

DOCUMENT RESUME

ED 355 464

CG 024 824

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 TITLE Impaired Driving. Prevention Resource Guide.
 INSTITUTION Alcohol, Drug Abuse, and Mental Health Administration (DHHS/PHS), Rockville, MD. Office for Substance Abuse Prevention.
 REPORT NO DHHS-ADM-91-1876; MS434
 PUB DATE Oct 91
 NOTE 24p.
 PUB TYPE Reports - General (140) -- Reference Materials - General (130)

EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *Alcohol Abuse; *Drinking; *Driving While Intoxicated; *Drug Abuse; *Prevention

ABSTRACT

This booklet focuses on impaired driving. The first section presents 21 facts on impaired driving. These include the number of people who lost their lives in alcohol-related crashes; the leading cause of death for young people; the average amount of alcohol consumed by people arrested for driving under the influence; the estimation that a tax amounting to approximately 35% of the retail price of beer would halve the number of alcohol-related fatalities among 16- to 21-year-old drivers; the fact that marijuana severely impairs driving; and the likeliness that fatal crashes will occur during the night rather than during the day. The second section presents an annotated bibliography of 12 prevention materials on impaired driving. These include newsletters, brochures, posters, books, comic books, videos, and fact sheets. The organization, year, format, length, context, topic, target audience, readability, and availability are listed. The third section presents 25 abstracts of studies, articles and reports on impaired driving. The fourth section lists 16 groups, organizations, and programs on impaired driving. (ABL)

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PREVENTION RESOURCE GUIDE

IMPAIRED DRIVING

October 1991

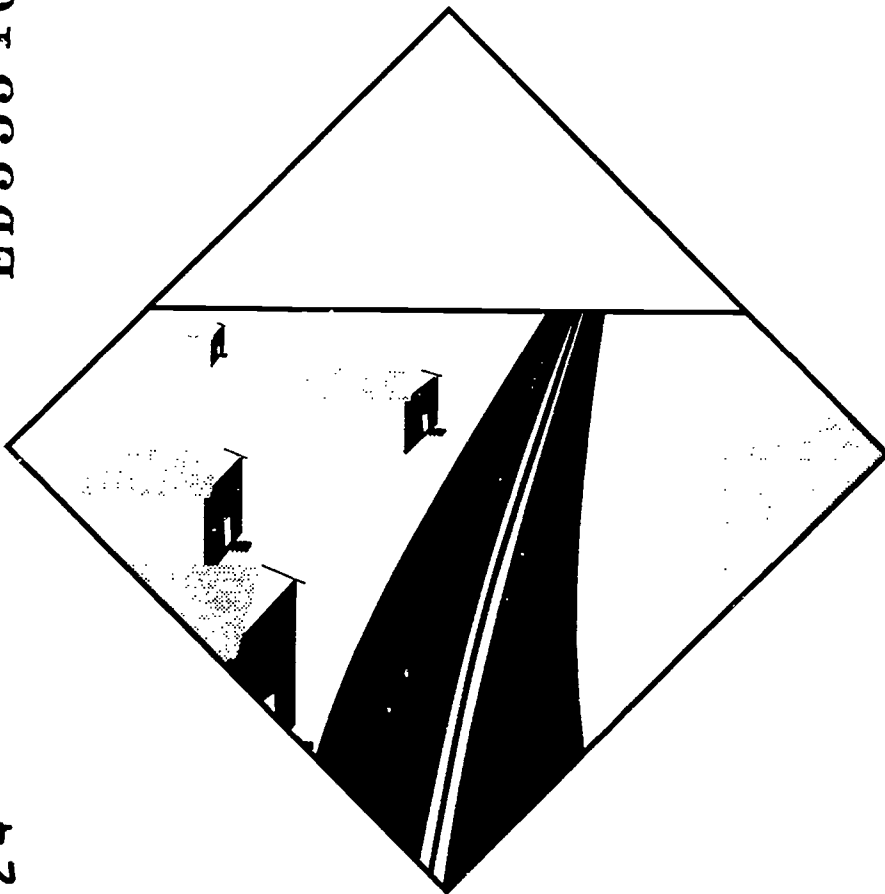
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This OSAP Prevention Resource Guide was compiled from a variety of publications and data bases and represents the most currently available information to date. This Guide will be updated regularly, and your comments or suggestions are welcome. To suggest information or materials that might be included in updated editions, please write to the National Clearinghouse for Alcohol and Drug Information (NCADI), P.O. Box 2345, Rockville, MD 20852. The listing of materials or programs in this Resource Guide does not constitute or imply endorsement by the Office for Substance Abuse Prevention, the Public Health Service, or the Department of Health and Human Services. The materials have been reviewed for accuracy, appropriateness, and conformance with public health principles.

MS434

ED355464

CG024824



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

Produced by the National Clearinghouse for Alcohol and Drug Information, a service of the Office for Substance Abuse Prevention; Amy Lane, staff writer.

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Facts & Figures on Impaired Driving

- ✓ Over 22,000 people lost their lives in alcohol-related traffic crashes in 1989—an average of one alcohol-related fatality every 23 minutes.¹
- ✓ Over 40 percent of all teenage deaths result from motor vehicle crashes. About half of these fatalities involve drinking. In 1987, it is estimated that 3,259 teenagers died in alcohol-related crashes.²
- ✓ The leading cause of death for young people (ages 5 to 34) is automobile crashes. Of these crashes, more than one-half are alcohol-related.³
- ✓ Since 1975, minimum drinking age laws have saved at least 10,000 lives. Minimum drinking age laws consistently decrease fatal car crashes by 12 percent.⁴
- ✓ The average amount of alcohol consumed by people arrested for driving under the influence is very high. Drivers register an average of 6 ounces of pure alcohol in their bloodstream, the equivalent of 12 bottles of beer or 8 mixed drinks in a 4-hour period.⁵
- ✓ Impaired drivers with a blood alcohol level of 0.15 percent are 26 times as likely to have a fatal crash as sober drivers. The legal intoxication limit in most States is 0.10 percent and the average alcohol level of drivers involved in fatal crashes is 0.15 percent. The Swedish Parliament voted in 1990 to lower the legal blood alcohol limit to 0.02 percent.⁶
- ✓ Police are more vigilant than ever before. Since 1970, arrests for DUI (driving under the influence) have doubled, reflecting an increased awareness of the danger of impaired driving.⁷
- ✓ Studies have found that marijuana severely impairs driving ability. Repeated experiments indicate that marijuana affects perceptual motor functions, making driving extremely dangerous.⁸
- ✓ In 1987, over one-fourth of fatally injured 15 to 19 year olds were intoxicated.⁹

