35. Saltz, R.F. The Role of Bars and Restaurants in Preventing Alcohol Impaired Driving: An Evaluation of Server Intervention, *Evaluation and the Health Professions*, 10(1):5-27, 1987.

36. Santana, J.R.; Martinez, R. Alcohol Purchase and Consumption Site Prior to an Automobile Collision. 4th Proceeding of the Association for the Advancement of Automotive Medicine, Des Plaines, Illinois: The Association, 1992.

37. Stockwell, T.; Rydcon, P.; Giannette, S.; Jankis, E.; Ovendar, C. and Syed, D. Levels of Drunkeness of Customers Leaving Licensed Premises in Perth Western Australia: A Comparison of High and Low Risk Premises, *British Journal of Addiction*, 87:873-881, 1992.

38. U.S. Department of Transportation

39. Wagenaar, A.; Holder, H.D. Effects of Alcoholic Beverage Server Liability on Traffic Crash Injuries, *Alcoholism: Clinical and Experimental Research*, 15:942-947, 1991.

40. Wagenaar, A.; Holder, H.D. A Change from Public to Private Sale of Wine: Results from Natural Experiments in Iowa and West Virgina, *Journal of Studies on Alcohol*, 52:162-173, 1991.

41. Watts, R.K.; Rabow, J. Alcohol Availability and Alcohol Related Problems in 213 California Cities, *Alcoholism: Clinical and Experimental Research*, 7(1):45-58, 1983.

42. Werch, C.E.; Bakema, D.; Ball, M.; Lee, D. Categorizing Blood Alcohol Level and Alcohol Consumption Data in Field Settings Feasibility and Findings, *Journal of Studies on Alcohol*, 49(6):561-566, 1988.

43. Wittman, F. Environmental Approaches to Community Level Prevention of Alcohol and Drug Problems. Presentation to the Center for Substance Abuse Prevention, PEPS Advisory Panel, December 15, 1993.

44. Zador, P. Alcohol related relative risk of fatal driver injuries in relation to driver age and sex. *Journal of Studies on Alcohol*, 52:301-10, 1991.

APPENDIX C4

MEDIA APPROACHES TO THE PERSISTENT DRINKING DRIVER Nancy E. Isaac, Sc.D. Harvard School of Public Health

INTRODUCTION

The media's potential to influence knowledge, attitudes and behavior makes it a natural candidate as a mechanism to address drinking and driving. Although there have been some extensive reviews of mass media approaches (Vingilis & Coultes, 1990; Atkin, 1988; Haskins, 1985), these contain little discussion or empirical data specific to the persistent drinking driver. Nonetheless, there are ways to apply existing knowledge to generate at least a partial picture of how the media may influence this subgroup of people who drink and drive.

While the assumption that persistent drinking drivers constitute a single "target" is an oversimplification, for the purposes of this discussion, we take as the largest common denominator of persistent drinking drivers those individuals who are most likely to be killed in fatal alcohol-involved accidents: young white males of a predominantly blue collar background.

The demographics of this population are favorable as regards exposure to multiple media outlets. The persistent drinking driver target audience is a frequent consumer of television (particularly sports), radio (country & rock), and movies (action, adventure, thrillers).

As to whether or not persistent drinking drivers are a receptive audience amenable to change is much less clear. Evidence that persistent drinking drivers are likely to have antisocial tendencies (Sutker et al., 1980; Donovan & Marlatt, 1982; Argeriou et al., 1985; Harwood & Leonard, 1989) suggests that they will be less susceptible than a general audience to messages that appeal to conscience. Prior studies have also indicated that those who drink and drive are characterized by high risk-taking proclivity and a sense of invulnerability (Jonah, 1986; Lastovicka, 1988; Farrow, 1989; Arnett, 1990), which may limit the impact of safety-based strategies. For that subset of the persistent drinking driver population that is alcohol dependent, their ability to follow instructions to limit their intake ("Know when to say when") is in question.

Laughery and Brelsford (1991) report on relevant characteristics of message receivers in a review of safety communications. The traits associated with non-receptivity to safety messages parallel the profile of persistent drinking drivers: male sex; young; perceives little hazard or risk; and is familiar with the consumer product.

