

Technical Report

Validation of Problem Drinking Screening Instruments for DWI Offenders

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16. Abstract This document summarizes the results of a validation study for five adult screening instruments in use for preliminary screening of DWI offenders for problem drinking. The instruments were the Driver Risk Inventory (DRI), the Michigan Alcohol Screening Test (MAST), Mortimer-Filkins Questionnaire (without the interview) and the Substance Abuse/Life Circumstance Evaluation (SALCE). As an additional task, the project was asked to validate a combination of the consumption questions from the Alcohol Clinical Index and the four CAGE questions. A criterion instrument (the Comprehensive Adult Interview) was developed during the project by a panel of acknowledged leaders in the field of problem drinking assessment. All of the screening instruments (six total) were administered to 609 consenting adult DWI program participants in Pennsylvania and Massachusetts. The assessment instruments correctly identified problem drinkers, as classified by the criterion instrument, across a range of 72% to 92% of the time. In general, the more sensitive an instrument was, the less specific it tended to be. In other words, a cost of identifying a higher proportion of the problem drinkers was that more persons who were not problem drinkers were incorrectly classified as such.			
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1 - INTRODUCTION

This report describes a validation study of several problem drinker screening instruments which are in widespread use by courts to determine the need for further assessment and treatment of DWI offenders for problem drinking. The project entitled "Problem Drinker Assessment Instrument Validation" was conducted under contract number DTNH22-90-C-07287 for the National Highway Traffic Safety Administration (NHTSA).

BACKGROUND

Throughout the United States there is a growing trend for courts to conduct a preliminary screening of DWI offenders for alcohol problems either prior to sentencing or as a component of the sentence. This screening typically takes the form of the administration of a relatively brief screening instrument. The results of that test are used to help decide whether the DWI offender is sent on to further assessment and treatment as a part of the sentence for DWI. Among the findings of an earlier study conducted for NHTSA, "Assessment of Classification Instruments Designed to Detect Alcohol Abuse" (DOT HS 807 475) were that: the instruments were administered by persons with a wide variety of qualifications; that in some cases the results from the screening instruments were used to make the final determination of whether an offender received treatment; and that most instruments in widespread use had not been independently validated against an objective criterion measure.

This study is intended to address the last observation noted above by developing a criterion measure and subjecting some of the more widely used screening instruments to an independent validation study using a criterion measure which could be replicated.

BASIC APPROACH

Criterion Measure

Most validation studies of instruments of this nature have used as criterion measures either a clinician's opinion or another widely used instrument. NHTSA desired that a new criterion measure be developed which could be administered in a standardized manner so that other similar validation studies could be conducted. To that end, a panel of acknowledged leaders in the field of problem drinking assessment was convened to guide the development of a criterion measure which might be considered a "gold standard" for these purposes. They helped develop two quantifiable criterion measures (one for adults and one for adolescents) which could be supplemented by queries of other persons (collaterals), official records and a measure of breath alcohol concentration of the persons being assessed. The adult

tool (Appendix A - Comprehensive Adult Interview) was used as the criterion measure for this study and is discussed in greater detail later in the report. The adolescent criterion instrument appears in Appendix C.

Instruments Studied

Four screening instruments for adults were selected for this validation study. Because resources were available to study only four screening instruments, an attempt was made to identify from among the many instruments in current use ones which, based on the earlier study, were known to be in widespread use and were constructed using sound psychometric procedures. Additionally, we wished to examine both hand-scored and computer-scored instruments. This essentially translated into ones which were in the public domain and thus fairly inexpensive to obtain (hand-scored) and proprietary instruments which had somewhat higher costs associated with them (computer-scored). The expert panel was asked to review the list of possible instruments and make recommendations. The four DWI adult screening instruments studied were the Michigan Alcohol Screening Test (MAST), the Mortimer-Filkins Questionnaire (without the interview), the Driver Risk Inventory (DRI) and the Substance Abuse/Life Circumstance Evaluation (SALCE).

As an additional task, NHTSA requested that we validate a combination of the consumption questions from the Alcohol Clinical Index and the four CAGE questions. These questions were suggested by the expert panel as a possible shorthand way of identifying problem drinkers on a telephone questionnaire NHTSA was developing.

Data Collection Sites

Data were collected from adult subjects in DWI programs in Allegheny County (Pittsburgh), Pennsylvania and the Greater Boston, Massachusetts area. These sites were selected primarily because they generated a sufficient number of DWI offenders to satisfy our sample size needs, they served a heterogeneous population of offenders, and program administrators expressed interest in the project and a willingness to allow their staff or graduate students to administer the instruments and criterion measure.

Data Collection Approach

All of the screening instruments were administered to 609 consenting adult DWI program participants. A mix of first and multiple offenders participated. Anonymity was assured and the instruments were administered by persons who did not have direct responsibility for the subject's program activity. The order of administration of instruments was counterbalanced to obviate any possible order effect.

Analysis Approach

Each instrument was scored according to its scoring instructions to categorize each individual as problem drinker or non-problem drinker. These results were then compared with that obtained using the criterion measure. Tables were presented showing the degree of agreement, proportion of false positives and false negatives for each instrument in comparison with the criterion measure.

Discussion and Recommendations

The instruments correctly identified problem drinkers, as determined by the criterion measure, across a range of 72 to 92 percent of the time. They also varied in terms of specificity. In general, the more sensitive an instrument was, the less specific it tended to be. In other words, a cost of identifying a higher proportion of the problem drinkers was that more persons who were not problem drinkers were incorrectly classified as such.

ORGANIZATION OF THE REPORT

Chapter 2 details the identification of the expert panel and development of the criterion measure. Chapter 3 explains the development of the criterion instrument. Chapter 4 discusses the instruments selected for validation. Chapter 5 addresses the data collection and processing procedures used to compile the information obtained from the interviews. Chapter 6 presents the analysis approach and results. Chapter 7 contains discussion and recommendations of this report.

Validation of Problem Drinking Screening Instruments for DWI Offenders

2 - IDENTIFICATION AND RECRUITMENT OF EXPERT PANEL

It was NHTSA's desire to develop a criterion measure which could be objectively applied and was thus readily replicable. Thus the more traditional criterion measure for such validation studies, a clinical evaluation by a mental health professional, was not appropriate to this study. Rather, it was decided that a measure developed with the advice and assistance of a number of acknowledged leaders in the field of problem drinking assessment should be created. The first step in this process was to assemble an expert panel. This chapter describes that process.

It was vital to the development of the criterion measure that the expert panel be comprised of acknowledged leaders in the field with impeccable credentials and which, as a group, had expertise in all of the areas required. The identification of these individuals was a multi-step process. We first developed a list of required areas of expertise and desired panelist attributes. We then identified a number of individuals who had expertise in the field. The next step was to recruit other persons with knowledge of the field and familiarity with the practitioners in the field to rate potential panelists. Once ratings were received and the desired panelists identified, they were recruited to the task.

The major charge to the panel was to develop criteria that could be used in the validation of screening instruments intended to identify problem drinkers within the DWI population.

Two types of experts were needed on the panel, those with expertise in the various specialties involved in *formulating* criteria for assessing problem drinking, and those with comprehensive knowledge and experience in *developing and administering* such protocols. The former type of individual was considered more important to this phase of the project, because we were developing validation criteria rather than a protocol. The latter type of individual was needed to help ensure that the validation criteria were practical and could be applied in an operational setting.

For panel members who had developed instruments, it was important to identify persons who would strive to serve project goals rather than particular interests. Additionally, we tried to identify persons who did not have a financial interest in the sale of instruments.

We also needed members who were knowledgeable in certain ancillary areas that supported the development of practical criteria. For example, the panel needed to include some (but not necessarily all) members with knowledge of databases that related to pertinent specialties. For instance, data in driving records could be used in a particular validation criterion, so one or more panel members needed to be familiar with the nature, validity, accessibility, and cost of such records.

The criteria recommended by the panel would be subject to considerable scrutiny by a wide range of constituencies. Thus, we needed panel members who had a high level of professional credibility in their areas of specialty and well-established reputations. Members who were primarily researchers conducted research projects

and published widely in pertinent areas. Further, panel members had to be willing to expend enough time to work on this project, and be able to participate in a consensus-building process.

Because a number of skills were necessary to the panel and the number of panelists was limited, we endeavored to identify potential panelists who had multiple skills that were pertinent to the panel activities. Most potential panelists had expertise in at least two or three specific areas that were critical to developing validation criteria for problem-drinker assessment instruments.

SPECIFIC CRITERIA FOR PANEL SELECTION

Specialized Subject-Area Knowledge

Knowledge and experience in the following areas were deemed essential.

