**
553	√	x	No	√	x	Yes	√	√	Yes	√	√	Yes	**3**
State E													

410	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
411	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
416	√	√	Yes	x	√	Yes	√	√	Yes	x	√	Yes	**4**
418	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
419	√	√	Yes	√	√	Yes	√	√	Yes	x	√	Yes	**4**
420	√	√	Yes	√	√	Yes	√	x	Yes	x	x	No	**3**
423	√	√	Yes	√	√	Yes	√	√	Yes	√	x	Yes	**4**

√ met the grant requirement; x did not meet the grant requirement.

Section 4.1 Local Coalition Survey

Purpose

The purpose of the Local Coalition Survey (LCS) was to provide data on the composition and operations of the coalitions that were required elements of the EUDL-CT intervention in each of the 34 Intervention communities.

Governing Board Data

In the EUDL-CT, each coalition was expected to have a formal governing body that would lead the coalition in achieving its stated goals. This governing body, often referred to as a Governing Board or Leadership Team, was made up of individuals from the coalition who worked together to provide direction for the coalition. The Governing Board was responsible for the development of the coalition's strategic work plan, oversaw the implementation of the work plan, and helped marshal and allocate resources to support the plan.

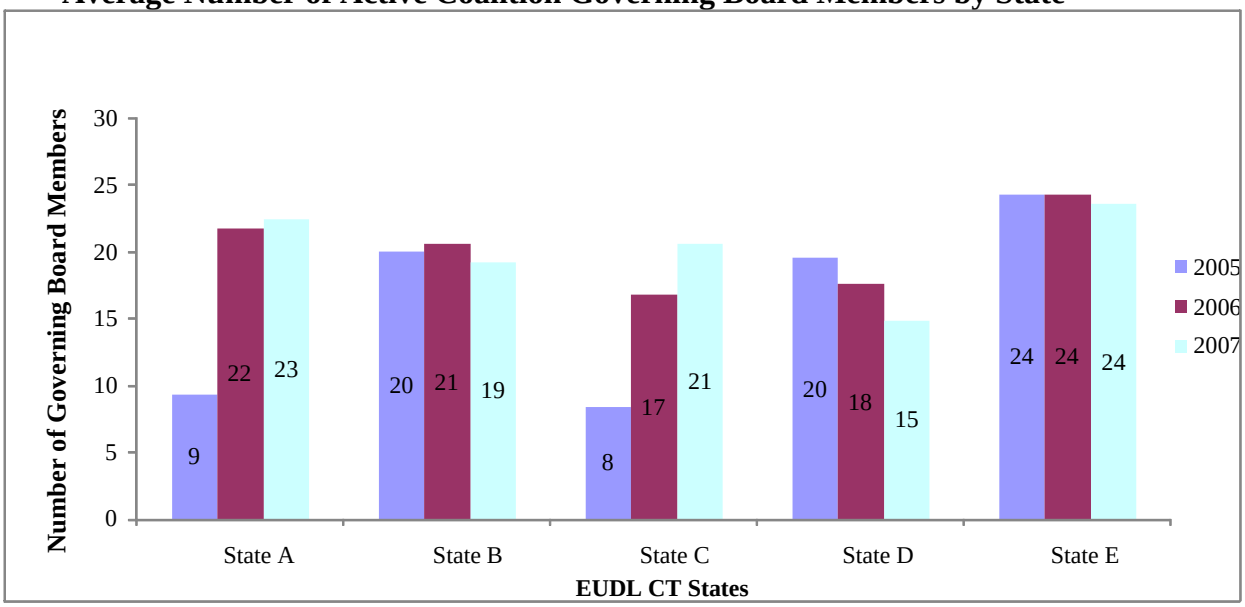
The average number of Governing Board members is 20 (range: 3-49).

As part of the evaluation, the evaluation team tracked Governing Board membership. To that end, Local Coordinators (LCs) logged basic information about the members of their governing board into the Activity Tracking system (see Section 4.2). In addition to providing basic contact information for each governing board member (e.g., name, organization, email, phone number), the LC identified which community sector the member was from and the person's level of involvement in the coalition. LCs also indicated those who were youth and those who were coalition chairs. All 34 LCs entered Governing Board information into the Activity Tracking system in 2006 and 2007 (28 LCs entered data in 2005).

Across the 34 sites, Governing Boards ranged from 3-49 active members.[1] Figure 4-1 shows the average number of active members reported per coalition, of the reporting sites by state for Year 1 (2005), Year 2 (2006), and Year 3 (2007).

[1] The Activity Tracking system kept a log of currently active and formerly active members, rather than deleting information about members who no longer identified themselves as members of the coalition. LCs up-dated their list as members joined, left and/or returned to their coalition.

Figure 4-1
Average Number of Active Coalition Governing Board Members by State



Youth Involvement on Governing Board

In 2007, 19 of the 34 sites (55.8%) indicated that they had at least one youth (18 or younger) on their board. This was a slight change from 2006 (58.8%, 20 of 34). The number of youth members at these sites ranged between 1 and 12. State D was the only state not reporting youth involvement on Governing Boards. State A (17.8% with 6 coalitions) had the largest percentage of youth involvement in 2007. State B followed with 9.6% (6 coalitions represented), State C (8.3%, 6 coalitions represented) and State E (2%, 3 coalitions represented).

Sectors Represented on Governing Board

Law enforcement was the most commonly represented sector on Governing Boards all 3 years of EUDL-CT

Table 4-1 shows how different sectors of the community were represented on coalition governing boards in 2005, 2006 and 2007. Law enforcement continued to be the most commonly represented sector[2]. However, in 2007, non-profit agencies, substance abuse prevention and health care were the second most commonly represented sectors. Local government, community at-large and then education, which was second in 2006, followed. As in 2005, media continued as the least represented sector.

[2] The category "Law enforcement" included the following sectors as listed in the Activity Tracking system: sheriff's department, local police department and highway patrol/state police.

Table 4-1 Number of Members per Sector and Number of Coalitions with Sector Representation by Year						
	2005		2006		2007	
Sectors	Number of Members	Number of Coalitions	Number of Members	Number of Coalitions	Number of Members	Number of Coalitions
Law Enforcement	85	26	132	34	135	32
Education	76	21	111	31	106	19
Local Government	47	19	57	23	54	22
Community-at-large	48	16	64	22	66	21
Non-Profit	46	16	62	23	50	23
Health Care	31	16	31	17	28	23
Substance Abuse Prevention	43	15	62	23	67	23
Not Specified	39	13	47	15	0	0
Alcohol Business	29	11	35	11	35	12
Other Business	21	11	49	18	44	12
Justice System	13	8	20	12	20	12
State ALE	8	8	16	14	18	14
Media	1	2	1	1	1	1

State Summaries

State A (n=4 sites reporting in 2005, n=6 sites reporting in 2006, 2007):

- As in Year 1 & 2**, law enforcement** was the most represented sector in Year 3 comprising 21.5% (29 of 135) of Governing Board members.
- **Education** and **community at-large** were tied as the second most represented sectors at 11.9% (16 of 135); **non-profit** was third with 10.4% (14 of 135).
- Except for **media**, State A governing boards had representation from all sectors.
- The average number of governing board members per site increased in State A each year from 9 members in 2005, 22 members in 2006 and 2007 in 23 members.

State B (n= 7, 2005, 2006, and 2007):

- There was a change in the top three sectors in 2007 with **community at-large** becoming the top sector (17.8%), **local government** (13.3%) was in the top 3 and **education** (12.6%) moved from first to third. **Law enforcement** (11.1%) dropped to fourth.
- State B sites reported a range of 13-28 Governing Board members (total number of State B Governing Board members = 135).
- State B had the highest percentage of **community at-large** representatives (17.7%) among all states.
- State B sites collectively continued in 2007 to report broad representation on their Governing Boards; the average number of different sectors per site in State B was 7.3 (out of a possible 12)
- The average number of governing board members per site decreased in 2007 to 19 members compared to 21 members in 2006 and 20 members in 2005.

State C (n=5, 2005, n=7, 2006, and 2007):

- **Law enforcement** continued as the most represented sector in 2007 at 21.4%. **Other business** at 14.5% was second and continued as the largest percentage of **other business** representation for any state.
- **Education** (12.4%) was the third most represented sector in 2007; **substance abuse prevention** (11%) was fourth.
- Third in 2006, **non-profit** (9%) was the fifth most represented sector in 2007.
- State C increased its average number of governing board members per site in 2007 to 20.7 compared to 16.9 in 2006 and 8.4 in 2005.

State D (n= 5, 2005, n=7, 2006, and 2007):

- **Law enforcement** for 2007 remained the most represented sector, representing 32.7% (35 or 104) of all Governing Board members (28.5%, 2006, 22.4%, 2005). It was the highest representation of any sector for any state.
- The second and third most represented sectors were **education** at 13.6% and **substance abuse prevention** at 9.6%.
- State D reported the smallest average number of sectors per site, at 5.7 out of a possible 12.

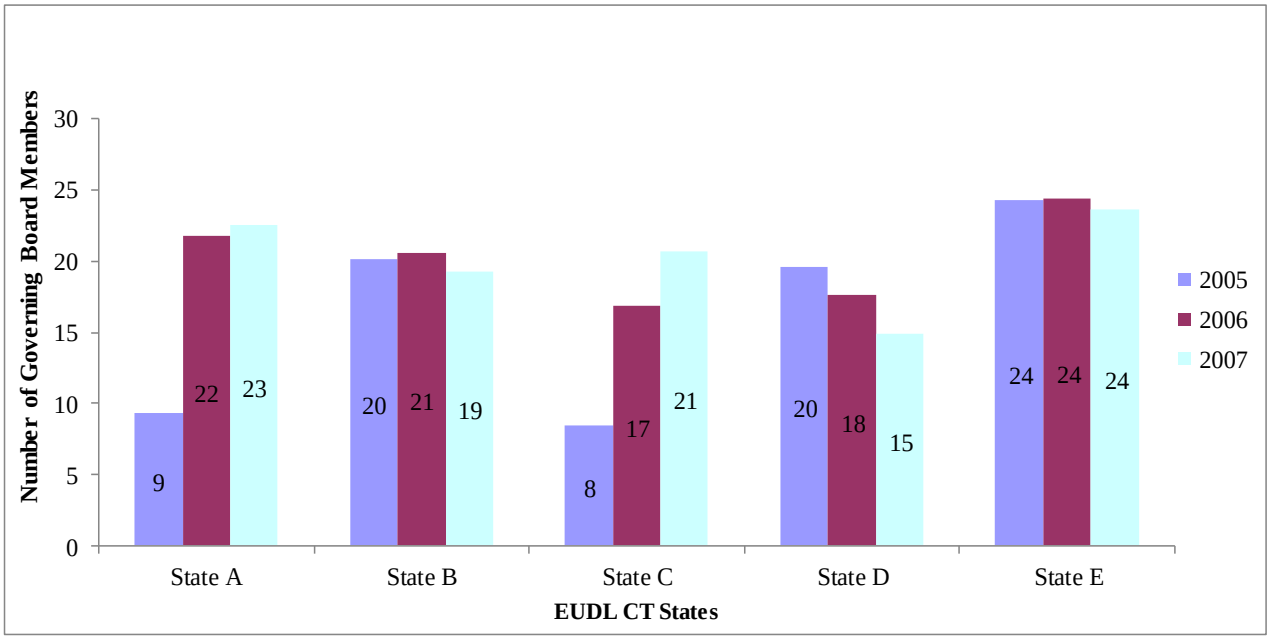
State E (n=7, 2005, 2006, and 2007):

- **Law enforcement** was the most represented sector in 2007 with 15.2% (25 of 165).
- The second largest sector was **alcohol business,** which was third in 2006, at 13.3% (22 of 165). State E continued as the state having the largest percentage of alcohol business representation.
- The third most represented sector was **local government** at 12.1% (20 of 165).
- **Education,** which was the largest sector in 2005 and 2006, was the fourth most represented sector in 2007 at 10.9%
- State E continued in 2007 with the highest average number of governing board members per site of any state (23.6)
- State E sites had the widest representation of any state: the average number of different sectors per site was 8 (out of a possible 12).

Governing Board Chairs

Sectors that the Governing Board chairs most often represented changed in 2007. Law enforcement continued to have a strong representation of governing board chairs, with 10 chairs in all 3 years out of a possible 34. However, education and local government decreased in governing board chairs representation in 2007. The sectors most prevalent in 2007 were law enforcement (10 chairs), substance abuse prevention and treatment (8 chairs) and education (8 chairs). Community at-large was the fourth largest sector represented, with 7 chairs.

Figure 4-2
Number of Governing Board Chairs per Sector
(Out of a possible 34)



The previous section reported on the composition of the Governing Board members based upon input from the Local Coordinators. The following section will present the results of Waves 2 (2006) and 3 (2007) with comparisons to Wave 1 (2005) of the Local Coalition Survey. The LCS includes data from both the Local Coordinators and Coalition Members.

Results

Respondent Demographics and Characteristics

Table 4-2 shows the demographics of the LCS respondents. Local Coordinators (LCs) tended to be white and female with three-fourths having a college or professional degree. Half of LCs lived in the community served by the EUDL coalition task force. In contrast, Coalition Members (CMs) tended to be white males with a college or professional degree with fewer (68%) living in the community served by the coalition task force.

Table 4-2 Personal Demographics of Respondents Averaged over all 3 years

	Gender		Race		Education			
	Male	Female	White	Minority	Some College	College Degree	Graduate / professional Degree	Resident of Community
Local Coordinators	31%	69%	83%	17%	24%	49%	26%	51%
Coalition Members	60%	40%	91%	9%	13%	37%	46%	68%

Local Coordinators and Community Members on EUDL-CT coalitions represented many different sectors. As seen in Figures 4-3 and 4-4 below, there was diversity and similarity when comparing the two groups of respondents.

Figure 4-3
Local Coordinator Organization by Sector

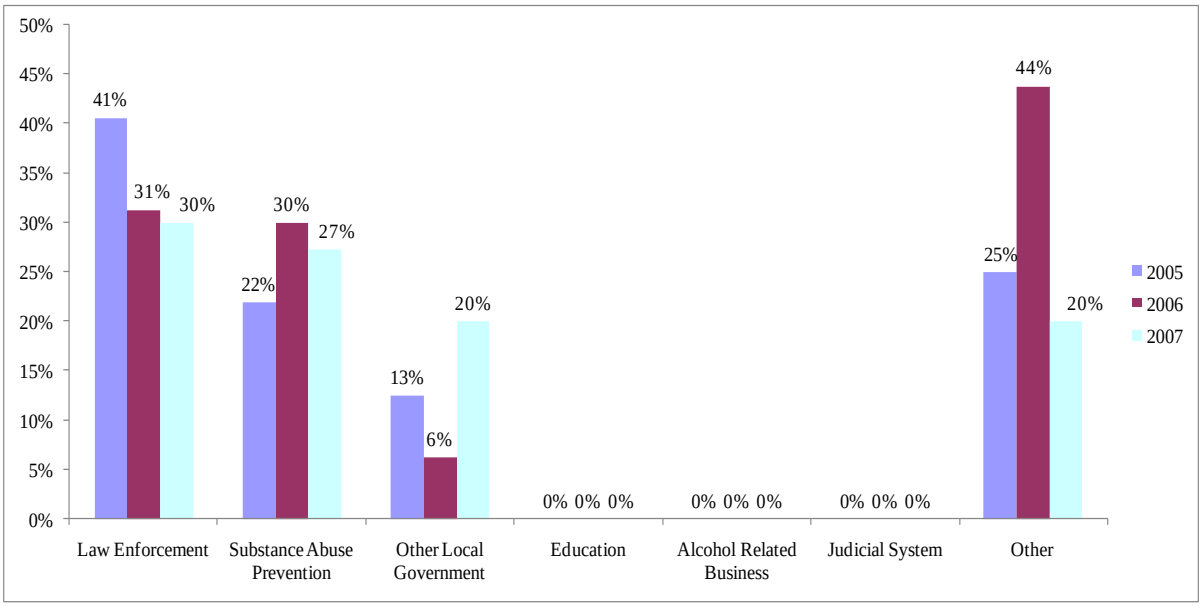
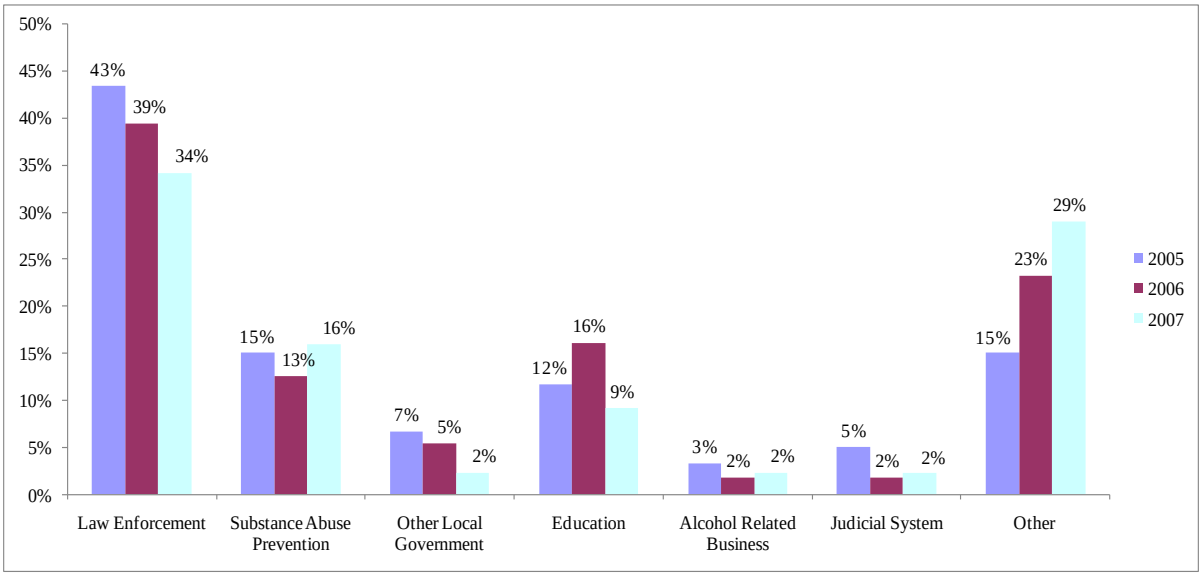


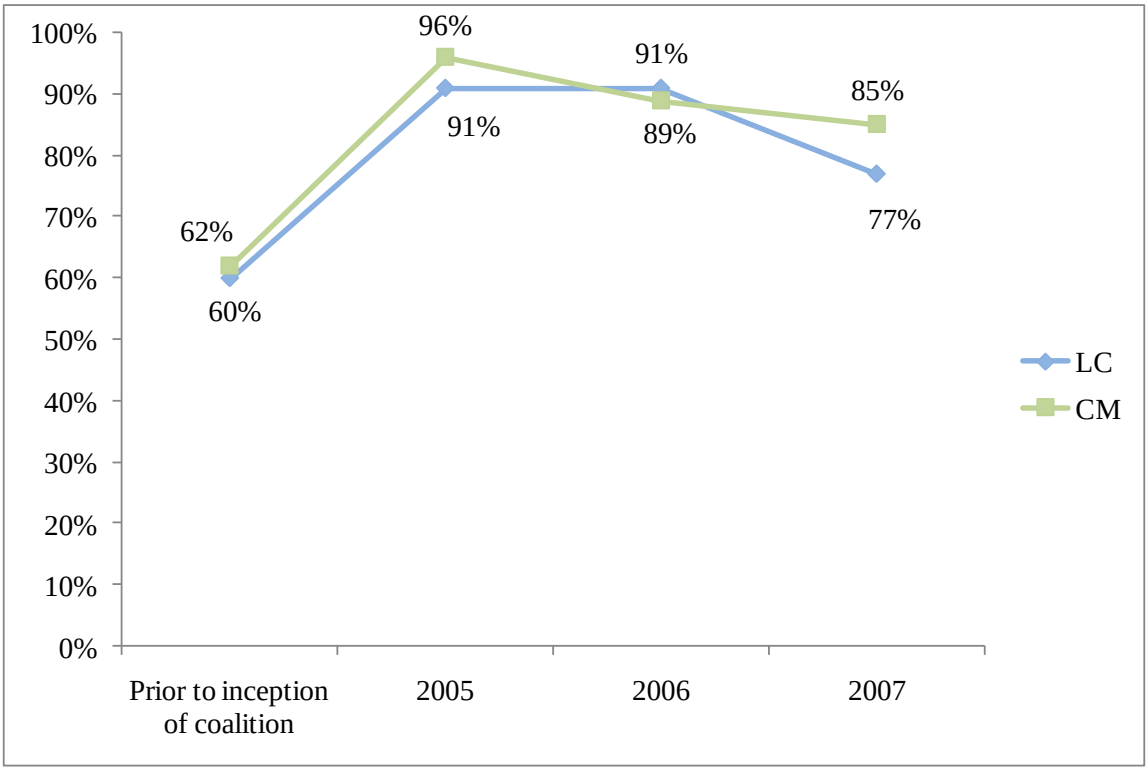
Figure 4-4
Coalition Member Organization by Sector



As Figures 4-3 and 4-4 show, law enforcement was the sector most often represented by LC and CM respondents on the EUDL-CT coalitions throughout the 3 years of the community trial. Substance abuse was the second most frequent sector represented by LCs, while substance abuse and education were tied as the second most frequent sector represented by CMs. Respondents representing which represented "other" organizations were also highly represented. These "other" organizations included youth service agencies, minority organizations, counseling centers and non-profit community organizations.

Over half of LCs (60%) and CMs (62%) reported the priority level of underage drinking for the host agency to be high or moderately high prior to inception of the EUDL-CT. However, both LCs and CMs reported an *increase* in the priority level following coalition inception. The level remained "high" or "moderately high" over the course of the EUDL-CT with a decrease in the last year reported by LCs (77%) and a slight decrease in the last year (85%) reported by CMs. (Figure 4-5).

Figure 4-5
Level of Priority Issue of Underage Drinking was for Host Agency High/Moderately High



The priority level of the underage drinking issue increased with the inception of the EUDL-CT coalition for host agencies, and remained high or moderately high for the duration of the intervention period.

Over half (57.6%) of EUDL coalitions grew out of pre-existing coalitions in which the focus was primarily on substance abuse prevention (47.3%). Underage drinking was reported as a moderate to high priority (91.7%) for pre-existing coalitions. Over half of pre-existing coalitions had been involved in promoting

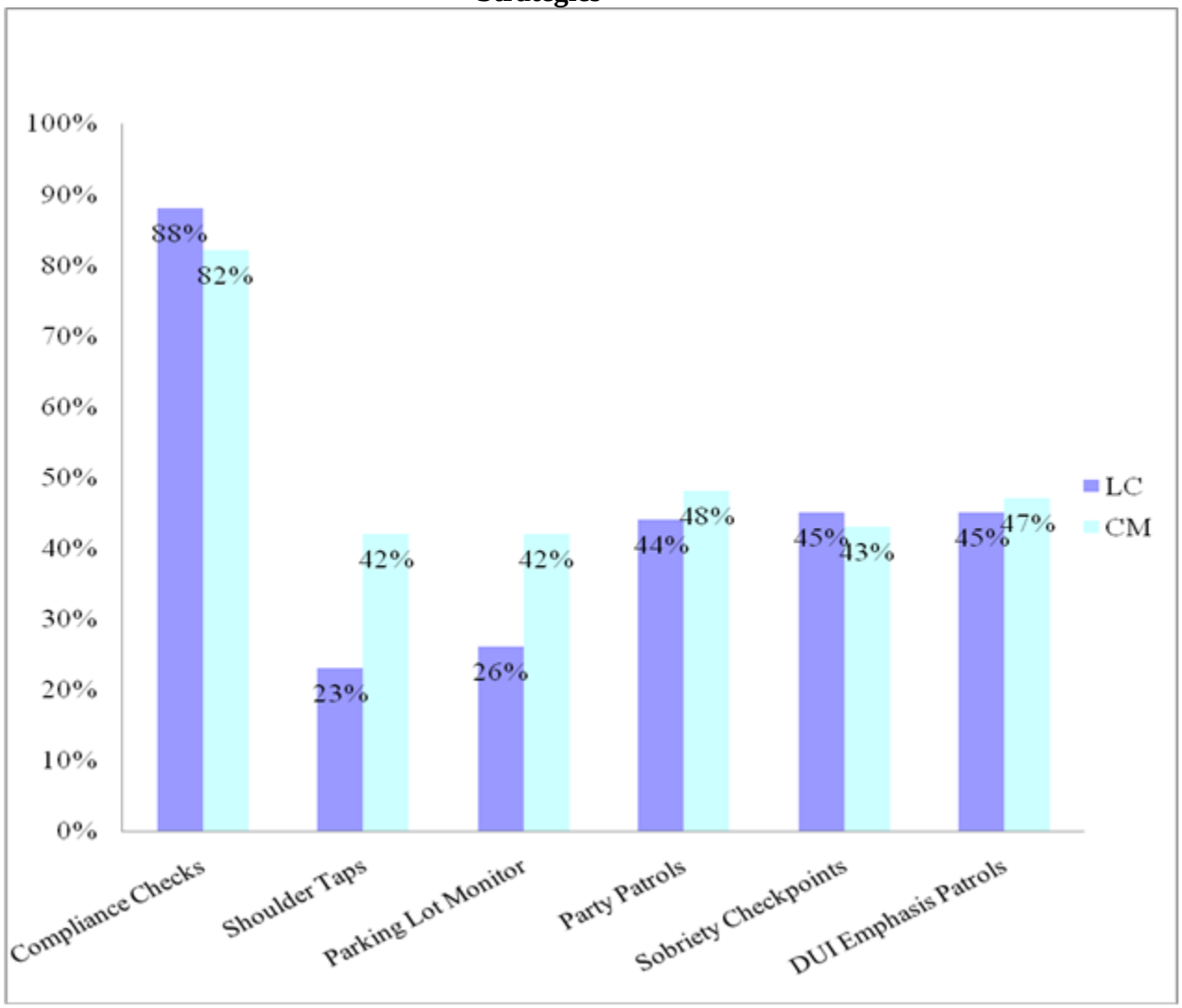
state or local policies to reduce underage drinking (58.3%) and promoting law enforcement strategies to reduce underage drinking (54.2%) prior to the EUDL-CT inception.

Over half of EUDL-CT coalitions grew out of a pre-existing coalition.

EUDL-CT Coalition Progress

The EUDL-CT grant outlined many enforcement strategies including conducting compliance checks, "other enforcement" operations consisting of shoulder taps, parking lot monitoring and party patrols, "DWI enforcement " which included sobriety checkpoints and DUI emphasis patrols, and goals for policy change. This section will focus on the LCs' and CMs' perceived progress of the coalition in these areas. Figure 4-6, shows which strategies were conducted/promoted and the level of involvement in each.