Given this broad picture of persistent drinking drivers as media targets, the remainder of the discussion will briefly review five media strategies and their potential relevance to persistent drinking drivers: 1) public service announcements; 2) depiction of alcohol use in the popular media; 3) news coverage/publicity; 4) alcohol warning labels; and 5) restriction of alcohol advertising.

In addition, an ongoing project at the Harvard Injury Control Center that is particularly relevant to the persistent drinking driver will be briefly described.

Public Service Announcements

Research has determined the ability of PSAs to reach an audience (answering the questions "Is it seen?" and "Is it remembered"), but is much less conclusive as to whether long-term attitudinal or behavior change occurs (Walsh & Elinson, 1992; Vingilis & Coultes, 1990; Blane 1988).

No research has addressed the specific question of whether PSAs reach or influence persistent drinking drivers. If, as seems to be the case, these individuals often have a serious problem with alcohol, the likelihood that 30-second television spots, magazine ads, or radio announcements are going to alter their behavior appears minimal. Given that evaluations to date of media campaigns addressing drinking and driving have found modest effects on behavioral outcomes (Vingilis & Coultes, 1990), the hope of directly influencing what may be the most recalcitrant subset of the population, persistent drinking drivers, appears unfounded.

Influencing the persistent drinking driver may call for more indirect strategies, such as PSAs addressed to individuals surrounding the persistent drinking driver and motivating them to intervene, or PSAs intended to alter broad social norms that modify the incidence of persistent drinking and driving on a more global scale.

While PSAs themselves are not technically difficult to produce, a common weakness of PSA campaigns is poor coverage, with ads running infrequently and in suboptimal programming slots (i.e., late at night). PSA campaigns can be improved through collaborative efforts where businesses, non-profits and media outlets work together to provide resources and time slots that enhance the likelihood of good coverage. "Cause-related marketing" is a term that is sometimes applied to these alliances, whereby a private enterprise provides funding to a public service campaign, paying for advertising time in return for a tag line attached to the PSA ("This message brought to you by..."). The corporation receives positive publicity, the media outlet sells more ad space, and the non-profit obtains greater coverage for its message. The same strategy can be used to support other media events (e.g., television specials related to the topic of the campaign) that may provide greater impact than PSAs alone.

Another potential weakness of PSA campaigns is the failure base the campaign on sound formative research. Although PSAs have become a common media-based strategy aimed at reducing drinking and driving, historically their development has been based largely on a creative sense of what imagery, language and message will be effective. There has often been little explicit definition of the target audience -- all drinkers, all drinking drivers, persistent drinking drivers, etc. -- and no rationale for how best to reach and influence the intended target. This rationale should be based on some understanding of the target's attitudes, beliefs, norms, value system and behaviors, or what is often referred to in marketing research as "psychographics." Both formative research and pilot testing of candidate PSAs may improve the impact of the campaign, particularly if the goal is to alter the behavior of a specific subset of the population (e.g., persistent drinking drivers).

Depiction of Alcohol in the Popular Media

A strategy that straddles both PSAs and depictions of drinking in the media is the Harvard Alcohol Project's promotion of the designated driver concept (DeJong & Winsten, 1990; Winsten, 1992). Use of designated drivers has been encouraged directly through PSAs (featuring such spokespeople as President Clinton); as well as by embedding the use of designated driver into the plot lines of television entertainment programming. The latter is considered a more subtle but possibly more effective approach to establishing the use of designated drivers as a social norm.

Winsten (1992) reports on findings from Roper polls in 1989 and 1991 on the use of designated drivers. Specific findings that may be relevant to the persistent drinking driver are replicated here:

Drinker Category	Have been a designated driver		Have been driven home by a designated driver	
	1989	1991	1989	1991
Frequent (5+ glasses/week)	36	51	43	54
Regular (1-4 glasses/wk)	39	49	27	35
Occasional (not in past week)	31	40	18	21

It appears that "frequent" drinkers are as likely to have been designated drivers as are "regular" drinkers, and are even more likely to have been driven home by a designated driver. The survey questions appear to have measured "ever" use of these strategies, and so provide no information as to the frequency with which this intervention is employed. In addition, some concerns have been raised about the designated driver concept, including that it condones or even encourages heavy drinking by individuals in a group who are not the designated driver (DeJong & Wallack, 1992). However, no empirical evidence has been offered to substantiate this claim.

