

## SESSION 5 THE VERMONT DRINKING-DRIVER RESEARCH PROGRAM

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### OVERVIEW OF THE DRINKING-DRIVER RESEARCH PROGRAM OF THE VERMONT ALCOHOL RESEARCH CENTER

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The Vermont Alcohol Research Center was founded in 1988 for the purpose of scientific investigation into the interrelations of alcohol, injury risk, and human behavior. Alcohol is the common element in all ongoing and planned research projects; its effects are examined from both public health and public safety perspectives. Each project involves one or more of the following **approaches**: epidemiologic, phenomenologic, and/or experimental. Accordingly, each project also involves one or more of the following **types of study**: field, survey, and laboratory research. Project sites are located in Maryland, Ohio, California, and Vermont. Our drinking-driver research program currently comprises three large-scale projects. Each is described briefly and selected results are presented.

1. **Psychobiological Studies of Alcohol-Tolerant Drivers**: Designed to study characteristics of alcohol tolerance from both psychosocial and biomedical perspectives. It focuses on differences in alcohol sensitivity and tolerance measured in the laboratory, their prevalence among drinking drivers, and their relevance for public health and public safety.

2. **Alcohol Tolerance and Adaptation Among Drinking Drivers**: Designed primarily to determine: (1) whether a significant proportion of drinking drivers do not manifest typical signs of intoxication, even at BACs well above the legal limit; insofar as there are such drivers, (2) how many, and (3) how their demographic, social, and psychological profiles differ from those of the driving population at large.

3. **Probabilities of Drunken Driving Among DUIs and the Public**: Designed to investigate likelihood of alcohol-impaired driving among selected segments: (1) general driving population, (2) nocturnal driving population, (3) convicted DUI offenders in treatment programs, and (4) bar patrons. Extensive interview data and official driver record data were collected from 4,000 respondents in four states. This project is now focused on: (1) obtaining same types of information from female and older drinking drivers, and (2) developing

measurement instruments and statistical models for predicting future involvement in alcohol-related crashes and DUI.

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### COMPARISON OF RISK CHARACTERISTICS OF FIRST AND MULTIPLE DUI OFFENDERS

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Prior research has reported marked differences between convicted DUI offenders and the general driving population. Substantial heterogeneity has also been documented within the population of convicted DUI offenders, and the characteristics of first and multiple offenders are frequently thought to differ. Nevertheless, surprisingly few studies have directly compared first and multiple offenders, and the available evidence is neither conclusive nor completely consistent.

In this study, we compared the risk characteristics of convicted first and multiple DUI offenders. Subjects ( $n = 1,361$ ), recruited from California DUI offender programs, completed the comprehensive Health Attitudes and Practices Survey. Based on prior research, a total of 24 predictor variables were selected to represent distinct domains. Predictor variables included demographic characteristics, self-reported quantity and frequency of alcohol consumption, measures of alcohol-problem severity, driving-related attitudes, and selected personality characteristics.

Logistic regression analysis was used to examine the efficacy of the selected predictors. The final model included 13 statistically significant predictors of offender status. Classification analysis indicated that the model correctly predicted group membership for nearly 68% of the subjects. Compared to random classification based on equal probability, the selected model reduced classification error by about 35%.

As expected, the analysis indicated significantly higher alcohol-problem severity among multiple offenders. Self-reported usual drinking quantity was a stronger predictor of offender status than measures of drinking frequency. Offender status was significantly