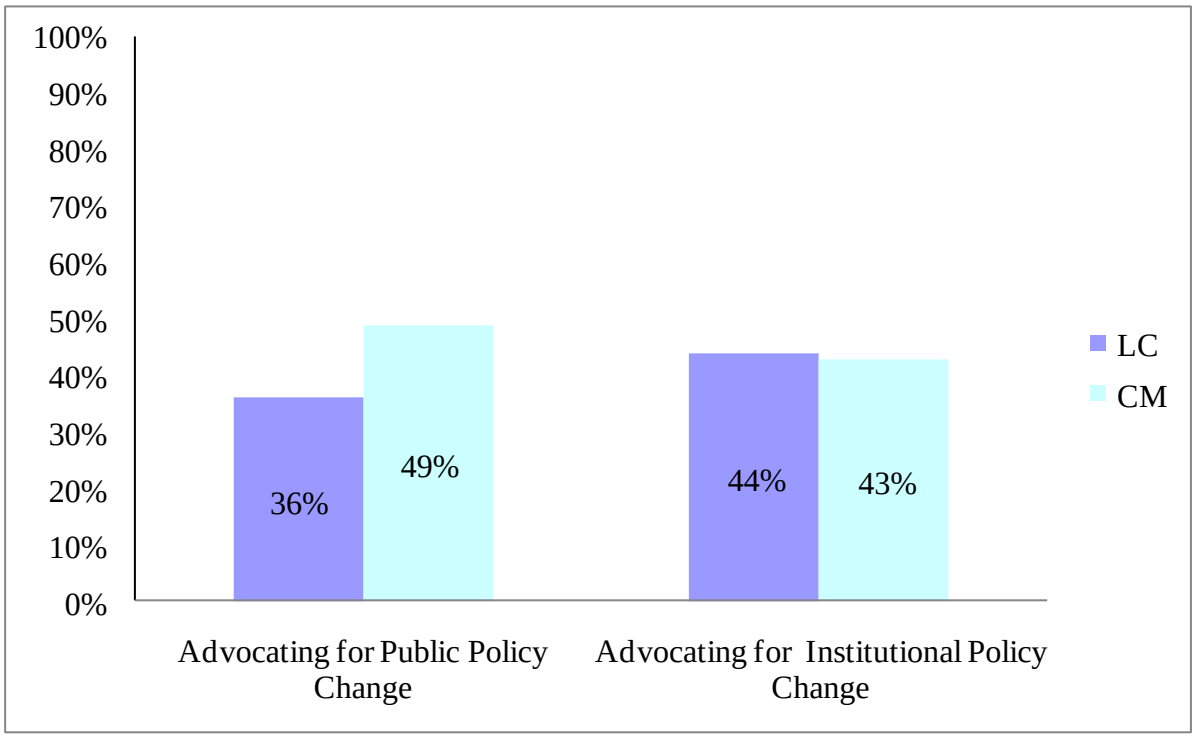
Figure 4-6
Coalitions "Very Involved" in Promoting/conducting EUDL-CT Enforcement Strategies



As shown in Figure 4-6 LCs (88%) and CMs (82%) agreed that during the course of the grant, their coalitions were "very involved" in promoting and conducting compliance checks. Just under half of LCs and CMs reported their coalitions were "very involved" with DWI enforcement activities which included "sobriety checkpoints" and "DUI emphasis patrols." However, LCs and CMs differed on the level of "very involved" in the "Other Enforcement" activities of "shoulder taps", "parking lot monitoring", and "party patrols" with significant differences for shoulder taps (p-value =.0029) and parking lot monitoring (p-value = .0112) with little difference for party patrols (LCs 44%, CMs 48%).

Respondents were asked how involved their EUDL-CT coalition was in advocating and/or providing support for changing both local public policies and local institutional policies to reduce underage drinking. Just under half (49%) of CMs and 36% of LCs reported that their coalition was very involved in public policy change. Forty-four percent and 43% LCs and CMs respectively, reported that their coalitions were very involved in advocating for institutional policy change (Figure 4-7).

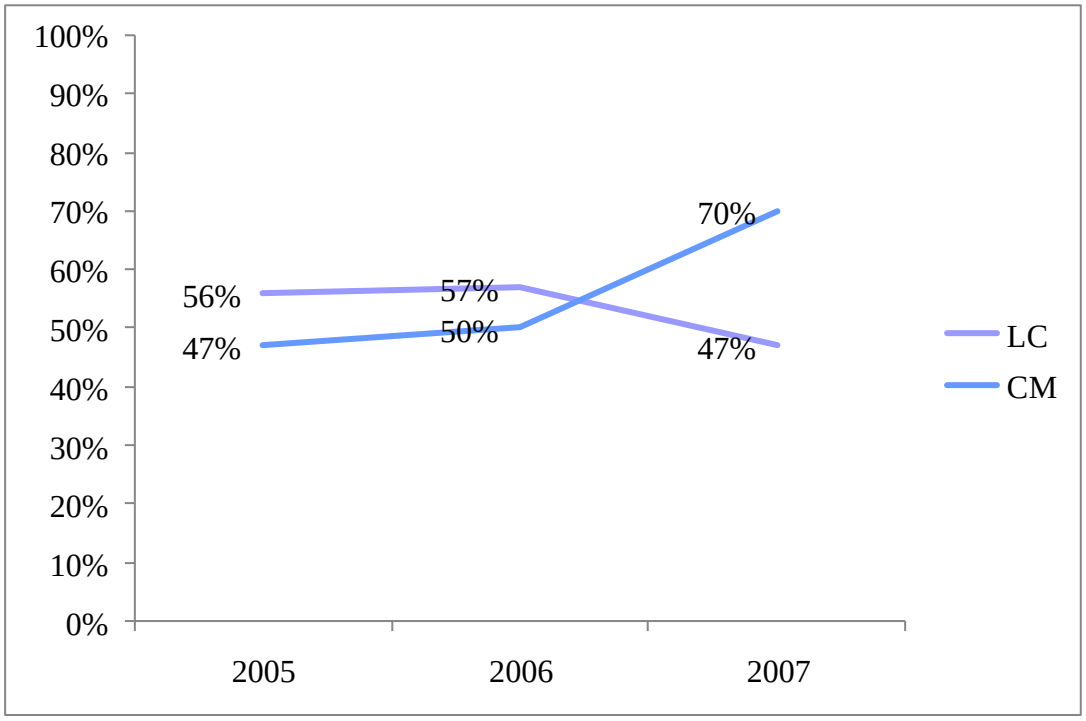
Figure 4-7
Coalition Involvement in Advocating Policy Change
"Very Involved"



More Coalition Members than Local Coordinators report coalitions to be "very involved" in advocating for public policy change.

Over half of LCs reported their coalitions being very involved in increasing youth leadership involvement in 2005 (56%) and 2006 (57%) with a slight decrease (47%) in 2007. CMs however reported an increase from 47% in 2005 to 70% in 2007 (Figure 4-8).

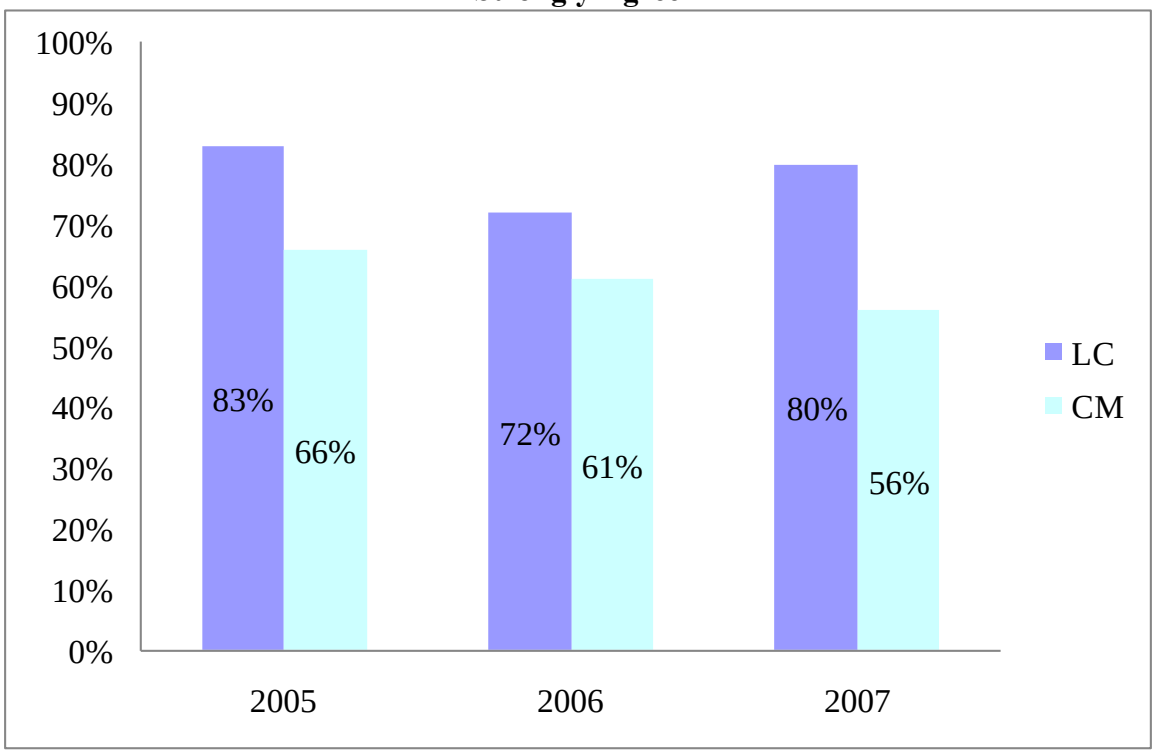
Figure 4-8
Youth Involvement in Reducing Underage Drinking
"Very Involved"



Respondents' Perspective on EUDL-CT coalition and Community Support

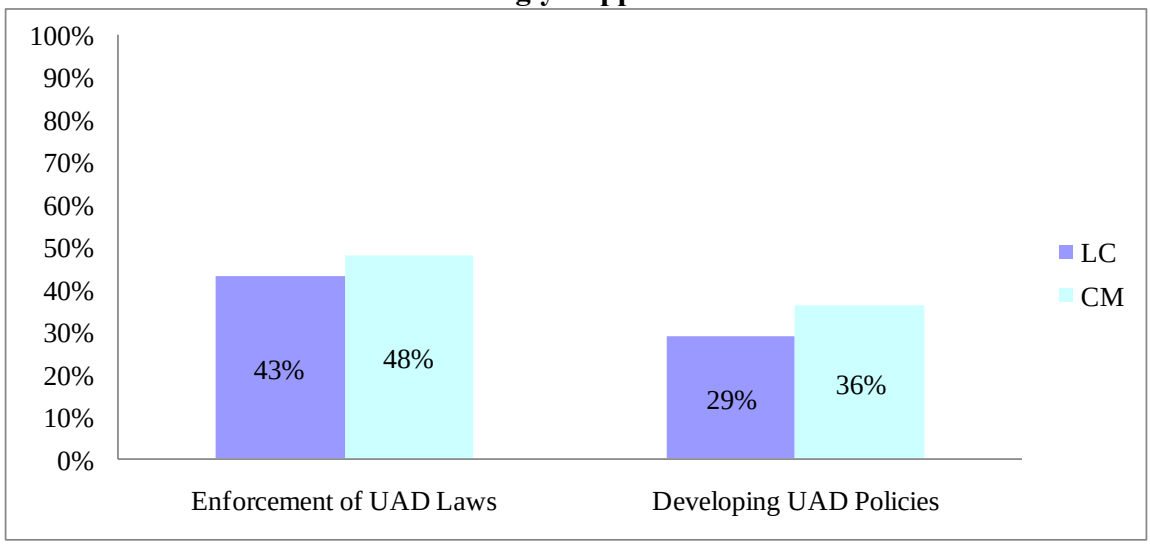
As shown in Figure 4-9, LCs reported more often than CMs that the activities planned by the EUDL-CT coalition related to the overall goals of the coalition.

Figure 4-9
Coalition Activities Directly Relate to Overall Goals of Coalition
"Strongly Agree"



There was no significant difference in how LCs and CMs viewed community support for the best and most promising practices advocated by the EUDL-CT. When asked how supportive the community was, less than half of LCs and CMs felt there was strong community support with respect to enforcement of laws and ordinances regulating alcohol sales to people under the legal drinking age (Figure 4-10). They felt the community was even less supportive of developing and implementing public and institutional policies to reduce underage drinking. Strong community support reported for this policy change was only 29% of LCs and 36% CMs.

Figure 4-10
View of Community Support for EUDL-CT Pillars
"Strongly Supportive"



LCs and CMs reported very little community support for developing public and institutional polices to reduce underage drinking

Use of Technical Assistance Resources

Local Coordinators and Coalition Members were asked to respond to questions about the training and technical assistance provided by PIRE to assist states in implementing the EUDL-CT coalition. The majority of both LCs and CMs who reported attending the State Leads Community Trial Meeting and National Leadership Conference (NLC) in 2005, 2006, and 2007 found the meetings very or somewhat useful.

Table 4-3 Found Training Very/Somewhat Useful

	2005				2006				2007			
	LC		CM		LC		CM		LC		CM	
	Attended	Found Useful	Attended	Found Useful	Attended	Found Useful	Attended	Found Useful	Attended	Found Useful	Attended	Found Useful
State Leads CT Meeting	6	83%	5	80%	14	86%	3	100%	10	80%	5	100%
National Leadership Conference	7	86%	5	80%	22	100%	4	100%	13	85%	5	100%

All CMs found both the State Leads meetings and NLC very or somewhat useful in 2006 and 2007 with 80% reporting they found the meetings very or somewhat useful in 2005. In 2006, 100% of LCs found the NLC very/somewhat useful with 86% in 2005 and 85%

in 2007. The State Leads meeting was found useful by 83% of LCs in 2005, 86% in 2006 and 80% in 2007.

LCs reported visiting the UDETC website more often than CMs. LC usage was highest in 2005, with 17 of 26 (53%) reporting that they used the website, visiting it about once a month. In 2006, 24 LCs reported visiting the website, but less frequently. Twenty-eight percent of LCs reported visiting the website about once a month, 45% reported less than once a month visits and 14% reported no visits at all. In 2007, 15 LCs reported visiting the website, with once a week visits increasing from 3% to 16% (Figure 4-11).
Overall, CMs reported few visits to the web-site with the majority in all years reporting never visiting. Four CMs reported visiting the website about once a week in all years (1, 2005; 1, 2006; 2, 2007). When CMs visited the website, it was most likely less than once a month (Figure 4-12).

Figure 4-11
UDETC Website Visits by LC

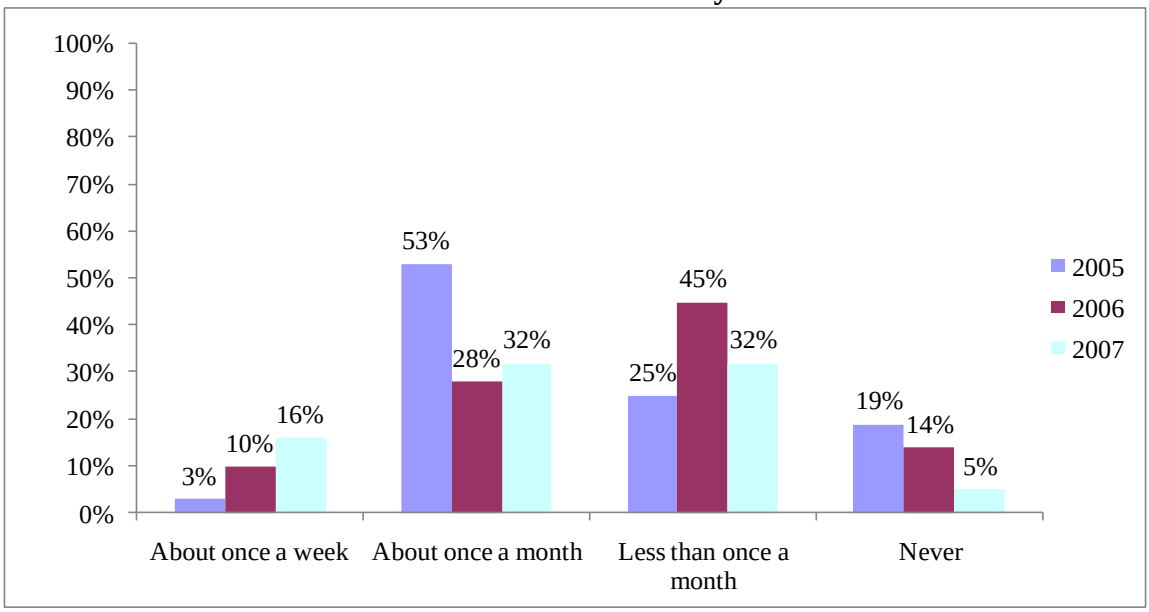
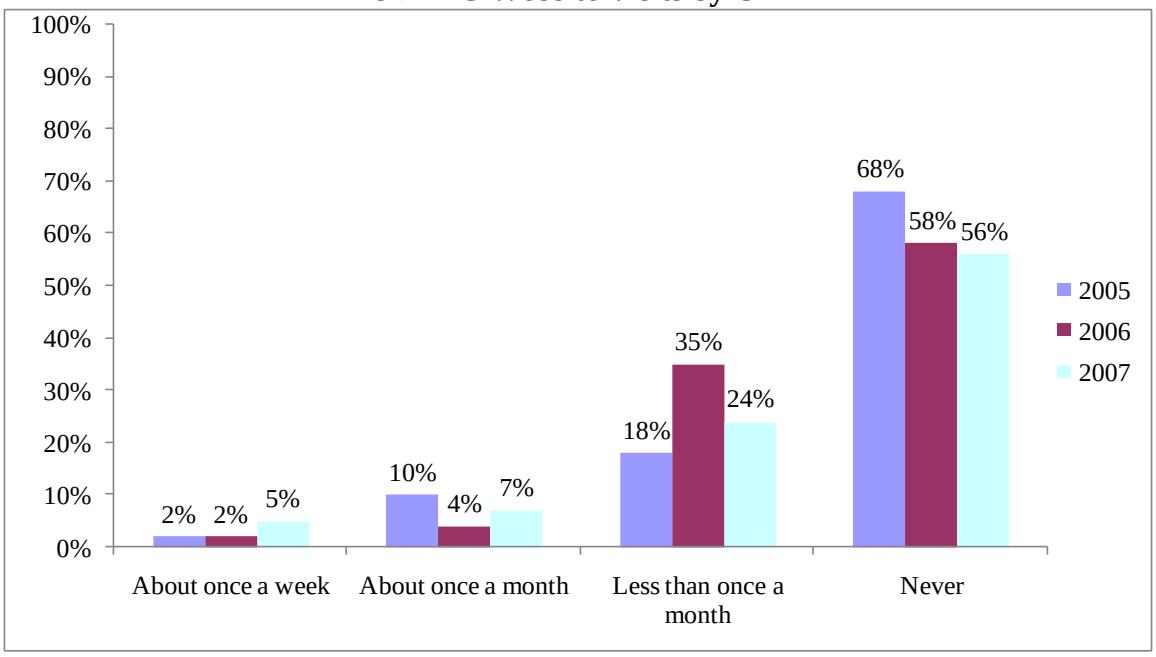


Figure 4-12
UDETC Website Visits by CM



Respondents were asked about their use of resources provided by UDETC and how useful these resources were. As shown in Table 4-4, support to guide law enforcement and the coalition/task force was the most used and most useful resource, followed by site visits conducted by UDETC staff. Few LCs and no CMs reported using the Controlled Party Dispersal web-based database.

Table 4-4 Usefulness of UDETC resources

		Used			Found it useful		
	Respondent Type	**2005**	**2006**	**2007**	**2005**	**2006**	**2007**
Telephone/email support to guide LE/Coalition	**LC**	17	16	14	(17) 100%	(16) 100%	(14) 100%
	CM	7	4	11	(6) 86%	(4) 100%	(10) 91%
UDETC's controlled party dispersal database	**LC**	5	6	8	(4) 80%	(5) 83%	(7) 88%
	CM	0	2	5	0	(2) 100%	(5) 100%
Strategic TA site visits	**LC**	8	13	9	(7) 88%	(10) 77%	(7) 78%
	CM	4	2	7	(4) 100%	(2) 100%	(7) 100%

Media advocacy, youth leadership, and engaging retailers were the top areas for which LCs and CMs reported they would benefit from additional technical assistance, as show in Table 4-5, below.

Table 4-5 Would Benefit From Additional Technical Assistance

	2005		2006		2007	
Type	**LC**	**CM**	**LC**	**CM**	**LC**	**CM**
Media Advocacy	16	26	15	24	4	19
Youth Leadership and Involvement	13	29	15	28	7	19
Engaging Retailers	13	25	16	24	6	10
Judicial Involvement	11	22	11	22	4	11
Environmental Strategies	8	16	11	15	7	11
College Campus Initiatives	8	15	7	12	3	9
Coalition Building	9	13	8	18	6	12
Conducting Enforcement Operations	5	12	5	17	4	8
Tribal Initiatives	0	0	0	3	1	0
Other -specify						
Applicable Statistical Data	1	0	0		0	
Policy/Ordinance Passing	1	0	1			
Middle/High School Initiatives	0	1				
Community Organizing					1	
Cultural Competence						1
Communication within Coalition				1		
Controlled Party Dispersal Training			1			
Parental Involvement and Support				1		
Funding				1		

Discussion

The Local Coalition Survey provided an opportunity to understand how individuals with diverse backgrounds were able to come together as a coalition and implement a work plan to meet the goals of the community trial. It provided information on coalition member's demographics, skills and experience, community sectors involved in the coalition, LCs and CMs perceptions of the progress of the coalition, community support in meeting the goals of the community trial, and the effectiveness of the technical assistance and training provided to assist the coalition in meeting its goals.

Each EUDL-CT coalition was directed by a governing board whose members represented a variety of community sectors. Law enforcement was the most represented sector, followed by education, local government, substance abuse prevention and community at large members. Over half of the governing boards included at least one youth representative. College educated, white males who lived in the community represented the majority of coalition members. Local coordinators were more likely to be white,

college educated females living in the community. Over 50% of the coalitions grew out of pre-existing coalitions.

As reported in the previous annual report (Wolfson et al. 2006), the EUDL-CT coalitions benefited from the past experiences of their members, with the majority of LCs and CMs who participated in our survey having been involved in underage drinking or substance abuse prevention and having participated in a coalition before they became involved in their EUDL-CT coalition. Prior to respondents' involvement with the EUDL-CT coalition, respondents reported high levels of involvement in working with others at local and state levels to address underage drinking issues. Both LCs and CMs reported that underage drinking became a higher priority with the inception of the EUDL-CT coalition for host agencies and remained high for the duration of the community trial.

Since the overall goal of the EUDL-CT evaluation was to determine the effects of a local, coalition-based approach to implementing "best" or "most promising" strategies for increasing enforcement of laws related to underage drinking and reducing underage drinking, it was important for the coalitions to become involved in promoting and conducting these strategies. Both LCs and CMs reported compliance checks was the enforcement strategy with which coalitions had the greatest involvement during the intervention. Just under half of LCs and CMs agreed their coalitions were very involved in DWI strategies of sobriety checkpoints and DUI emphasis patrols, but differed on the level of involvement in "Other Enforcement," which included shoulder taps and parking lot monitoring. A possible explanation for this is that LCs, who were responsible for reporting coalition activities, were more aware than coalition members of what enforcement activities were actually being conducted by local law enforcement. Another explanation is that grant requirements for compliance checks were more specific (to complete 90% of off premise outlets, twice in each year of the intervention) while requirements for DWI and "Other Enforcement" (one DWI and one "Other Enforcement" operation during course of intervention period) could be spread across different activities.

It was reported that the involvement of the EUDL-CT coalition in advocating or providing support for policy change was low for the first year of the intervention, which might be attributed to first year organizational issues, deciding on what type of policy to adopt, researching methods to adopt a new policy, and questions about using federal funds to change policy. It was hoped that in Years 2 and 3 data would show a higher percentage of involvement, but this was not the case. Fewer than half of LCs and CMs reported their coalitions to be very involved in advocating for policy change.

Since the EUDL-CT had specific goals for the coalition to achieve, it is encouraging to see that LCs and CMs strongly agreed that the overall activities of the coalition related to the goals of grant. However, when asked how supportive the community was towards the EUDL-CT grant requirements, fewer than half of LCs and CMs viewed the community as strongly supportive of enforcement of underage drinking laws, and only a third of LCs and CMs viewed the community as strongly supportive of developing underage drinking policies.

Finally, on the issue of technical assistance, respondents were positive on the usefulness of the training and conferences attended and resources provided. Media advocacy, youth

leadership and engaging retailers were areas for which both LCs and CMs said they would have benefited from additional technical assistance.

Section 4.2 Activity Tracking System

Purpose

The Activity Tracking System chronicles the frequency and types of activities, outcomes of activities, and the process used to implement activities. Data from the Activity Tracking system provide a picture of how the program was implemented in diverse communities across the country. (See Section 4-1 for details.)

Results

Activity Tracking results are organized into the following areas:

- Overall frequencies
- General activities
- Policy-related activities and outcomes
- Compliance check operations and outcomes
- DWI operations and outcomes
- Social Availability operations and outcomes

A total of 7,651 activities were reported by the 34 coalitions across the five participating states over the course of the EUDL CT intervention. Table 4.6 shows the number of activities reported for each intervention year, by state.[1]

Coalitions entered 7,651 activities into the AT system.

Table 4-6 Total Number of Activities Entered into AT, by State						
Year	**State A**	**State B**	**State C**	**State D**	**State E**	**Total**
Yr 1	462	628	453	295	3,677	5,515
Yr 2	346	429	345	114	902	2,136
Total	808	1,057	798	409	4,579	7,651

[1] The start and end dates for Year 1 and Year 2 vary slightly from site to site. They were determined by when sites received approval from OJJDP for their enforcement workplan. In many cases, sites began logging activities related to planning and capacity building while workplan approval was being sought. There were 934 activities (12.2%) that occurred before site workplans were approved. For the purposes of analysis reported here, these activities were included in the tally of Year 1 frequencies.

As is evident in Table 4-6, sites in one state entered a great deal more general activities than sites in any other state. The variability is primarily accounted for by as much as a fifteen-fold difference in reporting of General Activities by sites in State E, compared to sites in other states.

Overall Frequency of Sites Reporting any Activity, by EUDL-CT Grant Objective

In the following sections and figures, activities are divided into two categories: (1) actual enforcement operations and policy-specific activities (i.e., those that ultimately meet the EUDL-CT grant requirements); and (2) capacity building, awareness and planning activities (i.e., "General Activities"). Sites were expected to achieve four EUDL-CT objectives:

1. Adopt one new or improve at least one existing local policy related to underage drinking
2. Annually conduct at least 2 compliance checks in at least 90% of off-premise alcohol outlets
3. Conduct at least one DWI enforcement operation with a focus on youth
4. Conduct at least one additional enforcement operation focused on social availability of alcohol to youth

A total of 1,710 activities (22.4%) were related to implementing a specific EUDL-CT grant objective. (The remaining 5,941 were "General Activities" in support of the EUDL-CT program; these are discussed later).

Twenty two (22) percent of tracked activities specifically related to changing policy or conducting an enforcement operation

While there was some variation across sites in the frequency of enforcement operations and policy-specific activities (range: 0–88), there was much greater variation in the frequency of capacity building, awareness and planning activities (i.e., "General Activities" – range: 4–964).