In addition to using entertainment programming to model prosocial actions (choosing a designated driver), popular media portrayals may function to highlight the serious negative consequences of excessive alcohol use. Breed and DeFoe (1985-86) selected 37 examples of drinking/driving depictions from 700 hours of prime-time television during the period 1976-86. They conclude that there was a consistently negative attitude toward driving under the influence.

Interest in media portrayals of alcohol is also based on concern that alcohol use is often glamorized, which may encourage consumption through modeling and association with positive outcomes. An analysis by Holder (1987), for instance, found that characters on popular television drink more often and in greater quantities than does the public. Grube (1993) notes that drinking characters often have desirable characteristics, such as professional status and wealth.

There has been little empirical investigation of the impact of media portrayals on attitudes or behaviors related to alcohol. Surveys have indicated a correlation between heavy television viewing and higher prevalence of drinking and positive beliefs about drinking among adolescent boys (Tucker, 1985; Neuendorf, 1985). However, these studies do not provide clear descriptions of their recruitment methods or response rates, and the temporal relationship of the associations is not clear. Experimental studies have involved artificial conditions that severely limit their generalizability (Kotch et al., 1986; Rychtarik et al., 1983).

While it appears that there is no compelling evidence that media portrayals make a difference, it is possible that they constitute an important part of the social environment, by turns censoring or condoning the use of alcohol in hazardous circumstances. However, measurement of the influence of such portrayals on persistent drinking drivers is apt to remain an elusive scientific goal.

News Coverage and Publicity

News coverage related to drinking and driving includes coverage of personal tragedies, updates and reviews of statistical trends, and reporting of new legislative or other prevention strategies.

Atkin states that the most important role of news coverage is in agenda setting, since frequent coverage "raises the salience of drunk driving, stimulates public discussion, and serves to legitimize the seriousness of the problem and attempts to address it" (1988, p. 22).

There are indications that publicity surrounding heightened enforcement may be especially effective at increasing the public's perceived risk of being stopped and arrested for drunk driving. Voas & Hause (1987) reported on changes in alcohol-involved traffic crashes in Stockton, CA resulting from an increase in enforcement efforts that received wide media attention. As media interest declined with the age of the program, crash levels remained below baseline, but when the enforcement effort ended crashes trended back to preprogram levels. The authors conclude that both improved enforcement strategies and public information campaigns that spread word of these efforts are required to produce a perceived risk of being apprehended among the public. Other work has verified that newspaper and television news are a frequent source of information for the general public on the risks of arrest, conviction and penalties associated with driving after drinking (Atkin et al., 1986).

An important consideration regarding persistent drinking drivers, however, is that their own experiences (of making frequent trips while intoxicated and seldom if ever being stopped) may reduce the credibility of these enforcement/publicity efforts. Maintaining a high level of perceived risk among persistent drinking drivers may call for particularly stringent enforcement strategies targeted to this specific subgroup.

The persistent drinking driver may also be influenced, though less directly, by the effects that news coverage has on policy debates, agenda-setting and social norms regarding drinking and driving. For instance, news coverage of an accident resulting in several fatalities caused by a persistent drinking driver (e.g., someone with several prior DWI convictions) may provide an impetus for new legislative and/or enforcement initiatives directed at repeat offenders, and create a local political environment that facilitates implementation of such initiatives.

Alcohol Warning Labels

All alcoholic beverages sold or distributed in the U.S. have been required since 1989 to carry a warning label that addresses three types of alcohol-associated risk: birth defects; "health problems"; and impairment of the ability to drive a car or operate machinery.

Most research on alcohol warning labels has dealt with the ways in which the design and location of the label influence whether it is noticed (NIAAA, 1993). Studies examining the influence of labels on knowledge or beliefs (Mayer et al., 1991), or on the prevalence of drinking and driving (Kaskutas & Greenfield, 1992), have shown no apparent effect.