Drinking Practices

Definitions of Problem Drinking

Knowledge of the several approaches to defining problem drinking provided useful information in developing the criteria, which in effect formed an operational definition of problem drinking. The criteria-setting process had to take into account the thinking of the research communities on this issue.

Patterns of Problem Drinking in Various Populations

The initial charge in this project was to develop operational criteria for two broad sub-populations; adult and adolescent problem drinkers within the DWI population. Additionally, it was necessary to have insights into whether criteria that were developed would be appropriate across ethnic groups within these two sub-populations.

Correlates of Problem Drinking

The criteria developed would, in essence, be a set of correlates of problem drinking. It was essential that the panel have members who had studied this area.

Alcohol Effects on People

Physiological

A group of potential criteria fell into the general category of biological markers of problem drinking. The panel needed the capability of addressing two basic issues here: specific physiological criteria that would be appropriate; and feasibility of gathering such information from likely study populations.

Behavioral

Many of the potential criterion measures were indicators of the social behavioral effects of problem alcohol consumption. Such indicators might include contacts with criminal justice system agencies and contacts with mental health agencies, among others. It was essential that expertise in this area be present on the panel.

Treatment of Alcoholism and Alcohol Abuse

Symptoms and Diagnosis

Knowledge of the symptoms of problem drinking and skills in diagnosing a subject with a given set of symptoms were required for identifying problem drinking in the clinical setting. Objectively measurable factors in this process were likely to be components of the assessment validation criteria.

Selection of Treatment

The charge of the instruments was to identify problem drinkers within the DWI population for whom traditional sanctions (e.g., fines, jail, etc.) were not sufficient and thus treatment was indicated. Therefore, it was important that the panel contain members expert in identification of appropriate treatment for problem drinkers, particularly those encountered in the DWI population. Knowledge in this area would provide insight about the characteristics of patients for whom treatment would be effective.

Comprehensive Knowledge of Problem-Drinker Assessment

Construction and Validation of Psychometric Tests

Persons with experience in this area would be able to provide valuable input about some of the barriers and solutions to obtaining appropriate validation

criterion information and could provide input on how those steps might affect methodological issues.

Developing and Administering Specific Assessment Protocols

Familiarity with the process and pitfalls of field tests of criterion variable validity and diagnostic practices was useful in identifying problems the project might have encountered in measuring a criterion designed to be an independent and superior measure of the need for treatment.

Knowledge About Pertinent Databases

It was possible that many of the criterion variables considered would be available from official or medical databases. Therefore, it was important that the panel contain persons with expertise in the potential database areas listed below. It was highly unlikely that such individuals would be records specialists. They were more likely to have acquired their database knowledge in the course of their primary research and professional activities.

Motor Vehicle Department Records

Traffic Accident Records

Driver Records

Medical Records

Addiction Treatment Agency Records

Criminal Justice System Records

Police Agency Records

Court Records

Sanctioning Agency Records

Social Service Agency Records

Other criteria which were important to the credibility of the panel and its functioning were:

Professional Reputation and Credentials

Academic degrees

Research activities

Publications

Work experience

Effectiveness as a Panel Member

Ability to work as a member of the group
Willingness to put forth the necessary time and effort
Required areas of expertise

The following procedures were used to rate potential panelists against the selection criteria outlined above.

PROCEDURES FOR RATING POTENTIAL PANELISTS

Four experts in the field: two from granting agencies and two senior researchers in the field who would not be available to participate in the panel activities were first asked to rate each of several potential nominees on their level of expertise or qualifications in each of the above areas. They were also asked to suggest additional nominees and rate them. A grid was developed and provided for these purposes. For each of the additional nominees, the other expert raters were polled by phone by project staff for their ratings.

After the first round of ratings, a shorter list of nominees was prepared and the expert raters were again polled and asked to provide opinions about potential panelists' overall knowledge and reputation separately on groupings of categories of expertise. These were: definitions of problem drinking; patterns of problem drinking; correlates of problem drinking; symptoms of problem drinking; and treatment for problem drinking.

The results of this series of ratings were reviewed by project staff. A list of recommended panelists, along with supporting documentation, was submitted to NHTSA for review. After NHTSA approval, project staff recruited panel members. Fortunately, all of those identified agreed to serve.

SELECTED PANELISTS

Brief biographical sketches (current in 1992) of the selected panel members appear below.

Thomas F. Babor, Ph.D.

Ph.D. 1971 in Social Psychology from the University of Arizona. He was the Director of the Alcohol Research Center at the University of Connecticut Health Center and a professor in the School of Medicine at the University of Connecticut, Framingham. As director of the large, multi-site National Institute on Alcohol Abuse and Alcoholism (NIAAA) study of client treatment matching, he brought to the panel in-depth understanding of the symptoms of alcohol abuse requiring intervention.

Howard Blane, Ph.D.

Ph.D. in Clinical Psychology from Clark University. He was the Director of Research at the Institute of Research in Psychology, SUNY, Buffalo, and has been a leading figure in alcohol research for the past 30 years. He was Principal Investigator of an NIAAA alcohol research center. He has worked extensively on epidemiologic studies of problem drinking and correlates.

John E. Donovan, Ph.D.

Ph.D. in Social Psychology from the University of Colorado. From 1977 - 1993 he was a Research Associate in the Research Program in Problem Behavior, Institute of Behavioral Science, University of Colorado. His research interests have focused on alcohol and drug use among adolescents and young adults. He has also conducted a study on drunk driving and risky driving among adolescents. He currently directs a research program in that area at the Western Psychiatric Institute in Pittsburgh, Pennsylvania.

Roger H. Peters, Ph.D.

Ph.D. in Clinical Psychology from Florida State University. Assistant Professor, University of South Florida, Florida Mental Health Institute. His research has included evaluation of national model in-jail drug and alcohol treatment programs for the Bureau of Justice Assistance and an evaluation of the State of Florida assessment and treatment programs for DWI offenders.

Harvey Skinner, Ph.D.

Ph.D. in Psychometrics from the University of West Ontario. He is considered a Health Psychologist. Since 1989 he has been chair and professor of the Department of Behavioral Sciences at the University of Toronto, Ontario. From 1976-1988, he was a senior scientist with the Addiction Research Foundation. He was one of the first to advance the argument for two-step screening for alcohol problems to save resources and expenses in identifying clients appropriate for treatment. His special interests are diagnostics and assessment.

Ken Winters, Ph.D.

Ph.D. in Clinical Psychology from SUNY, Stony Brook. Since 1985, he has been Director of the Chemical Dependency Adolescent Assessment Project supported by the Amherst Wilder Foundation, St. Paul, Minnesota. He has extensive experience in developing and field testing screening instruments for determining chemical

dependency in adolescents. His interests are in drug and alcohol abuse and applied clinical research.

Additionally, *Patricia F. Waller*, Director of the University of Michigan Transportation Institute agreed to moderate the panel meetings.

Patricia F. Waller

Ph.D. in Psychology from the University of North Carolina, she worked as a clinical psychologist in North Carolina, Virginia and Massachusetts, and taught and conducted research at the University of North Carolina (UNC) and elsewhere. She served as Associate Director for Driver Studies for the UNC Highway Safety Research Center. She served as founding director (1987-1989) of the UNC Injury Prevention Research Center, one of the first five centers of excellence in injury prevention research funded by the Centers for Disease Control. In 1989 she left UNC to become director of The University of Michigan Transportation Research Institute (UMTRI). She holds academic appointments in The University of Michigan School of Medicine, School of Public Health, and Department of Psychology.

3 - CRITERION DEVELOPMENT

The panel carried out its work in three sessions held in Washington, DC at approximately two month intervals. At the first meeting, the panel was given its basic charge of developing a criterion measure which would identify problem drinkers whose level of drinking and associated problems indicated either a need for treatment or a thorough diagnostic assessment. To assist the panel in their deliberations, alternative criterion measures suggested by a review of the literature were provided before the first meeting. The criterion measures were grouped into four categories according to the source of the data: self-report measures, official records, biochemical tests and collateral reports.

Self-report measures included alcohol consumption levels (quantity), frequency of alcohol consumption, and negative consequences such as family problems and trouble with the law. Official records such as criminal records, driving history, health care providers for services or benefits were other sources of data which could be used to identify alcohol abusers. Biochemical tests could be collected as part of a court's investigation of a case or when available from existing medical records. Simultaneous use of two or more conventional laboratory markers generally has been proven more successful than the use of a single marker. Laboratory findings from the following list could represent objective chemical markers of problem drinking and alcoholism in uncooperative patients who denied any drinking problem.