Figure 4-13
Frequency of Activities, by Year and EUDL-CT Objective

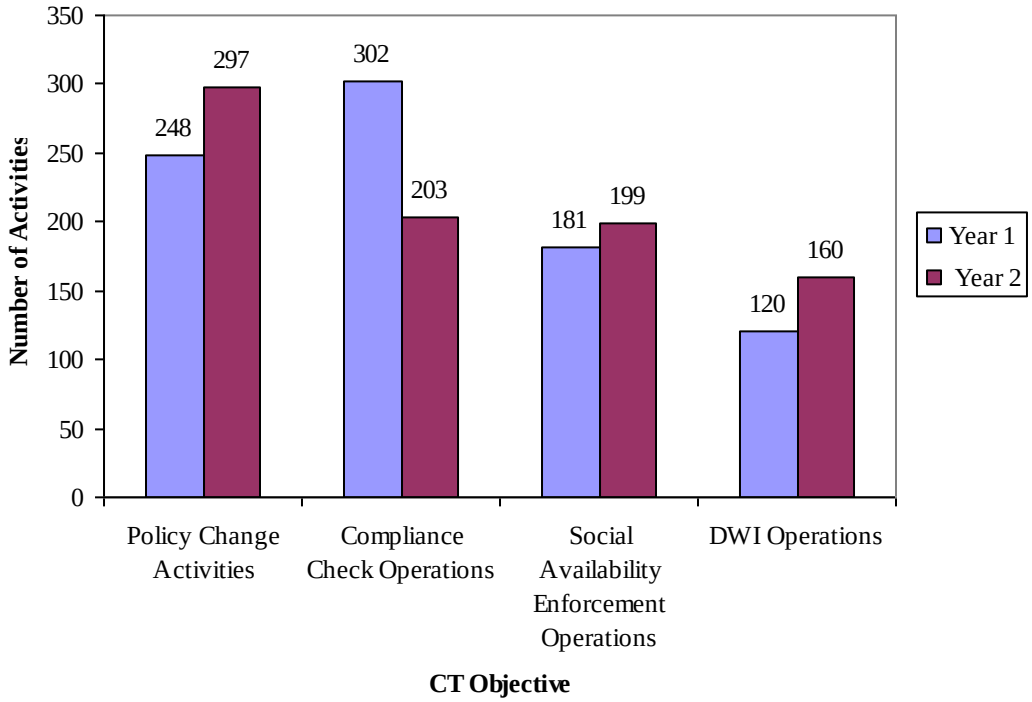
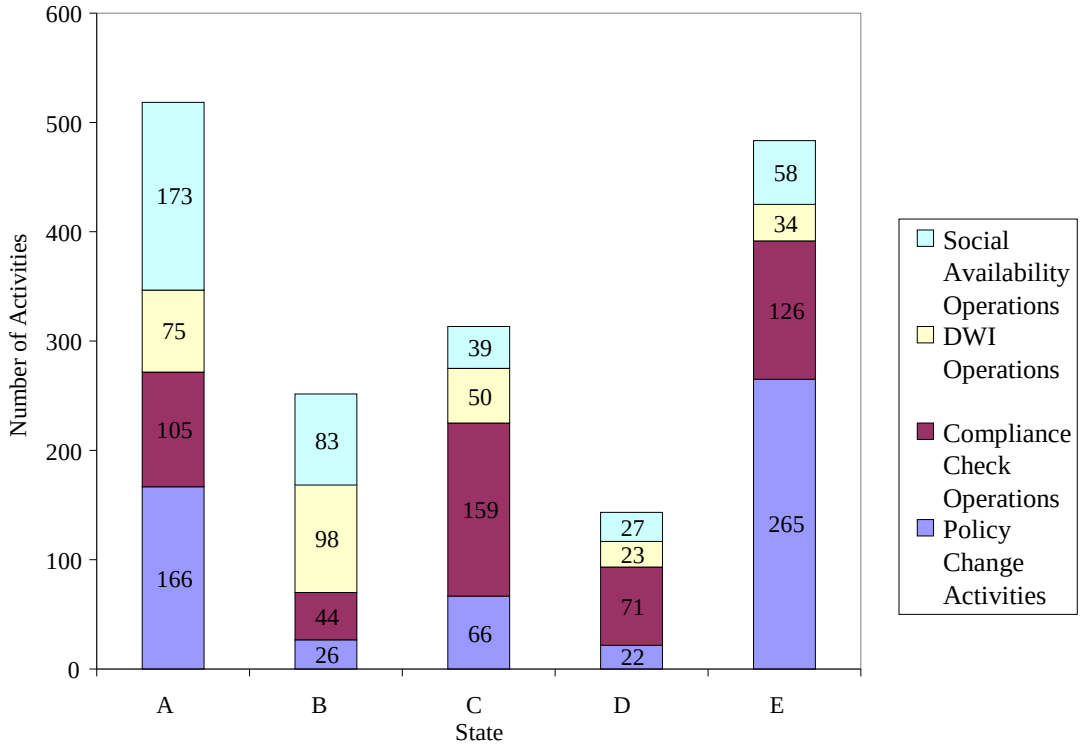


Figure 4-13 shows the overall frequency of activities that sought to achieve the four EUDL-CT policy & enforcement objectives, by intervention year. Sites conducted 545 policy-related activities, 505 compliance check operations, 380 social availability enforcement operations focused on, and 280 DWI operations. Sites conducted more activities in Year 2 for each CT objective area, with the exception of compliance checks. While it was expected that sites would conduct the most compliance check operations, given the law enforcement-related grant requirements, the decrease in number of compliance check operations between years 1 and 2 was unexpected. (Sites were required to conduct checks in 90% of businesses in both years, whereas they were only required to conduct at least one DWI operation and one "social availability" operation over the entire intervention period).

Sites logged an average of 50 enforcement or policy-related activities (range: 7 – 174; data not shown). These "CT objective" activities represented from 5% to 73% of sites' overall activities logged during the community trial.

Figure 4-14 compares state activity levels for the EUDL-CT objective activities.

Figure 4-14
Frequency of Activities, by State and EUDL-CT Objective[2]



There was great variability in the total number of reported CT-objective activities across the five states (range: 143- 519). There was also considerable variability in the focus of sites across the five states. In State E, more than half (55%) of sites' activities related to policy (n=265). In State C, 51% of reported activity related to conducting compliance check operations (n=159).

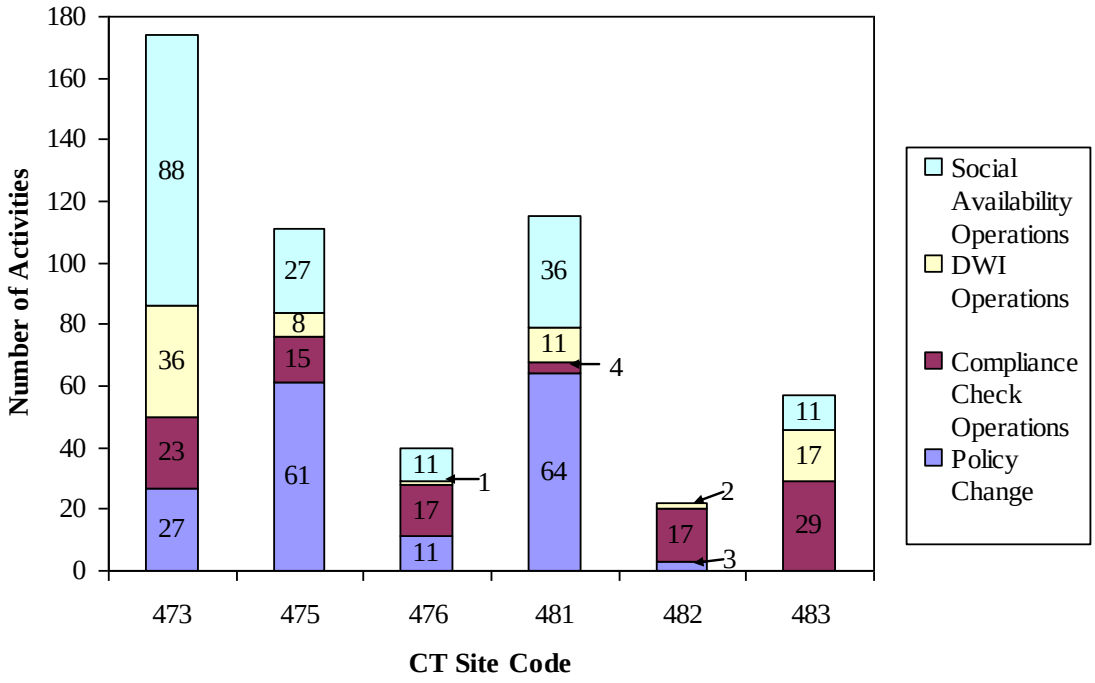
There was great variability in the total number of reported CT-objective activities across the five states (range: 143- 519).

State A sites collectively reported the greatest number of activites related to a EUDL-CT objective, compared to other states' sites (n=519).

The following graphs provide a state-by-state breakdown of the number of activities related to a EUDL-CT objective implemented in each state.

[2] Data reflects Years 1 and 2 combined.

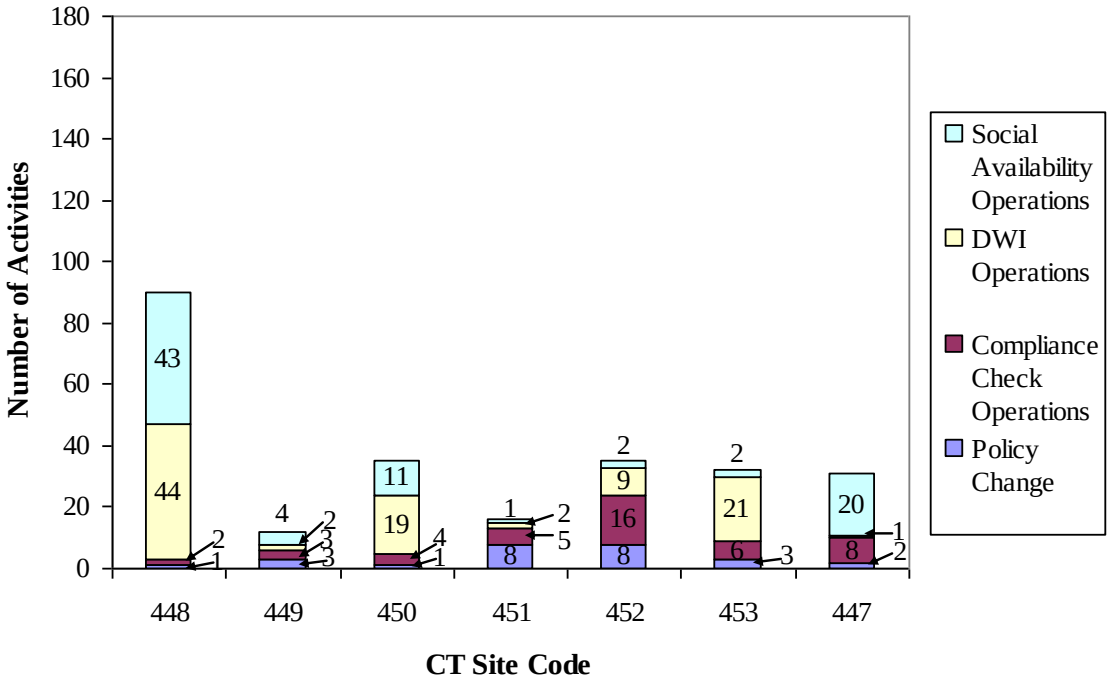
Figure 4-15
Reported Activities by State A Sites, by EUDL-CT Grant Objective



The six State A sites reported conducting a total of 808 CT-objective activities. State A sites conducted between 22 and 174 activities related to CT objectives (average = 86). One-third of State A activities involved conducting social availability operations (n=173); a third focused on policy change (n=166); 20% were compliance check operations (n=105); and 14% were DWI operations (n=75).

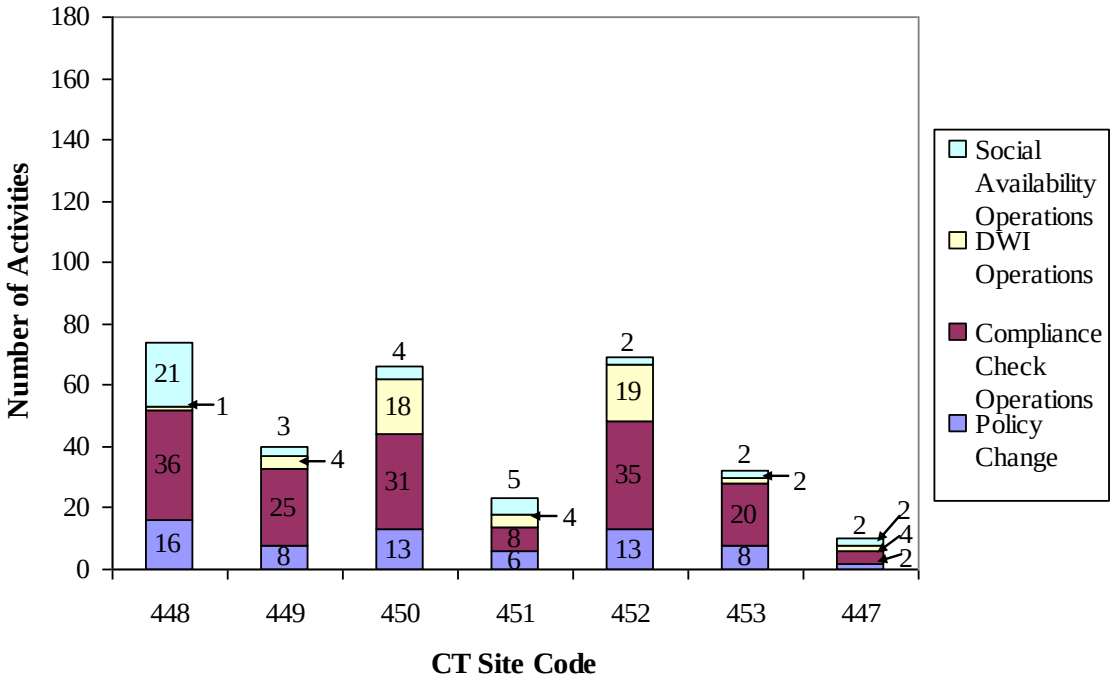
Five of six State A sites logged half or more of their CT-objective activities in one grant area, although the grant area varied across sites. Two sites focused the majority of their activities on policy change (site code 475 and 481); two focused mostly on compliance check operations (482 and 483); and one focused the majority of activities on social availability enforcement operations (473).

Figure 4-16
Reported Activities by State B Sites, by EUDL-CT Grant Objective



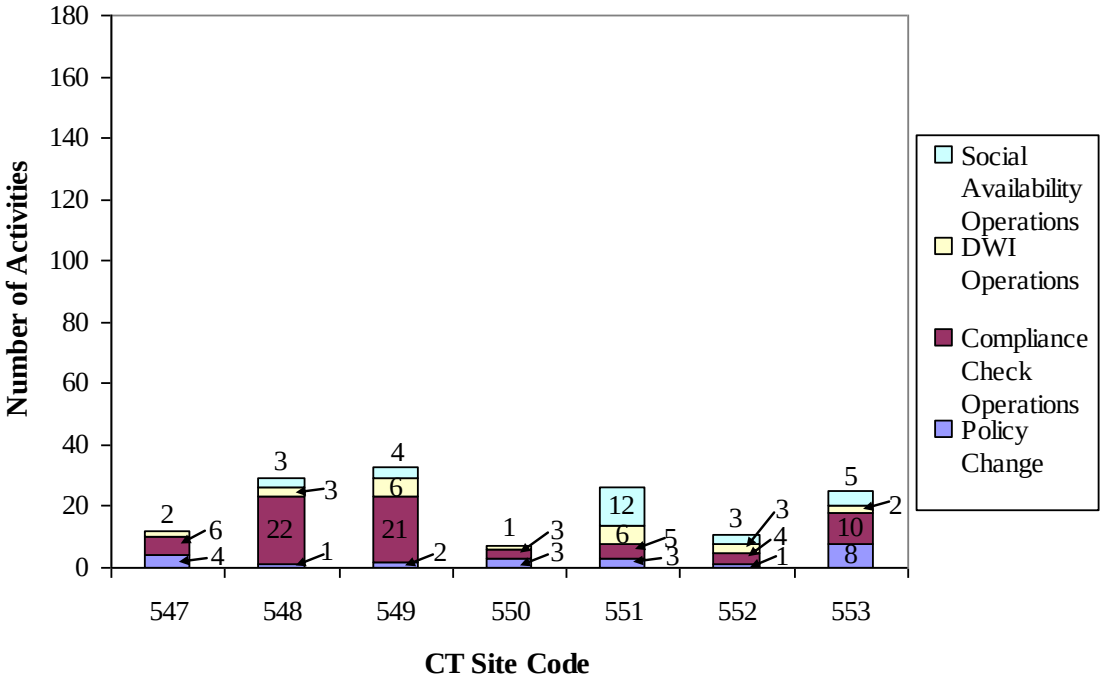
State B sites reported 251 EUDL-CT objective activities. Thirty-nine percent (n=98) of these activities were DWI operations. One State B site conducted the most DWI operations of any site in the trial. Each State B site reported conducting less than 10 policy-related activities.

Figure 4-17
Reported Activities by State C sites, by EUDL-CT Grant Objective



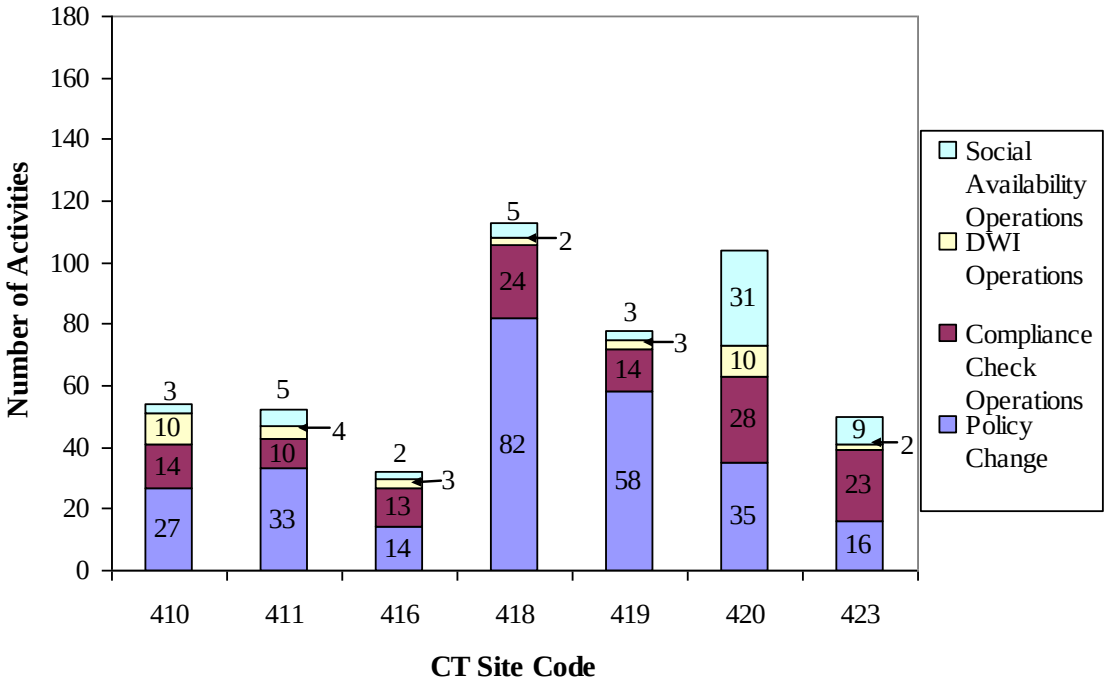
EUDL-CT sites in State C reported a total of 798 activities. Half (50.6%) of these activities (n=159) were compliance check operations. For three of the seven State C sites, more than half of CT-objective activities logged were for this one grant area. Across all 34 intervention sites, two sites in State C conducted the most compliance check operations (n=36 and 35).

Figure 4-18
Reported Activities by State D Sites, by EUDL-CT Grant Objective



State D sites reported 143 activities (35.0%) that were related to an enforcement operation or an effort to change policy. No State D site reported more than ten policy-related activities or DWI operations. Two State D sites did not log any "social availability" operations into the activity tracking system.

Figure 4-19
Reported Activities by State E Sites, by EUDL-CT Grant Objective



Sites in State E reported 483 enforcement operations and policy-specific activities. State E sites logged an average of 38 policy-related activities (range = 14 – 82 activities), which accounted for over half (54.9%) of the state's CT Objective-specific activities.

General Activities

General, or "non-objective-specific" activities, fall into four categories: 1) coalition capacity building, 2) community awareness/education, 3) coalition planning, and 4) other.

Coalition capacity building includes activities focused on increasing a coalition's effectiveness through developing skills, creating diversity in coalition members, leveraging EUDL-CT grant funds to secure additional resources, and creating a better understanding of the problems and issues the community faced related to underage drinking. Community awareness/education activities refer to general activities meant to either increase awareness about underage drinking problems or prepare the community for changes in underage drinking policies and/or enforcement (often through training provided by coalition partners).[3]

After analyzing the 2004 data in preparation for the first EUDL-CT National Evaluation annual report, the Evaluation Team revised the AT system in October 2005 to include "Coalition planning" as a fourth category under General Activities (*). After making this revision, the AT system more accurately captured and reflected the broad range of activities that sites conducted. These activities included planning and preparation for enforcement operations, community education, awareness or training.

The complete list of general activities included the following:

1) Coalition Capacity Building
   a) Coalition recruitment and retention
   b) Community Assessment
   c) Development of Strategic Work Plan
   d) Skills Enhancement
   e) Sustainability / Institutionalization Efforts
   f) Development of Youth Leadership and Participation
2) Community Awareness/Education
   a) Merchant Education/Training
   b) Criminal Justice System Education/Training (e.g., officers, judges, prosecutors)
   c) Other Stakeholder Education or Training (e.g., parents, landlords, public, youth)
   d) Media-related activity in support of coalition work (other than media advocacy for policy change)
3) Coalition Planning Activity*
   a) Coalition meeting focused on general implementation issues
   b) Planning related to a Compliance Check operation
   c) Planning related to a DWI operation
   d) Planning related to an Enforcement operation focused on social availability
   e) Planning related to community education, awareness or training activity
4) Other Activity

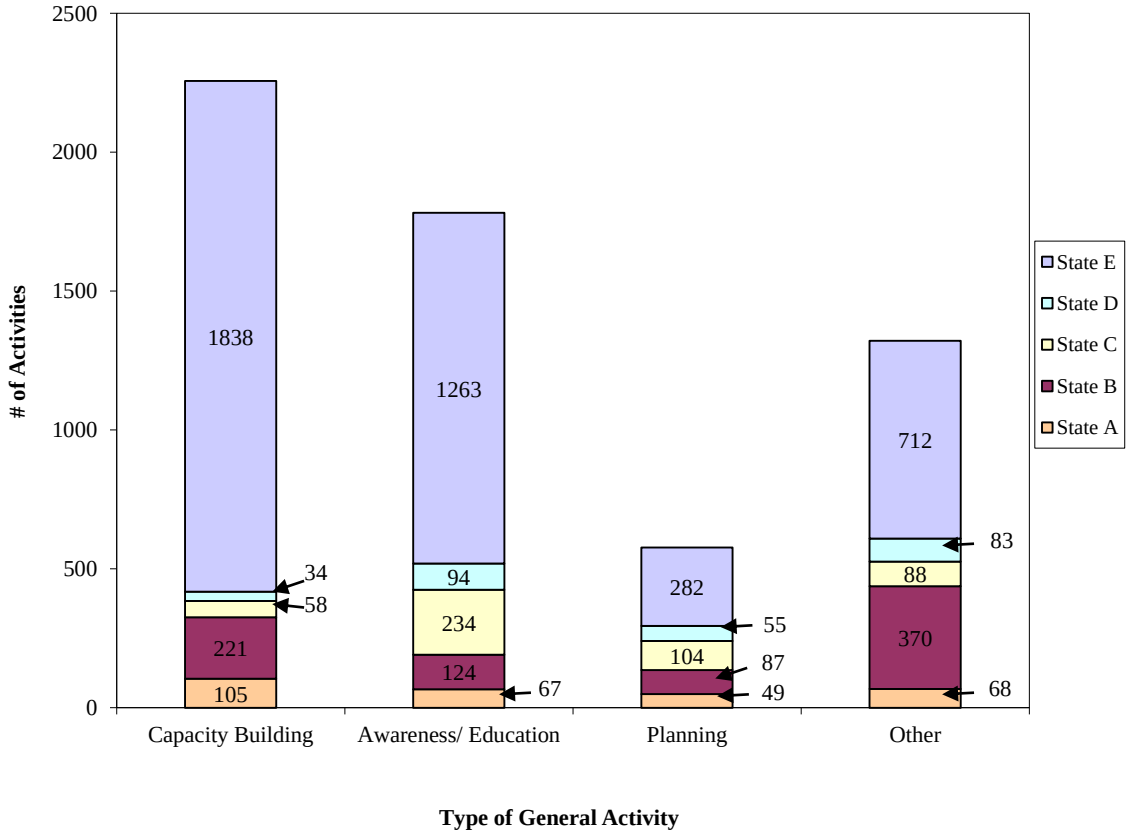
[3] If the intent of the educational activity was to raise awareness about a specific policy the coalition was trying to achieve, it was not entered as a policy-related activity, not as a "general activity."

Sites entered a total of 5,941 General Activities into the AT system during the EUDL-CT intervention. Table 4-7 shows the number of activities for each intervention year, by state.

Table 4-7 Number of General Activities Entered into AT, by State						
Year	State A	State B	State C	State D	State E	Total
Yr 1	182	531	305	188	3,458	4,664
Yr 2	107	275	179	78	638	1,277
Total	289	806	484	266	4,096	5,941

Figure 4-20 shows the frequency of general activities, by state and activity type. There were 2,256 capacity building activities, 1,782 awareness/education activities, 577 planning activities, and 1,321 "other" general activities logged during the intervention.

Figure 4-20
Frequency of General Activities, by State and Type of Activity[4]



[4] The "Planning" category was introduced into the AT system mid-way through the intervention, which may explain its comparatively lower frequencies.

Sites in one state (State E) logged 69% of all general activities reported in the Activity Tracking system. The states varied in the focus of their general activities. In two states (State A and State E), the greatest proportion of general activities were aimed at capacity building. In two others (State C and State D), awareness/education garnered the highest proportion. In State B, the greatest proportion of activities was categorized as "other."

As shown in Figure 4-20, 22% (n=1,321) of all general activities were categorized as "other."