Despite the opportunity for persistent drinking drivers to experience frequent exposure to warning labels, effectiveness is apt to be limited for several reasons: the warning becomes an integral part of the beverage label and loses impact; its message is not relevant (pregnancy or "health problems" are of little concern to most young males); and the message is too general and therefore too easy to ignore (alcohol impairs driving ability). The fact that warning labels actually contain several messages, with only one of them relating to drinking and driving, may also dilute their impact on this behavior.

Restriction of Alcohol Advertising

In the United States, television advertising of hard liquor is banned by federal law, and some state and local statutes place additional restrictions on advertising of liquor or other alcoholic beverages.

Although a variety of studies have attempted to assess the influence of alcohol advertising on consumption, none has proven definitive due to assorted methodologic flaws (Atkin, 1987; Partanen & Montonen, 1988). Studies have found, however, that exposure to advertising increases youths' positive drinking attitudes and likelihood to drink (Atkin & Block, 1981; Grube, 1993), and drinking in conjunction with driving (Atkin et al., 1983; Atkin et al., 1984). Smart (1988) concluded in a review of studies on alcohol advertising that the extent of advertising appears to have little impact on sales, that the best designed experimental studies show no effect of advertising on consumption, and that efforts are better expended on controlling price and availability.

Although there have been no studies on the specific effect of advertising on repeated drinking and driving, Strickland (1983) did find that there was no association between advertising and abusive or hazardous drinking (e.g., drinking and driving).

The primary influence of advertising on persistent drinking drivers is likely to be one of reinforcement of drinking through creation of an environment that associates alcohol with pleasant sensations and outcomes. Banning advertising, while it would probably have little impact on an established persistent drinking driver's decision to drive given that drinking has occurred, might have a subtle effect on consumption patterns (perhaps in terms of beverage choice rather than overall levels of consumption). But this supposition has yet to be addressed, let alone proven, in scientific research.

Advertising bans may hold more promise as a tool for primary prevention, reducing the number of young male drinkers who go on to become persistent drinking drivers. Future bans may provide naturalistic experiments under which such a hypothesis could be tested.

"Strategic Advertising Plans to Deter Drunk Driving"

Dr. John Graham of the Injury Control Center at the Harvard School of Public Health is principal investigator of a research project entitled "Strategic Advertising Plans to Deter Drunk Driving,", which is funded under a cooperative agreement with the National Highway Traffic Safety Administration (NHTSA). The project is developing formative research as background to the national media campaigns undertaken by NHTSA and the Ad Council. Focus group and survey work within this project has specifically targeted a "high risk" population that corresponds to the demographic and behavioral profile of a large subset of persistent drinking drivers: young (21-34), white males who are blue collar workers, drink beer regularly, drink in bars at least once a week, have recently driven after 5 or more drinks, and feel they can drive safely after five or more drinks.

The major focus of the research is to assess the feasibility and potential impact of a media strategy based on encouraging others to intervene with the drinking driver.

Nearly all of the high risk male focus group participants have experienced intervention by another person who was attempting to influence their drinking or drinking and driving behavior or intentions. The individuals who most commonly intervene are friends and female partners (wives, fiancees, or girlfriends), and further probing indicated that these are the individuals most likely to influence the targets. These individuals are good candidate interveners because the target individuals respect their opinions, believe that they care about the target, and know the target well enough to recognize the behavioral cues that the target has "had too much."

Contrary to the stereotype that most heavy drinking by men takes place in the context of all-male get togethers at bars, both men and women in focus groups report that the female partner is often present. At times she has been brought along deliberately to function as a designated driver or a moderating influence on behavior that might otherwise get "out of control." Women who are partnered to high-risk target males describe intervening quite frequently, though they are clearly a heterogenous groups with respect to their comfort with this role. Barriers to intervention include concern with being labelled a "nag," a desire not to interfere with other peoples' "right to have a good time," as well as more serious fears of potential verbal or even physical retaliation by male partners. The potential for alcohol to precipitate or exacerbate abusive episodes between intimate partners will require a sensitive approach to media strategies that encourage intervention by women.