- ✓ Although the number of teenage drivers who are driving while impaired is alarming, the figures have decreased dramatically. Teenage fatal crashes dropped from 28 percent of total fatal crashes in 1982 to 19 percent in 1987, a larger decrease than in any other age group.¹⁰
- ✓ Impaired drivers are far less likely to use safety belts. Less than 10 percent of drivers under the influence wear safety belts, while one-fourth of sober drivers involved in crashes do.¹¹
- ✓ Fatal crashes are three times more likely to occur at night than during the day.¹²
- ✓ Fatal crashes frequently involve sober passengers. In 36 percent of fatal crashes, the drivers are legally intoxicated but the passengers are not.¹³
- ✓ Though many young people drive impaired, those over the age of 25 are more often fatally-injured in impaired driving crashes. In 1987, 78 percent of fatally-injured drivers aged 25 or older were intoxicated, compared to 64 percent of drivers under the age of 25.¹⁴
- ✓ The probability that a given death is due to a traffic fatality is 55 times as great for a 20-year-old male as for a 65-year-old male.¹⁵
- ✓ Alcohol-impaired crashes vary considerably by the type of vehicle driven. In 1986, alcohol was involved in over half of the fatal crashes involving motorcycle drivers, while only 3 percent of heavy-truck drivers had BAC (blood alcohol content) levels over 0.10 percent. Drivers of older vehicles were also legally intoxicated more often than drivers of newer vehicles.¹⁶
- ✓ Teenagers are at high risk for drinking and driving crashes. In a Federal survey, nearly half of 10th graders and a third of 8th graders reported having ridden during the past month with a driver who had used alcohol or other drugs before driving.¹⁷
- ✓ Higher alcohol taxes will lead to less alcohol consumption among underaged youth, and fewer impaired driving crashes. Nationwide, over 1,000 lives of 18 to 20 year olds could be saved annually if the Federal excise tax were indexed to inflation.¹⁸
- ✓ Econometric studies project that higher real prices for beer would reduce the incidence of heavy drinking among young people, as well as the number of people who drink.¹⁹

✓ In terms of fatal automobile crashes, it is estimated that a tax amounting to approximately 35 percent of the retail price of beer would halve the number of alcohol-related fatalities among 16- to 21-year-old drivers.²⁰

✓ *Healthy People 2000*, the U.S. Department of Health and Human Services' National Health Promotion Objectives advocates for lower BAC limits of 0.04 percent for drivers 21 and older, and 0.00 percent for drivers younger than 21. Those States that have adopted lower legal levels for drivers under 21 have already experienced decreased fatalities among this age group.²¹

1. U.S. Department of Transportation, National Highway Traffic Safety Administration, "Drunk Driving Facts-National Center for Statistics and Analysis", September 1990, p. 1.
2. U.S. Department of Transportation, National Highway Traffic Safety Administration, "Drunk Driving Facts, National Center For Statistics and Analysis," August 1988, p.2.
3. U.S. Department of Transportation, National Highway Traffic Safety Administration, "Drunk Driving Facts-National Center for Statistics and Analysis," August 1988, p.1.
4. Womble, K., "The Impact of Minimum Drinking Age Laws on Fatal Crash Involvements, An Update of the NHTSA Analysis," *Research Notes*, U.S. Department of Transportation, 1987, p.1. Based on studies conducted in 13 States which documented the number of driver involvements in fatal crashes per year per licensed driver after the change in minimum driving age as compared to the number of involvements per licensed driver before the law changed. The data included extends from 1975-1987.
5. Greenfield, L., "Drunk Driving," *Bureau of Justice Statistics Special Report*, February 1988, p.1. Data on DUI arrests was drawn from information provided to the Federal Bureau of Investigation by State and local agencies.
6. Perrine, M.; Peck, R.; Fell, J., "Epidemiologic Perspectives on Drunk Driving," Surgeon General's Workshop on Drunk Driving Background Papers, 1988, p.38. Based on data collected by the National Highway Traffic Safety Administration in 1985.
7. Greenfield, L., "Drunk Driving," *Bureau of Justice Statistics Special Report*, February 1988, p.1. Data on DUI arrests was drawn from information provided to the Federal Bureau of Investigation by State and local agencies.
8. Smiley, A.; Moskowitz, H.; Ziedman, K., "Effects of Drugs on Driving: Driving Simulator Tests of Secobarbital, Diazepam, Marijuana, and Alcohol," *Clinical and Behavioral Pharmacology Research Report*, DHHS, 1985, p.2. Based on studies conducted by H. Moskowitz, The effect of marijuana dosage on driver performance. Institute of transportation and traffic engineering report UCLA-ENG-7341, UCLA, Los Angeles, 1973 and A.C. Stein, A simulator study of the combined effects of alcohol and marijuana on driving behavior. Report submitted to the National Highway Safety Administration under contract DOT-HS-5-01257, February 1983.
9. U.S. Department of Transportation, National Highway Traffic Safety Administration, "Drunk Driving Facts, National Center for Statistics and Analysis," August 1988, p.2. Based on data collected at the State level and then forwarded to the Fatal Accident Reporting System of the National Highway Traffic Safety Administration.
10. *Ibid.*, p. 2.
11. *Ibid.*, p. 2.
12. *Ibid.*, p. 3.