1. Blood alcohol concentration (BAC) / Blood Alcohol Level (BAL). This requires measurement within a short time of arrest, and may be difficult to obtain for all offenders. Detects only current use, not chronic abuse.
2. GGT assay—blood levels of Gammaglutamyltransferase. The enzyme has been found to be a relatively sensitive index of liver damage in clinical studies of alcoholics and heavy drinkers.
3. Urinary dolichols (substances involved in the formation of certain protein-carbohydrate compounds) have been reported to be significantly more sensitive than GGT for detecting alcoholism.
4. Analysis of carbohydrate-deficient transferrin (CDT). A new technique permitting rapid detection and measurement. Excessive alcohol consumption has been associated with increasing levels of the carbohydrate-deficient form of transferrin, a protein that transports iron.
5. Blood level of the mitochondrial liver enzyme aspartateaminotransferase (AST) and its ratio with total AST has been found effective in discriminating between alcoholics and other subjects, and in detecting excessive drinking.
6. Examination of the use of acetaldehyde (ACH), the major metabolite of alcohol. All known pathways of alcohol metabolism result in producing ACH. ACH binds to certain proteins to form acetaldehyde adducts (Aas), which may prove to have strong diagnostic relevance.

Collateral reports provide the last criterion measure category. These are reports which might be obtained from relatives, friends or co-workers. Because problem drinkers tend to deny that they have a problem or deliberately under-report their consumption, reports from others who have the opportunity to observe the offenders' drinking behavior and consequences have been used in the past. Supervisors and co-workers of employed offenders could be asked about on-the-job drinking or impairment, while spouse/partners or friends could be asked about weekend and evening consumption and impairment.

SPECIFIC DOMAINS

The panel discussion at the first meeting focused on the specific domains which were to be addressed by the criterion measure and sources of test items which could be used to tap those domains. The four domains the panel members identified are described below:

1. *Consumption of Alcohol*

Excessive use of alcohol as indicated by such criteria as a high BAC at arrest or in an emergency room; reports of heavy drinking; heavy drinking symptoms at arrest; rapid drinking; inappropriate drinking contexts; early onset of drinking and drinking related problems; recent use of other drugs; prior problems with drugs; and biological markers indicating heavy drinking.

2. *Alcohol Dependence*

Physical and/or psychological dependence on alcohol, including symptoms set forth in DSM-III-R (e.g., withdrawal, tolerance, pre-occupation with drinking, loss of control of drinking, and persistence in drinking despite consequences); a history of dependence as indicated by prior episodes of delirium tremens (DTs) and treatment for alcohol abuse; medical problems associated with dependence such as gross tremor, nystagmus, and impaired cognitive function, and acute abstinence syndrome.

3. *Consequences of Drinking*

Indications that a person has experienced the consequences of alcohol abuse. Two types of such consequences were identified, psychosocial and biomedical. Psychosocial consequences include arrests for DWI and chemical test refusal; arrests for certain non-traffic offenses such as domestic violence; contacts with social service agencies; and life role dysfunctions involving the workplace, family, marital relations, finances, legal matters, drugs, psychiat-

ric problems, and psychosocial distress. Biomedical consequences include a history of trauma; impaired liver function; gastro-intestinal problems; hypertension; cardiopulmonary problems; impaired sexual function; and blackouts and hangovers.

4. *Vulnerability*

The presence of factors indicating a vulnerability or predisposition to alcohol abuse. Such factors include a family history of alcohol abuse, substance abuse, or personality disorders; a history of anti-social behavior; and a high level of childhood risk factors, both organic and environmental.

Panelists rated the adult problem drinking criterion variables. The results of the ratings are presented in a series of tables in Appendix A. The first tables (Table A-1 and Table A-2) provide mean ratings for all variables combined within each general category. The higher the mean, the better. Thus for cost, the higher the mean, the lower the cost. Tables A-3 and A-4 provide the mean value on discriminability, obtainability, feasibility and cost for each variable, presented in the sequence they appear on the form. Table A-5 provides the same information with the variables sorted in order of mean discriminability score. The information was used to decide what variables were most appropriate for the criterion measure.

The panelists then discussed sources of questionnaire items to measure these domains.

SOURCES

Project staff gathered and tabulated those items which could be obtained during the first meeting and they were reviewed by the expert panel. Certain items were selected as likely being appropriate for the criterion measure and others were drafted. The panel came to the opinion that sufficient information could be obtained to make a determination of problem drinking through official traffic records, questionnaire responses supplemented by information to be gathered from collaterals (friends, relatives, etc.), and a BAC measurement at time of testing.

The development of the criterion instrument began with a review of existing assessment instruments. Portions of several of those instruments were identified as potential components for the proposed criterion instrument. The chart below outlines the abbreviations for the various assessment instruments.

Table 1: Sources of Items in Assessment Instruments

Abbreviation	Full Name
AEQ	Alcohol Expectancy Questionnaire
ADI	Adolescent Diagnostic Interview
APSI	Adolescent Problem Severity Index
ASI	Addiction Severity Index
CDP	Comprehensive Drinking Profile
DIS	Diagnostic Interview Schedule
Form 90C	Form 90C
HAP	Health Attitudes and Practices
IAP	Individual Assessment Profile
RDC	Research Diagnostic Criteria
TS	Trauma Scale

Items were categorized by each criterion topic (Consumption, Dependence, Consequences and Vulnerability) and sources of questions on existing assessment instruments were identified. The four tables in Appendix A (Tables A-6, A-7, A-8 and A-9) outline these items separated by Self Report and Collateral and further by Adult and Adolescents. The last table (Table A-10) identifies sources of information other than existing assessment instruments, such as records and biochemical tests.

PROBLEM DRINKER DEFINITION

Panel members were asked to help identify persons within the convicted DWI population who should be categorized as problem drinkers. As indicated in the previous section, the expert panel identified four critical domains which contribute to the classification of a DWI offender as a problem drinker. Again, these are alcohol consumption, consequences of alcohol consumption, dependence on alcohol and history of alcohol treatment. The definition below incorporates each of those domains.

A problem drinker is a person who:

- consumes five or more drinks per day on eight or more days each month; or
- has experienced five or more adverse consequences of drinking such as job loss, arrests, family or health problems or the like; or

- exhibits three or more symptoms of dependence such as needing to drink more in order to have an effect, withdrawal symptoms or the like; or
- had treatment for alcohol problems two or more times.

Persons who exhibit the characteristics described above to a lesser degree in two or more of the categories would also be categorized as problem drinkers. The thresholds for categorization as a problem drinker requiring two or more domains are:

- consumes five or more drinks per day on from four to seven days per month;
- has experienced three or four adverse consequences of drinking;
- exhibits one or two symptoms of alcohol dependence;
- and has had previous treatment for alcohol problems.

Table 2: Minimum Domain Scores for Establishing Various Drinking-Problem Risk Levels

Level	Consumption Alcohol ¹	Consumption Drugs ²	Consequences ³	Dependence Criteria ⁴	Psychological, Vulnerability ⁵	Previous Treatment ⁶	BAC at Interview
Major	5+ = 8+ days per month	1+ for Alcohol + Drugs	5+	3+	-	2+	.05+
Minor	5+ = 4-7	Some	3-4	1-2	-	0-1	0<BAC<.05
At Risk	5+ = 1-3	0	1-2	0	1+	0	0
No Risk	5+ = 0; 3-4 < 4	0	0	0	0	0	0

¹ "5+ = 8+ days per month" indicates 5 or more drinks 8 or more days per month, etc.

² "1+ alcohol + drugs" indicates 1 or more occasions per month.

³ Number of positive responses to consequences questions.

⁴ Number of positive scores on dependence criteria.

⁵ Number of positive responses to psychological / vulnerability questions.

⁶ Number of detoxifications undergone.

DRAFT QUESTIONNAIRES

Between the first panel meeting and the second, project staff gathered additional items from sources indicated by the panel and prepared listings of all items for further consideration by the panel. Their ratings of items were scored and provided to the panelists at the second panel meeting. At the second panel meeting, draft criterion questionnaires were constructed which contained a compilation of items from existing instruments. Complete copies of the adult draft questionnaire and the adolescent draft questionnaire appear in Appendices D and E.

4 - INSTRUMENTS SELECTED FOR VALIDATION

The basic selection criteria which qualified instruments for inclusion in the validation study were that the instruments be in widespread use, that the developers had used sound psychometric techniques, and that the tests selected represented both hand and computer administration and scoring techniques. We initially examined the results of the review of instruments and survey of states from Popkin, Kannenberg, Lacey and Waller (1988) to identify instruments which met these criteria. A list of candidate instruments was prepared and supplemented with information about more recently developed instruments. This listing was presented to the expert panelists and they assisted in the selection of four instruments for the adult validation study. These four instruments were the Michigan Alcohol Screening Test (MAST), the Mortimer-Filkins Questionnaire, the Substance Abuse Life Circumstances Evaluation (SALCE), and the Driver Risk Inventory (DRI).