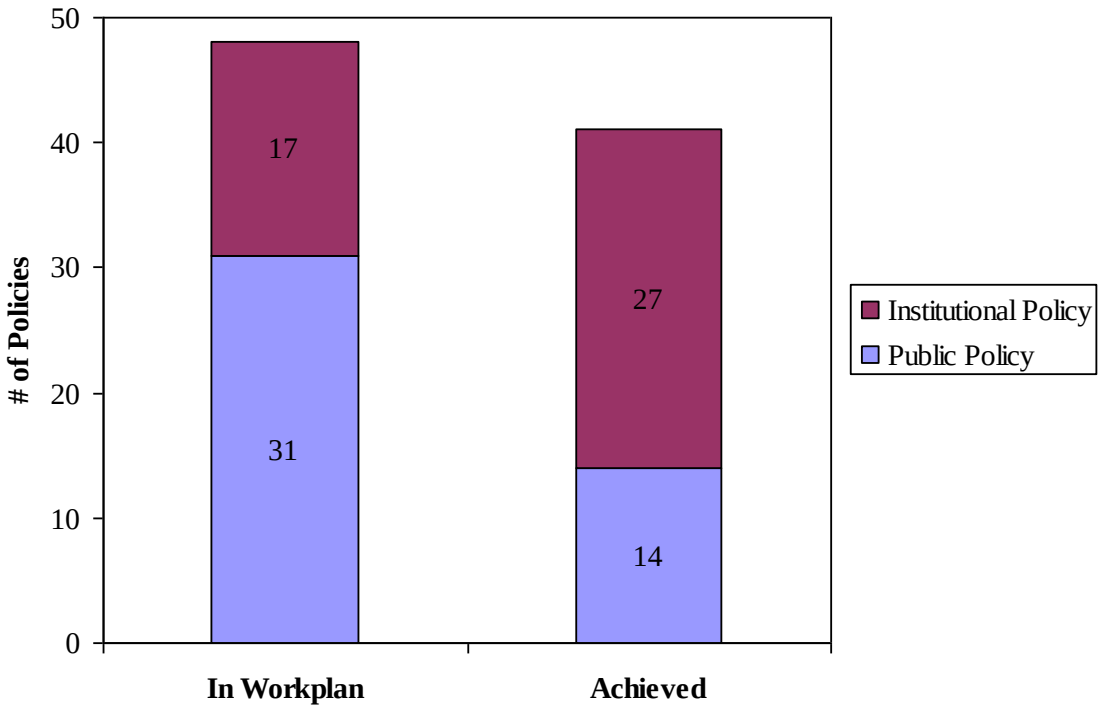
Policy

Participating sites were required to adopt or improve at least one policy related to underage drinking. Based on information provided in the coalition's original workplans, 20 coalitions included at least one public policy in their workplan; 5 included at least one institutional policy, and 9 included at least one of both.[5]

Coalitions were not limited in the number of policy changes they could include in their workplans. The 34 EUDL-CT coalitions had 48 policies in their workplans, the majority of which were focused on public policy change (n=31; 64.6%).

Figure 4-21 compares the number of policies coalitions planned to pursue, as indicated in their workplans, with the number of policies they reported achieving at the end of the EUDL-CT intervention period. The number of policies planned and achieved are broken down public versus institutional policy change.

Figure 4-21
Number of Policies Included in Workplans vs. Number Achieved*



*Data from workplans was not reported in the ATS database.

[5] Public policies are those that must be passed by an elected body, like a city council. Institutional policies are one that can be adopted by a non-elected official (e.g., a police chief, city manager, business owner or school principal).

While coalitions planned to pursue more public policies, the majority of policies ultimately achieved were institutional. Overall, 23 sites reported activities that resulted in policy adoption or passage. Sites reported in the AT system that 27 institutional policies were adopted.[6] Sites also logged the passage of 14 public policies as the result of coalition activities. However, our Policy Tracking protocol (see Section 3.3) found a total of 26 public policies related to underage drinking that were adopted or improved in CT intervention communities during the intervention period. The policy-related activities and outcomes reported in the AT section refer only to what was documented by sites in the Activity Tracking system.

Policy-related Activities

Thirty-three of the 34 coalitions reported 545 policy-related activities. For each of these activities, the LC recorded in the AT system whether the activity was related to planning for policy change, media advocacy, or policy advocacy. Overall, coalitions indicated that 257 activities (54.3% of total policy-related activities) were focused on planning, 68 were related to media advocacy (14.4%), and 148 were related to policy advocacy (31.3%).[7]

Figure 4-22
Proportion of Types of Policy-Related Activities, By Year

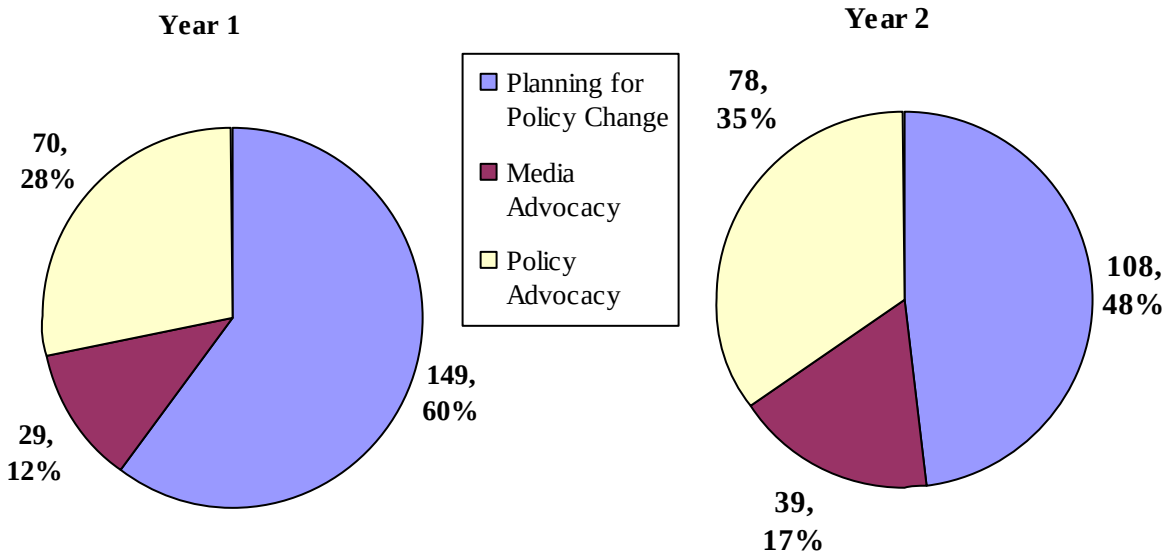


Figure 4-22 shows the proportion of types of policy-related activities by year. In the first year, 60% of activities focused on planning. In year 2, this percentage dropped to 48%, with corresponding increases in the percentages of activities focused on media advocacy

[6] Section 3.3 reports that 29 institutional policies were adopted. The additional 2 policies were reported to the evaluation team during site visits (although they were not tracked in the AT system).
[7] There were 72 policy-related activities that did not indicate the purpose of the activity.

and policy advocacy. This shift over time from planning to advocacy is what one might expect.

Table 4-8 provides a breakdown of these activities, by policy.

Table 4-8 Policies and Activities

	# sites with this policy in their plan[8]	# sites that passed this policy, by type		# sites with at least 1 reported activity related to this policy	Total # activities related to this policy
		Public	Institutional[9]		
Social Host liability	16	6	0	17	124
Retailer ID protocols	6	0	4*	6	186
Other local policy	5	3	1	14	38
Other school policy	5	0	4	4	16
Other enforcement-rel. policy	4	0	6	14	59
Penalties for retailers	4	0	5	14	49
Penalties for providers	2	2	1	18	42
Alcohol on School grounds	2	0	0	8	39
Keg Registration	1	1	0	2	5
Conditional use permits	1	0	0	3	57
Restriction on marketing	1	0	0	5	11
Entry under 21	1	0	0	6	10
Alcohol at Events	0	1	0	7	18
Zoning	0	1	0	7	14
Drinking & driving policies	0	0	1*	5	17
Alcohol on college grounds	0	0	0	3	8
Substance free dorms	0	0	0	2	4
Alcohol industry events	0	0	0	1	2
Hours of Sale	0	0	0	0	---
Concurrent sales	0	0	0	0	---
Dram shop liability	0	0	0	0	---

Most policy-related activities related to driver's license scanners and social host liability. The level of activity paid off: the highest frequencies of policy change were for these two policies. Six (6) public policies passed related to reducing social host liability, and 9 institutional policies were adopted related to retailer ID protocols in alcohol

[8] These figures reflect policies listed in the original site workplans as approved by OJJDP.
[9] Note: 15 unique sites adopted a total of 29 institutional policies. Several sites adopted more than one type of institutional policy. Specifically, there were 9 policies (adopted by 4 sites) regarding driver's license scanners and 3 drinking and driving policies (adopted by 1 site). Both are indicated by an asterisk (*).

establishments. Section 3.3 provides more details about types of insitutional and public policies passed.

Compliance Checks

Each participating site was required to conduct compliance checks in at least 90% of off-premise alcohol outlets at least twice per year for two years.

Sites conducted 443 off-premise compliance check operations.

A total of 505 compliance check operations were logged in the AT system by the 34 EUDL-CT sites. Of these, 33 of the 34 sites conducted 443 operations (87.7%) targeted retailers that sell alcohol for off-premise consumption (e.g., liquor, grocery and convenience stores).[10] The remaining 62 operations targeted on-premise retailers (e.g., bars and restaurants).[11]

Outcomes of Off-Premise Compliance Checks

LCs entered the results from the compliance checks in the AT system, including the clerk's behavior during the compliance check and any sanctions imposed as a consequence of the check. Figure 4-23 provides a flowchart showing the information tracked for each compliance check operation.

[10] One site did not report any off-premise compliance check operations in the AT system.

[11] Although the EUDL-CT program only required that compliance checks be conducted at off-premise locations, half of the sites (n=17) also checked locations where patrons consumed alcohol on-site.

Figure 4-23
Compliance Check Operation Data Tracked in the AT System

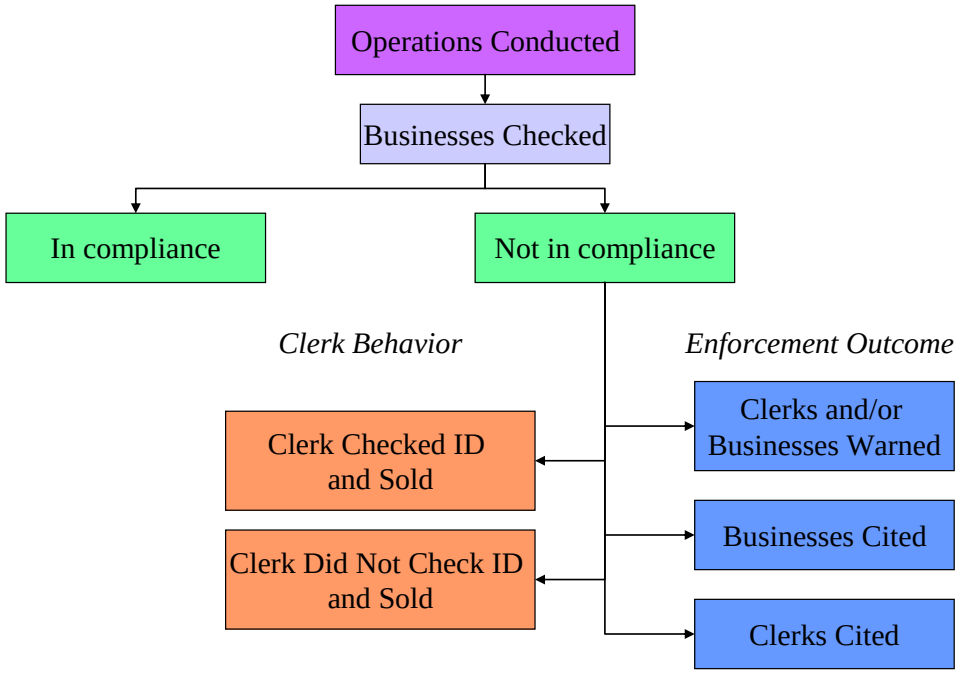


Table 4-9 provides a summary of the outcomes of the off-premise compliance checks for each state, by intervention year. A green column after each state's data provides an arrow indicating how their Year 2 data compare to Year 1.

Table 4-9 Outcomes of Off-Premise Compliance Checks, by State and Intervention Year

State	CA			CT			FL			MO			NY		
Year	Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2	
# of operations	62	29		13	16		88	70		45	10		61	49	
average # businesses checked per operation	15.5	19.4	▲	25.8	28.0	▲	8.0	12.4	▲	16.4	17.9	▲	11.4	12.8	▲
# of businesses checked	963	562		336	448		701	869		738	179		595	630	
% of checks where business was in compliance	88.7%	92.0%	▲	83.9	80.8%	▼	74.9%	81.2%	▲	90.4%	81.6%	▼	85.7%	83.6%	▼
# of checks where business was not in compliance	109	45		142	86		174	161		181	34		81	99	
# of businesses cited	97	41		75	61		37	11		101	25		49	49	
% of businesses cited	89.0%	91.1%	▲	52.8%	70.9%	▲	21.3%	6.8%	▼	55.8%	73.5%	▲	60.5%	49.5%	▼
# of clerks															
# of clerks/businesses warned	90	19		14	0		3	14		17	0		8	6	
# of clerks cited	109	45		48	32		152	141		144	34		45	99	
% of clerks cited	100%	100%	=	34%	37%	▲	87%	87%	=	80%	100%	▲	92%	100%	▲

* Arrows indicate how state data in Year 2 compare to their data in Year 1. Comparisons are only indicated for percentage rates and averages, not for frequencies.

All states averaged more businesses checked per operation in Year 2. The average number of businesses checked per operation increased from 12.8 in year 1 to 15.4 in year 2. Sites in three states checked more businesses in the second year (CT, FL, NY). However, two states experienced drops in the number of businesses checked over time. In year two, sites in CA checked just over half (58%) of the number checked in the first year, and sites in MO checked fewer than a quarter.

The numbers of operations and businesses checked decreased from Year 1 to 2

The percentage of clerks cited at noncompliant businesses increased over time, whereas the percentage of businesses receiving citations decreased.

As this table shows, compliances rates ranged from 74.9% to 92.0%. Three states reported higher rates of compliance in the first year than in the second (CT, MO, NY).

The states varied in the proportion of non-compliant businesses that received a citation. During operations in State A, 89.6% of non-compliant businesses were cited, whereas in State C, the rate was 14.3%.

In terms of clerk citations, law enforcement officials in State B communities cited a smaller percent of individual clerks (35% across both years, or 80 at 228 non-compliant businesses) compared to those in other states. [12] On average, the other states cited 87% (range: 80% - 100%) of clerks at non-compliant businesses. The percentage of clerks cited from Year 1 to Year 2 increased for all states.

Table 4-10 shows the types of clerk behavior among non-compliant businesses, by state and intervention year. Non-compliant clerks generally did not ask for ID, although this generally decreased over time.

Table 4-10 Clerk Behavior During Off-Premise Compliance Checks, by State and Year

State	CA			CT			FL			MO			NY		
Year	Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2		Yr 1	Yr 2	
# of checks where business was not in compliance	109	45		142	86		174	161		181	34		81	99	
# of clerks who checked ID and still sold	89	55*		109	43		13	73		57	17		22	33	
% of clerks who checked ID and still sold	82%	>100%	▲	77%	50%	▼	7%	45%	▲	31%	50%	▲	27%	33%	▲
# of clerks who did not ask for ID at all	74	28		115	25		114	117		125	17		60	66	
% of clerks who did not ask for ID at all	68%	62%	▼	81%	29%	▼	65%	73%	▲	69%	50%	▼	74%	67%	▼

* This is likely a reporting error by one or more sites in this state, since the number of non-compliant clerks is larger than the number of non-compliance businesses.

[12] This assumes that one clerk was involved per compliance check.

Coalition Member Involvement in Off-premise Compliance Check Operations

For each enforcement operation entered into the AT system, LCs indicated which agencies or partners were involved in each of the following phases of the operation: 1) planning, 2) providing advance notice to retailers that they may be checked, 3) conducting the operation, and 4) notifying businesses about the results of the operation.

The AT system provided the opportunity for LCs to indicate whether the following agencies or partners were involved in each of these phases:

- the state alcohol enforcement agency
- highway patrol/state police
- sheriff's department
- local police department
- community partner/coalition member.

Coalition members were involved 43% of the time in planning of off-premise compliance check operations and 29% of time when notifying businesses of the results

Coalition members were involved in 23.1% of all opportunities for participation in off-premise operations (409 out of 1772 opportunities; 264 missing data points). Coalition members were reported to be involved:

- 42.7% of the time during the planning phase
- 18.1% during the advance notice phase
- 18.0% when the compliance checks were actually conducted
- 28.8% of the time when notifying businesses about the results

DWI Enforcement

Sites checked 33,159 cars during 199 sobriety checkpoints and emphasis patrols

Each site was expected to conduct at least one DWI enforcement operation with an emphasis on youth. A total of 280 DWI enforcement operations were conducted by 34 sites across the five EUDL-CT states. Of these operations, 29.6% (n=83) were sobriety checkpoint operations, in which law enforcement agencies set up "road blocks" at certain points on the roadway to examine drivers for signs of alcohol or drug impairment. Another 41.4% (n=116) were emphasis/saturation patrol operations, where law enforcement agencies increase patrol activity in targeted areas in order to detect and arrest impaired drivers. Finally, 28.9% (n=81) were other DWI enforcement operations. Figure 4-24 shows the frequency of the 3 categories of DWI enforcement operations.

Figure 4-24
Frequency of DWI Operations, by Type and Year

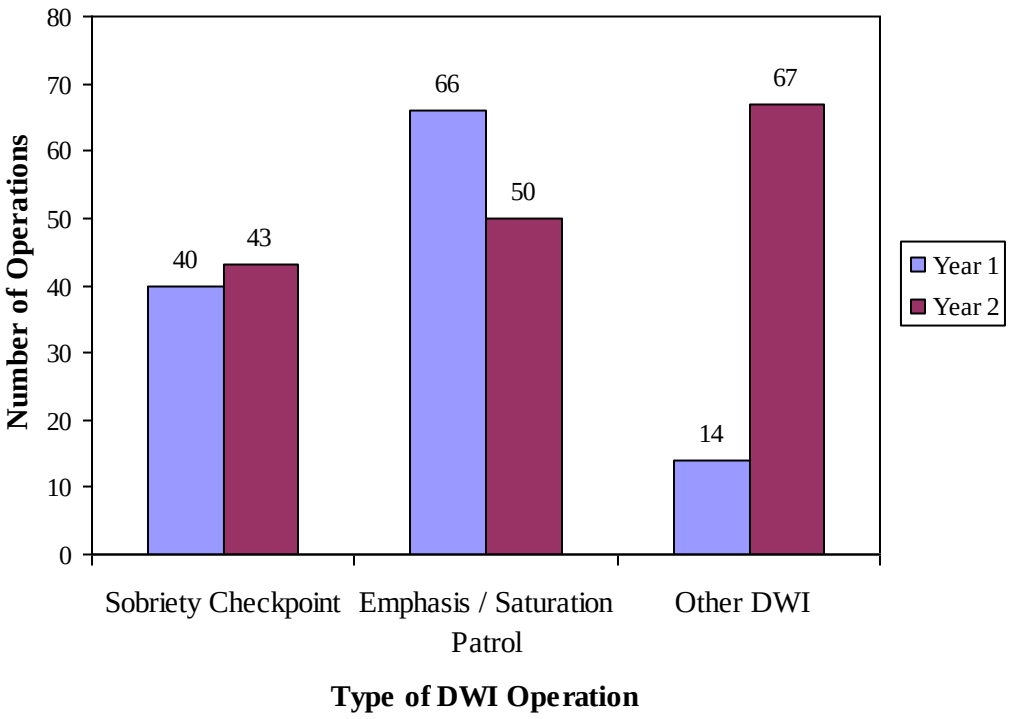


Table 4-11 shows the distribution of DWI operations across the five states.

Table 4-11 DWI Enforcement Operations, By State						
	CA	CT	FL	MO	NY	Total
Sobriety Checkpoints						
Number of operations	28	17	19	7	12	83
% of DWI Enforcement Operations	37.3%	17.4%	38.0%	30.4%	35.3%	29.6%
Emphasis/Saturation Patrols						
Number of operations	33	24	30	14	15	116
% of DWI Enforcement Operations	44.0%	24.5%	60.0%	60.9%	44.1%	41.4%
Other DWI Operations						
Number of operations	14	57	1	2	7	81
% of DWI Enforcement Operations	18.7%	58.2%	2.0%	8.7%	20.6%	28.9%
Total	75	98	50	23	34	280

Sites in all participating states conducted more emphasis/saturation patrols than sobriety checkpoints. This makes sense, since sobriety checkpoints involve more time and manpower than emphasis patrols. Sites in CT focused a majority of their efforts (58%) on other DWI operations (which meant that outcomes of these operations were not tracked in the AT system, and are thus not reflected in the tables below).

LCs reported the results of the DWI enforcement operations in the AT system. For both sobriety checkpoint and emphasis/saturation patrol operations, the results included the overall frequency of citations/arrests for DWI and the frequency of persons under 21 who were detained, cited or arrested for possession or use of alcohol. Table 4-12 shows these frequencies, by state.

Table 4-12 Outcomes of DWI Enforcement Actions	Sobriety Checkpoint					Emphasis/Saturation Patrols					Total
	CA	CT	FL	MO	NY	CA	CT	FL	MO	NY	
Cars Checked	10,876	4,653	5,111	2,704	6,401	550	1,388	773	191	512	33,159
Drivers ARRESTED or CITED for DWI	93	23	76	91	99	57	90	31	21	23	604
Percent of Arrests & Citations Involving People < 21	5%	9%	17%	15%	15%	17%	22%	22%	38%	17%	16%
Outcomes for persons UNDER 21 re: use/ possession of alcohol:											
Detained	3	0	100	8	9	26	2	1	0	0	149
Cited only	7	0	0	7	1	4	3	4	8	0	34
Cited and detained	11	0	0	1	0	12	2	4	2	2	34
Arrested	3	2	0	16	3	4	8	2	10	1	49

In general, emphasis patrols yielded higher numbers percents of arrests and citations, due to the targeted nature of the operation

Sites in State A conducted the greatest number of sobriety checkpoints (n=28) and checked the most cars (10,876). However, while sites in State D checked one-quarter the number of cars that State A sites did, they caught approximately the same number of intoxicated drivers (n=91). The EUDL-CT grant objective emphasized addressing DWIs among underage youth. Based on the data, State D sites appear to have focused the most effectively on catching underage drinking drivers: 15% (n=14) of DWI arrests involved persons under 21, and 16 arrests were made during these checkpoints for underage possession/use.

A similar pattern emerged for emphasis patrols. While all other states (A, B, C, and E) conducted more emphasis patrol operations, checked more cars, and made more DWI arrests, State D sites reported the highest DWI arrest rate (21 of 191 checks = 11%, compared to 4-10% among other states) and the highest percent of underage DWI arrests during its emphasis patrols (38%, compared to 17%-22% among other states).

Social Availability Enforcement

Sites focused on surveillance of parking lots (n=118) and party patrols (n=112) as the primary enforcement methods to address social availability

Intervention communities were required to conduct at least one other enforcement operation to address the social availability of alcohol. A total of 380 activities related to social availability enforcement operations were conducted by 31 of 34 sites.[13] Of these operations, 29.5% (n=112) were party patrol operations, where law enforcement officials monitor, investigate and shut down any underage gatherings where alcohol is present. Another 17.6% (n=67) were shoulder tap operations, where undercover youth work with law enforcement to solicit assistance from an adult to purchase alcohol for him/her after indicating he/she is under the legal age to purchase). Slightly under one-third (31.1%; n=118) were surveillance operations of alcohol outlet parking lots, where law enforcement officers monitor parking lots of alcohol establishments in order to apprehend adults who purchase alcohol for youth. Sites reported 60 other operations (15.8%) focused on reducing social availability. In addition, four sites conducted 23 training programs that were approved by OJJDP as meeting their EUDL-CT Objective requirement related to social availability enforcement.

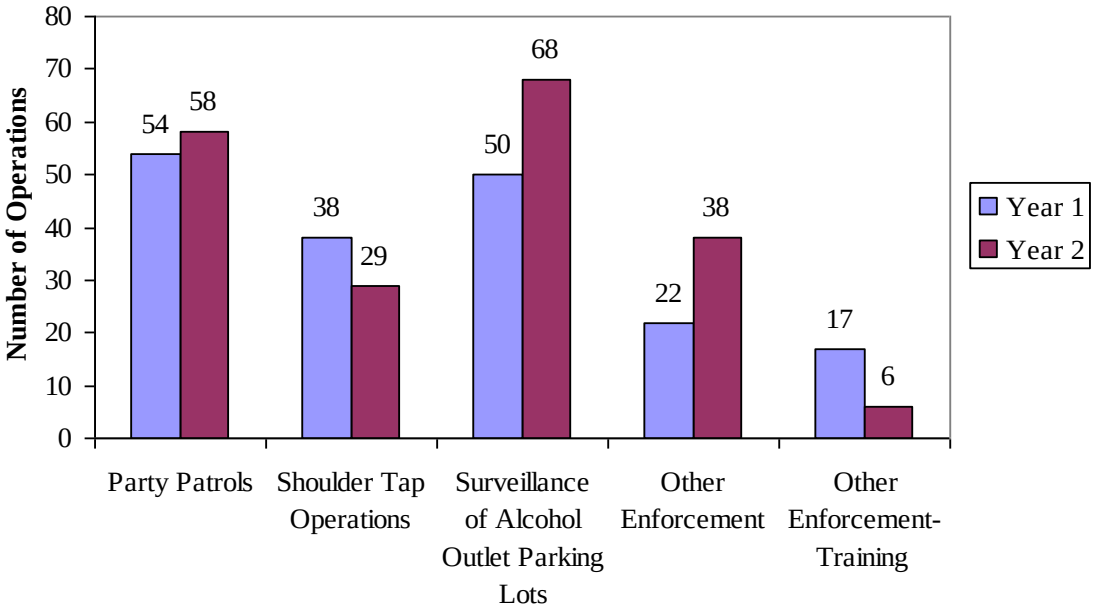
[13] Three sites did not report conducting any of these types of enforcement operations.

Table 4-13 shows the frequency and percentage of party patrols, shoulder taps and parking lot operations for each state.

Table 4-13 Social Availability Enforcement Operations						
Type of Social Availability Operation	CA	CT	FL	MO	NY	**Total**
Number of **Party Patrol Operations**	46	13	16	13	24	112
% of Social Availability Operations	33.8 %	18.3 %	42.1 %	61.9 %	77.4 %	37.7%
Number of **Shoulder Tap Operations**	53	0	4	5	5	67
% of Social Availability Operations	39.0 %	0.0%	10.5 %	23.8 %	16.1 %	22.5 %
Number of **Parking Lot Operations**	37	58	18	3	2	118
% of Social Availability Operations	27.2 %	81.7 %	47.4 %	14.3 %	6.4%	39.7%
Total	136	71	38	21	31	297

Figure 4-25 compares the frequency of social availability enforcement operations for each intervention year, by type of operation.