13. Waller, J., "Injury and Disability Prevention and Alcohol-Related Crashes," Surgeon General's Workshop on Drunk Driving, 1988, p.180. Based on a 1985 study by J. Waller, Research needs and opportunities concerning human-environmental interactions in crashes involving alcohol. *Journal of Studies on Alcohol Supplement* 10:54-60, 1985.
14. U.S. Department of Transportation, National Highway Traffic Safety Administration, "Drunk Driving Facts," August 1988, p.3. Based on data collected at the State level and then forwarded to the Fatal Accident Reporting System of the National Highway Traffic Safety Administration.
15. Perrine, M.; Peck, R.; Fell, J., "Epidemiologic Perspectives on Drunk Driving," Surgeon General's Workshop on Drunk Driving Background Papers, 1988, p.38. Based on a study conducted by L. Evans, "Fatal and Severe Crash Involvement vs. Driver Age and Sex. 31st Annual Proceedings, American Association for Automotive Medicine, Sept. 1987.
16. Perrine, M.; Peck, R.; Fell, J., "Epidemiologic Perspectives on Drunk Driving," Surgeon General's Workshop on Drunk Driving, 1988, p.40. Based on data collected at the State level and then forwarded to the Fatal Accident Reporting System of the National Highway Traffic Safety Administration.
17. Centers for Disease Control, "Results from the National Adolescent Student Health Survey," *Morbidity and Mortality Weekly Report*, March 1989, pp. 147-150.
18. Coate, D., Grossman, M., "Change in Alcoholic Beverage Prices and Legal Drinking Ages: Effects on Youth Alcohol Use and Motor Vehicle Mortality," *Alcohol Health and Research World*, 1987, p. 22-25, 59.
19. U.S. Department of Health and Human Services, "Alcohol and Other Drugs," *Healthy People 2000*, 1991, p. 176.
20. Ibid. p. 177.
21. Ibid., p. 178.

Prevention Materials on Impaired Driving

The materials listed in OSAP's Prevention Resource Guide have been reviewed for scientific accuracy based on the latest available scientific findings; appropriateness for the target audience as described by the developers of the materials; and conformance to public health principles and related policies. The underlying guidelines used for the review of materials are first and foremost based on the principle of "do no harm." All materials contain a clear non-use (of nicotine, alcohol, and other drugs) message for youth. *The listing of these materials, however, does not imply Government endorsement or approval of the message(s) or material(s).*

Network Newsnotes

Goldhamer, A.

Organization: National Commission on Drunk Driving

Year: 1987

Format: Newsletter

Length: 8 Pages

Context: Stands Alone

Topic: Alcohol

Mode of Delivery: Self-Instructional

Target Audience: General Public, AOD Treatment and Prevention Professionals

Readability: Average

Availability: Free from the National Commission on Drunk Driving, Suite 804, 1140 Connecticut Avenue, NW 20036; 202-452-0130

Network Newsnotes is published quarterly. Fatality statistics, public hearings, arrests, and awareness connected with drunk driving laws on the State and Federal levels are the central themes of this publication.

Prevent Drunk Driving

Organization: Krames Communications

Publication Date: 1987

Format: Brochure

Length: 6 Pages

Context: Stands Alone

Topic: Alcohol and Prevention

Mode of Delivery: Self-Instructional

Target Audience: General Public

Readability: Average

Availability: 40 cents each, \$50 minimum order; Krames Communications, 312 90th Street, Daly City, CA 94015-1898; 415-994-8800

A glossy, laminated, artistic brochure on preventing drunk driving. Resources are provided such as MADD, SADD and RID. This is geared for the social drinker or the occasional drinker. Clear don't drink and drive message.

Washington State Drunk Driving Laws

Organization: Washington State Substance Abuse Coalition
Year: 1988
Format: Brochure
Length: 6 Pages
Context: Stands Alone
Topic: Alcohol/Drugs and Intervention/Treatment
Mode of Delivery: Self-Instructional
Target Audience: AOD Prevention Professionals, Community Service Groups, and General Public
Setting: Community Organization
Setting: Government
Readability: Easy
Availability: Free from Washington State Substance Abuse Coalition 14700 Main Street, Bellevue, WA 98007; 1-800-662-9111 or 206-747-9111

This brochure explains the major points of Washington State's drunk driving laws and outlines the penalties for violations.

Operation Prom/Graduation: "How To" Guide

Organization: Mothers Against Drunk Driving (MADD)
Year: 1990
Sponsor/Endorser: "Your Prom" Magazine, Cahners Publishing
Format: Book
Length: 36 Pages
Context: Stands Alone
Topic: Alcohol and other Drugs and Prevention
Mode of Delivery: Self-Instructional
Target Audience: Educators, Parents, and Sr. High Youth
Setting: Home, School
Readability: Difficult

Availability: \$1.25 each, special bulk prices; Mothers Against Drunk Driving (MADD), 699 Airport Freeway, Suite 310, Hurst, TX 76053; 214-744-6233

This booklet provides a "how-to" guide on an alcohol and drug-free prom or graduation. Step-by-step ideas are presented, from getting started to getting outside support to clean-up. Drinking/driving statistics and a list of resources are included. The graphics are excellent, understandable, and appealing.

Friends Keep Friends Alive!

Organization: Mothers Against Drunk Driving (MADD)
Year: 1989
Format: Comic Book
Length: 16 Pages
Context: Stands Alone
Topic: Alcohol/Drugs and Prevention
Mode of Delivery: Self-Instructional
Target Audience: Elementary Youth and Jr. High Youth
Setting: Home
Availability: Payment Required: \$.75/1; \$25/50; Wisconsin Clearinghouse, University of Wisconsin-Madison, Dept. E-1, P.O. Box 1468, Madison, WI, 53701-1468; 1-800-262-6243

This material graphically points out the dangers of using alcohol or other drugs, particularly when driving. One boy has a beer, looks silly, and refuses the next time. Another drinks and hurts a boy in a traffic accident. This material is attractive and catchy. Graphics are very good.