In addition, during the project NHTSA requested that we suggest a limited number of questions which could be included on a telephone interview which could be used to classify respondents as problem drinkers. We queried the panel and they suggested using the CAGE (Ewing, 1984) questionnaire combined with six consumption questions from the Alcohol Clinical Index (Skinner and Holt, 1987). NHTSA requested that we also include that set of questions in the validation study. Descriptions of the instruments from the 1988 report follow, along with tabular summaries of pertinent characteristics of the instruments. The actual questionnaires appear in Appendices.

MICHIGAN ALCOHOL SCREENING TEST (MAST)

The MAST, at the time of this study, was one of the most widely used instruments for screening for alcohol problems, and consequently, there was considerable information available on it. However, there were a number of problems with its use. First, it could easily be "faked" by anyone trying to look "too good" or "too bad," and there were no validation scales included. Second, it was developed simply by "eye balling" the way in which items differentiated between two groups of subjects, so that there were questions concerning the levels at which different items were weighted.

Like other screening instruments, it was designed for use in conjunction with an interview by a counselor. Because of the obvious nature of the questions, there was some indication that this instrument might be useful in detecting persons who acknowledge having an alcohol problem, a use that might not be particularly applicable when dealing with convicted impaired drivers, especially young convicted drunken drivers. There was data becoming available on female subjects, which might increase the instrument's versatility.

The ease and low cost of administering the MAST, as well as the number of studies in which it was used, suggested that it might be a useful instrument so long as its limitations were recognized.

MICHIGAN ALCOHOL SCREENING TEST (MAST)

GENERAL

Developed by Melvin Selzer (1971) at the University of Michigan

- Available from Melvin Selzer, 6967 Paseo Laredo, La Jolla, CA 92037
- 10-15 minutes to administer
- \$5 charge for a copy of the MAST at the time of this study; no fee for its use

DESCRIPTION

- 24 items (Y/N), self or counselor-administered (latter more valid)
- 3 categories: no drinking problem, possible problem, alcoholism
- Another instrument, NDP (Numerical Drinking Profile) includes the MAST along with personal data items

EVALUATION

- Quick, inexpensive, easy to score and interpret
- High face validity may interfere with self-report accuracy. (May be more appropriate for self-acknowledged alcoholics or for ranking respondents along a continuum of alcohol involvement/deterioration.)
- High rate of false positives (33%, see Jacobson, 1983)
- Norms based on initial validation sample (n=526) of hospitalized alcoholics, DWIs, Drunk & Disorderlies, drivers with excessive violations, and controls (Selzer, 1971); subsequent studies provide information on female norms (see Jacobson, 1983)
- Reliability
Internal consistency: ranges between $r=0.83$ and 0.95 (Mischke and Venneri, 1987)
- Validity
Concurrent: $r+0.65$ w/alcoholism counselor decisions (Mischke and Venneri, 1987). Significantly more repeat offenders than first offenders were identified as alcoholic by the MAST (Yoder and Moore, 1973)
Internal: 71% of items significantly discriminated between problem and non-problem drinkers (Mischke and Venneri, 1987)

MORTIMER FILKINS

This instrument, unlike most of those reviewed in this report, was developed and specifically designed for assessing DWI offenders. Developed in 1971, it has been used far more widely than most of the other instruments reviewed, yet there were not a great deal of published data available. Different studies reported divergent findings in terms of its accuracy in differentiating between problem drinkers and controls, DWI recidivists and controls, or test scores and counselor judgements. There were no truthfulness scales to detect faking “good” or “bad.”

While the instrument appeared to be psychometrically sound, its administration and scoring procedures are lengthy. It requires 45 to 90 minutes to administer, depending on whether the questionnaire is administered alone or in conjunction with an interview, as is intended. Many evaluation programs can not allocate so much time.

MORTIMER-FILKINS QUESTIONNAIRE

GENERAL

- Developed by R. Mortimer and L. Filkins, University of Michigan Highway Safety Research Institute, 1971
- Available through the National Highway Traffic Safety Administration, Traffic Safety Programs, Office of Traffic Injury Control Programs (NTS-11) 400 Seventh St., N.W. Washington, D.C. 20590
- 45-90 min to administer
- No cost for the instrument, manual, and scoring keys; user bears only the cost of reproducing the instrument

DESCRIPTION

- 58 item (T/F, Y/N, short answer) questionnaire plus interview; individual or group administration
- 3 categories: social drinker, presumptive problem drinker, problem drinker
- Specifically designed for court assessment of DWI/DUI offenders; used extensively by many states for evaluation of drinking drivers

EVALUATION

- Time consuming to administer; validity may be compromised when interview is omitted due to time constraints
- Normed on sample of alcoholic inpatients, outpatients, and incarcerated offenders and a sociographically heterogeneous sample of controls
- Reliability
Internal consistency: questionnaire- $r=0.95$, interview- $r=0.97$, total score- $r=0.98$ (Mortimer et al., 1971)
- Validity
Concurrent: Initial validation study (192 problem drinkers vs. 297 controls) yielded 92% hits, 99% correct rejections; correlations between scores and criterion group membership: questionnaire- $r=0.85$, interview- $r=0.91$, total score- $r=0.92$ (Mortimer et al., 1971)
Study of DWI recidivists vs. controls ($n=1800$) reported unacceptably high false positive (19%) and false negative (70%) rates (Wendling and Kolody, 1982)
 $r=0.46$ between test scores and counselor decisions (Mischke & Venneri, 1987)
MF's criterion-related validity seems to depend on cutoff score used for problem drinker classification
Internal: 67% of items significantly discriminated between criterion groups in DWI sample (Mischke & Venneri, 1987)

SUBSTANCE ABUSE LIFE CIRCUMSTANCES EVALUATION (SALCE)

The initial version of the SALCE was adapted from the Criteria for the Diagnosis of Alcoholism developed by the Criteria Committee of the National Council on Alcoholism. It was not designed to differentiate alcoholics from non-alcoholics but rather to “characterize an individual’s need to alter his/her use of alcohol or other drugs. More specifically, the test’s function is to identify behavioral, attitudinal and clinical indicators of this need.” It was developed especially for use with DWI offenders and attempted “to assess drinking behavior on a continuum from ‘nonproblem social drinking’ to ‘severe problem drinking’ and/or ‘alcohol addiction’.”

The test was designed to be used in conjunction with an interview. The test developers reported validation studies comparing the SALCE with professional assessments and with the Mortimer-Filkins. Using five assessment categories of drinking, they reported a high level of agreement between the SALCE and the ratings by the professional assessors. Compared to the Mortimer-Filkins, the SALCE identified a higher proportion of DWI offenders as problem drinkers rather than social or presumptive problem drinkers. Thus, the SALCE tended to classify the same respondents as having more serious drinking problems than did the Mortimer-Filkins.

SUBSTANCE ABUSE LIFE CIRCUMSTANCES EVALUATION (SALCE)

GENERAL

- ADE, Inc, 1983,1986
- Located at 20 West Washington St. - Suite 12B, Clarkston, MI 48016
- 15 min (+ 5 min computer [IBM] analysis + 20 min interview)
- \$10/test (= \$450 one-time administration fee) at the time of this study

DESCRIPTION

- 85 T/F and scaled items, self-administered
- 5 categories: (D1-no use; D2- use with no reported problems; D3- substance use with minimal problems; D4- substance use with problems; D5- substance use with physical or psychological symptoms of addiction)
- Combines former ADE (Automated Drinking Evaluation) instrument with a Life Circumstances rating

EVALUATION

- Easily administered and scored (computerized evaluation)
- Includes measure of test-taking attitude
- Flags responses to critical items
- Includes treatment recommendations
- Normed on DWI population; annual updating on demographics
- Reliability
 - Internal consistency: $r=.93$
- Validity
 - Concurrent: 61% perfect agreement (93% within one category) between SALCE assessments and assessments based on personal interview (by probation officers, ADETS staff, hospital staff and counselors [n=2000])
 - SALCE scores are generally consistent with MAST scores but SALCE identifies more problem drinkers.

DRIVER RISK INVENTORY (DRI)

This instrument appears to be the most carefully constructed from a psychometric standpoint. It was developed specifically for screening convicted impaired drivers, presumably for purposes of disposition decisions. Reliability is well established and validity is based on the instrument's relationship to other established measures. Data from respondents are retrieved from users to update norms annually while allowing additional specification of norms for particular geographic or demographic subgroups.