Figure 4-25
Frequency of Social Availability Operations, by Type



As Figure 4-25 shows, sites reported similar numbers of party patrol operations in years 1 and 2. However, table 4-14 (below) shows there was a 16-fold increase in the number of parties dispersed in the second year, compared to the first (n=857 and 54, respectively). Similarly, while the number of shoulder tap operations decreased slightly over time (from 38 to 29), the number of contacts made per operation increased (from 16 in the first year to 21 in the second year). Both of these suggest increased efficiencies in how the operations were conducted.

Most enforcement efforts to address social availability were more efficient in the second year, compared to the first

A different trend – but similar with respect to efficiency – is evident for parking lot surveillance. While the number of surveillance operations increased from year 1 to year 2 (from 50 to 68), the number of parking lots monitored decreased (from 510 to 462). Despite the decrease in number of parking lots monitored, more people (both adults and youth) were warned, cited or arrested as a result of surveillance in year 2 than in year 1. This suggests that an increase in frequency of operations, not necessarily in parking lots surveyed, yielded more violations.

Outcomes for Social Availability Operations

LCs also entered the results from these "Social Availability" operations in the AT system. The results of party patrol operations and surveillance operations of alcohol outlet parking lots included the frequency of underage youth and adults who received warnings, were cited, and/or were arrested. The data on shoulder tap operations included the frequency of adult providers who received a warning, were cited or arrested, or refused to provide alcohol to underage youth. Table 4-14 shows these frequencies, by state.

Table 4-14 Frequencies of Social Availability Operation Outcomes, by Year[14]

Outcomes of Enforcement	Party Patrol Operations		Surveillance of Alcohol Outlet Parking Lots		Shoulder Tap Operations	
	Year 1	Year 2	Year 1	Year 2	Year 1	Year 2
Number of parties dispersed, parking lots monitored, and contacts made with potential adult providers	54	857	510	462	601	601
OUTCOME OF ENFORCEMENT:						
Adult: Received only a WARNING	46	65	1	12	2	6
Adult: CITED or ARRESTED	13	38	9	66	76	93
Adult: Refused to provide alcohol to underage youth					529	428
Underage Youth: Received only a WARNING	230	708	21	37		
Underage Youth: Were CITED or ARRESTED	113	427	59	91		

A high percentage of adults refused to purchase alcohol for youth when approached during a shoulder tap operation. In year 1, the refusal rate was 88% (529 of 601 attempts). In year 2, the percentage was 71%.

Overall, 51 adults and 550 youth were cited or arrested as a result of party patrol operations (111 adults and 938 youth received warnings). The disproportionate numbers most likely reflect the reality that a parent or other adult was hosting (or tacitly allowing) a party involving many youth.

An interesting finding is that when an enforcement action was taken (either a warning or a citation/arrest), youth were more likely to receive a citation/arrest than a warning, compared to adults (37.0% and 31.5%, respectively). This discrepancy became less pronounced over time, however. An analysis by year reveals that the adult arrest rate increased from 22% in Year 1 to 37% in Year 2, which was a sharper increase in the arrest rate than that for youth (33% to 38%).

[14] There is no applicable data for grayed out cells.

By comparison, the proportion of those arrested (as opposed to warned) during surveillance operations of alcohol outlet parking lots was 85% for adults and 72% for youth. (An analysis by year reveals that rates decreased for both youth and adults from year 1 to year 2.)

The party patrol operation data also included the frequency of the laws and/or ordinances for which the underage youth and adults were cited or arrested. Table 4-15 shows the frequencies, by state.

Table 4-15 Frequency of Violations as a Result of Party Patrols, by State

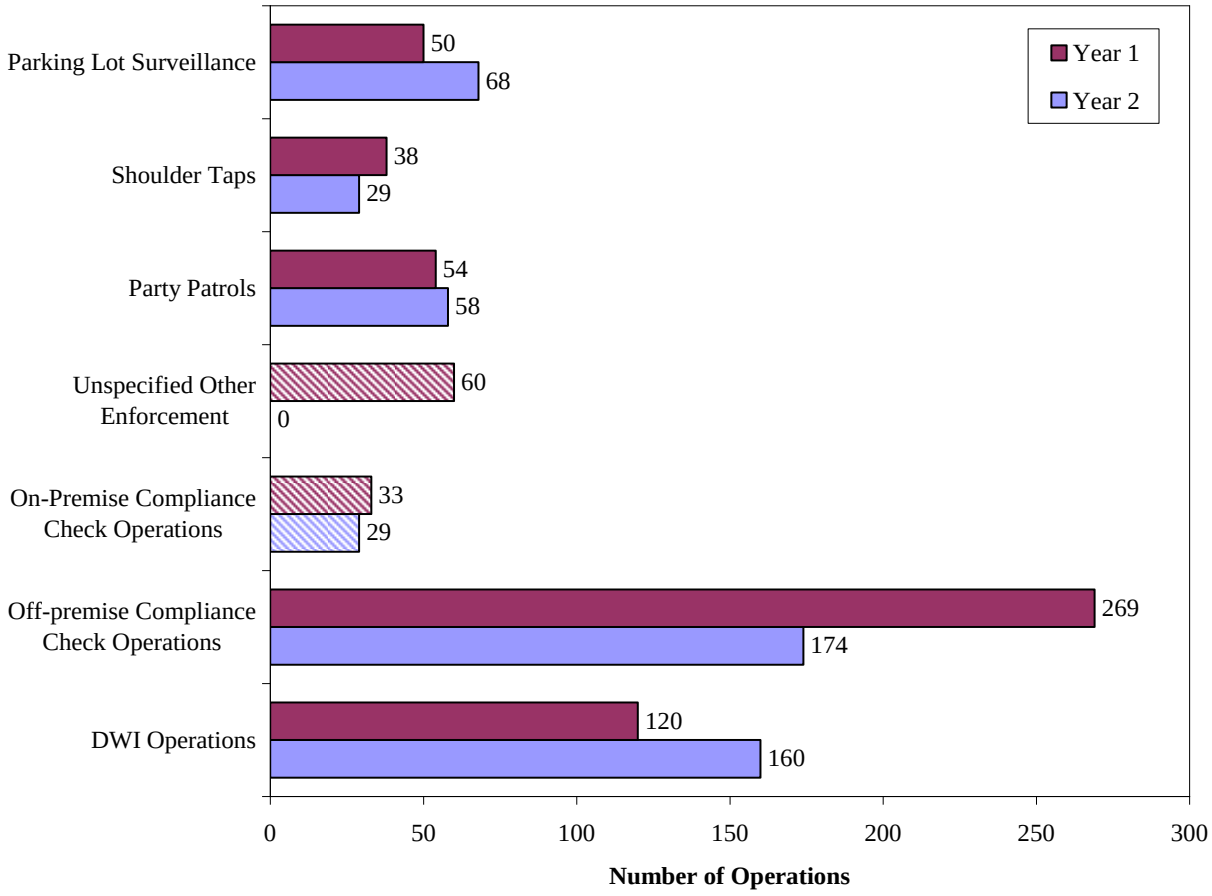
Specific Laws/Ordinances Youth vs. Adult Cited/Arrested	Frequency					Total
	CA	CT	FL	MO	NY	
Minor in Possession (Youth)	38	21	196	21	102	378
Providing to Underage (Adult)	5	8	15	4	0	32
Noise Ordinance (Youth)	0	0	57	0	0	57
Noise Ordinance (Adult)	5	0	3	0	1	1
Disorderly Conduct (Youth)	7	2	13	2	0	24
Disorderly Conduct (Adult)	12	1	2	1	1	17

As shown in Table 4-15, the frequency of violations varied across states. State C and State E recorded the most number of citations given to youth. State A cited more adults than youth for noise ordinance violations and disorderly conduct.

Summary: Enforcement Operations

Overall, sites reported conducting a total of 1,142 enforcement operations. Figure 4-26 shows the breakdown of these operations, by type, for each year of intervention.

Figure 4-26
Frequency of All Enforcement Operations, by Type[15]



As shown in Figure 4-26, the frequency and focus of law enforcement activity differed from year 1 to year 2. In the first year, 43% of law enforcement operations focused on off-premise compliance checks (n=269) and 19% were DWI operations (n=120). In the

[15] The data presented in this figure only include enforcement operations. Training and education activities logged in the Social Availability section are omitted, due to the conceptual difference between enforcement and training. (They are reflected in Figure 4.25). Solid-colored bars indicate operations that met EUDL-CT grant objectives.

second year, only a third of operations were off-premise check operations (n=174), whereas almost a third (31%) were DWI operations (n=160).

Overall, the number of enforcement operations focused on social availability (i.e., parking lot surveillance, shoulder taps and party patrols) was comparable from year 1 to year 2 (n=142 and 155, respectively), although the focus differed slightly between years. In year 1, 23% of enforcement activity focused on these types of social availability operations; in year 2, the percent increased to 30%.

Coalition involvement in enforcement operations that did not meet a EUDL-CT grant objective (i.e., unspecified other enforcement and on-premise compliance check operations, which are shown as non-solid bars in Figure 4-26 decreased from year 1 to year 2. This was expected, as coalitions would need to ensure all enforcement grant requirements were completed before the end of the intervention.

Discussion

The intervention sites reported 7,651 activities in the AT system during the 2-year intervention period. There was considerable variability in the level of reporting and types of activities conducted. Twenty-two percent (n=1,710) of activities logged reflected a specific step toward achieving a EUDL-CT grant objective (i.e., changing a public or institutional policy, or conducting an enforcement operation). The majority of activities (77.6%, n=5,941) were more general in nature, including building the coalition's capacity to implement its workplan, raising public awareness about underage drinking and solutions to reduce its prevalence and consequences, and undertaking the planning and preparatory activities necessary for the coalition to implement its workplan.

More than two-thirds (70.8%, n=3,657) of all "general" activities were reported by sites in one state (State E). Whereas four EUDL-CT states averaged 38-115 general activities for sites in their states (range: 4-239), one state's sites averaged 585 (range: 259-964). This may have been a reporting issue.

States and sites were more similar with respect to the frequency of EUDL-CT objective-specific activities. Averages per state varied from 143 to 519 of these "objective-specific" activities. The range across all sites was 7-174 activities per site.

Activity levels generally increased from Year 1 to Year 2 for policy and enforcement efforts, with the exception of compliance check operations. The highest level of activity entered into AT was related to the pursuit of policy change (n=545), followed by compliance check operations (n=505). Sites recorded fewer enforcement activities related to social availability and DWI (n=380 and 280, respectively).

States varied in focus. State E sites conducted the most policy-related activities (n=265). State C sites conducted the most compliance check operations (n=159). State A sites reported the greatest number of social availability enforcement operations (n=173), and

State B sites reported the most DWI operations (n=98). However, 4 of the 34 intervention sites did not enter a single activity for one of the EUDL-CT's 4 grant objectives. These findings suggest that there was unevenness in sites meeting reporting requirements.

In terms of policy-related activities, sites focused more on planning for policy change in Year 1. The proportions of media advocacy and policy advocacy efforts increased in Year 2, as would be expected.

Overall, 23 sites reported in the AT system that 14 public policies were adopted or amended, and 27 institutional policies were implemented. (The overall number of policies adopted in the intervention communities, regardless of coalition involvement, was 26 public and 29 institutional policies in 29 sites. Refer to Section 3.3 for a review.) While coalitions planned to pursue more public policies (as expressed in their initial workplans submitted to OJDDP), the majority of policies ultimately achieved were institutional in nature.

The types of policies passed differed depending on whether they were adopted publicly, through ordinance change, or institutionally. The public policy successes reported in AT focused predominately on increasing the accountability of social hosts and other providers, and expanding the definitions of minor in possession/intoxication. The institutional policies primarily addressed ways for retailers to more accurately check IDs and for law enforcement agencies to emphasize its priorities (e.g., where, when and how to use its manpower to address underage drinking problems). These areas of emphasis appear to reflect the current priorities of the alcohol policy field in general.

In terms of enforcement, coalitions conducted over a thousand operations (n=1,142) during the EUDL-CT intervention. Most of these involved off-campus compliance checks (n=443). This was expected, given the EUDL grant requirement that sites check at least 90% of off-premise alcohol outlets at least twice per year, for both years of intervention. While more than half of off-premise compliance check operations occurred in year 1, the average number of businesses checked per operation was higher in year 2, perhaps pointing to greater efficiency during these operations. Compliance rates ranged from 75% to 92%. Most states on average cited the clerks 8 out of 10 times when there was a violation. However, sites varied considerably in the proportion of non-compliant businesses that received a citation (14% to 90%), and the rates of citation for businesses generally decreased from year 1 to year 2. In future efforts, there should be greater focus and consistency in holding the business accountable when its employees sell alcohol to underage persons.

A total of 280 DWI enforcement operations were conducted by all 34 sites across the five EUDL-CT states. Sites reported 83 sobriety checkpoints, during which they checked 29,745 cars (average=358 cars per checkpoint), and 116 emphasis patrols (average number of cars checked=29). As a result of these DWI operations, 604 drivers were arrested or cited for DWI. At a state level, the percent of arrests and citations involving people under 21 ranged from 5% to 17% during sobriety checkpoints, and 17 – 38%

during emphasis patrols. State D sites generally yielded the highest arrest rates for DWI among underage persons, which was the focus emphasized by the EUDL-CT grant.

In 2005, a total of 380 social availability enforcement operations (e.g., party patrol operations, shoulder tap operations and alcohol outlet surveillance) were reported by 31 sites across the five EUDL-CT states. There appear to be similar trends over time related to operational efficiency and outcomes for these social availability enforcement operations. There were increases in the number of parties dispersed and contacts made per shoulder tap operation from year 1 to year 2, suggesting that the enforcement agencies conducting them grew more efficient and effective in their efforts. Similarly, an increase in the number of parking lot surveillance operations over time was associated with an increase in violations.

In terms of outcomes, there was a disproportionate number of youth who were cited or arrested as a result of party patrol operations (550 youth compared to 51 adults). These numbers likely reflected the reality that a parent or other adult was hosting (or tacitly allowing) a party involving numerous youth. When an enforcement action was taken (either a warning or a citation/arrest), youth were more likely to receive an arrest than a warning, compared to adults. However, this discrepancy decreased over time.

Similarly, more youth were cited or arrested during parking lot surveillance operations than were adults. Not enough information was provided by sites to ascertain to what the increased youth violation rate might be attributed.

Overall, the Activity Tracking results demonstrate that sites can implement an intensive intervention focused on increasing enforcement and improving policies to address underage drinking. Despite the fairly prescriptive nature of the EUDL Community Trial, however, site implementation varied in focus and intensity. The variation in reporting levels among sites makes it difficult to determine how much activity (including what focus, and in what combination) is optimal to bring about changes in policy or enforcement practices.

Section 4.3 Site Visits

Purpose

The purpose of the Site Visits was to collect qualitative data from the State Coordinator (SC), Discretionary Site Manager (DSM), Local Coordinator (LC) and coalition members regarding implementation of the EUDL-CT. Site visits were conducted in 2006 and 2007. The evaluation team attempted to schedule a visit to each site at least once during the grant period. If a visit was not possible, key individuals at the state or site were interviewed by telephone. The interviewees were asked questions regarding program definition, their relationship with the funding agency, the evaluation process, planning and implementation of the grant requirements, the impact of the grant on the community, and the sustainability of the program at the end of the intervention.

Results

Site visits provided valuable insights into the challenges and successes the sites experienced over the course of the EUDL CT. Common themes were found across the states, with sites facing similar challenges and successes. These themes are grouped into the following categories, and discussed below: (1) Grant Requirements and Focus, (2) Cross-Cutting Challenges, (3) Operational Issues, (4) Organizational Structure of the CT, and (5) Sustainability.

Grant Requirements and Focus

Overall Program Definition

The parameters or program definition of the grant was well received by the coalitions. In general, most of those interviewed liked the structure and the requirements of the grant. If the grant were less structured, they felt less progress would be made. The program definition provided focus and direction. However, sites also want flexibility. They liked the accountability as a way to make sure things got done but would have liked more local flexibility. Some felt the grant focused too much on commercial availability when data shows social outlets are where most underage drinkers obtain alcohol. The most concern about program definition was with policy requirements.

Enforcement

Compliance checks were reported to be a clear-cut benefit of the program but most agreed that without funding the impact will not continue. Finding enough resources in the police department

to staff party patrols and other similar activities was a concern for the majority of sites. Sobriety checkpoints take a lot of manpower and usually party patrols do not happen unless someone calls and reports the location of a party. DWI Checkpoints do not yield that many underage drinkers to justify the time and manpower involved.

Policy

The policy requirement of the grant seemed to be the most challenging. In some areas, they mentioned the challenge of enforcing new policies or laws whether voluntarily or not. Most mentioned they were more successful in creating/amending institutional policies then public policies. The policy requirement was an area some mentioned they would have liked to have had more training/direction.

The federal lobbying restrictions that prohibit anyone receiving federal funds from lobbying for legislation were not an issue of great concern even if they were interpreted a little differently across sites. Some states did seem to pay more attention to it than others. However, most sites were able to work around the restrictions by having coalition members involved in any activities that would violate the law. Some sites stated working with their local government presented a greater challenge then the lobbying restrictions.

Cross Cutting Successes and Challenges

The challenge of getting the public to see underage drinking as a problem was mentioned by all sites. Getting past the rite of passage mentality and getting parents on board with UAD was probably the most consistently and commonly mentioned challenge. It represented a lot of frustration for local coalitions. Many reported it was tied to resistance to citing underage drinkers (having otherwise good kids get in trouble with the law). Social availability by parents was a big concern. The coalitions spent much effort trying to educate the public about the problem.

The EUDL-CT grant brought law enforcement agencies into relationships with other substance abuse prevention groups in local communities and at the state level; usually in a way that was new and welcomed. Across coalitions, the improvements in relationships between law enforcement and the rest of the community was seen as a very positive outcome of the grant.

Whether a coalition existed before the grant or after had pros and cons. Some saw advantages to coalitions starting from scratch as part of the grant so there were no preconceived notions of what the coalition should do or having members roles already established. Others saw the advantages of working with pre-existing coalitions because they had members already on board with an interest in making things happen.

Much time and effort was spent at the local level on media and public awareness activities. Local coalitions worked consistently across states to organize media awareness building activities such as safe prom and safe spring break type activities in high schools and to some degree in colleges.

Operational Issues

Staff and coalition member turnover presented challenges. Staff turnover happened in every state which resulted in a need for more training to bring new staff that joined the project after the start date up to speed. A major challenge for local coordinators was getting others to take on the work of the coalition. This made it a challenge to get momentum going for the coalitions. Much of the success of the coalition depends on the volunteers whose commitment level varied.

Organizational Structure of the CT

State level coordination and involvement at local level varied from state to state. How states managed the grant varied across states as well as their level of involvement with local coalitions. From the interviews, it was hard to determine distinct patterns. But, it is clear that who is serving as local coordinator and DSM as well as lead agency, plays a role in how the grant is implemented.

Most of those interviewed saw PIRE as helpful and available. PIRE was not seen as a major force at the local level in many cases, but those who did interact with PIRE reported they were appreciated and available when needed. Most felt the training and reporting structure was adequate.

Sustainability

Most of the people interviewed indicated that the impact of the EUDL-CT on law enforcement would not last if alternative sources of funding could not be secured. As a result of the grant, compliance checks in most communities were conducted on more of a proactive than reactive basis. The number of compliance checks being conducted was lower in communities before the grant. Compliance checks and other enforcement efforts, in general, were seen as something that would not have happened without the grant, were conducted successfully overall, made a difference, and should be continued after the grant to maintain impact.

Sustainability was a major concern in most states and local communities. Funding was an universal issue across sites. Although some, more than others, were prepared to commit their own funds or find grant funding, most said that compliance checks and other enforcement activities were unlikely to continue at the same level or at all without additional funding. Most law enforcement representatives said they would like to keep the enforcement activities going even if at a reduced level.

Conclusion

The sites visits allowed the evaluation team to collect valuable qualitative data that would not have been captured on a survey. Through discussions with key site leaders and staff, the evaluation team was able to gain a better understanding of the challenges, barriers and the successes the sites encountered throughout the program. Specifically, we gathered insights on

(1) Grant Requirements and Focus, (2) Cross-Cutting Challenges, (3) Operational Issues, (4) Organizational Structure of the CT, and (5) Sustainability.

Section 5.1 Youth Survey

The purpose of the Youth Survey is to assess the impact of the Enforcing Underage Drinking Laws-Community Trial (EUDL-CT) on youth. Specifically, the Youth Survey is being used to measure changes in the perceived availability of alcohol to youth, social norms concerning underage alcohol use, actual use of alcohol by youth, and the prevalence of alcohol-related problems among youth.

Cohort Sample

Intervention/Comparison Community Balance in the Cohort Sample

Of 2,555 youths aged 14 and 15 in the 2004 Youth survey sample, 2,380 (93%) agreed to participate in annual follow-up cohort survey. Annual follow-up survey of the cohort was conducted in 2005, 2006 and 2007. Table 5-1 presents baseline demographic characteristics of the sample, reported separately for youth in the Intervention and Comparison conditions. Among 2,555 youth, 49% were female and 81% were Caucasian. Forty-five percent were 14 years old at baseline. At baseline, the Intervention and Comparison samples are quite similar with respect to age distribution, gender and race.

The sample from the Year 1 Youth Longitudinal Cohort Survey showed excellent balance between the Intervention and Comparison conditions. This was an important goal of random assignment of communities to the Intervention or Comparison condition.

The Intervention and Comparison samples were well-balanced with respect to all of the key outcome variables at baseline: past 30-day alcohol use; heavy episodic (binge) drinking; drunkenness; driving after drinking; riding with a driver who had been drinking; source of last alcohol, giving or selling alcohol to someone under age 21; purchase attempt; experiencing non-violent or violent alcohol-related consequences; perceived difficulty of obtaining alcohol; perceived same age drinking; perceived friends drinking and drunkenness; perceived consequences from parents, school officers, and

police; and perceived level of community concern about underage drinking. No statistical significant differences were observed at baseline.

Table 5-1 Intervention versus Comparison Communities: Demographic Characteristics at Baseline in the Cohort Sample (N=2,555)

	Year 1 (2004)		
	Comparison	**Intervention**	**P-Value***
Age			0.98
14	45.07 %	45.11 %	
15	54.93 %	54.89 %	
Gender			0.67
Female	48.48 %	49.31 %	
Male	51.52 %	50.69 %	
Race**			0.68
White	81.79 %	81.16 %	
Non-white	18.21 %	18.84 %	

*P-value of the difference between the Comparison and Control sample
**The breakdown of non-whites is Black=8.61%, Hispanic=5.17%, Asian American=2.35%, American Indian or Pacific Islander=0.90% and Other=1.49%.

Overall Results for the Cohort Sample

We analyzed changes in key outcome measures between the 2004 Youth Survey (hereafter "Year 1"), the 2005 Youth Survey (hereafter "Year 2"), the 2006 Youth Survey (hereafter "Year 3) and the 2007 Youth Survey (hereafter "Year 4") in the 68 sample communities (34 Intervention and 34 Comparison) using 6,807 observations from 2,555 individuals (accounting for the repeated measures within individuals). Youths who reported inconsistent responses on age and reports of alcohol use or moving to non-study communities were excluded from the analysis. Analyses were conducted using SAS callable SUDAAN Version 9.0.1 (Research Triangle Institute, 2001). There are two main factors of interest in the models that were used: the treatment group to which each community belonged (Intervention versus Comparison), and the time point at which the survey was conducted. Because measurements were taken at four time points, the main question of interest is whether the prevalence of the youth behavior in question in the Intervention group is changing at a faster (or slower) rate than in the Comparison group. This question is addressed by examining the average difference in the slopes between the Intervention communities and the Comparison communities. This test for an intervention effect on rate of change in the prevalence of an outcome is provided by a time by

intervention interaction effect in the logistic regression and multinomial logistic regression models. Robust p-values are given for this effect in the SUDAAN models. We also report the predicted prevalence for each treatment group over time. P-values are adjusted for age at baseline, gender, and race of the respondent. Given that age and time vary together within an individual (i.e., change in age is equivalent to change in time), age at baseline was included in the model when calculating predicted prevalence. The results of the primary outcome analyses for the cohort are presented in Tables 5-2 and 5-3.

Table 5-2 presents the results for the primary alcohol-related behavior outcomes. The estimated prevalence of last 30-day alcohol use, heavy episodic (binge) drinking and the other alcohol-related behaviors increased from Year 1 to Year 4 in both Intervention and Comparison communities. This overall increase was expected, given that youth in the cohort are a year older at each subsequent time point after baseline. There was one statistically significant change from Year 1 to year 4, which favored the Comparison communities: the percentage of respondents reporting past 30-day drunkenness increased 23 % in the Comparison communities and 31 % in the Intervention communities. No other interaction effects were statistically significant, suggesting there were no other differences in the rate of change between Intervention and Comparison communities.

Table 5-2 Changes over Time in Drinking Behavior in Intervention and Comparison Communities: Cohort Sample (N=2,555)

Outcome	TX*	Adjusted value**				Total N Value	Change (Y4 - Y1)	P-value (TXxTime)
		Year 1 N=2,528	Year 2 N=1,770	Year 3 N=1,413	Year 4 N=1,096			
Last 30-day alcohol use	I	14 %	21 %	33 %	43 %	1232	29 %	0.69
	C	14 %	21 %	32 %	42 %	1309	28 %	
Heavy episodic (binge) drinking	I	3 %	5 %	12 %	20 %	1215	17 %	0.55
	C	3 %	5 %	9 %	17 %	1302	14 %	
Drunkenness	I	10 %	17 %	30 %	41 %	1196	31 %	**0.01**
	C	11 %	19 %	26 %	34 %	1289	23 %	
Drinking driving	I	0.5 %	1 %	5 %	4 %	1211	3.5 %	0.47
	C	0.4 %	2 %	4 %	5 %	1297	4.6 %	
Riding with a drunk driver	I	11 %	11 %	12 %	13 %	1202	2 %	0.50
	C	12 %	13 %	12 %	12 %	1289	0 %	
Gave or sold alcohol to someone under 21***	I	5 %	8 %	14 %	19 %	541	14 %	0.89
	C	5 %	6%	12 %	17 %	573	12 %	

Successful attempt to purchase alcohol****	I	1%	1 %	3 %	6 %	12	5 %	0.92
	C	1 %	1 %	3 %	7 %	16	6 %	
Non-violent consequences due to alcohol use	I	15 %	24 %	35 %	37 %	1209	22 %	0.41
	C	15 %	23 %	31 %	36 %	1297	21 %	
Violent consequences due to alcohol use	I	1 %	1 %	2 %	2 %	1211	1 %	0.63
	C	1 %	1 %	1 %	1 %	1299	0 %	
Commercial Source***	I	1 %	3 %	6 %	10 %	506	9 %	0.19
	C	2 %	2 %	6 %	6 %	538	4 %	

*I=Intervention, C=Comparison
**Adjusted for individual age, individual gender, individual race, community population, community income, community college enrollment percent, community Hispanic percent and community black percent.
***Limited to sample who ever drunk.
****Limited to sample who ever attempted to purchase alcohol.

Table 5-3 presents the results for alcohol-related norms and perceptions. There were two statistically significant changes favoring the Intervention communities from Year 1 to year 4. The percentage of youth who reported that they thought their parents would talk to them if the parent caught them drinking remained constant in the Intervention communities while decreasing 4% in the Comparison communities (p=0.03). The percentage of youth who thought that their parents would yell at them for drinking decreased 11% in the Intervention communities and decreased 21% in the Comparison communities (p=0.02). None of the remaining interactions was statistically significant.