8 Hour Substance Abuse Program in Spanish

Organization: PRIDE, Inc.
Year: 1990
Format: Manual & 9 Videos
Length: 409 Page Manual
Context: Part of a Packet/Program
Topic: Alcohol/Drugs and Prevention
Mode of Delivery: Instructor-led and Mass Media
Target Audience: AOD Prevention Professionals, Community Service Groups, and Educators—Hispanic
Setting: Community Organization
Language: Spanish and English
Readability: Fairly Difficult
Availability: \$150 manual, \$1,300 complete program; PRIDE, Inc., Instructional Media Division, 2715 Australian Avenue, West Palm Beach, FL 33407; 1-800-543-6909

Eight Spanish tapes cover alcohol or drug impaired drivers and the signs and symptoms of abuse and effects on driving behavior. The ninth tape is in English and is designed so that the sponsoring organization can demonstrate to judges program content. PRIDE will meet with people prior to purchase to develop approach for clients.

Idiot on Board

Organization: Reader's Digest
Year: 1987
Format: Poster
Context: Stands Alone
Topic: Alcohol and Prevention
Mode of Delivery: Self-Instructional
Target Audience: General Public
Setting: Other

Availability: Reader's Digest Reprint Department, Box 406, Pleasantville, NY 10570. \$6 for set of 7 posters.

Poster depicts a rear car-window sticker which reads: "Idiot on board." The poster caption reads: "If you're going to drink and drive, at least let the rest of us know."

Drinking, Driving, and Drugs

Knox, J.M.

Organization: Chelsea House Publishers
Year: 1988
Format: Communications Package
Length: 32 Pages, 60 Minutes
Context: Stands Alone
Topic: Alcohol and other Drugs, Prevention, and Intervention/Treatment
Mode of Delivery: Self-Instructional and Instructor-Led
Target Audience: General Public, Sr. High Youth, and Young Adults
Readability: Difficult
Availability: Payment Required: \$16.95; Chelsea House Publishers, P.O. Box 419, Edgemont, PA 19028; 215-353-0258

This series discusses the implications of drug use and driving. It also discusses programs such as SADD and details the problems associated with teen drinking and drug use.

Alcohol and Driving

Organization: Minnesota Prevention Resource Center
Year: 1987
Format: Fact Sheet
Length: 2 Pages
Context: Stands Alone and Part of a Packet/Program
Topic: Alcohol and Prevention
Mode of Delivery: Self-Instructional

Target Audience: General Public
Readability: Fairly Difficult
Availability: Payment Required: \$1.50 per set, or 15 cents each; Minnesota Prevention Resource Center, 2829 Verdale Avenue, Anoka, MN 55303; 612-427-5310

Pertinent facts about drinking and driving in the State of Minnesota are presented in this fact sheet. The extent of the problem, arrests and charges for DWI, and provisions of the Minnesota law are described.

Wellness Way: Car Injuries, Belts, and Booze

Organization: Krames Communications
Year: 1987
Format: Brochure
Length: 6 Pages
Context: Stands Alone
Topic: Alcohol and Prevention
Mode of Delivery: Self-Instructional
Target Audience: General Public
Readability: Average
Availability: Krames Communications, 312 90th Street, Daly City, CA 94015-1898; 415-994-8800

Advocates the use of safety belts at all times and recommends avoiding drinking and driving. The facts on accidents without safety belts are listed and the myths about drinking and driving are explored.

Seven Reasons Why Drinking & Driving Don't Mix

Organization: Maine State Police
Publication Date: March, 1987
Format: Fact Sheet

Length: 1 Page
Context: Stands Alone
Topic: Alcohol and Prevention
Mode of Delivery: Self-Instructional
Target Audience: General Public
Readability: Easy
Availability: Maine State Police, State House Station #42, Augusta, ME 04333; 207-289-2155

Maine data and statistics related to DWIs listed in seven brief facts.

Beyond Brochures

Organization: Lumen Video Productions
Year: 1987
Sponsor/Endorser: Delta Sierra Arla Health Education Center
Format: 3/4" Video and VHS Video
Length: 25 Minutes
Context: Stands Alone
Topic: Prevention
Mode of Delivery: Self-Instructional
Target Audience: AOD Prevention Professionals, Policymakers/Administrators, and Health Care Providers
Setting: Community Organization
Setting: Health Care
Availability: Payment Required: \$60 (purchase), \$20 (rental), Contra Costa County Department of Health Services, Prevention Program, 75 Santa Barbara Road, Pleasant Hill, CA 94523; 415-646-6511

Explains the value of an integrated and comprehensive approach to prevention. Explores approaches to prevention problems and describes strategies used in bringing about changes in smoking, flammable childrens' sleepwear regulations, and in drinking and driving regulations.

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Studies, Articles, & Reports on Impaired Driving

Government Publications and Journal Articles

Use of Legal Motivators in the Treatment of Drunken Drivers: Questioning the Assumptions

Fowler, W.E., and Alcorn, J.

Journal of Traffic Safety Education 37(2):10-13, 1990.

Three assumptions behind the use of legal motivators in the treatment of drinking drivers are discussed: (1) treatment is effective; (2) treatment completion is related to success; and (3) treatment is more effective than are judicial sanctions. The literature on drinking and driving suggests that judicial sanctions are more effective in reducing the recidivism rate than is treatment and that offenders may see treatment as a means of avoiding the gravest consequences of their drinking and driving behavior. The protection of innocent drivers and pedestrians should be the first priority of drinking and driving countermeasures. It is therefore recommended that license sanctions are the most effective means of reducing recidivism, that repeat offender treatment programs be re-evaluated and extended in scope and duration, with participation for at least a year in aftercare. 17 Ref.