The instrument consists of 131 items that can be read by someone who has passed the written driver's license examination. The test provides results on five measures, including one on alcohol. For each measure, the testee is classified according to risk level along a four point scale ranging from low risk to high risk. A truthfulness scale alerts the evaluator to the presence of response bias in the protocol. One of the scales is designed to detect irresponsible driving and provides an assessment of driver risk, a particularly useful feature for evaluating the DWI offender that does not exist in any other instrument we reviewed. Automated scoring provides a written summary of the findings, in addition to the actual scores on the scales and the items. The results also include recommendations for disposition.

In settings where it has been adopted as the primary screening instrument for processing convicted impaired drivers, substance abuse counselors have reported that it improved the quality of their decisions while making the task less time-intensive. The documentation does not include information on outcome measures, that is, there are no studies to report how effectively the instrument identifies persons who subsequently benefit from one type or another of treatment or disposition.

Nevertheless, of the instruments reviewed (in the 1988 report), this test was the most carefully constructed. However, there remains the need for careful follow-up validation research to determine whether it truly achieves what its developers purport. More information is also needed assessing the usefulness of the various dispositions employed.

DRIVER RISK INVENTORY (DRI)

GENERAL

- Developed by Lindeman and Scrimgeour, Behavior Data Systems, Ltd. (Copyright 1987) PO Box 32308, Phoenix, AZ 85064
- 20 min (+ 5 min scoring, automated only [IBM compatible])
- Approximately \$10/test, discounts for volume purchases and for participation in DRI research

DESCRIPTION

- 131 items (empirically selected via item analysis)
- Individual or group self-administration, on-line or paper-&-pencil
- Appropriate for men & women; Spanish version available
- 5 independent scales, each with risk level classification (normed on DWI population: I. Truthfulness; II. Alcohol; III. Drugs; IV. Driver Risk; V. Stress Quotient)

EVALUATION

- Easily administered and scored (computerized evaluation)
- Uses direct, non-offensive, uncomplicated language
- Truthfulness measure adjusts DRI scale scores
- Includes treatment recommendations
- Flags responses to critical items
- Report (3-page summary) may be tailored for the courts, treatment provider, and/or the offender
- Normed on DWI population; some scales have sex-specific norms. Annual updating on demographics.
- Reliability
Internal consistency: $r=0.74 - 0.90$ across scales
- Validity
Concurrent: $r= 0.44 - 0.63$ between DRI scale scores & DWI screener/evaluator ratings. Significant correlation between Alcohol scale & BAC, $r = 0.24$ ($p<.001$) and between Driver Risk scale & prior violations and crashes, $r =0.16$ ($p<.02$) to $r= 0.37$ ($p<.001$).
Significant correlations between DRI scales (especially Alcohol) and other tests (MAST, Mortimer-Filkins, and Sandler)

CAGE

This instrument was initially designed for use by general practitioners to screen for possible alcohol problems. It is especially simple to use and has the advantage that it is apparently non-threatening to the testee. Whether this characteristic would still hold true for convicted impaired drivers is not clear. The CAGE consists of four items, and the name of the test derives from the key drinking-related concept measures within each item, namely, Cut down, Annoyed, Guilty, Eye-opener.

The CAGE is much too brief to serve as a comprehensive diagnostic tool. Nevertheless, in a study of DWI offenders by Mischke and Venneri (1987), the CAGE showed higher agreement with counselor decisions than did either the MAST or the Mortimer-Filkins. In spite of the high level of agreement, Mischke and Venneri concluded that "The overall performance of the CAGE in this study suggests little support for its use in DWI assessment." The support for this conclusion was not clearly stated.

The authors of the 1988 report agreed that the brevity of the CAGE precluded its use other than as a tool in preliminary screening of convicted impaired drivers. However, it should be cautioned that it has not been demonstrated what effect, if any, the judicial aspect of the impaired driving system may have on client response. The Mischke and Venneri study combined both pre- and post-conviction offenders and made no attempt to isolate the influence of conviction status. The point is of particular significance in that the CAGE includes no validation scales, and at least some authors express the opinion that the DWI population "attempts to avoid detection of an alcohol-related problem..." (Mischke and Venneri, 1987).

The major useful contribution of the CAGE appears to lie in its potential as a simple, inexpensive, non-threatening screening instrument that could provide the basis for further evaluation where indicated. However, for the purposes of this study, the CAGE was evaluated as a component for a potential telephone interview.

CAGE (Cut down, Annoyed, Guilty, Eye-opener)

GENERAL

- Developed by Ewing and Rouse in 1970 (see Ewing, 1984)
- Available from Center for Alcohol Studies, UNC School of Medicine, CB# 7140, Chapel Hill, NC 27599
- Time varies depending on length of interview or questionnaire in which questions are embedded
- Cost of personnel time to administer interview

DESCRIPTION

- 4 items (Y/N) embedded in (social history) interview or questionnaire
- 1 positive response merits further investigation of a problem
- 2-4 positive responses indicate high likelihood of alcoholism
- Each letter in name represents a word in one of the 4 items:
 - ✓ Have you ever felt the need to **C**ut down on your drinking?
 - ✓ Have people **A**nnoyed you by criticizing your drinking?
 - ✓ Have you ever felt badly or **G**uilty about your drinking?
 - ✓ Have you ever had a drink first thing in the morning (**E**ye-opener)?

EVALUATION

- Brief, simple, non-threatening instrument
- May be performing as a unidimensional cumulative scale
- Should not be used as a single index of problem drinking w/DWIs (Mischke & Venneri, 1987)
- No norms data other than validation studies
- Reliability
 - Internal consistency: $r = 0.71$ (Mischke & Venneri, 1987)
- Validity
 - Concurrent: range of $r = 0.50$ (sample of DWI offenders; Mischke & Venneri, 1987) to 0.89 (sample of hospitalized psychiatric patients; Mayfield et al., 1974) between test scores and counselor decisions.
 - True positives = 85%, true negatives = 89%; $n = 521$ inpatients (Bush et al., 1987)
 - Internal: all four items significantly discriminated between criterion groups (Mischke & Venneri, 1987)

As can be seen from the reviews above, from the earlier report, and in the opinion of the expert panel, all of the instruments, with the exception of the CAGE, were

perceived to have promise for identifying problem drinkers from within the DWI population. The MAST and the Mortimer-Filkins instruments were by far receiving the most widespread use in the DWI screening field and, though subjected to some validation studies, were in need of further validation. The DRI and SALCE, more recently developed instruments, had not been independently validated. However, they were in increasingly widespread use and thus in need of an objective validation.

Though the Mortimer-Filkins can be administered as a questionnaire supplemented by an interview, we found that many jurisdictions were administering the questionnaire alone. Additionally, many of the jurisdictions which were also conducting the interview had modified it to suit what were perceived to be local needs. Since both whether and how the accompanying interview was being used was not at all uniform throughout the country, it was most appropriate to validate the questionnaire as a stand alone instrument.

The CAGE was studied because it was being incorporated into NHTSA telephone surveys to categorize respondents as problem drinkers or not. For this study, the CAGE was supplemented by six alcohol consumption questions taken from the Alcohol Clinical Index (Skinner and Holt, 1987).

For the DRI and the SALCE, we used the most current version of the instrument and scoring algorithm as provided by the developers. In the case of these proprietary instruments, both developers graciously provided the instruments to the project free of charge.

5 -DATA COLLECTION METHODS

BASIC APPROACH

The objective of the field test was to evaluate five instruments against the adult criterion measure developed by the panel of experts. The five instruments (DRI, MAST, Mortimer-Filkins, SALCE, and CAGE plus consumption questions) and the criterion measure (Comprehensive Adult Interview) were administered to DWI clients who volunteered to participate in the study. None of the clients received any money, but other incentives (discussed under each site description) were sometimes offered to encourage participation. The clients were at least 22 years of age and had been convicted of at least one DWI offense. All of the study participants signed consent forms which stated they understood all of the information collected as part of the study would be kept confidential and that their participation would in no way affect the services they were receiving at their program or the way their case would be handled by the courts. Mid-America certified that there would be no way individuals could be identified. In fact, in several of the programs, numbers only were used to identify individuals.

The Comprehensive Adult Interview was administered by trained, qualified interviewers from the seven participating programs. All interviewers were required to sign a staff confidentiality pledge promising not to disclose confidential information obtained from the study to anyone except authorized Mid-America staff. Program management agreed to allow the interviewers to withhold any incriminating information about the clients that might have been discovered during the course of this study. All study participants were assured of privacy in accordance with generally accepted measures for protection of human subjects.