Table 5-3 Changes over Time in Drinking Norms and Perceptions in Intervention versus Comparison Communities: Cohort Sample (N=2,555)

Outcome	**TX***	**Adjusted value****				**Total N Value**	**Change** (Y4 - Y1)	**P-value (TXxTime)**
		Year 1 N=2,528	Year 2 N=1,770	Year 3 N=1,413	Year 4 N=1,096			
Difficult to obtain alcohol***	I	18 %	11 %	5 %	3 %	541	-15 %	0.22
	C	21 %	10 %	7 %	5 %	577	-16 %	
Most of my friends drink	I	10 %	15 %	24 %	36 %	1206	26 %	0.34
	C	10 %	16 %	24 %	32 %	1291	22 %	

Parents would punish for drinking	I	87 %	85 %	76 %	67 %	1193	-20 %	0.51
	C	88 %	87 %	76 %	65 %	1283	-23 %	
Parents would talk to me for drinking	I	93 %	94 %	92 %	93 %	1194	0 %	**0.03**
	C	94 %	94 %	94 %	90 %	1284	-4 %	
Parents would yell at me for drinking	I	69 %	72 %	63 %	58 %	1195	-11 %	**0.02**
	C	72 %	73 %	65 %	51 %	1282	-21 %	
Very likely that school officials catch me drinking	I	35 %	29 %	26 %	20 %	1191	-15 %	0.79
	C	36 %	30 %	27 %	24 %	1284	-12 %	
Very likely that police would catch me drinking	I	12 %	11 %	11 %	9 %	1189	-3 %	0.19
	C	13 %	14 %	11 %	11 %	1281	-2 %	
Very likely police would catch me while driving drunk	I	45 %	39 %	33 %	26 %	1185	-19 %	0.75
	C	45 %	40 %	37 %	27 %	1280	-18 %	
People in community care about underage drinking "a great deal"	I	40 %	32 %	25 %	20 %	1197	-20 %	0.42
	C	40 %	35 %	25 %	19 %	1284	-21 %	

*I=Intervention, C=Comparison

**Adjusted for individual age, individual gender, individual race, community population, community income, community college enrollment percent, community Hispanic percent and community black percent.

***Limited to sample who ever drunk

Cross Sectional Sample

Intervention/Comparison Community Balance in the Cross Sectional Sample

The cross sectional sample from the Year 1 Youth Survey shows excellent balance between the Intervention and Comparison conditions. This was an important goal of random assignment of communities.

The Intervention and Comparison samples were quite similar at baseline with respect to age distribution, gender, and race (Table 5-4). Similarly, the Intervention and Comparison samples are well-balanced with respect to all of the key outcome variables (past 30-day alcohol use, past 7-day alcohol use, heavy episodic drinking, driving after drinking, and riding with a driver who had been drinking, source of alcohol, and past 30-day purchase attempts.

We also compared the youth from the Intervention and Comparison communities at baseline on the following variables: drinking norms, social norms, perceived likelihood of getting caught by police for drinking and perceived likelihood of getting caught by police for drinking and driving. No statistically significant differences were observed.

Table 5-4 Intervention versus Comparison Communities: Demographic Characteristics at Baseline in the Cross Sectional Sample (N=6,958)

	Year 1 (2004)		
	Comparison (n=3,511)	**Intervention (n=3,447)**	**P-Value**
Age			0.49
14	16.53 %	16.04 %	
15	20.51 %	19.47 %	
16	20.02 %	20.05 %	
17	19.97 %	19.35 %	
18	14.50 %	13.93 %	
19	6.04 %	6.44 %	
20	4.33 %	4.73 %	
Gender			0.94
Female	48.62 %	48.53 %	
Male	51.38 %	51.47 %	
Race*			0.90
White	80.81 %	80.93 %	
Non-White	19.19 %	19.07 %	

*The remaining percentages are Black=8.90%, Hispanic=5.65%, Asian American=2.39%, American Indian or Pacific Islander=0.84% and Other=1.36%.

Overall Results for the Cross Sectional Sample

We analyzed changes in key outcome measures between the 2004 Youth Survey (hereafter "Year 1"), the 2006 Youth Survey (hereafter "Year 3") and the 2007 Youth Survey (hereafter "Year 4") in the 68 sample communities (34 Intervention and 34 Comparison). These analyses were conducted using SAS callable SUDAAN Version 9.0.1 (Research Triangle Institute, 2001). There are two main factors of interest in these models: the treatment group to which each community belongs (Intervention versus Comparison), and the time point at which the survey was conducted. Because measurements were taken at three time points (no year 2 (2005) data were collected), the main question of interest is whether the prevalence of the youth behavior in question in the Intervention group is changing at a faster (or slower) rate than the Comparison group. This question is addressed by examining the average difference in the slopes between the Intervention communities and the Comparison communities. This test for an intervention effect on rate of change in the prevalence of an outcome is provided by a time by intervention interaction effect in the logistic regression and multinomial logistic regression models described above. Robust p-values are given for this effect in the SUDAAN models. We also report the predicted prevalence for each treatment group over time. P-values are adjusted for age, gender and race of the respondent, and several community-level characteristics (race, ethnicity, income, college enrolment and population size). The results of the key outcome analyses for the cross sectional sample are presented in Tables 5-5 and 5-6.

Table 5-5 presents the results for the primary alcohol-related behavior outcomes for the cross sectional sample. None of the interactions was statistically significant, indicating that there were no differences in the rate of change between Intervention and Comparison communities.

Table 5-6 presents the results for alcohol-related norms and perceptions for the cross sectional sample. The percentage of youth who perceived it was very likely to be caught by school officials for underage drinking increased in the Intervention communities and decreased in the Comparison communities. The difference was statistically significant (p=0.03). None of the other interactions was statistically significant.

Table 5-5 Intervention versus Comparison Communities: Drinking Behavior in the Cross Sectional Sample (N=18,730)

Outcome	TX*	Adjusted value**			Total N Value	Change (Y4 - Y1)	P-value (TXxTime)
		Year 1 N=6,958	Year 3 N=6,133	Year 4 N=5,639			
Last 30-day alcohol use	I	30 %	29 %	28 %	9,193	-2 %	0.64
	C	28 %	27 %	27 %	9,496	-1 %	
Heavy episodic (binge) drinking	I	9 %	9 %	10 %	9,107	1 %	0.39
	C	9 %	8 %	8 %	9,419	-1 %	

Drunkenness	I C	22 % 21 %	21 % 21 %	23 % 22 %	8,975 9,305	1 % 1 %	0.73
Drinking driving	I C	2 % 2 %	1 % 2 %	1 % 1 %	9,085 9,405	-1 % -1 %	0.91
Riding with a drunk driver	I C	14 % 13 %	12 % 13 %	12 % 12 %	9,025 9,339	-2 % -1 %	0.24
Gave or sold alcohol to someone under 21***	I C	14 % 13 %	11 % 12 %	13 % 13 %	5,413 5,558	-1 % 0 %	0.34
Successful attempt to purchase alcohol****	I C	92 % 88 %	88 % 89 %	90 % 87 %	542 581	-2 % -1 %	0.56
Non-violent consequences due to alcohol use	I C	29 % 27 %	25 % 25 %	27 % 26 %	9,074 9,389	-2 % -1 %	0.48
Violent consequences due to alcohol use	I C	1 % 1 %	1 % 1 %	2 % 1 %	9,067 9,376	1 % 0 %	0.29
Commercial Source***	I C	7 % 7 %	6 % 5 %	6 % 6 %	5,040 5,235	-1 % -1 %	0.24

*I=Intervention, C=Comparison

**Adjusted for individual age, individual gender, individual race, community population, community income, community college enrollment percent, community Hispanic percent and community black percent.

***Limited to sample who had ever consumed alcohol.

****Limited to sample who ever attempted to purchase alcohol.

Table 5-6 Intervention versus Comparison Communities: Drinking Norms and Perceptions in the Cross Sectional Sample (N=18,730)

Outcome	TX*	Adjusted value**			Total N Value	Change (Y4 - Y1)	P-value (TXxTime)
		Year 1 N=6,958	Year 3 N=6,133	Year 4 N=5,639			
Difficult to obtain alcohol***	I C	10 % 10 %	10 % 10 %	9 % 9 %	5415 5565	-1 % -1 %	0.53
Most of my friends drink	I C	22 % 21 %	20 % 19 %	20 % 21 %	9058 9380	-2 % 0 %	0.55
Parents punish you for drinking	I C	76 % 78 %	76 % 79 %	77 % 80 %	8974 9298	1 % 2 %	0.96

Parents talk to you for drinking	I	89 %	90 %	90 %	7935	1 %	0.72
	C	91 %	91 %	91 %	8364	0 %	
Parents yell at you for drinking	I	60 %	60 %	62 %	8979	2 %	0.35
	C	61 %	63 %	64 %	9302	3 %	
Very likely that school officials catch you drinking	I	28 %	30 %	30 %	8963	2 %	**0.03**
	C	31 %	29 %	30 %	9292	-1 %	
Very likely that police catch you drinking	I	10 %	16 %	22 %	8949	12 %	0.64
	C	11 %	15 %	23 %	9273	12 %	
Very likely police catch you while driving drunk	I	38 %	40 %	43 %	8942	5 %	0.69
	C	36 %	40 %	42 %	9264	6 %	
People in community care about underage drinking "A great deal"	I	31 %	28 %	40 %	8985	9 %	0.60
	C	32 %	31 %	45 %	9309	13 %	

*I=Intervention, C=Comparison
**Adjusted for individual age, individual gender, individual race, community population, community income, community college enrollment percent, community Hispanic percent and community black percent.
***Limited to sample who ever drunk

Discussion and Implications

Random assignment of communities to condition was successful in achieving balance, in that there were no significant differences at baseline between the Intervention and Comparison groups in demographic variables (e.g., population, race/ethnicity, age) and outcome variables. Whites and younger youth were overrepresented in our sample. There was equal representation by gender and age.

The first set of analyses examined change over time in the cohorts of youth in the Intervention and Comparison communities. Of the 10 measures of drinking behavior examined, only one, self-reported past 30-day drunkenness, showed a statistically significant difference between youth in the Intervention and Comparison communities.

However, this difference favored the Comparison communities (i.e., as youth in the cohort aged, there was a 31% increase in drunkenness in the Intervention condition compared to a 23% increase in the Comparison condition. Of nine measures of drinking norms and perceptions, we found two statistically significant differences, both favoring youth in the Intervention communities. As youth aged, there was a smaller reduction in the Intervention communities compared to the Comparison communities in the perception that their parent would talk to them, or "yell" at them, if they were found to be drinking.

The second set of analyses examined changes over time in the repeated cross-sectional samples of youth in the Intervention and Comparison communities. Again, we examined 10 measures of drinking behavior. We found no differences between the Intervention and Comparison communities in change over time in these analyses. We also examined changes over time in drinking norms and perceptions in the repeated cross section. We found one statistically significant difference, which favored youth in the Intervention communities. Specifically, there was a slight increase over time in the Intervention communities in a perception that it is very likely that school officials would catch you drinking (from 28% to 30%), with a slight decrease in the Comparison communities (from 31% to 30%).

In summary, these analyses yielded limited evidence of the efficacy of the EUDL CT. Across the cohort and repeated cross-sectional samples, the only evidence of change in actual drinking behaviors favored the Comparison communities (past 30-day drunkenness). There was some evidence of changes favoring the Intervention communities in perceptions and norms (youths' expectations about the response of parents and school officials to drinking).

References

Research Triangle Institute. *SUDAAN User's Manual (Release 8.0).* Research Triangle Park, NC: Research Triangle Institute, 2001.

Section 5.2 Site Level Dose Analysis

The purpose of the Site Level Dose (SLD) analysis was to (1) document variation in the implementation of the EUDL-CT model across sites, and (2) conduct secondary analyses to assess impact, taking into account the variable implementation. Data from multiple sources, including the Law Enforcement Agency Survey, Local Coalition Survey, Activity Tracking System, Policy Tracking and Site Visits, were employed. The four core strategies of the intervention (compliance checks, driving while intoxicated (DWI) enforcement, other enforcement focused on social availability of alcohol, and policy) were assessed for each with respect to quantity, quality and support. A Site Level Dose (SLD) rating of 5 indicates that the site was an excellent example of the EUDL CT intervention model, 4 a strong example, 3 a modest approximation of the model, 2 for a slight approximation, and 1 where there was no more activity than would be expected of a typical community. Raters defined a site as receiving a "high dose" of the intervention if they achieved a combined score of at least 14. Sites were further categorized into groups that fell into a high dose category for both Years 1 and 2 (High Y1-High Y2 SLD sites), low dose for both Years 1 and 2 (Low Y1-Low Y2 SLD sites), a third category for either high year 1 and low year 2 or low year 1 and high year 2 (Combination SLD sites), and a fourth category for Comparison sites.

Site Level Dose Scores for EUDL-CT Sites

The SLD scores for Year 1 ranged from 5.6 to 16.8, with a mean of 11.1 (as explained in Section 2.4, these scores could range from a minimum of 4 (extremely low dose) to a maximum of 20 (extremely high dose). For Year 2, SLD scores ranged from 6.7 to 18.0, with a mean of 11.3. There were 14 Intervention sites in Year 1 and 15 Intervention sites in Year 2 that had high SLD score (SLD $\geq$ 14) (see Tables 5-7 and 5-8). There were nine sites that had high SLD score in Year 1 and Year 2, 14 sites that had low SLD score in Year 1 and 2, and 11 sites that had high SLD score in Year 1 and low SLD score in Year 2 or low SLD score in Year 1 and high SLD score in Year 2. No Comparison site had a high SLD score in Year 1 or Year 2.

Table 5-7 Number of Sites with High and Low Site Level Dose Scores, by Condition and State -- Year 1										
	Intervention					Comparison				
	State A	State B	State C	State D	State E	State A	State B	State C	State D	State E
High SLD*	5	3	2	3	1	0	0	0	0	0
Low SLD**	1	4	5	4	6	6	7	7	7	7

*SLD ≥ 14, ** SLD < 14.

Table 5-8 Number of Sites with High and Low Site Level Dose Scores, by Condition and State -- Year 2										
	Intervention					Comparison				
	State A	State B	State C	State D	State E	State A	State B	State C	State D	State E
High SLD*	5	3	3	1	3	0	0	0	0	0
Low SLD**	1	4	4	6	4	6	7	7	7	7

*SLD ≥ 14, ** SLD < 14.

Five Intervention sites in State A, 3 Intervention sites in State B, and State D, 2 Intervention sites in State C, and 1 Intervention site in State E had high SLD score in Year 1. In Year 2, 1 additional Intervention site in State C and 2 additional Intervention sites in State E had a high SLD score. There were only two sites (both in State D) that scored high in Year 1 and low in Year 2. In State A and State B, the scoring remained the same from Year 1 to Year 2 for all sites.

In addition to the SLD analysis, we assessed the number of core strategies (compliance checks, DWI enforcement, other enforcement focused on social availability of alcohol, and policy) for which the grant requirements were met. We attempted to assess this for Comparison sites, in addition to the Comparison sites. Table 5-9 shows the number of these core strategies that were implemented at a level that met the standard established by the grant, by treatment and state. Overall, 18 of the 34 Intervention sites (53%) met all four core strategies. Most of the Comparison sites (88%) met two core strategies and none of the Comparison sites met all four core strategies. Sites were classified into three groups according to the total number of the core strategies they met: met 4 core strategies (High core strategy), met 3 core strategies (Middle core strategy), and met 2 or 1 core strategies (Low core strategy).

Table 5-9 Number of Sites Met Core Strategies, by Condition and State -- Year 1 & Year 2										
	Intervention					Comparison				
	State A	State B	State C	State D	State E	State A	State B	State C	State D	State E
Met 4 Core Strategies	2	4	4	2	6	0	0	0	0	0
Met 3 Core Strategies	4	3	3	5	1	0	0	2	1	0
Met 2 Core Strategies	0	0	0	0	0	6	7	5	6	6
Met 1 Core Strategy	0	0	0	0	0	0	0	0	0	1

Cohort sample Results

Within the cohort youth sample, we analyzed changes in primary outcomes (i.e., behaviors) and secondary outcomes (i.e., attitudes) between the 2004, 2005, 2006 and 2007 Youth Surveys in the 68 sample communities. This involved 6,807 observations on 2,555 individuals. The analyses summarized in Table 5-10 tested whether the high SLD or high core strategy sites showed greater positive change in youth behavior or attitudes outcomes than what occurred in either the low SLD/core strategy sites or the comparison sites after adjusting co-variables (respondent race, gender, baseline age, school enrollment, percent Hispanic in community, percent black in community, income quartile, and population quartile, and individual and community clustering). There were statistically significant changes favoring the high SLD/core strategy sites from 2004 to 2007 in several outcomes for the cohort (indicated in bold in Table 5-10). These included self-reported drunkenness, riding with a drinking driver, most of one's friends drinking, an expectation that parents would "yell" at one for drinking, and a perception that people in the community care "a great deal" about underage drinking.

Table 5-10 SLD Analysis & Number of Core Strategies Met Results: Cohort Youth Sample		
Outcome	**Categorical SLD[1] (P-value)**	**Number of Core Strategies Met[2] (P-value)**
Last 30-day alcohol use	0.6268	0.7755
Heavy episodic (binge) drinking	0.5684	0.2852
Drunkenness	**0.0179**	**0.0189**
Drinking driving	0.6805	0.7393
Riding with a drunk driver	**0.0115**	0.6716

Non-violent consequences due to alcohol use	0.5394	0.2132
Violent consequences due to alcohol use	0.7725	0.3112
Commercial Source*	0.6431	0.2875
Gave or sold alcohol to someone under 21*	0.3075	0.9838
Attempt to purchase alcohol	0.6493	0.9320
Successful attempt to purchase alcohol**	0.2060	0.5384
Difficult to obtain alcohol*	0.5642	0.1393
Most of my friends drink	0.0797	**0.0372**
Parents would punish for drinking	0.0891	0.7912
Parents would talk to me for drinking	0.1249	0.1130
Parents would yell at me for drinking	0.2929	**0.0058**
Very likely that school officials catch me drinking	0.0846	0.7122
Very likely that police would catch me drinking	0.0538	0.3631
Very likely police would catch me while driving drunk	0.5757	0.9364
People in community care about underage drinking "a great deal"	**0.0119**	0.1271

[1]Categorical SLD (High Y1-High Y2 sites; Combination of High and Low sites; Low Y1-Low Y2 sites; Comparison sites)
[2]Number of Core Strategies Met (Met 4 core strategies sites; Met 3 core strategies sites; Met 1 or 2 core strategies sites)
*Limited to sample who ever drunk.
**Limited to sample who ever attempted to purchase alcohol.

Cross Sectional sample Results

For the cross sectional youth sample, we conducted the same SLD analysis as we did for cohort youth sample. The Cross Sectional Youth Survey was conducted in 2004, 2006 and 2007. There was no cross sectional data collection in 2005. The total sample size was 18,730. The analyses summarized in Table 5-11 tested whether the high SLD sites or sites with high core strategies showed greater positive change in youth behavior or attitudinal outcomes than what occurred in either the low SLD or comparison sites and sites with fewer core strategy met after adjusting for co-variables (respondent race, gender, age, school enrollment, percent Hispanic in community, percent black in community, income quartile, and population quartile, and community clustering). There were statistically significant changes from Year 1 (2004) to Year 4 (2007) in several outcomes (see Table 5-11). These included reductions in riding with a drinking driver, having a commercial

source of alcohol, and attempting to purchase alcohol, as well as increases in an expectation that it is very likely that school officials would catch one drinking, police would catch one drinking, and people in the community caring "a great deal" about underage drinking.

Table 5-11 SLD Analysis & Number of Core Strategies Met Results: Cross Sectional Youth Sample

Outcome	Categorical SLD[1] (P-value)	Number of Core Strategies Met[2] (P-value)
Last 30-day alcohol use	0.3952	0.9475
Heavy episodic (binge) drinking	0.1077	0.1592
Drunkenness	0.1095	0.4438
Drinking driving	0.7896	0.1401
Riding with a drunk driver	0.3122	**0.0295**
Non-violent consequences due to alcohol use	0.0780	0.2694
Violent consequences due to alcohol use	0.0767	0.1672
Commercial Source*	0.0505	**0.0445**
Gave or sold alcohol to someone under 21*	0.1462	0.4804
Attempt to purchase alcohol	**0.0001**	0.6989
Successful attempt to purchase alcohol**	0.3933	0.9018
Difficult to obtain alcohol*	0.4021	0.4608
Most of my friends drink	0.7737	0.4792
Parents would punish for drinking	0.6592	0.6307
Parents would talk to me for drinking	0.7927	0.8488
Parents would yell at me for drinking	0.8308	0.1656
Very likely that school officials catch me drinking	0.1752	**0.0057**
Very likely that police would catch me drinking	**0.0281**	0.9105
Very likely police would catch me while driving drunk	0.5467	0.4570
People in community care about underage drinking "a great deal"	**<0.0001**	0.6564

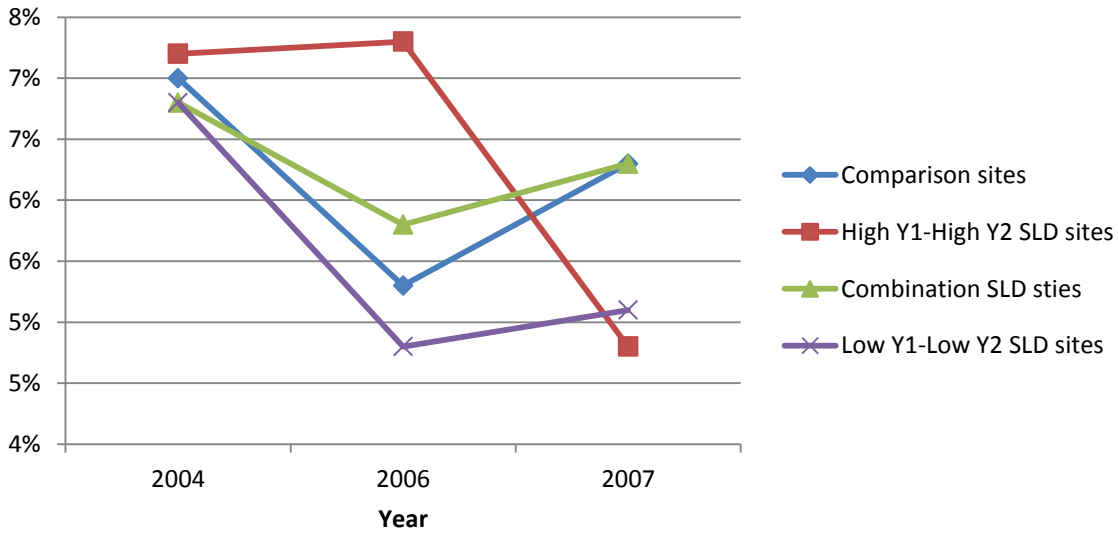
[1]Categorical SLD (High Y1/High Y2 sites; Combination of High and Low sites; Low Y1/Low Y2 sites; Comparison sites)
[2]Number of Core Strategies Met (Met 4 core strategies sites; Met 3 core strategies sites; Met 1 or 2 core strategies sites)
*Limited to sample who ever drunk.
**Limited to sample who ever attempted to purchase alcohol.

Analysis of Outcomes by Site Level Dose

Commercial Source of Alcohol

Figure 5-1 examines the prevalence of respondents reporting a commercial source for the last alcohol consumed, by SLD category. There was a statistically significant change favoring the high SLD sites from 2004 to 2007. The prevalence of youth reporting using a commercial source decreased from 2004 to 2006 and increased from 2006 to 2007 among all groups except the High Y1-High Y2 SLD sites. In the High Y1-High Y2 SLD sites, the rate was about same from 2004 to 2006, and then dramatically decreased from 2006 to 2007.

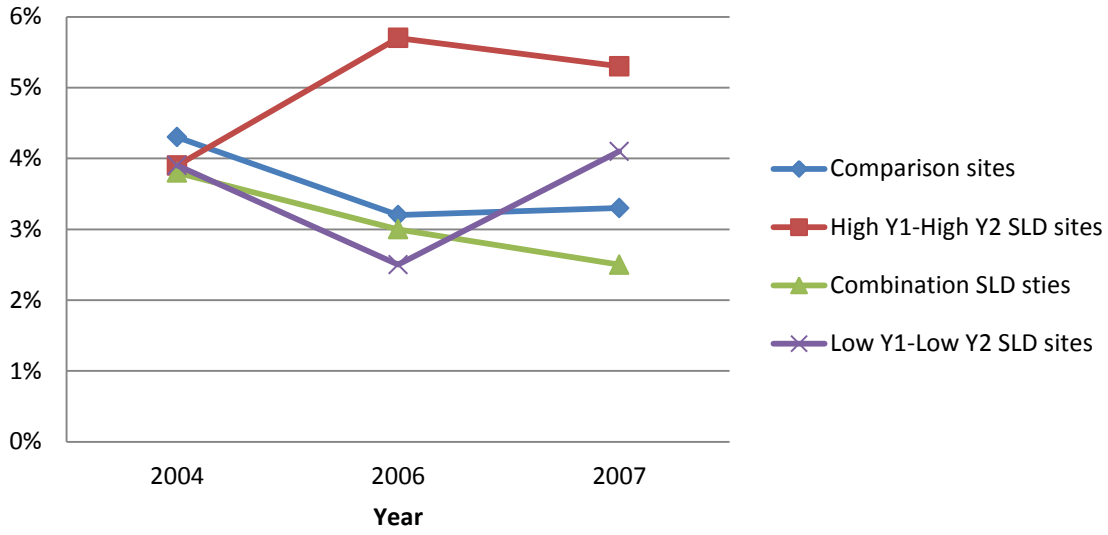
Figure 5-1
Prevalence of Commercial Source of Alcohol
by Categorical SLD Sites – Cross Sectional Sample (p=0.05)



Attempt to Purchase Alcohol

Figure 5-2 shows the prevalence of respondents who reported attempting to purchase alcohol, by SLD category. There were statistically significant changes favoring the Combination SLD from 2004 to 2007. In the Combination sites, the prevalence decreased continuously from 2004 to 2007, while the direction in the other groups varied from year to year. In the High Y1-High Y2 SLD sites, the rate dramatically increased from 2004 to 2006, and then decreased some from 2006 to 2007.