Overview of the Difficulties Facing Law Enforcement in Their Effort to Detect Alcohol-Impaired Drivers

Allen, G.W.

Journal of Traffic Safety Education 37(2):8-9, 13, 1990.

The apprehension of driving under the influence (DUI) offenders by police officers is discussed, with a focus on officer attitudes, training, and detection of the DUI offender. Law enforcement studies suggest that drinking-driving is considered little more than a traffic offense accompanied by a big fine with only somewhere between 1 in 500 to 1 in 2,000 drivers with a blood alcohol concentration (BAC) higher than 0.10 percent actually being apprehended. It is noted that there are no established training standards among Federal, State and local agencies for DUI offenses, and that police have generally rated the DUI offense as a low priority. While sobriety checkpoints are used more frequently than in the past, they are faced with legal and operational problems. It is concluded that management and the rank and file of the law enforcement community should address the problem of DUI more aggressively, should receive more thorough training, and should make use of technological advancements such as portable breath analyzers. 5 Ref.

Comparison of Alcohol Sales Data with Survey Data on Self-Reported Alcohol Use in 21 States

Smith, P.F.; Remington, P.L.;
Williamson, D.F.; and Anda, R.F.

American Journal of Public Health
80(3):309-312, 1990.

Data from 21 States that participated in the 1985 Behavioral Risk Factor Surveillance System were used to compare State-specific per capita self-reported alcohol consumption and the prevalence of three drinking behaviors with State-specific per capita sales. The correlation coefficient for per capita sales and per capita self-reported consumption for the 21 States was 0.81. Per capita sales were also significantly correlated with the prevalence of self-reported heavier drinking, binge drinking, and drinking and driving; the corresponding correlation coefficients were 0.74, 0.59, and 0.51. These findings suggest that States with higher per capita sales of alcohol also have higher rates of self-reported consumption and drinking patterns suggestive of high-risk behavior. 19 Ref.

Alcohol Use and the Appearance of Alcohol Problems Among First Offender Drunk Drivers

Gruenewald, P.J.; Stewart, K.; and Klitzner, M.

British Journal of Addiction 85(1):107-117,
1990.

Drinking patterns among first offender impaired drivers are described using two quantitative dimensions, drinking frequency (the number of occasions on which alcohol was con-

sumed) and continuation (the probability that the drinker will go on to drink several drinks once one drink has been consumed). The two independent dimensions of drinking patterns are shown to be differentially related to demographic characteristics of the subject population. Further, the patterns of drinking described by the two dimensions predict the appearance of alcohol-related problems. It is demonstrated that demographic characteristics of the sample are also related to reports of alcohol problems independent of drinking frequency and continuation. 41 Ref.

Suggested Treatment Interventions for Impaired Driving Offenders Based Upon Research with Impaired Driver Subtypes

Saltstone, R., and Poudrier, L.M.

Alcoholism Treatment Quarterly
6(3/4):129-141, 1989.

This study examined 113 impaired driving offenders in community corrections programs and correctional centers in Ontario. Elicited from within the sample were four subtypes (clinically relevant in relation to alcohol dependency and personality variables) which were similar to subtypes previously described in the literature. The "worst case" impaired driving offenders (those with the highest rate of recidivism) appeared to be comparatively well adjusted emotionally, but suffered from levels of alcohol dependency to a degree which rivals levels found in samples of alcoholics in treatment. Correctional treatment alternatives are discussed in relation to these findings. 24 Ref.

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Introduction: Drinking, Driving, and Health Promotion

Sleet, D.A.; Wagenaar, A.C.; and Waller, P.F.

Health Education Quarterly 16(3):329-333, 1989.

Health promotion and its role in the prevention of drinking and driving are discussed. Headings within this article include: (1) the risk of alcohol-impaired driving; (2) differences in risk; and (3) alcohol-impaired driving and health promotion. It is concluded that alcohol consumption plays a prominent role in motor vehicle accidents and the resulting injuries. It is noted that in one research study it is estimated that the elimination of alcohol-related crashes would reduce traffic fatalities by 47 percent, or 20,000-24,000 fatalities per year. Health promotion will play a key role in the development of new programs leading to more effective control of alcohol-impaired driving. 26 Ref.

Epidemiology of Drinking and Driving: Results from the Behavioral Risk Factor Surveillance System, 1986

Smith, P.F., and Remington, P.L.

Health Education Quarterly 16(3):345-358, 1989.

The epidemiology of drinking and driving is discussed, with a focus on the results of the Behavioral Risk Factor Surveillance System in 1986. The study included analysis of the self-reports of 34,395 respondents in 26 States. Approximately 4.1 percent of the survey group and 7.2 percent of drinkers reported drinking and driving at least once in the month before the survey. Prevalence of drinking and driving was

highest among men, young adults, and divorced or separated persons. In 15 States that conducted surveillance surveys from 1984 to 1986, the prevalence of drinking and driving decreased among people under 25 years of age. It is concluded that in order to reduce the number of automobile accidents, drinking and driving should be curtailed and measures to accomplish this should include legal sanctions and increased education. 22 Ref.

Attribution Theory Perspective on Alcohol-Impaired Driving

DeJoy, D.M.

Health Education Quarterly 16(3):359-372, 1989.

An attribution theory perspective of alcohol-impaired driving is used in testing hypotheses about how people respond to impaired driving. Headings within this article include: (1) attribution theory; (2) attribution of responsibility for alcohol-related behavior; (3) attribution studies involving impaired driving, including methodological overview; (4) severity-dependent attribution; (5) defensive attribution; (6) perpetrator culpability; (7) internal versus external attribution; (8) attributional dimensions; (9) observer characteristics; and (10) summary and implication for prevention and intervention. It is concluded that attribution theory provides a framework for identifying errors in thinking about driving while impaired. These errors, once identified, can then be used as the basis of prevention programs and interventions. 42 Ref.