That women are often present and may provide the opportunity to intervene was confirmed by a telephone survey of young white males who drink and drive. Among bluecollar white males 21-34 years old who had driven at least once after five or more drinks in the past 2 months, 49 percent said their wife or girlfriend is with them most of the time or always when they are out drinking; another 33 percent said a wife or girlfriend is sometimes present. When this group of men was asked "In your opinion, who is the <u>best</u> person to convince you not to drive after drinking?" 56 percent said their wife or girlfriend, 18 percent said a friend would be best, and smaller percents named other individuals.

Most male focus group participants also describe having acted as interveners themselves, which is not surprising given that they are likely to socialize with other heavy drinkers. These findings partially validate the appropriateness of a tag line such as "Friends don't let friends drive drunk." However, this tag line may also have the unintended consequence of subtly undermining women's resolve to intervene, communicating to them that this is a task best left to their male partners' buddies.

Based on findings from the early focus groups, the remainder of the project will probe further into the issue of female partners as interveners, and will test candidate media messages with both high-risk target males and women who are partnered with high-risk males. The media message will be intended to increase the probability that the receiver will subsequently intervene with others who drink and drive.

Current PSAs contain a tag line with this intended effect ("Next time your friend insists on driving drunk, do whatever it takes to stop him"). Early focus groups indicate that the message to intervene (as opposed to the message "don't drink and drive") does not always come through as clearly as it might. Findings from the focus groups may suggest ways of refining the current campaign to clarify the message and to facilitate the behavior.

Recommendations

Wallack (1984) stressed that the use of media in isolation is far less productive than its application as part of a comprehensive approach to impaired driving. Media strategies to address persistent drinking and driving must be viewed as one component of a multi-system response to this problem. Specific campaigns should be designed with consideration for the social, legal and political context within which this behavior occurs, and this analysis must be done at the local level if that is where the media campaign is to be implemented.

Although there is a dearth of evaluation research to guide detailed policy or program initiatives, the following are some general recommendations concerning the potential role of the media in addressing persistent drinking and driving:

• Expand strategies based on motivating those surrounding the persistent drinking driver to intervene with drinking/driving behaviors.

Although empirical evidence for behavioral impacts is lacking for any media strategy, it seems likely that some programs (e.g., designated driver) have played an important role in the reductions in drinking and driving over the past decade, whether through their impact on social norms or through specific deterrence.

There is some research evidence suggesting that significant female partners (wives, girlfriends) and good friends are the most likely to make the best interveners. Media programs based on increasing the frequency and effectiveness of intervention by these individuals deserve consideration and should be evaluated.

• Publicity should be used as an adjunct to enforcement programs to increase awareness of the content of the law and potential sanctions, and to heighten the perceived risk of detection and penalty among persistent drinking drivers.

It is very important that the publicized enforcement strategies are indeed rigorously carried out. Otherwise the publicity will be viewed as a bogus attempt to instill fear of retribution and may only reinforce the persistent drinking driver's cynicism and disdain for legal authority.

• General media programs that address drinking and driving serve to maintain the social norm that this is a serious criminal offense as well as a major social and public health problem. They function to keep drinking and driving high on the agenda of social problems requiring resources and help maintain a climate where legislative initiatives can be carried through. Such programs should continue. While the impact of general media programs on the persistent drinking driver will continue to be extremely difficult to assess empirically, the role of such programs in maintaining a social environment that will facilitate more targeted strategies (e.g., intervention by others) makes them worthy of consideration within the context of programs to address the persistent drinking driver.

REFERENCES

1. Argeriou, M.; McCarty, D.; Blacker, E. Criminality among individuals arraigned for drinking and driving in Massachusetts. *Journal of Studies on Alcohol* 1985;46:525-530.

2. Arnett, J. Drunk driving, sensation seeking, and egocentrism among adolescents. Personality and Individual Differences 1990;11:541-546.

3. Atkin, C.K. Alcoholic-beverage advertising: Its content and impact. In: Holder HD (Ed.). *Control Issues in Alcohol Abuse Prevention: Strategies for States and Communities.* Advances in Substance Abuse. Supplement 1, Greenwich, CT: JAI Press; 1987; pp. 267-287.

4. Atkin, C.K. Mass communication effects on drinking and driving. Surgeon General's Workshop on Drunk Driving. Background Papers. Washington, DC: December 14-16, 1988. U.S. Department of Health and Human Services.