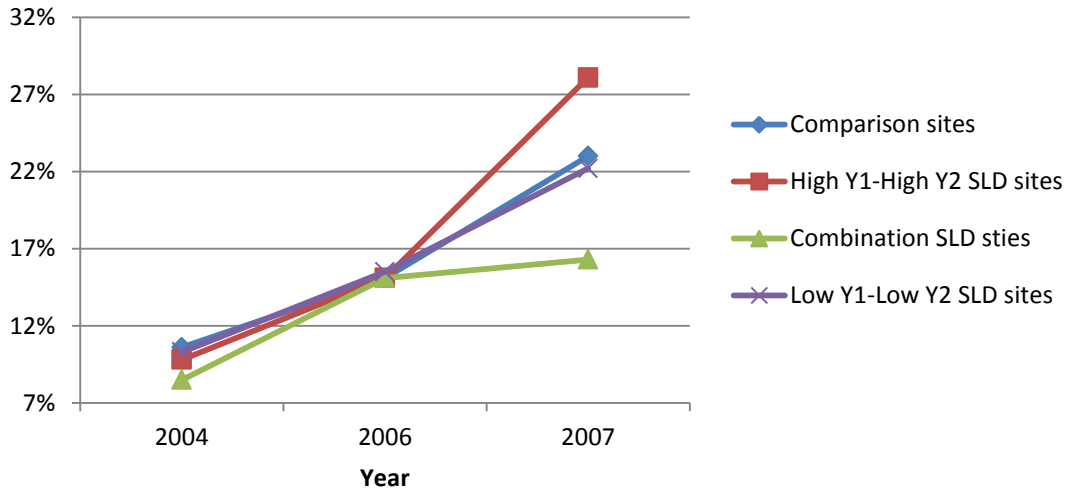
Figure 5-2
Prevalence of Attempt to Purchase Alcohol
by Categorical SLD Sites – Cross Sectional Sample (p=0.0001)



Likelihood of Getting Caught by Police

Figure 5-3 examines youths' perceived likelihood of getting caught by police for underage drinking. There was a significant increase in a perception that it was likely that they would get caught by police in the High Y1-High Y2 SLD sites. The trend of the rate was about the same in Comparison and Low Y1-Low Y2 SLD sites. In the Combination sites, the rate stayed at the lowest level through all study years.

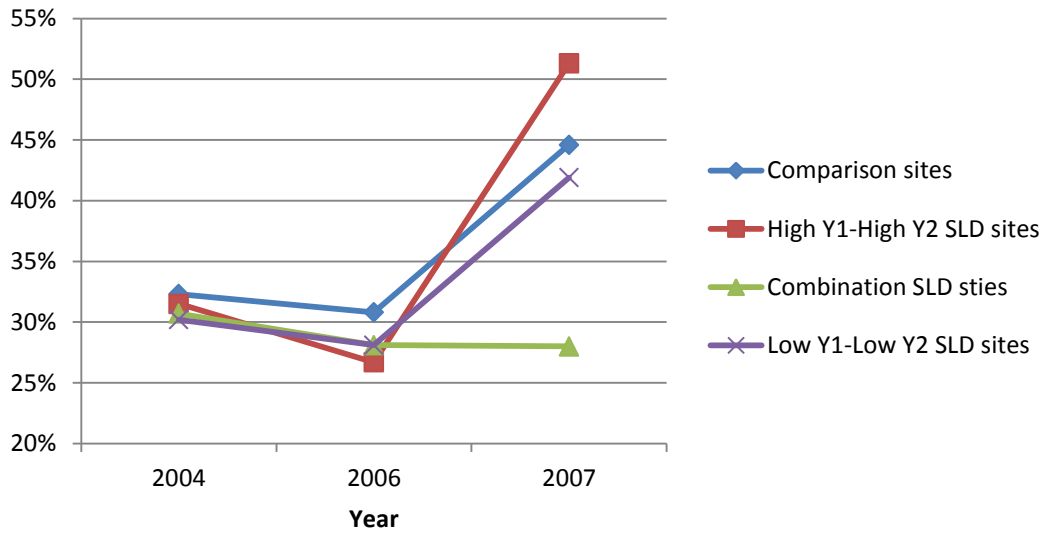
Figure 5-3
Prevalence of Perceived Likelihood of Getting Caught by Police
by Categorical SLD Site – Cross Sectional Sample (p=0.02)



Perception that the Community Cares about Underage Drinking

Figure 5-4 examines youths' perception about the community caring a great deal about underage drinking. There was a significant increase in this perception in the High Y1-High Y2 SLD sites. The trend of the rate was about the same in Comparison and Low Y1-Low Y2 SLD sites. In the Combination sites, the rate remained low through all study years.

Figure 5-4
Prevalence of Perceived the Community Cares about Underage Drinking
"A Great Deal" by Categorical SLD Site – Cross Sectional Sample (p <0.0001)

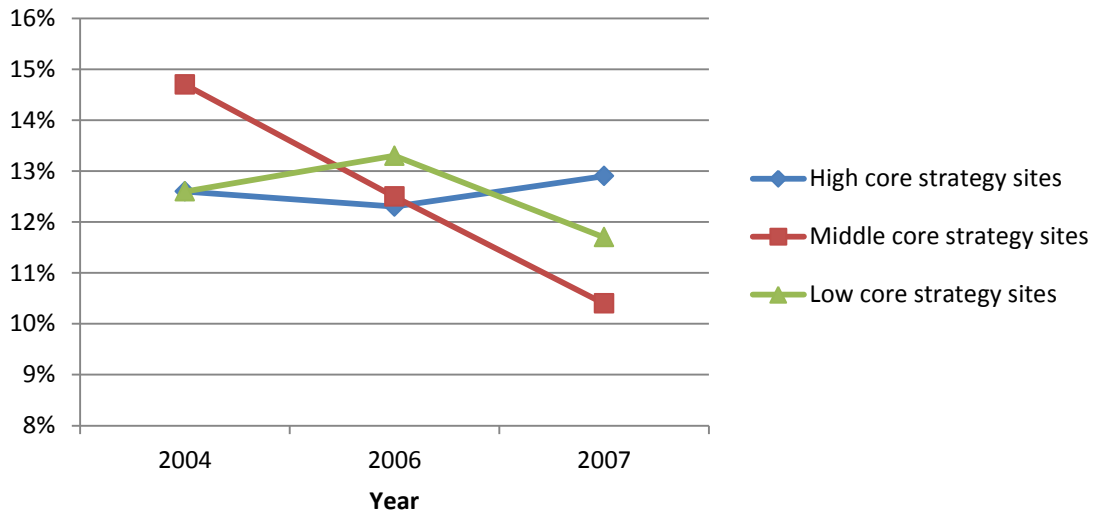


Analysis of Outcomes by Number of Core Strategies Met

Riding with a Drunk Driver

Figures 5-5 examines the prevalence of respondents reporting riding with a drinking driver. The rate continuously decreased in the Low core strategy sites during the study years. In the High core strategy sites, the rate decreased from 2004 to 2006, but increased from 2006 to 2007.

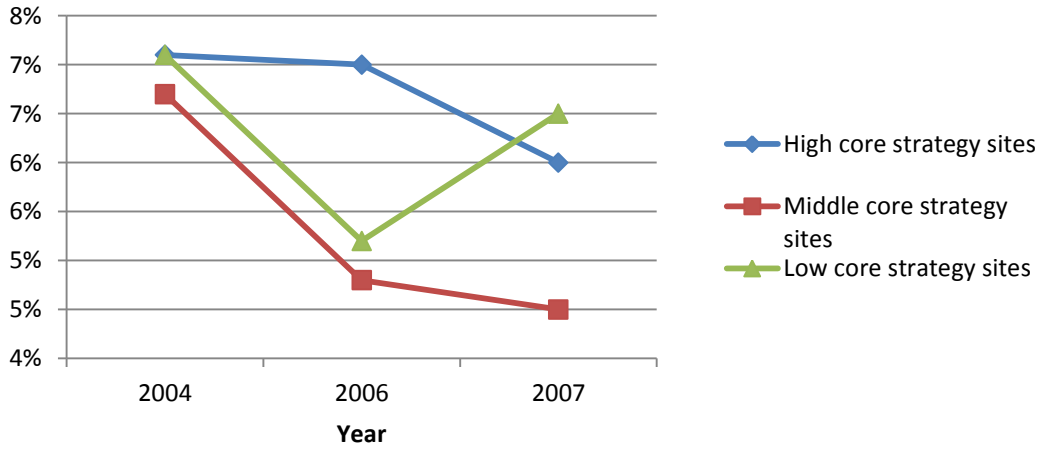
Figure 5-5
Prevalence of Riding with a Drunk Driver
by Categorical Core Strategy Site – Cross Sectional Sample (p=0.04)



Commercial Source of Alcohol

Figure 5-6 examines the prevalence of respondents reporting a commercial source of alcohol by the number of core strategies met. The prevalence of a commercial source decreased over the study years in the high core strategy sites, but the rate dramatically decreased from 2004 to 2006 and increased to the highest rate from 2006 to 2007 in the low core strategy sites.

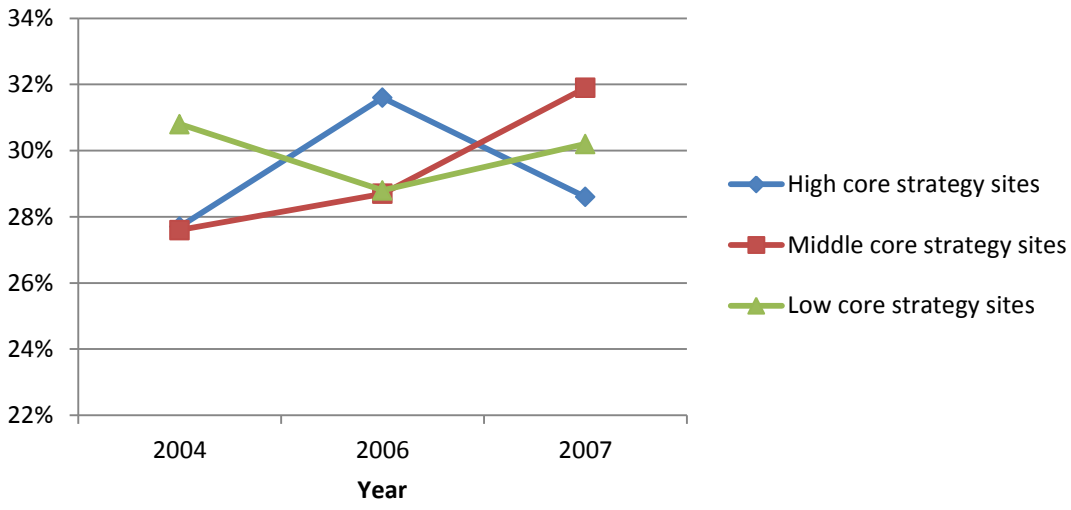
Figure 5-6
Prevalence of Commercial Source of Alcohol
by Categorical Core Strategy Site – Cross Sectional Sample (p=0.04)



Likelihood of Getting Caught by School Officials

Figure 5-7 examines youths' perceptions of there being a high likelihood of getting caught by school officials for underage drinking. There was a significant increase in the prevalence in the High Y1-High Y2 SLD sites from 2004 to 2006, but a decrease of almost same percentage from 2006 to 2007. The rate in the Middle core strategy sites increased steadily through all study years.

Figure 5-7
Prevalence of Perceived Likelihood of Getting Caught by School Officials by Categorical Core Strategy Site – Cross Sectional Sample (p=0.02)



Discussion and Implications

The purpose of the SLD analysis was to offer a secondary analysis examining the relationship between degree of implementation of the EUDL intervention and youths' drinking attitudes and behaviors. The SLD analysis point out where higher level of implementation resulted in "better" outcomes.

There were three findings in which sites that had higher levels of implementation of the EUDL intervention showed more favorable outcomes. In the cohort sample, youth in sites that showed high levels of implementation of core strategies showed less of a reduction as they aged in the perception that parents would yell at them if they were caught drinking than youth living in sites with lower levels of implementation. In the cross sectional sample, youth who lived in sites with high levels of SLD showed larger increases over time in perceptions that it is likely that they would be caught by police for underage drinking than youth living in other sites. There were comparable increases in the high SLD sites in

the perception that the community "cares a great deal" about underage drinking.

Thus, the SLD analyses provide some evidence that sites with higher levels of implementation of the EUDL intervention also had better outcomes. However, this evidence is limited to normative outcomes—including expectations about parental and police sanctions, and about the community's level of concern about underage drinking. It did not extend to behavioral outcomes, such as actual drinking practices, and experiencing negative consequences from underage drinking.

Section 5.3
Law Enforcement Agency Survey

The purpose of the Law Enforcement Agency (LEA) Survey was to assess the impact of the EUDL Community Trial (EUDL-CT) on law enforcement agencies. The survey focused on the level and form of enforcement efforts related to youth alcohol use in the community, as well as perceived support for, and barriers to, underage drinking enforcement. Within the EUDL-CT program, the focus of local community efforts was primarily at the city level rather than the county level. Therefore, the analyses focused on police department data.
The purpose of the Law Enforcement Agency (LEA) Survey was to assess the impact of the EUDL Community Trial (EUDL-CT) on law enforcement agencies. The survey focused on the level and form of enforcement efforts related to youth alcohol use in the community, as well as perceived support for, and barriers to, underage drinking enforcement. Within the EUDL-CT program, the focus of local community efforts was primarily at the city level rather than the county level. Therefore, the LEA data was analyzed using only police department data, since they are the most appropriate sample to examine, given this context.

Grant Requirements Related to Law Enforcement Activities

Three of the four grant requirements for intervention communities involved the implementation of law enforcement strategies to reduce underage drinking (Numbers 1 through 3, below). The grant requirements for EUDL-CT were as follows:

1. By the end of the intervention period, communities participating in the EUDL discretionary grant program will have implemented at least two compliance check operations in at least 90% of off-premise alcohol outlets per year
2. By the end of the intervention period, communities participating in the EUDL discretionary grant program will conduct at least one Driving While Intoxicated (DWI) enforcement operation with a focus on youth.
3. By the end of the intervention period, communities participating in the EUDL discretionary grant program will conduct at least one additional enforcement operation focused on social availability.
4. By the end of the intervention period, communities participating in the EUDL discretionary grant program will have adopted at least one new institutional or public policy (or improvement in at least one existing policy) related to underage drinking

Examples of each law enforcement activity are described in further detail below and results are presented in Table 5-12.

Grant Requirement 1: Compliance Checks

Compliance Checks are used to determine compliance or non-compliance of minimum purchase age laws on the part of establishments that sell alcohol. Compliance checks can be used for two purposes: 1) to enforce criminal or civil state statutes or local ordinances, and 2) to identify, warn and educate alcohol establishments that serve or sell alcohol to underage youth about the penalties for violating the minimum purchase age laws. Compliance check investigations involve enforcement officers working with persons under age 21 (often referred to as a "decoy" or "undercover youth") who attempt to purchase or order an alcoholic beverage in an effort to test the compliance of an alcohol establishment. The attempt to purchase occurs while either an enforcement agent waits outside the premise, or observes from a distance. If the alcohol establishment sells alcohol to the young person, the enforcement agent may issue a citation to the seller/server, the establishment, or both.

The number of agencies that reported conducting compliance checks in the Intervention communities grew from 74% at baseline to 97% by the end of the grant period, while Comparison communities decreased from 72% at baseline to only 69% at follow-up (see Table 5-12). This change is statistically significant (p=0098). Additionally, the average number of off-premise outlets that received two or more compliance checks increased in the intervention communities from 20.9 to 35.0 and decreased in the comparison communities from 21.1 to 15.9. This difference between communities approached statistical significance at p=0.06

Grant Requirement 2: DWI Enforcement

Emphasis/Saturation Patrols are enforcement operations in which specific geographic areas are targeted in order to identify and arrest impaired drivers.

The percentage of agencies that reported conducting emphasis/saturation patrol operations in the Intervention communities fell from 100% at baseline to 86% by the end of the grant period. Comparison communities remain unchanged at 89% at baseline and follow-up (see Table 5-12). This difference was not statistically significant.

Sobriety Checkpoints Operations are enforcement operations that involve stopping vehicles at certain points on the roadway to examine drivers for signs of alcohol or drug impairment. The vehicles are stopped in a specific sequence (e.g., every 5th vehicle, every 10th vehicle).

The percentage of agencies that reported conducting sobriety checkpoint operations in the Intervention communities increased slightly (from 85% at baseline to 88% by the end of the grant period), while decreasing slightly in Comparison communities (86% at baseline to 84% at follow-up) (this difference was not statistically significant) (see Table 5-12).

Grant Requirement 3: Social Availability Enforcement

Party Patrols are enforcement operations in which law enforcement officials routinely monitor, investigate and shut down any underage gatherings where alcohol is present. These gatherings may occur in private homes, hotels, vacant lots, public parks, woods, beaches, parking lots and any other areas where minors may congregate and engage in underage drinking. Party patrols were considered an example of a strategy to reduce social availability of alcohol in the EUDL-CT program.

The percentage of agencies that reported conducting party patrol operations in the Intervention communities grew from 43% at baseline to 79% by the end of the grant period, while decreasing in Comparison communities from 52% to 46% (see Table 5-12). This change was statistically significant (p=.0275).

Shoulder Tap Operations are enforcement operations that use an undercover youth working with a law enforcement officer to solicit an adult to purchase alcohol for him/her after indicating he/she is under the legal age to purchase. If the adult complies with this request and purchases alcohol for the youth, he/she is cited by the law enforcement officer for furnishing alcohol to a minor. Shoulder Tap operations were considered an example of a strategy to reduce social availability of alcohol in the EUDL-CT program.

The percentage of agencies that reporting conducting shoulder tap operations in the Intervention communities grew from 22% at baseline to 42% by the end of the grant period, while decreasing in Comparison communities from 37% at baseline to only 26% at follow-up (see Table 5-12). This change was not statistically significant (p=.3362).

Table 5-12 Underage Drinking Enforcement Efforts in EUDL-CT Intervention and Comparison Communities Police Department Data Only

		Adjusted Value				P-value for Treatment by Time Interaction
Outcome	**Condition**	**Yr 1 2004**	**Yr 2 2005**	**Yr 3 2006**	**Yr 4 2007**	**Over All 4 years***
		Baseline	Intervention		Follow-up	
Grant Requirement 1: Compliance Checks						
Performed CC (Yes)	I	74%	97%	100%	97%	.009
	C	72%	57%	78%	69%	
Avg. number of outlets that received 2 or more compliance checks (off-premise outlets)	I	20.9	19.7	40.5	35.0	.066
	C	21.1	16.7	10.5	15.9	
Grant Requirement 2: DWI Operation						
Conducted Sobriety Checks (Yes)	I	85%	89%	91%	88%	.858
	C	86%	87%	82%	84%	

Conducted Emphasis Patrols (Yes)	I	100%	90%	93%	86%	.373
	C	89%	78%	90%	89%	
Grant Requirement 3: Social Availability Operations						
Conducted Party Patrols (Yes)	I	43%	40%	72%	79%	.027
	C	52%	29%	31%	46%	
Rate of party patrols per 100,000 population	I	14.5	21.7	30.8	9.2	.366
	C	21.5	15.6	9.9	15.0	
Used the following law to address underage drinking at house parties:						
Noise Ordinance*	I		82%	79%	69%	.204
	C		83%	58%	79%	
Disorderly Premise*	I		55%	59%	49%	.215
	C		58%	33%	55%	
Sale of alcohol without a License*	I		23%	28%	25%	.193
	C		35%	14%	40%	
Furnishing alcohol to underage person*	I		79%	86%	73%	.3369
	C		81%	72%	83%	
Restrictions on Occupancy*	I		26%	20%	18%	.169
	C		35%	4%	23%	
Contacted owners/landlords to warn or cite due to underage drinking at parties on property (Yes)	I	61%	51%	64%	64%	.443
	C	58%	76%	62%	77%	
Used following method to enforce underage drinking laws:						
Shoulder Tap Program	I	22%	43%	52%	42%	.336
	C	37%	36%	41%	26%	
Parking Lot Patrols	I	78%	74%	79%	82%	.531
	C	81%	82%	66%	74%	
Respond to citizen complaints	I	96%	99%	100%	100%	**
	C	100%	98%	93%	98%	
Trace source of alcohol	I	64%	67%	66%	83%	.474
	C	67%	86%	72%	78%	

Hotline for reporting underage drinking	I	8%	12%	3%	26%	.205
	C	11%	14%	21%	18%	
Analyses performed using GEE adjusting for number of sworn personnel, year, condition, and condition-year interaction						
* 2004 data eliminated -2005 baseline; ** P-value not available; Range of Total N per year = 14						

Level of Priority for Law Enforcement Agencies

Figures 5-8 through 5-11 examine enforcement of underage drinking laws in the broader context of alcohol, drug, and tobacco law enforcement efforts. At baseline, a little over a third of agencies in Intervention communities reported that the enforcement of laws prohibiting underage people from purchasing alcohol, enforcement of laws prohibiting alcohol sales to underage people, and enforcement of laws against furnishing alcohol to underage persons was one of the highest priorities of the agency (38%, 20%, and 20% respectively) (see Figures 5-8 – 5-11). Each of these increased over the course of the intervention to 48%, 42%, and 39%, indicating that the issue of underage drinking grew as a priority, although the increases were not statistically significant.

Figures 5-8 – 5-11
Underage Alcohol Enforcement as
Law Enforcement Agency Priority (% High Priority)

Figure 5-8
Driving Under the Influence

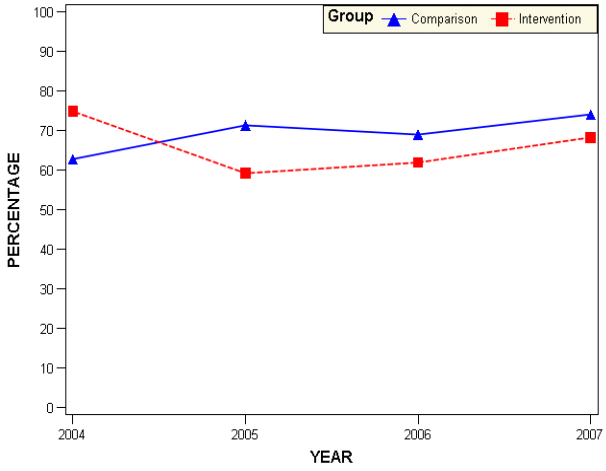


Figure 5-9
Underage Purchase/Possession of Alcohol

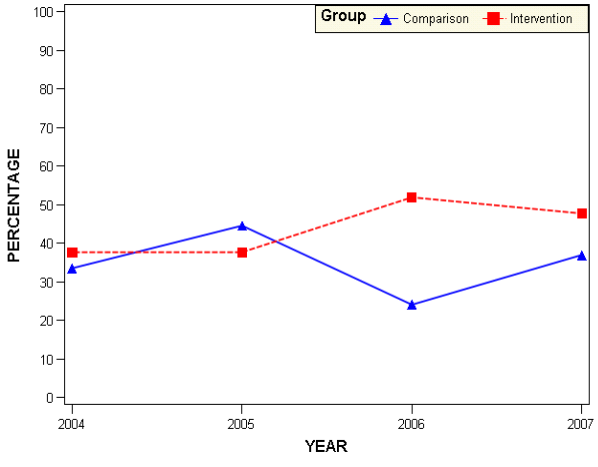


Figure 5-10
Sale of Alcohol to Underage

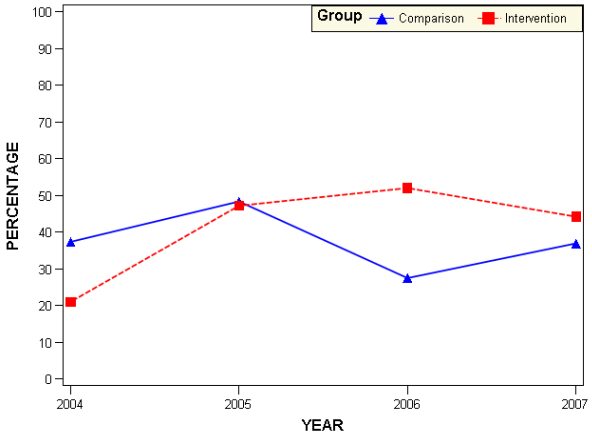
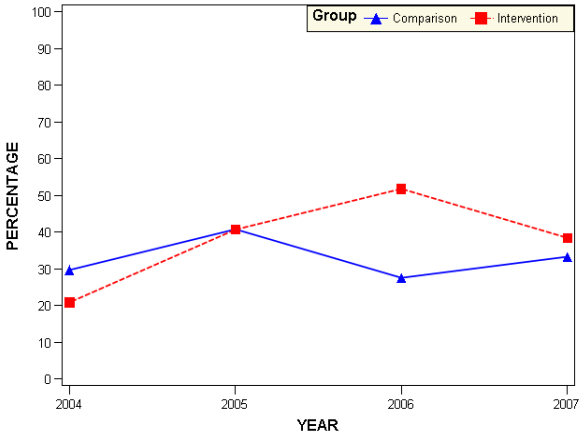


Figure 5-11
Furnishing of Alcohol to Underage



Police departments in the Intervention communities reported conducting checks as joint operations with other agencies more often than police departments in the Comparison communities (Figure 5-12). This difference is statistically significant (p=0.049). Specifically, they were more likely to partner with their state ABC/Liquor Commission (p=0.022) compared to those in Comparison communities (Figure 5-13).