Drinking and Driving Among Youth: A Study of Situational Risk Factors

Vegega, M.E., and Klitzner, M.D.

Health Education Quarterly 16(3):373-388, 1989.

Risk factors associated with drinking and driving among adolescents are described. Data were collected from two separate samples who had (1) driven while impaired and (2) had ridden with an alcohol-impaired driver. The study results reveal that driving while intoxicated (DWI) and riding with an impaired driver (RWID) are a function of the role that alcohol plays in the youth culture. When DWI and RWID are situationally determined, they are controlled by the perceived need to get home or to get a passenger home, with those who are concerned with negative consequences being most frequently concerned with parental reactions. It is suggested that prevention programs should be targeted at drinking itself and at the dissociation of drinking and driving. To be effective, programs will have to address all levels: the individual, the family, the community, and society. 27 Ref.

Ecological Approach to the Prevention of Injuries Due To Drinking and Driving

*Simons-Morton, B.G.; Bring, S.G.;
Simons-Morton, D.G.; McIntyre, R.M.;
Chapman, M.; Longoria, J.; and Parcel,
G.S.*

Health Education Quarterly 16(3):397-411, 1989.

An ecological approach to the prevention of injuries due to drinking and driving is presented. Headings within this

article include: (1) two models: needs assessment and intervention; (2) social and epidemiological assessment; (3) behavior assessment; (4) educational assessment; and (5) intervention planning, implementation, and evaluation, including health goals selection and evaluation. It is noted that the reduction of drinking and driving injuries cannot be separated from the reduction of high-risk alcohol use in general and the improvement of environmental protection for motor vehicle crash injuries. Health promotion intervention must include education, formal-legal, and informal-social sanctions against drinking and driving along with environmental protections. 71 Ref.

Driving While Intoxicated: Different Roads to and from the Problem

Donovan, D.M.

Criminal Justice and Behavior 16(3):270-298, 1989.

Drinking and driving are discussed in this review of the literature. Headings within this article include: (1) general issues in the drinking while intoxicated (DWI) intervention process; (2) primary prevention: targeting youth; (3) secondary prevention: general deterrence; and (3) tertiary prevention: specific deterrence. It is concluded that drinking and driving is a major societal problem. Younger drivers constitute a particularly high-risk group for whom primary prevention measures are needed. In addition, efforts to determine and implement the most effective methods and to increase the effectiveness of rehabilitation programs must be undertaken. It is suggested that the most effective approach will include in-

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tegrated, complementary counter-measures directed at both personal and sociocultural factors. 100 Ref.

Improving the Health of Indian Teenagers: A Demonstration Program in Rural New Mexico

Davis, S.M.; Hunt, K.; and Kitzes, J.M.

Public Health Reports 104(3):271-278, 1989.

Native American teenagers in the United States have poorer health than the general population and the greatest frequency of alcohol-related problems of any ethnic group. Common barriers to their use of health care services are compounded by isolation, distance, and absence of suitable services in rural areas. A demonstration project established in rural New Mexico to overcome these barriers (1) set up one location where teenagers can obtain free, integrated, multiple, health care services, (2) formed links with other agencies, and (3) incorporated community action toward change. Alcohol abuse evaluation, education, and counseling are among the project model's components, as is sponsorship of such activities as Students Against Drunk Driving (SADD). Adolescents participating directly in program planning have presented workshops at other schools on such topics as alcohol and drug abuse. The Teen Advisory Group presented a skit on drinking and driving. Preliminary findings indicate that most of the target population is using the services, with the proportions of girls and boys about equal, and the project is being replicated. 26 Ref.

Investigation of Factors Related to Intoxicated Driving Behaviors Among Youth

Johnson, V., and White, H.R.

Journal of Studies on Alcohol 50(4):320-330, 1989.

This study assessed the prevalence of driving under the influence of alcohol and marijuana among a sample of 18- and 21-year-olds and examined the across-time relationships between intoxicated driving and consumption, risk taking/impulsive orientation, negative intrapersonal state, stress and use of alcohol and other drugs to cope with problems. Self-reported data was collected from 556 men and women, ages 18 and 21, at two points in time. The data indicated that at least a minimum level of drinking and driving, as well as smoking marijuana and driving, is engaged in at least once for the majority of youth. Correlations between eight driving behaviors and consumption variables indicated that frequency of substance use was strongly related to frequency of driving while intoxicated (DWI). Regression analyses revealed that coping use of substances was the strongest predictor of driving under the influence. A path model examining the effect of stress, negative states and risk-taking orientations (T1) on driving under the influence as mediated through coping use (T2) was tested. Results show that risk-taking orientation was the strongest predictor of DWI, both directly and indirectly (as mediated through coping use). Findings suggest that impaired driving may be part of a global syndrome of risk-taking behavior and is an activity engaged in most often by those who frequently use alcohol and other drugs to cope with problems. 68 Ref.

Students, Suds, and Summonses: Strategies for Coping with Campus Alcohol Abuse

Smith, M.C.

Journal of College Student Development
30:118-122, 1989.

This article explores some of the problems of alcohol abuse at colleges and universities. Cases of civil law and alcohol abuse are reviewed. Suits charging institutional liability have been won over failure to police the school campus or over alcohol abuse by institutional employees. The results of suits against fraternities have been mixed. Criminal laws in the areas of drinking and driving, alcohol availability, drinking age, and licensing are reviewed. It is suggested that colleges and universities take a systemic approach toward the prevention of alcohol abuse. Recommendations for such an approach are made in the areas of education, clinical intervention, nondrinking recreational activities, and institutional law enforcement. 26 Ref.

Treating Drunk Drivers with Moral Reconciliation Therapy: A One-Year Recidivism Report

Little, G.L., and Robinson, K.D.

Psychological Reports 64(3-Part 1):960-962,
1989.