Assembly of Survey Packets

Individual survey packets were assembled at Mid-America Research for each study participant. A cover sheet to record background and collateral information on the client was pasted on the outside of a large manila envelope. Information obtained from the cover sheet included the research site, the client number (the number assigned by Mid-America to each packet), the random order sequence of survey forms (discussed next), the date, the client's name (if the program allowed), date of birth, arrest date, court date, state of license, BAC at time of most recent arrest, number of previous DWI offenses, and if the client had given consent for a collateral (i.e., relative, friend or co-worker presumably familiar with the client's drinking habits) to be interviewed by Mid-America staff.

One copy of the questionnaires (DRI, MAST, Mortimer-Filkins, SALCE, and CAGE + consumption questions) were placed inside the individual manila envelopes. There was concern that when the clients completed the five written survey instruments, the order of completion might affect the information reported on

individual survey forms. For example, fatigue or impatience might affect a client's responses. To counter these possible effects, the instruments were random ordered inside the individual packets. All of the instruments were coded as to their order within a packet. Clients were instructed to complete the instruments in the order in which they appeared in the packet. Each instrument within a packet contained the same client number but a different letter. The letter signified the order in which each survey instrument should be completed. The first instrument in each packet to be completed was lettered "A," the second "B," and so forth, so if a client dropped or shuffled papers by mistake, he/she would still know the order in which to complete each instrument. By random ordering the instruments, each instrument received an equal chance of being completed first as second, third, etc. Thus no instrument received any advantage or disadvantage from the order in which it was completed.

General Interview Procedures

At most of the sites, clients were not told about the study beforehand; the study took the place of a regularly scheduled treatment or education program session. Groups of clients were assembled and everyone completed the written surveys together in a room supervised by a monitor. The purpose of the study was explained to clients by the monitor and information sheets and consent forms were handed out to the participants. Packets were given to clients with instructions to not open the packet, but to complete the form on the front of the envelope packet. It was explained that each person would be completing identical surveys, but in a different order. They were told that as they worked on completing the surveys, they would be called out individually and asked to take a confidential breath test and then they would be interviewed. The length of time required of each client to participate in the study normally ranged from 1-1/4 hours to 2 hours.

The clients were instructed by the monitor to complete the five written instruments in the order they were arranged inside the packet, and to answer each question honestly and to the best of their ability. It was explained that they would be answering similar questions repeatedly, and they were asked to be patient in dealing with the redundancy. As was expected, individual personalities played a part in how clients reacted to the time and efforts required by this study. However, it was interesting to note that most of the clients who were irritated initially at the length of time required to complete the forms, relaxed during the one-on-one interviews and generally became more cooperative.

Qualified individuals at each location were trained by Mid-America staff to conduct the Comprehensive Adult Interview. Interviewers were instructed to not elaborate on the questions being asked to each client. The Comprehensive Adult Interview was conducted randomly throughout the time the clients were completing the other five instruments. Some clients were interviewed before they began completing the written instruments, some were interrupted at various times while they were working on the written instruments, and some had completed all of the written instruments before they were interviewed.

The Comprehensive Adult form was completed by an interviewer during a one-on-one interview with the client. An interviewer asked a client to bring the packet of surveys he or she was working on and accompany the interviewer to a separate location where the oral interview could be conducted privately. The interviewer recorded the client number from the individual packet on the Comprehensive Adult Interview form, so that the adult form could be inserted into the corresponding envelope after the session.

Before each individual interview, the interviewer asked the client to blow into a PBT (portable breath tester). Clients were assured the BAC readings would be kept confidential and used only for the research project. All of our clients for this study were already participating in treatment or educational programs; because of this, the consumption of alcoholic beverages was prohibited. Nonetheless, thirteen people registered BAC levels between .02 and .12 when tested.

Table 3: Positive BACs of Clients At Time of Project Participation By Frequency

BAC Level	Number of Participants
0.12	2
0.11	1
0.10	1
.080-.090	1
.060-.070	1
.050-.059	2
.040-.049	1
.030-.039	1
.020-.029	3

Interviewers were instructed to speak clearly and take whatever time was necessary to administer the oral adult interview, but they were instructed not to elaborate on the questions. At the end of each interview, the client was personally thanked by the interviewer for participating in the study and the client was then asked to return to the group and continue to complete the five written surveys. The interviewer spent a few minutes alone checking the form, writing observations, and then returned the completed form to the monitor and asked another client to accompany him/her for an interview. It was the responsibility of the monitor to check and make certain the interviewer had recorded the client number on the adult

form. Study participants handed completed packets to the monitor before leaving. The monitor placed the Comprehensive Adult questionnaires inside the corresponding packets at the end of each group session and forwarded completed packets to Mid-America.

Slight variations of the procedures discussed above are addressed later under SPECIFIC DATA COLLECTION PROCEDURES sections found under both the Pittsburgh Area and Boston Area sections of this chapter.

Collateral Interviews

Study participants were asked to complete a background and collateral information sheet located on the front of their individual packet. This form contained two questions regarding collateral information:

Is there a family member or significant other familiar with your use of alcohol? Y N

Would you be willing to have them interviewed for research purposes? Y N

If study participants left this section blank, or if they answered yes to the first question, but no to the second question, the interviewers were instructed to discuss the collateral interview after the oral interview had been completed. The interviewer explained a “collateral” was someone who knows the client, i.e. best friend, employer, co-worker, spouse, girl/boyfriend, or parent. As a final part of the research study, a Mid-America staff member would contact this person and ask them approximately 20 questions about the collateral’s perceptions of the client’s use of alcohol or drugs. It was explained that the entire interview would take no more than five minutes and the information would be held in strictest confidence.

Several of the programs supported our efforts to conduct collateral interviews while others did not, based on privacy issues. Without any compulsory means, project staff were generally unable to persuade clients to provide collateral information. All 609 clients were asked and 106 consented to provide us with the name and telephone number of a collateral. However, Mid-America staff members confronted many problems when attempting to conduct the telephone interviews. When contacted, many of the collaterals said either the person did not drink, or they did not feel comfortable discussing the issue, or they did not know the client or his/her habits well enough to answer questions. Three people refused to be interviewed; one said the client had changed his mind about allowing the collateral interview. In addition, some of the telephone numbers provided were wrong and several of the collaterals had moved and the phone numbers were not in service. As names of clients had been separated from their data collection forms in compliance with privacy guarantees, we had no way of contacting them to verify information they had provided or request additional collaterals. In the end, only 16 collateral interviews were completed.

Table 4: Outcomes of Attempts to Conduct Collateral Interviews by Frequency

Category	Frequency
Completed Interviews	16
Reasons for not Completing Interviews:	
Claims client does not drink or does not know client's habits	56
Unable to contact collateral	22
Wrong or disconnected numbers	8
Collateral refused to cooperate	3
Client listed himself as the collateral	1

Compilation of Survey Forms

When completed packets arrived back at Mid-America, each one was opened, the contents were verified and logged before the instruments were separated for data entry. This assured that each piece of each packet was properly coded and could be identified for analysis purposes.

Databases were created to enter background information from the cover sheets on the envelopes, and responses from the Comprehensive Adult surveys, MAST, Mortimer-Filkins, and the CAGE plus ACI consumption items. Behavior Data Systems provided the program to handle the DRI data; ADE, Inc. provided the program to enter the SALCE information.

SPECIFIC DATA COLLECTION PROCEDURES

Pittsburgh Area

Site Description

Pittsburgh, a city with a 1992 population of approximately 370,000, is located in Allegheny County, Pennsylvania (population 1.3 million in 1992). All DUI offenders in Allegheny County are screened by counselors at the Allegheny County Alcohol Highway Safety Program. An average of 60 DUI offenders are screened per week. After screening, offenders are ordered by the court to participate in education and treatment programs in their local areas. Three of these local programs agreed to participate in this study:

Data Collection Methods

<u>Programs</u>	<u>City</u>
The Center for Substance Abuse Alternatives DUI Program	McKeesport, PA Pittsburgh, PA
The Center for Chemical Dependency Treatment-Alcohol Safety Program at St. Francis Medical Center	Pittsburgh, PA

There were counselors at all three locations available to administer the Comprehensive Adult Interview. All of the facilities had separate areas where the one-on-one interviews could be conducted privately.

Data Collection Procedures Specific to the Pennsylvania Sites

Two of the three programs in the Pittsburgh area used the group approach outlined in the General Interviews Procedure section above; the third location administered all of the instruments individually.

None of the clients who participated in this study received monetary compensation. The Alternatives DUI Program offered individuals an incentive to participate which consisted of reduced time (several hours) in one section of their program.

Sample Size

A total of 408 clients from the Pittsburgh area participated in this study, or 67% of the total sample size of 609.