5. Atkin, C.K.; Block, M. Content and Effects of Alcohol Advertising. Report No. PB-82-123142. Washington, DC: Bureau of Tobacco, Alcohol, and Firearms; 1981.

6. Atkin, C.K.; Garramone, G.M.; Anderson, R. Formative evaluation research in health campaign planning: The case of drunk driving prevention. Paper presented to International Communication Association Annual Conference, Chicago; 1986.

7. Atkin, C.K.; Hocking, J.; Block, M. Teenage drinking: Does advertising make a difference? *Journal of Communication* 1984;Spring:157-167.

8. Atkin, C.K.; Neuendor, K.; McDermott, S. The role of alcohol advertising in excessive and hazardous drinking. *Journal of Drug Education* 1983;13:313-325.

9. Blane, H.T. Research on mass communications and alcohol. Contemporary Drug Problems. 1988;15:7-20.

10. Breed, W.; DeFoe, J. Television portrayals of drinking and driving. *International Quarterly of Community Health Education* 1985-86;6:273-283.

11. DeJong, W.; Wallack, L. The role of the designated driver programs in the prevention of alcohol-impaired driving: A critical reassessment. Health Education Quarterly 1992;19:429-442.

12. DeJong, W.; Winsten, J.A. The use of mass media in substance abuse prevention. Health Affairs 1990;9:30-46.

13. Donovan, D.M.; Marlatt, G.A. Personality subtypes among driving while intoxicated offenders: Relationship to drinking behavior and driving risk. *Journal of Consulting* and Clinical Psychology 1982;50:241-249.

14. Farrow, J.A. Personality factors associated with driving while intoxicated: A comparison study of adolescent drivers. *Journal of Alcohol and Drug Education* 1989;34:21-32.

15. Grube, J.W. Alcohol portrayals and alcohol advertising on television: Content and effects on children and adolescents. *Alcohol Health and Research World* 1993;17:61-66.

16. Harwood, M.K.; Leonard, K.E. Family history of alcoholism, youthful antisocial behavior and problem drinking among DWI offenders. *Journal of Studies on Alcohol* 1989;50:210-216.

17. Haskins, J.B. The role of mass media in alcohol and highway safety campaigns. *Journal of Studies on Alcohol* 1985; Suppl. 10:184-191.

18. Holder, H.D. Overview and Introduction. Alcoholicbeverage marketing and promotion. In: Holder HD (Ed.). *Control Issues in Alcohol Abuse Prevention: Strategies for States and Communities. Advances in Substance Abuse.* Supplement 1, Greenwich, CT: JAI Press; 1987; pp.261-265.

19. Jonah, B.A. Accident risk and risk taking behavior among young drivers. Accident Analysis and Prevention 1986; 18:255-271.

20. Kaskutas, L.; Greenfield, T. First effects of warning labels on alcoholic beverage containers. *Drug and Alcohol Dependence* 1992; 31:1-14.

21. Kotch, J.B.; Coulter, M.L.; Lipsitz, A. Does televised drinking influence children's attitudes toward alcohol? *Addictive Behaviors* 1986;11:67-70.

22. Lastovicka, J.L. Speculations on the social psychology of young male drinking driving. International Symposium: The Social Psychology of Risky Driving. *Alcohol, Drugs and Driving* 1988;4:255-232.

23. Mayer, R.N.; Smith, D.R.; Scammon, D.L. Evaluating the impact of alcohol warning labels. *Advances in Consumer Research* 1991;18:1-9.

24. National Institute on Alcohol Abuse and Alcoholism. Eighth Special Report to the U.S. Congress on Alcohol and Health, From the Secretary of Health and Human Services. Washington, DC: U.S. Department of Health and Human Services; September 1983.

25. Neuendorf, K.A. Alcohol advertising and media portrayals. *Journal of the Institute of Socioeconomic Studies* 1985; 10:67-78.

26. Partanen, J.; Montonen, M. Alcohol and the mass media. World Health Organization. Regional Office for Europe, Copenhagen. *EURO Reports and Studies* 108; 1988.

27. Rychtarik, R.G.; Fairbank, J.A.; Allen, C.M.; Foy, D.W.; Drabman, R.S. Alcohol use in television programming: Effects on children's behavior. *Addictive Behaviors* 1983;8:19-22.