The effectiveness of treatment with moral reconnection therapy during incarceration for drunk driving is discussed. The subject group included 115 convicted impaired drivers; additional information was provided by an additional group that received aftercare specifically designed to continue the

moral reconnection therapy following release. Moral reconnection therapy is designed to raise levels of moral reasoning while enhancing ego, social, and behavioral growth. Recidivism rates were 20 percent for those receiving moral reconnection therapy and 27.6 percent for the control group. A recidivism rate of 4.3 percent was seen for those subjects who participated in aftercare. 9 Ref.

Popular Misconceptions About Alcohol Misuse: Talk Given at the Annual General Meeting of the Medical Council on Alcoholism on 8 November 1988

Hanbury, B.J.

Alcohol and Alcoholism 24(2):77-81, 1989.

Misconceptions about alcohol consumption are presented and discussed. The misconceptions include: (1) that alcohol consumption is increasing at a dramatic rate; (2) that the United Kingdom has a higher per capita consumption than other countries; (3) that by reducing per capita consumption, alcohol-related problems will decline; (4) that there are 1 million problem drinkers in the United Kingdom; (5) that there are up to 40,000 deaths per year associated with drinking; (6) that road accidents associated with drinking are increasing; (7) that advertising affects overall alcohol consumption; and (8) that alcohol abuse costs the United Kingdom 1.6 million pounds per year. It is suggested that alcohol abuse prevention programs should be targeted to four population groups: (1) young people; (2) drinking drivers; (3) problem drinkers in the workplace; and

(4) pregnant women. Each needs a different approach but all need accurate, effective, well-supported education.

Citizens' Movement Against Drunken Driving and the Prevention of Risky Driving: A Preliminary Assessment

Wolfson, M.

Alcohol Drugs and Driving 5(1):73-84, 1989.

A citizen's movement against impaired driving is evaluated as an approach to prevention of risky driving. By 1985, the citizens' movements against drinking and driving included two national organizations, a number of regional and statewide coalitions, and over 450 local organizations. The movement is involved in efforts to influence state legislation in the following areas: (1) restriction of availability of alcoholic beverages; (2) enhancement of drinking and driving legislation; and (3) improving traffic safety. The results of the evaluation indicate that there is no evidence that the movement has resulted in any reduction of county-level fatal accident rates in 1985. 37 Ref.

Primary Prevention of Alcohol Problems: A Critical Review of the Research Literature

Moskowitz, J.M.

Journal of Studies on Alcohol 50(1):54-88, 1989.

The research evaluating the effects of programs and policies in reducing the incidence of alcohol problems is critically reviewed. Four types of preventive interventions are examined including: (1) policies affecting the physical,

economic and social availability of alcohol (e.g., minimum legal drinking age, price and advertising of alcohol); (2) formal social controls on alcohol-related behavior (e.g., drinking-driving laws); (3) primary prevention programs (e.g., school-based alcohol education); and (4) environmental safety measures (e.g., automobile airbags). The research generally supports the efficacy of three alcohol-specific policies: raising the minimum legal drinking age to 21, increasing alcohol taxes and increasing the enforcement of drinking-driving laws. Also, research suggests that various environmental safety measures reduce the incidence of alcohol-related trauma. In contrast, little evidence currently exists to support the efficacy of primary prevention programs. However, a systems perspective of prevention suggests that prevention programs may become more efficacious after widespread adoption of prevention policies that lead to shifts in social norms regarding use of beverage alcohol. 311 Ref.

Effects of Moral Reconciliation Therapy Upon Moral Reasoning, Life Purpose, and Recidivism Among Drug and Alcohol Offenders

Little, G.L., and Robinson, K.D.

Psychological Reports 64(1):83-90, 1989.

A study was conducted to examine how moral reconciliation therapy affected life purpose, moral reasoning, and recidivism among inmates in a community-based therapeutic drug program and impaired drivers in treatment for alcohol problems. Moral reconciliation therapy was developed to enhance social, moral, ego, and behavioral growth, particularly among criminal offenders

and other groups resistant to treatment. Participants were 62 drug offenders and 40 jailed DWI offenders. Analysis of the results revealed that moral reasoning and life purpose improved significantly as clients advanced in the program. Moral reasoning apparently increases as clients finish steps in therapy. Preliminary data on recidivism among 103 inmate-clients in an aftercare program using moral reconnection therapy are encouraging. 12 Ref.

Epidemiology of Drinking Patterns and Alcohol-Related Problems Among U.S. Blacks

Herd, D.

In *Alcohol Use Among U.S. Ethnic Minorities*, edited by D. Spiegler, D. Tate, S. Aitken, C. Christian, 350-494. Rockville, MD: NIAAA Research Monograph No. 18, Department of Health and Human Services, 1989.

This paper examines the literature on Blacks and alcohol use in the post-World War II period. Areas covered in the review include epidemiological, clinical, social survey, and ethnographic findings. The focus of the review is on the prevalence and patterns of alcohol-related problems and alcohol consumption. In the area of alcohol-related problems, several areas of research are discussed. First, epidemiological trends on liver cirrhosis and esophageal cancer morbidity and mortality are explored. Second, indicators of psychosocial/behavioral problems such as arrests for public drunkenness, arrests for drinking and driving, and hospital admissions statistics are examined. Third, self-reported social problems related to alcohol use from surveys of the general population are described. The discussion of drinking patterns focuses on the

sociodemographic correlates of drinking patterns and problems in a large sample of Black men and women. 124 Ref.

Consensus Report on Impaired Driving

Report, National Highway Traffic Safety Administration, Washington, DC, 1989.

This brief report summarizes recommendations for prevention efforts needed for long-term effects on drinking and driving. General recommendations of the 20-member panel included: (1) the goal of strategies should be to reduce impaired driving due to alcohol and other drugs; (2) strategies should be implemented at local, State, and national levels; (3) traffic safety, public health, and medical professionals should all work closely together to effectively make use of resources to implement effective prevention programs. Strategies proposed for reducing impaired driving ranged from general recommendations regarding the philosophy of legislated mandates to specific recommendations for programs involving public authorities, professional schools, and law enforcement officials.