Boston Area

Site Description

Massachusetts had a population just over 6 million in 1992. The populations of the cities included in this study are listed below. Four Boston area treatment and educational programs offered the use of their facilities and access to their clients for this study. Those programs were:

<u>Programs</u>	<u>City</u>	<u>Population</u>
Boston Alcohol & Substance Abuse Program (ASAP)	Boston	574,000
Center for Addictive Behaviors (CAB)	Salem	38,000
Middlesex County DUIL	Waltham	58,000
Thayer Institute, DUI Second Offenders	Worcester	170,000

Three of the local programs had staff members who were qualified and available to administer the Comprehensive Adult Interview. Mid-America hired graduate students to administer this interview at the Boston Alcohol & Substance Abuse Program (ASAP). Two of the programs (Middlesex County DUIIL and the Thayer Institute program) were residential treatment programs.

Data Collection Procedures Specific to the Massachusetts Sites

The Salem CAB program followed the group approach outlined in the General Interview Procedure section discussed earlier in this chapter. Boston ASAP followed the group approach but scheduled separate sessions for the study. Normally, if individuals at that program missed a certain number of program sessions, they had to pay a fine. Participation in the research study was offered in lieu of the fine. The Middlesex County DUIIL program is a residential program. Treatment counselors administered the oral instrument and participants completed the written surveys individually. The Thayer Institute's DUI Second Offenders program is a residential program. Thayer counselors followed the group approach and assembled clients the day after they had checked into the Thayer program to complete all of the study materials.

Sample Size

A total of 201 clients from the Boston area participated in this study, or 33% of the total sample size of 609.

6 - ANALYSIS

The basic study design provided for testing the validity of five assessment instruments against a criterion instrument developed in this project in consultation with the project's expert panel. The individuals tested were over the age of 21.

The five instruments studied were the DRI, the SALCE, the Mortimer-Filkins Questionnaire, the MAST and a combination of the CAGE and six questions dealing with alcohol consumption.

DATA ANALYSIS APPROACH

The general objective of the analysis was to validate the five screening instruments used to identify problem drinkers by comparing the determination of each of them with the assessment obtained using the panel's criteria as reflected in the criterion measure. The main comparison was between the yes/no classifications, that is, whether the subject was or was not classified as a problem drinker.

The database consisted of cases, each case representing one subject. For each case, the responses i on instrument j are indicated, x_{ij} , and the decision y_j reached on the basis of instrument j . Both the x_{ij} and the y_j are categorical with two categories for y_j , "problem drinker" (coded "1") and "not problem drinker" coded "0."

The analysis for each group of subjects involved the following four steps:

1. operationalizing a classification scheme for the criterion instrument from input provided by the expert panel,
2. operationalizing the classification schemes for the screening instruments,
3. computing each instrument's classification of each subject using the above schemes, and
4. comparing the criterion instrument classifications with the classifications of each screening instrument.

Each of these steps is discussed below.

Operationalizing a Classification Scheme for the Criterion Instrument

The scheme developed by the project's expert panel classifies a subject as a problem drinker when that subject exhibits *at least one* of the following characteristics:

- consumes five or more drinks per day on eight or more days each month.
- has experienced five or more adverse consequences of drinking such as job loss, arrests, family or health problems or the like.

- exhibits three or more symptoms of dependence such as needing to drink more in order to have an effect, withdrawal symptoms or the like.
- has had treatment for alcohol problems two or more times.

Persons who exhibit *two or more* of the following characteristics are also categorized as problem drinkers:

- consumes five or more drinks per day on from four to seven days per month;
- has experienced three or four adverse consequences of drinking;
- exhibits one or two symptoms of alcohol dependence; and
- has had previous treatment for alcohol problems.

This step of the analysis involved translating the variables contained in the criterion instrument into variables reflecting the above characteristics and then writing a computer program for $y_{\text{criterion}}$ imposing the pertinent conditions.

Operationalizing the Classification Schemes for the Screening Instruments

Each screening instrument to be validated had a classification scheme that enabled a subject to be classified according to the problem-drinker / no-problem-drinker dichotomy. This step involved developing procedures for applying those schemes to the data collected in this project. Computerized scoring routines were developed for the Mortimer-Filkins, MAST and CAGE plus consumption instruments, as appropriate to a particular instrument. Two of the instruments, the DRI and the SALCE, had a computerized classification procedure. Mid-America was furnished the programs for performing the classifications by the developers of the instruments and they were applied.

Computing Each Instrument's Classification of Each Subject

The classifications y_j were computed in this step. For the criterion instrument, the computations were straightforward, involving simply running the program indicated above. The DRI and SALCE required examination of the assessment output for those schemes and recoding that output. For example, the SALCE assessment output is a three-to-four page printout that was examined manually to determine whether or not the subject was considered to be a problem drinker according to the developer's criteria.

Comparing the Classifications

This final step of the analysis was undertaken to determine how each screening instrument's classification compared with the criterion instrument's classification.

An overall summary of the comparison for a given instrument could be presented in the form of a 2×2 table as follows:

Table 5: 2×2 Table for Comparing a Given Instrument

Screening Instrument	Criterion Instrument		
	0	1	Total
0	x_{00}	x_{01}	x_{0+}
1	x_{10}	x_{11}	x_{1+}
Total	x_{+0}	x_{+1}	x_{++}

RESULTS

The criterion instrument categorized 53.5% of the 609 subjects as problem drinkers. Table 2 shows how each of the instruments fared against the criterion measure in terms of true classifications (classifications that agreed with the criterion measure) and false classifications (those that did not agree with the criterion measure).

Table 6: Comparison of the Performance of Various Screening Instruments

Item	Screening Instrument					
	MAST	M-F	DRI	SALCE	CAGE+6	CAGE+C
True Classifications						
Positives	42.3	41.7	42.9	48.5	48.6	35.6
Negatives	39.4	30.6	30.6	27.1	12.0	35.8
All	81.7	72.3	73.5	75.6	60.6	71.4
False Classifications						
Positives	7.1	15.7	16.8	20.2	34.8	11.0
Negatives	11.2	11.9	9.7	4.2	4.7	17.6
All	18.3	27.6	26.5	24.4	39.5	28.6

Note: Numbers are percentages

“CAGE+6” includes the four CAGE questions plus the six questions relating to daily consumption of alcohol in grams. The additional “screening instrument,” identified as “CAGE+C” includes the four CAGE questions plus five of the six consumption questions.

It is seen that for MAST, which was correct on 81.7 percent of subjects, 42.3 percent of the true classifications were positives (problem drinkers) and 39.4 percent were negatives (not problem drinkers). For the 18.3 percent that were incorrectly classified by MAST, 7.1 percent were false positives and 11.2 percent were false negatives. Thus, from the table, if one were to measure success solely on overall agreement with the criterion measure, the MAST and SALCE would appear to be the most successful, the DRI, Mortimer-Filkins, and CAGE+C somewhat less successful, and the full “CAGE+6” the least successful.

Another way of examining the same data appears in Table 3. In this table, the two rows represent respectively the percentage of problem drinkers categorized as problem drinkers by the screening instrument and the percentage of non-problem drinkers categorized as non-problem drinkers. Thus, the MAST correctly identified 79 percent of all problem drinkers and 85 percent of non-problem drinkers. This type of table could be useful to program administrators in identifying the “optimal” screening instrument for their use. For instance, the SALCE was clearly the most sensitive instrument, identifying 92 percent of all problem drinkers. However, it was also clearly not very specific in that 43 percent of non-problem drinkers are incorrectly identified as problem drinkers. Nevertheless, a program that makes treatment decisions solely on the basis of the screening instrument and also offers a relatively inexpensive treatment program, might choose to use the SALCE and accept the likelihood that many people not needing treatment will be sent to treatment. This table can be used to help support these types of considerations.

Table 7: Percentage of Subjects Correctly Diagnosed by Various Screening Instruments

Criterion Instrument Diagnosis	Screening Instrument					
	MAST	M-F	DRI	SALCE	CAGE+6	CAGE+C
Problem Drinker	79	78	82	92	83	72
Not Problem Drinker	85	66	65	57	26	76

7 - CONCLUSIONS AND RECOMMENDATIONS

This project was a validation study for four adult screening instruments in use for preliminary screening of DWI offenders for problem drinking. An additional task involved the validation of a small group of questions to be added to a telephone questionnaire to assist in identifying problem drinkers among respondents.

All of the assessment instruments were effective in identifying problem drinkers as classified by the criterion instrument. The most sensitive instrument, the SALCE, which correctly identified 92% of problem drinkers was, not surprisingly, the least discerning of the instruments studied, only identifying 57% of non-problem drinkers correctly. Thus an implicit cost of using this instrument to identify problem drinkers for further examination or treatment is that the program would be dealing with a greater number of persons presumably not in need of this further action.