Figure 5-12
Perceived Compliance Checks Involving a Joint Operation with another Agency

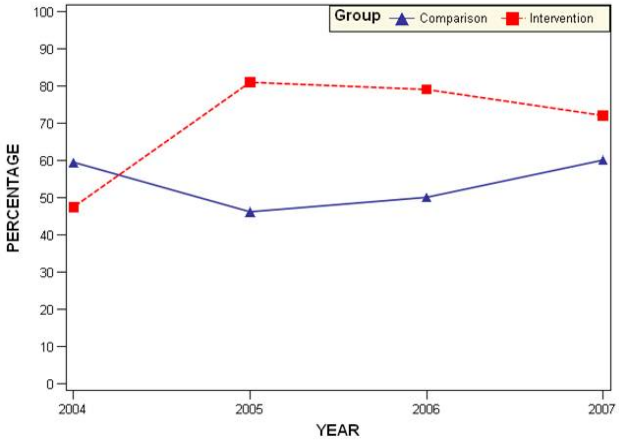
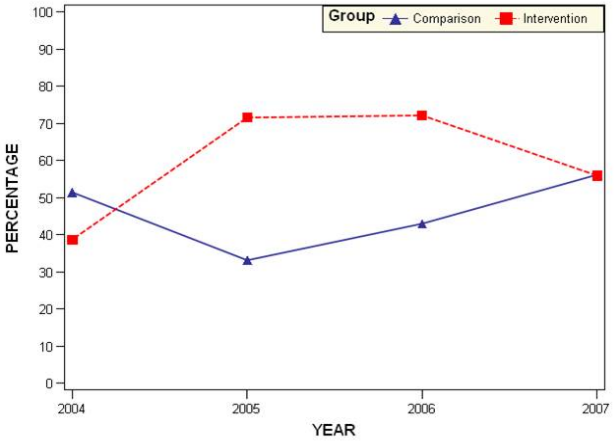


Figure 5-13
Partnered with ABC/Liquor Commission

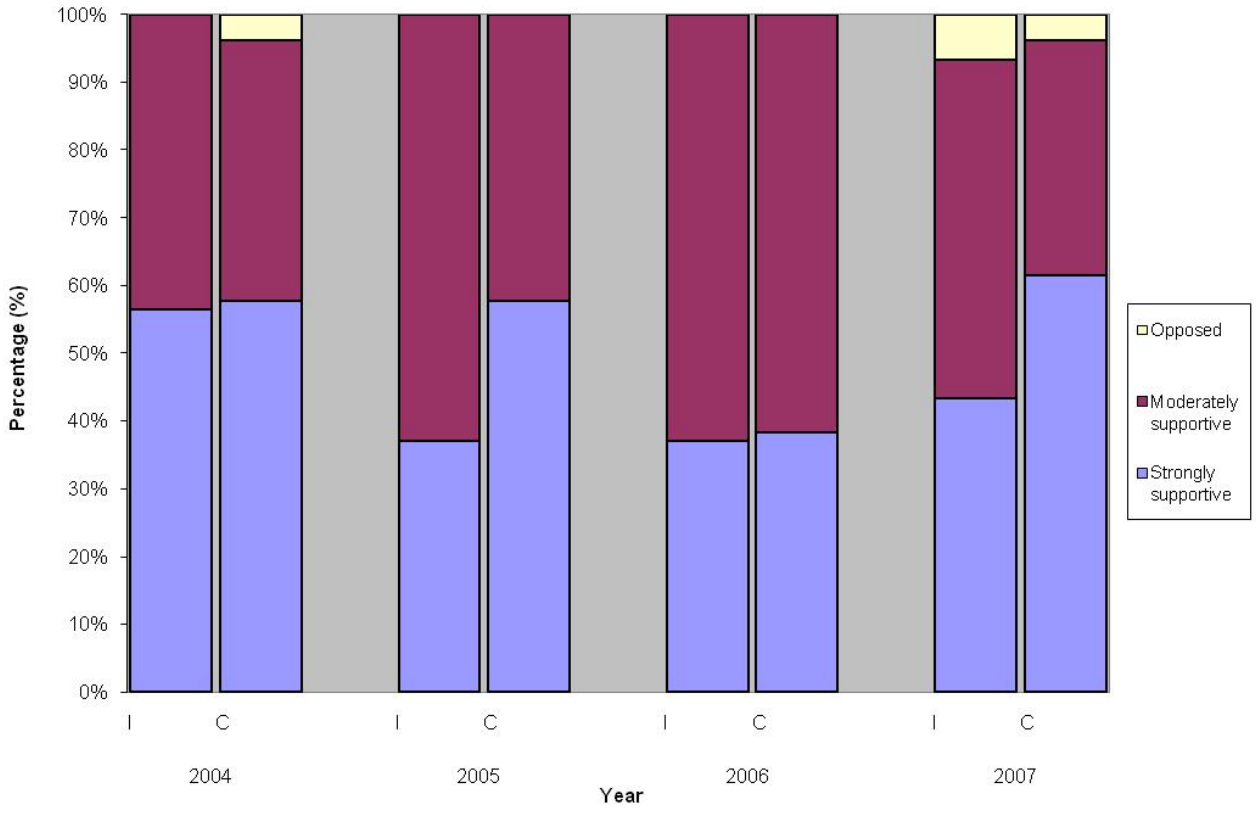


Police departments in the Intervention communities were more likely than comparison communities to conduct joint compliance check operations, a finding that is statistically significant (p=0.0493). They were more likely to partner with their state ABC/Liquor Commission (p=0.022), also statistically significant.

Agencies that conducted compliance checks reported a variety of methods for selecting outlets, including checking outlets that were previously found to be noncompliant, on a random basis, and checking outlets near schools. Differences between Intervention and Comparison communities were not significantly different ($p<0.05$) though.

Figure 5-14 describes law enforcement's perception of community support for enforcing age-of-sale laws Respondents reported high levels of community support for enforcing alcohol age-of-sale laws. For police departments in Intervention communities, 100% characterized the community at large as being strongly or moderately supportive at baseline and through Year 3. This dropped slightly to 93% in Year 4. In Comparison communities, 96% of police departments characterized the community at large as being strongly or moderately supportive at baseline. This increased to 100% in Years 2 and 3, and dropped to baseline level in Year 4. In taking a closer look at community support over the course of the grant, 54% of Comparison community respondents characterized their community as strongly supportive. Forty-four percent indicated their community was only moderately supportive, and 2% thought that their community was moderately or strongly opposed. Contrasting that with responses from Intervention sites, 43% felt the community was strongly supportive, while 55% thought the community was moderately supportive. Only 1% responded that the community was moderately or strongly opposed.

Figure 5-14
Law Enforcement Agency Perceptions of Local Support with Respect to Enforcing Age-of-Sale Laws



Police departments were also asked about community activity in working to influence enforcement practices concerning alcohol sales to underage people. Of the eight groups (mayor, local coalitions/advocacy groups, Alcohol Beverage Control/Alcohol Beverage Tobacco (ABC), State Police or State Department of Public Safety, City or County Council, City/County Health Department, local college or university, other City or County officials), only City/County Health Department was rated as "very active" in Intervention communities more often than in Comparison communities (p=0.044).

Discussion and Implications

As described in the Year 1 report (Wolfson et al., 2005), all of the key variables examined were found to be evenly balanced across the Intervention and Comparison conditions, setting the stage for comparisons between the I and C communities over time.

The final analysis of four years of LEA data showed that strategies to reduce underage drinking were somewhat different in Intervention communities compared to Comparison communities. Intervention sites more often implemented best and most promising practices, supported by the EUDL-CT initiative, over the course of the grant. For example, two key strategies, *conducted compliance check in the past 12 months* and *conducted party patrols in the past 12 months,* showed statistically significant differences between the Intervention and Comparison communities. This demonstrates law enforcement agencies' commitment to implementing strategies required for the EUDL-CT grant and indicates police departments in Intervention sites were able to mobilize and conduct these enforcement efforts often, given appropriate resources.

Slight upward trends were observed in the ranking of underage drinking as high priorities for law enforcement agencies in Intervention communities. Laws prohibiting underage people from purchasing or possessing alcohol, enforcement of laws prohibiting alcohol sales to underage people, and enforcement of laws against furnishing alcohol to underage persons all increased over the course of the grant in the Intervention communities, while DUI remained fairly stable. These findings, however, weren't statistically significant.

In terms of community support, we found that, at baseline (2004) and through Year 3, 100% of police departments in Intervention communities characterized their community as being either strongly supportive or moderately supportive of efforts to enforce alcohol age-of-sale laws. This dropped slightly in the final year to 93%. In looking more closely at community support and comparing *strongly supportive, moderately supportive, and moderately/strongly opposed,* we found that a higher percentage of law enforcement agencies in the Comparison communities (54%) thought that their local communities were *strongly supportive* of their efforts to enforce underage drinking laws and ordinances than in the Intervention communities (44%). More respondents (55%) in the Intervention communities reported *moderate support* compared to Comparison communities (44%) A similar trend was found in the National Evaluation of the Enforcing Underage Drinking Laws (EUDL) program (Wolfson et al., 2003). This finding was supported when looking at the number of police departments in Intervention communities who reported "very active" involvement by community partners. Only one of the seven groups (the City/County Health Department) was reported to be "very active" by Intervention police departments more often than police departments in Comparison communities (p=0.044). The

activity of the other seven groups did not differ significantly between the Intervention and Comparison communities.

Since the focus of EUDL-CT was to enforce underage drinking laws through community coalitions, these findings suggest that law enforcement agencies in Intervention communities may have a better idea of the community's true support for law enforcement efforts compared to law enforcement agencies that are not part of a larger group. Working with the community coalition to implement enforcement efforts in a strategic way may have introduced new obstacles through which the community and law enforcement had to work. Finally, law enforcement officials in the Intervention communities were faced with increasing their enforcement efforts in order to meet the grant requirements. This is an important consideration as the perception of law enforcement remained high (*moderately* or *strongly supportive*), even with the increased requirements.

References

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Section 6 Sustainability

Purpose

We have presented overall results from the EUDL-CT program while outlining achievements and specific community-level outcomes. In considering these results, it is important to also examine how and if communities changed their overall approach to addressing underage drinking as a result of the EUDL-CT. Examining sustainability of the EUDL-CT model in the study communities is important since it provides an indication of the staying power of the program tenets of environmental changes after initial funding has ended.

Methods

Data from a number of instruments were used to assess sustainability of enforcement activities and the coalition in each intervention community. Instruments included Site Visit interviews, the Local Coalition Survey, and the Law Enforcement Agency Survey.

The EUDL-CT model included a coalition and law enforcement activities focused on prevention of underage drinking. In order to assess sustainability, a typology was created to provide a picture of sustained activities in the Intervention sites. The typology included four categories: *Coalition and Enforcement Sustained; Coalition Only Sustained; Enforcement Only Sustained; and Neither Coalition nor Enforcement Sustained.*

Sustainability was characterized using a typology consisting of four categories:

-Coalition and Enforcement Sustained

-Coalition Only Sustained

-Enforcement Only Sustained

-Neither Coalition nor Enforcement Sustained

Coalitions were considered sustained if either of the following criteria were met:

1) Anyone interviewed during the site visit indicated that the coalition still existed and that they planned to keep the coalition going after grant funding ended.

2) A "yes" response to the following question on the Local Coalition Survey, which was fielded after the grant ended: *Is the EUDL-CT coalition still in place and carrying out the objectives of the EUDL-CT program?*

Enforcement activities were considered sustained if any of the following criteria were met:

1) The law enforcement agency representative interviewed during the site visit indicated that any of the EUDL-CT enforcement activities were being conducted after the grant funding ended (i.e. compliance checks, DWI operations such as emphasis patrols and sobriety checkpoints, social availability operations). Sites were not required to conduct the operations at the frequency the grant required. However, the operations had to be conducted more often than they were prior to the EUDL-CT grant.

2) Local coordinators and coalition members were also asked about law enforcement activities during the annual site visits. Interviewees were asked the following questions to gain a better understanding of the enforcement activity from the coalition's perspective.

    a. *Are EUDL-CT enforcement activities still being carried out? (This could include compliance checks, DWI operations, and/or social availability operations).*

    b. Did your coalition/community do enforcement activities (compliance checks, etc.) before the EUDL-CT program?

    c. Is it feasible to fit these (EUDL-CT designated enforcement operations) into normal patrol duties or is additional funding necessary?

Sustainability

The number of sites in each of the sustainability categories is shown in Table 6-1.

Table 6-1 Number of Sites Sustaining Coalition and/or Enforcement Efforts

		Enforcement Efforts	
		Yes	**No**
Coalition	**Yes**	18	5
	No	5	6

Table 6-2 shows the sustainability of sites within each state. In two of the five states (State C and State E), some type of EUDL-CT activity was sustained in every site after the grant ended. Across the states, only six out of 34 intervention sites (18%) reported no coalition or enforcement efforts post grant. Over half (18, or 53%) of the intervention sites reported that their coalition and their enforcement activities were continuing after the EUDL-CT ended.

Five intervention sites (15%) reported that they were focusing only on the continuation of their coalition, and had ended their enforcement efforts, after the EUDL-CT ended. An additional five sites (15%) reported that they were continuing enforcement efforts, but were not continuing the coalition, after the EUDL-CT ended. Finally, six sites (17%) reported that they were continuing neither the coalition nor enforcement efforts after the EUDL-CT was completed.

Table 6-2 Sustainability of Coalition and Enforcement Efforts by State

States	Number of Sites Sustained [N, (%)]			
	Coalition and Enforcement	Coalition Only	Enforcement Only	Neither Coalition nor Enforcement
State A	3/6 (50%)	0/6 (0%)	2/6 (33%)	1/6 (17%)
State B	4/7 (57%)	1/7 (14%)	0/7 (0%)	2/7 (29%)
State C	3/7 (43%)	3/7 (43%)	1/7 (14%)	0/7 (0%)
State D	3/7 (43%)	0/7 (0%)	1/7 (14%)	3/7 (43%)
State E	5/7 (72%)	1/7 (14%)	1/7 (14%)	0/7 (0%)
TOTAL	**18/34 (53%)**	**5/34 (15%)**	**5/34 (15%)**	**6/34 (17%)**

Time period from end of state contract to data collection:
State A – 8 months; State B – 4 months; State C – 7 months; State D - 3 months; State E – 7 months

Discussion

83% of sites reported sustaining some type of activity related to the EUDL-CT model.

Overall, 83% of sites (28/34) reported sustaining some type of activity related to the EUDL-CT model. Over half reported sustaining the coalition focused on underage drinking and some type of enforcement related activity (i.e., compliance checks, DWI operations such as emphasis patrols or sobriety checkpoints, and/or social availability enforcement activities). Approximately one-third of the coalitions reported sustaining either the coalition or the enforcement operations, but not both.

Among communities that reported sustaining only the coalition, the reason cited most often for discontinuing enforcement efforts was the financial burden associated with maintaining these activities. Officers were often paid overtime to implement the various enforcement operations. Without the input of funds from the grant, many law enforcement agencies did not have another source of funding to sustain these activities. Another reason for not continuing enforcement efforts was that the law enforcement agency had taken on new priorities, such as gang activity in the community. Other sites sustained coalitions by "turning over" the EUDL-CT coalition to another community group that was addressing substance use in the community. Additionally, some sites reported that the youth portion of the coalition existed, but adult input was difficult to maintain.

Sites that reported sustaining the enforcement aspect of the program but not the coalition did so for different reasons. One site reported that the coalition fell apart because their "champion," who had coordinated the effort, left at the end of the grant. Some coalitions were based in law enforcement agencies that did not have strong coalitions throughout the grant. Because of the grant, however, they developed strong partnerships with other local law enforcement agencies (e.g., University Police) that enabled them to sustain some level of enforcement operations at the end of the program.

Those sites that reported not sustaining any activity post- EUDL-CT cited many of the same reasons as listed above. Enforcement efforts returned to their pre-EUDL-CT levels because no funds had been identified to keep the activities going. Additionally, four of the six sites had difficulty bringing diverse groups of people together for their coalitions to implement activities.

Section 7 Late Breaking: Crash Data Analysis

The purpose of the crash data analysis is to assess the impact of the Enforcing Underage Drinking Laws-Community Trial (EUDL-CT) on driving after drinking among underage youth in the general population. While this analysis was not part of the original scope of work of the EUDL-CT, stakeholders from NIAAA and OJJDP requested that it be added. Consequently, obtained crash data were it was available (from four of the five CT states) in order to measure any possible impact of the CT on alcohol involvement in crashes among underage drivers.

Methods

The Fatality Analysis Reporting System (FARS) is often used in studies of multiple states with large populations to evaluate alcohol safety laws, ordinances or programs. FARS provides a census of fatal crashes and blood alcohol concentration (BAC) data on all drivers in fatal crashes. However, in studies such as EUDL-CT with smaller populations, the number of fatal crashes is too limited to obtain valid results. In this situation, it is necessary to rely on more numerous non-fatal crash data. Because drivers in non-fatal crashes are not consistently tested for BAC, we consider a surrogate measure of alcohol-involvement in addition to the BAC data. Specifically, we use single-vehicle nighttime non-fatal crashes that have been used and validated as a surrogate measure for alcohol involvement in non-fatal crashes and multiple-vehicle daytime crashes were a surrogate for non-alcohol involved crashes (Fell et al., 2008; Voas et al., 2009).

We requested crash data from each state's transportation department including the age of the driver, the time of the accident, the number of vehicles involved and the crash severity at the level of city or town. This resulted in city or town level crash data from 2000 to 2007 from various sources (State Highway Patrol, Department of Transportation or Department of Highway & Motor Vehicles) in the study states except one state (State E). Therefore, we analyzed crash data from four states.

The Crash Incidence Ratio (CIR) was used to assess the ratio of drinking to non-drinking drivers involved in non-fatal crashes as advocated by Voas et al. (2007). First, we defined underage drinking and non-drinking drivers based on BAC test results. Although as described earlier, BACs are not consistently obtained in non-fatal crashes, we do not expect this inconsistency to differ across intervention or control communities and lead to bias in our interpretation of intervention effects. However, we did consider a second CIR based on the surrogate measure for alcohol-involvement described previously and not on BAC results. It is defined as the ratio of single-vehicle nighttime (between 9 p.m. and 3 a.m.) non-fatal crashes among those under 21 years of age to multiple-vehicle daytime (between 4 p.m. and 9 p.m.) non-fatal crashes among those under 21 years of age.

Mixed effects linear regression models were fit to test for intervention and control community differences in the crash incidence ratio (CIR) pre-intervention (2000-2004) and post-intervention (2005-2007). The CIR was log-transformed for analysis because of non-normality. Models adjust for the crash incidence ratio among those 25 and over, percent employed and percent living in an urban area. All of these factors have been shown to be important in analyses of this type (O'Neill and Kyrychenko, 2006; Voas et al., 2003; Fell et al., 2008). A fixed effect was included for state to adjust for differences between states and a random effect for community to adjust for clustering over time.

Results

Presented in Table 7.1 are the differences in the CIRs between intervention and control communities on the log-transformed scale at pre-intervention and post-intervention, and the difference in the change in the CIR from pre to post intervention between intervention and control communities or the intervention effect. Using the CIR based on the BAC test results, the CIR at pre-intervention among the intervention communities was 30% higher than the CIR among the control communities on the original, and not log-transformed, scale but this difference was not statistically significant (p=0.1604). During the post-intervention period, the CIR in the intervention communities was 16% lower than the control communities but this difference was also not statistically significant (p=0.4052). However, the intervention communities exhibited a 35% greater decrease in the CIR from pre to post intervention compared to the control communities. This difference was statistically significant (p=0.0362). There were not statistically significant differences based on the surrogate measure of the CIR at any time points (see Figures 7.1-7.2).

Table 7.1. Differences in CIRs between intervention and control communities at pre-intervention and post-intervention			
	Pre-Intervention	Post-Intervention	Post vs Pre Difference
Surrogate CIR	-0.1136 p=0.1078	-0.0454 p=0.5666	0.06853 p=0.3299
CIR	0.2595 P=0.1604	-0.1761 P=0.4052	-0.4357 P=0.0362

Figure 7.1 Differences in Crash Incidence Ratio: Intervention and Control Communities

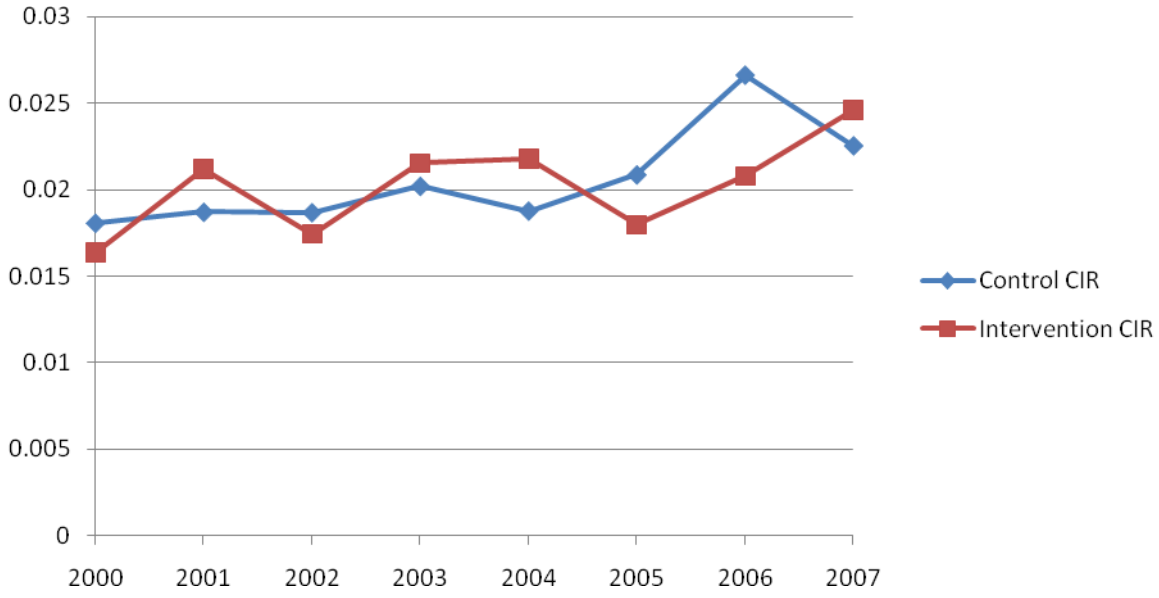
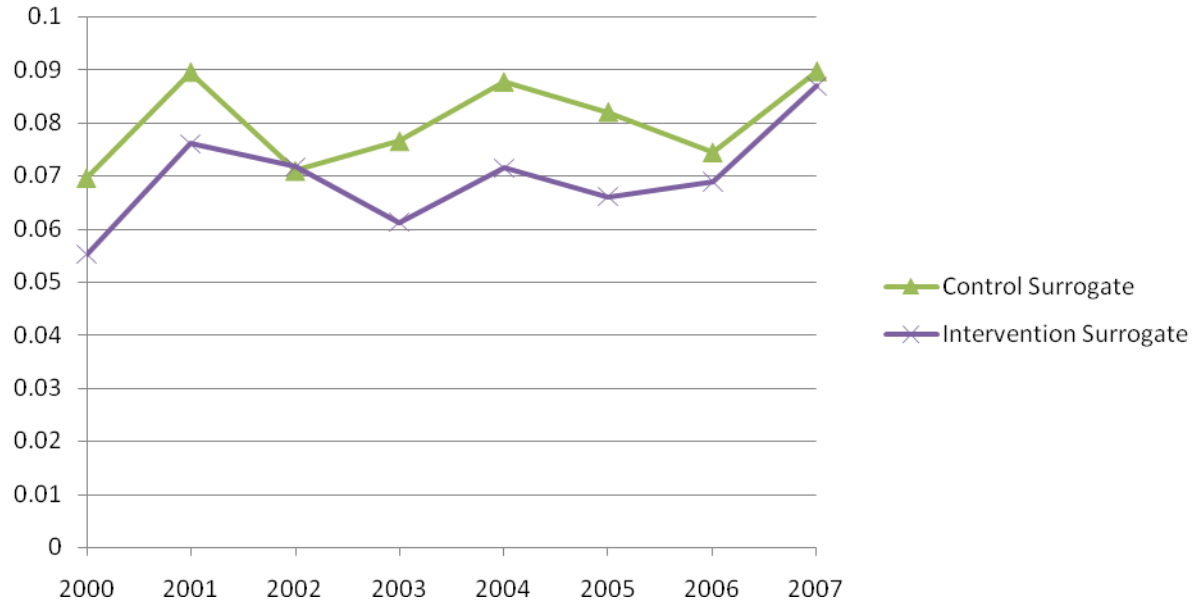


Figure 7.2 Differences in Surrogate Crash Incidence Ratio: Intervention and Control Communities



Discussion and Implications

Using data from four of the five EUDL CT states, we found that intervention communities exhibited a 35% greater decrease in the CIR from pre to post intervention compared to the control communities. This difference was statistically significant (p=0.0362). The crash analysis provided evidence that the EUDL CT had a significant impact on alcohol-related crashes involving underage drivers.

References

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Section 8 Conclusions and Recommendations

The EUDL Randomized Community Trial represents an innovative approach, in that it is the first time that a randomized community trial has been undertaken in the context of an existing Federal program. A solid evaluation design and a comprehensive set of methods were developed and implemented.

The EUDL CT set a high standard with respect to intervention strategies to be implemented during the implementation period. By and large, the states and sites were somewhat successful in meeting this standard. All 34 sites met the requirement for social availability enforcement, 33 of 34 (97%) met the requirement for DWI enforcement, 29 met the requirement for policy, and 24 met the requirement for compliance checks (for which the bar was set the highest). Overall, 18 of 34 sites, or 53%, met all four requirements of the EUDL CT.

Despite increases in enforcement levels, there was limited evidence of the efficacy of the EUDL CT with respect to outcomes among youth. In the "main effects" analysis, across the cohort and repeated cross-sectional samples, the only evidence of change in actual drinking behaviors favored the Comparison communities (past 30-day drunkenness). There was some evidence of changes favoring the Intervention communities in perceptions and norms (youths' expectations about the response of parents and school officials to drinking).

In addition, we examined whether sites that showed high levels of implementation of the program model had better outcomes than those that did not. These "site-level dose" analyses provide some evidence that sites with higher levels of implementation of the EUDL intervention also had better outcomes. However, this evidence is limited to normative outcomes—including expectations about parental and police sanctions, and about the community's level of concern about underage drinking. The evidence does not extend to behavioral outcomes, such as actual drinking practices, and experiencing negative consequences from underage drinking.

Finally, we expanded our scope of work late in the evaluation grant period in order to obtain and analyze crash data. The purpose of the crash data analysis was to assess the impact of the EUDL CT on driving after drinking among underage youth in the general population. While this analysis was not part of the original scope of work of the EUDL CT, stakeholders from NIAAA and OJJDP requested that it be added. Consequently, we obtained crash data where it was

available (from four of the five EUDL CT states) in order to measure any possible impact of the CT on alcohol involvement in crashes among underage drivers. Using these data from four of the five EUDL CT states, we found that intervention communities exhibited a 35% greater decrease in the crash incidence ratio from pre to post intervention compared to the control communities. This difference was statistically significant ($p=0.0362$). The crash analysis provided evidence that the EUDL CT had a significant impact on alcohol-related crashes involving underage drivers.

Recommendations

Based on our experience conducting the EUDL CT, and the findings conveyed in this report, we have a number of recommendations.

1. Consider having a strong program definition in future iterations of the EUDL discretionary grant program. The EUDL CT had such a strong and explicit program design, still allowing for adaptation to local circumstances. The strong program model was embraced by individuals at most of the sites participating in the EUDL CT. We believe that this is one of the best ways to encourage the application of evidence-based practices in local communities, maximizing the chances of favorable impact.

2. Convene a group of experts to provide input on the design of future iterations of the EUDL discretionary grant program. OJJDP now has relationships with a number of researchers and evaluators with expertise in underage drinking prevention, including the groups responsible for evaluation of the EUDL Rural Initiative (PIRE) and Air Force EUDL (ICF, International), as well as the EUDL CT (our group at Wake Forest University School of Medicine). With over 10 years of experience with the program, and with the advent of a number of related programs (such as those funded under the STOP Act), we believe that it is timely to involve these evaluation and research teams, other researchers, the TA and Training provider for the program (the Underage Drinking Education and Training Center at PIRE), and others in formulating the best possible program—and evaluation—design for moving forward.

3. Continue supporting rigorous evaluation of the EUDL discretionary grant program. Evaluation has played an important role in establishing accountability, promoting the evolution of the program, and bringing public visibility to the program. It is especially helpful to bring evaluators into the discussions early on, as the program for a given fiscal year is being developed and planned. In addition, it would be helpful to catalyze and support research in important areas that could inform the program moving forward—for example, the most effective ways of reducing the social (as opposed to the commercial) availability of alcohol.

4. Find ways to promote linkage of the EUDL discretionary grant program with the EUDL block grant program. To our knowledge, there are not many bridges between the two arms of EUDL. We believe it would be extremely advantageous to promote transfer of lessons learned across the two arms.

5. Support research and practice related to improving sustainability of EUDL supported interventions at the local level. Our qualitative and quantitative data repeatedly point to the vulnerability of EUDL-supported activities after the EUDL funds dry up. This is a huge problem for the field—it is unclear what long term good is done by supporting enforcement, policy, or other initiatives for a year or two, if these activities will disappear after the funding ends.