Why We Are Concerned: An Overview of Women and Alcohol

Blume, S.

Counselor Jan-Feb: 14, 20, 1989.

The effects of alcohol consumption on women are discussed. It is noted that most studies on alcohol and alcohol-related problems are based on the respon-

ses of men, and that the results are very different when repeated with women. Physically, physiologically, and psychologically, women respond differently to alcohol than do men. In addition, most treatment programs were initially designed for men, while women remain underrepresented. Three intervention approaches developed for alcoholism are better at reaching men than women: (1) the drinking driver program, (2) the public inebriate program, and (3) the employee assistance program. Screening and outreach for women should be developed in medical and family service settings. The facts presented here emphasize the need for prevention, diagnosis, and treatment for women suffering from the disease of alcoholism.

Other Publications

Calvert County Study: A Program Evaluation of DWI Probationers Use of an In-Car Alcohol Breath Analyzer Ignition Interlock System

Baker, E.A.

Ph.d. diss., University of Maryland, College Park, 1990.

The purpose of the study was to examine a new deterrence strategy, an alcohol breath analyzed ignition interlock system, to assess the effectiveness of such a system on the subsequent drinking and driving behavior of driving while intoxicated (DWI) offenders. Eighty-eight first-time and multiple offenders were randomly assigned to either a traditional treatment group,

receiving a counseling and educational approach, or to a traditional treatment plus interlock group. Both groups were asked to complete a pre- and post-test survey containing items related to their assessment of treatment. Arrest records for both groups were compared for recidivism. Data from interlock device recorders provided information on the use of the interlock by the offenders in that group. Results indicated that multiple offenders were more likely to cooperate and benefit by having an interlock on their vehicle. Survey results revealed that first offenders overall were more hostile toward use of the interlock and 80 percent reported that they felt embarrassed by having the system on their car. First offenders also appeared more likely to try to circumvent the system as evidenced by the significantly higher number of "blow" attempts recorded on the device data logger. Although 12 percent of the respondents reported that smoking immediately preceding a test produced a false positive reading, the interlock units performed well under real-world conditions. It was concluded that multiple offenders may be the best target population for interlock programs at this time.

Drinking and Driving Prevention: High-Risk Behavior and Attitudinal Predictors

Caudill, B.D., and Ungerleider, S.

Conference Paper, Research Society on Alcoholism Conference, Beaver Creek, CO, June 1989.

Results of a three-phase drinking and driving prevention study, with an emphasis on alternative transportation services, are presented. It is noted that although the sampling occurred in later

afternoon/early evening hours, a quarter of respondents had consumed three or more alcoholic drinks prior to sampling. The results indicate that drinking and driving is a common occurrence, particularly among heavy drinkers; that police are only a minimal deterrent; that pro-drug and pro-alcohol attitudes may predict drinking and driving behavior; and that heavy drinkers are the most likely to use alternative transportation services.

Safer Streets Ahead

Report, National Highway Traffic Safety Administration and the Office for Substance Abuse Prevention, September 1990.

(Reprints available from the National Clearinghouse for Drug and Alcohol Information, P.O. Box 2345, Rockville, MD 20852.)

This manual was developed to encourage the development and growth of community action groups needed to prevent impaired driving. It is designed to serve as a "how-to" guide for individuals who want to start a community action group in a community where one does not exist, to strengthen an existing group that focuses on impaired driving, and to help members of an existing civic, social, or religious groups introduce the issue of impaired driving into the group's agenda. Topics include: community action groups: reclaiming the streets; dreams into reality: getting it all on paper; strength in numbers: uniting prevention efforts; action; and evaluation: looking back to plan ahead. The manual offers the benefit of the combined experiences of the National Highway Traffic Safety Administration and the Office for Substance Abuse Prevention.

Groups, Organizations, & Programs on Impaired Driving

AAA Foundation

1730 M Street, NW
Suite 401
Washington, DC 20036
202-775-1456

Center for Science in the Public Interest (CSPI)

1875 Connecticut Avenue, NW
Suite 300
Washington, DC 20009
202-332-9110

Insurance Institute for Highway Safety

1005 N. Glebe Road
Suite 800
Arlington, VA 22201
703-247-1500

Mothers Against Drunk Driving (MADD)

669 Airport Freeway
Suite 310
Hurst, TX 76053
817-268-6233

National Association of State Alcohol and Drug Abuse Directors (NASADAD)

444 N. Capitol Street, NW
Suite 642
Washington, DC 20001
202-783-6868

National Black Alcoholism Council, Inc. (NBAC)

1629 K Street, NW
Suite 802
Washington, DC 20006
202-296-2696

National Clearinghouse for Alcohol and Drug Information (NCADI)

P.O. Box 2345
Rockville, MD 20852
(301) 468-2600

National Coalition to Prevent Impaired Driving

1730 Rhode Island Avenue, NW
Washington, DC 20036
202-659-0035

National Commission Against Drunk Driving

1140 Connecticut Avenue, NW
Suite 804
Washington, DC 20036
202-452-0130

National Council on Alcoholism and Drug Dependence, Inc. (NCADD)

12 West 21st Street
New York, NY 10010
212-206-6770 or 800-622-2255

National Federation of Parents for Drug Free Youth (NFP)

Communications Center
1423 N. Jefferson
Springfield, MO 65802
417-836-3709

National Governor's Association (NGA)

Highway Safety Representatives
444 North Capitol Street, NW
Suite 250
Washington, DC 20001
202-624-5300

**National Highway Traffic Safety
Administration**
Traffic Safety Programs (NTS-21)
400 Seventh Street, SW
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DHHS Publication No. (ADM-91) 1876
Printed 1991