28. Smart, R.G. Does alcohol advertising affect overall consumption? A review of empirical studies. *Journal of Studies on Alcohol* 1988;49:314-323.

29. Strickland, D.E. Advertising exposure, alcohol consumption, and misuse of alcohol. In: Grant M, Plant M, Williams A (Eds). *Economics and Alcohol: Consumption and Controls*. New York: Gardner Press; 1983;201-222.

30. Sutker, P.B.; Brantley, P.J.; Allain, A.N. MMPI response patterns and alcohol consumption in DUI offenders. *Journal of Consulting and Clinical Psychology*. 1980;48:350-355.

31. Tucker, L.A. Television's role regarding alcohol use among teenagers. *Adolescence* 1985;20:593-598.

32. Vingilis, E.; Coultes, B. Mass communications and drinking-driving: theories, practices and results. *Alcohol, Drugs and Driving.* 1990;6:61-81.

33. Voas, R.; Hause, J.M. Deterring the Drinking Driver. The Stockton Experience. *Accident Analysis and Prevention* 1987;19:81-90.

34. Wallack, L. Drinking and driving: Toward a broader understanding of the role of mass media. *Journal of Public Health Policy*. 1984;5:471-496.

35. Walsh, D.C.; Elinson, L. Effectiveness of measures to prevent alcohol-related problems: An update. 1992.

36. Winsten, J.A. The designated driver movement in the United States: Promoting a new social norm. Presented at the 36th International Congress on Alcohol and Drug Dependence. Glasgow. August 21, 1992.

APPENDIX C5

ENFORCEMENT STRATEGIES FOR THE PERSISTENT DRINKING DRIVER

Susan E. Martin, Ph.D.

National Institute on Alcohol Abuse and Alcoholism David F. Preusser, Ph.D. PRG, Inc.

(The opinions, findings and conclusions presented in this paper are those of the authors and do not necessarily represent the opinions of the National Institute on Alcohol Abuse and Alcoholism or of PRG, Inc. This paper was revised in response to suggestions made at the Workshop. We gratefully acknowledge the contributions of Workshop participants.)

The persistent drinking driver is an individual who continues to drink and drive repeatedly, often at very high blood alcohol levels. The goal of the present paper is to discuss possible enforcement strategies for dealing with such individuals, impediments to implementation of these strategies and ways to facilitate more effective efforts. It addresses efforts by police and considers the impact of expanded enforcement on the courts.

Background

Any single drinking and driving event will not likely lead to a drinking and driving arrest. However, continued drinking driving over an extended period of time can lead to a paper trail of drinking and driving activity. This trail can include license suspensions, license revocations and DWI convictions. An indication of this trail can be seen in the Fatal Accident Reporting System (FARS) of the National Highway Traffic Safety Administration.

FARS data were analyzed with respect to driver BAC, license status and prior DWI convictions. During 1992, there were 16,350 fatally injured drivers for which both license status and BAC were known. Of these, 2,403 did not hold a valid license typically because their license had been suspended (N=1,027), revoked (N=346) or canceled (N=38). The Figure on the following page shows the BAC distributions for those drivers who did and did not hold a valid license.

As shown in Figure 1, 57 percent of those drivers with a valid license were at .00 percent BAC as compared with only 30 percent of those without a valid license. The two groups were similar for BACs in the range from about .01 percent through .09 percent. The two groups began to diverge at about .10 percent. BACs of .25 percent and higher were about twice as common among unlicensed as opposed to licensed drivers (18 percent versus 8 percent).

The most common reason for not having a valid license is that the license has been suspended or revoked. Often, suspension or revocation is the result of a DWI conviction(s). For the year 1992, there were 1,033 fatally injured drivers, with known BAC, with one or more prior DWI convictions on their driving record. The second Figure compares the BAC distributions for those drivers (licensed and unlicensed) with and without a prior DWI conviction.

As shown in Figure 2, 56 percent of those drivers with no prior DWI convictions were at .00 percent BAC as compared with only 12 percent of those with one or more prior convictions. BACs of .25 percent and higher were about three times as common among the prior conviction group as