The other three adult instruments studied, the MAST, Mortimer-Filkins and DRI were all somewhat less sensitive than the SALCE, correctly identifying about 80% of problem drinkers with fewer false positives. The Mortimer-Filkins and DRI correctly identified approximately two-thirds of non-problem drinkers and the MAST was accurate 85% of the time. This finding is somewhat surprising in that the MAST is a much shorter instrument with a good deal of face validity and one might expect that problem drinkers not wishing to be detected could fairly easily trick it. Additionally, the even shorter CAGE plus consumption calculation correctly identified non-problem drinkers 76% of the time.

That the MAST and CAGE did so well may be an artifact of our experimental design. Though the instruments were administered to DWI offenders in their treatment programs, they were assured that the data would be used only for research purposes. This may have led to more truthful responses on both the instruments being studied and the criterion. An improvement over this design in future studies might be to conduct the validation study in programs using the instrument under study for the actual classification and administering the criterion measure with assurances of confidentiality. This was not feasible in this study because of NHTSA's desire to study several instruments simultaneously.

Another problem we encountered was in obtaining information from collaterals. This may be feasible within a formal treatment protocol where repeated follow-up with the patient is possible. However, in this study we had only one contact with each subject and assured them of anonymity. Thus if they provided us with inaccurate phone numbers for collaterals or the collaterals were unwilling to cooperate we had no recourse. Additionally a substantial number of subjects refused to provide collateral contact information and we could not compel them to do so.

One important point the reader should bear in mind is that the instruments studied were designed as screening instruments, not the final diagnostic tool. Ideally, persons testing positive on the instruments should move on to a further, independent clinical assessment which confirms or rejects the screening instrument results and in

which the appropriate treatment regimen is identified. Of course, there are jurisdictions where such resources are not available and the screening instrument is used to decide the intensity of the program to which a DWI offender is sentenced. In those less than ideal instances, program administrators may use the results of this study to identify the screening instrument which best meets their needs.

The adolescent criterion measure (Appendix C) developed during this project was not validated during this project and is available to the research community. The adult criterion measure (Appendix B) developed during this study is also available for use in other studies.

We believe that future research in this specific area should focus on refining the criterion measure, including a prospective validity study. One criticism of the criterion measure is that it is the best product of a group of experts but that it is just the result of their thinking and has not been verified. A prospective validity study could put that criticism to rest by establishing how accurately the criterion measure identifies persons in whom problem drinking is further manifested.

A further recommendation is that future validation studies validate instruments being used in their natural context.

In the meantime, program administrators using any of the instruments studied here can be confident that they are identifying a large proportion of the problem drinkers in their client pool for further assessment or treatment.

REFERENCES

- Jacobson, G.R. Detection, assessment, and diagnosis of alcoholism: Current techniques. In M. Galanter (ed.), Recent developments in alcoholism, Vol. 1; New York: Plenum Press, 1983.
- Mischke, H.D. and Venneri, R.L. Reliability and Validity of the MAST, Mortimer-Filkins Questionnaire and CAGE in DWI assessment. Journal of Studies on Alcohol, 1987, 48, 492-501.
- Selzer, M.L. The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. American Journal of Psychiatry, 1971, 127, 89-94.
- Yoder, R.D., and Moore, R.A. Characteristics of convicted drunken drivers, Quarterly Journal of Studies on Alcohol, 1973, 34, 927-936.
- Mortimer, R.G., Filkins, L.D., and Lower, J.S. Court Procedures for Identifying Problem Drinkers: Final Report. DOT Contract FH-11-7615, Highway Safety Research Institute, University of Michigan, Ann Arbor, 1971.
- Wendling, A., and Kolody, B. Evaluation of the Mortimer-Filkins as a predictor of alcohol-impaired driving recidivism. Journal of Studies on Alcohol, 1982, 43, 751-766.
- Bush, B., Shaw, S. And Clearly, P. Screening for alcohol abuse using the CAGE questionnaire. American Journal of Medicine, 1987, 82, 231-235.
- Ewing, J.A. Detecting alcoholism: The CAGE questionnaire. Journal of the American Medical Association, 1984, 252, 1905-1907.
- Mayfield, D., McLeod, G., and Hall, P. The CAGE questionnaire: Validation of a new alcoholism screening instrument. American Journal of Psychiatry, 1974, 131, 1121-1123.
- Skinner, H.D. and Holt, S. The Alcohol Clinical Index: Strategies for Identifying Patients with Alcohol Problems. Toronto, Addiction Research Foundation, 1987.
- Popkin, C.L., Kannenberg, C.H., Lacey, J.H. and Waller, P.F. Assessment of Classification Instruments Designed to Detect Alcohol Abuse, Chapel Hill, NC, University of North Carolina Highway Safety Research Center, 1988.

Validation of Problem Drinking Screening Instruments for DWI Offenders

APPENDIX A - TABLES

Table A-1: Adult Problem Drinkers, Criterion Rating Means as a Function of Criterion and Criterion Group

Criterion	Criterion Group	Mean, Discrim	Mean, Obtain	Mean, Feas	Mean, Cost
Recent Use, Alcohol on breath, PBT	Consumption	2.57143	2.71429	3.00000	3.00000
Recent Use, BAC at arrest, Breath	Consumption	2.28571	2.85714	3.00000	3.00000
Recent Use, BAC at ER, Blood	Consumption	2.28571	1.57143	2.00000	2.60000
Recent Use, BAC at prior arrest, Breath	Consumption	1.57143	2.28571	2.66667	3.00000
Recent Use, BAC test refusal, Log	Consumption	2.20000	2.66667	3.00000	3.00000
Recent Use, Drug metabolites, Urine	Consumption	1.57143	1.50000	1.40000	2.33333
Recent Use, Drug metabolites, Hair	Consumption	1.33333	1.83333	1.50000	1.80000
Recent Use, Drug metabolites, Blood	Consumption	1.57143	1.33333	1.20000	1.66667
Symp @ arr, Speech impairment, FT	Consumption	2.28571	2.50000	2.20000	2.57143
Symp @ arr, Alcohol on breath, FT	Consumption	2.00000	2.50000	2.20000	2.57143
Symp @ arr, Gait, FT	Consumption	2.50000	2.50000	2.20000	2.57143
Symp @ arr, Field sobr test, FT	Consumption	2.50000	2.50000	2.20000	2.57143
Parapherna, Evidence in veh, FI	Consumption	1.66667	2.28571	1.80000	3.00000
Heavy drnk, Q-F by beverage, Coll	Consumption	2.66667	2.66667	3.00000	2.66667
Heavy drnk, Q-F by beverage, SR	Consumption	3.00000	2.80000	3.00000	3.00000
Chron drnk, Duration, Coll	Consumption	2.85714	2.28571	2.66667	2.57143
Chron drnk, Duration, SR	Consumption	2.80000	2.60000	2.80000	2.80000
Chron drnk, Years of drnk, Coll	Consumption	2.71429	2.28571	2.66667	2.57143
Chron drnk, Years of drnk, SR	Consumption	2.50000	2.75000	2.75000	2.75000
Chron drnk, Years of abst, Coll	Consumption	2.42857	2.28571	2.66667	2.57143
Chron drnk, Years of abst, SR	Consumption	2.75000	2.75000	2.75000	2.75000
Drnk+drugs, Other drug use, Coll	Consumption	2.33333	2.16667	2.40000	2.66667
Drnk+drugs, Other drug use, SR	Consumption	2.40000	2.80000	2.80000	2.80000
Rapid drnk, Speed of drnk, Coll	Consumption	2.00000	2.00000	2.00000	2.80000
Rapid drnk, Speed of drnk, SR	Consumption	2.60000	2.40000	2.20000	2.60000
Inapp cont, Time of day, Coll	Consumption	2.50000	2.16667	2.40000	2.66667
Inapp cont, Time of day, SR	Consumption	2.60000	2.60000	2.80000	2.80000
Inapp cont, Places of drnk, Coll	Consumption	2.33333	2.16667	2.40000	2.66667
Inapp cont, Places of drnk, SR	Consumption	2.20000	2.60000	2.80000	2.80000
Early onset, Age @ 1st drnk, Coll	Consumption	2.66667	2.16667	2.40000	2.66667
Early onset, Age @ 1st drnk, SR	Consumption	2.50000	2.50000	2.66667	2.83333
Early onset, Age @ 1st prblm, Coll	Consumption	2.83333	2.16667	2.40000	2.66667
Early onset, Age @ 1st prblm, SR	Consumption	2.83333	2.50000	2.66667	2.83333
Early onset, Age @ 1st help, Coll	Consumption	2.83333	2.16667	2.40000	2.66667
Early onset, Age @ 1st help, SR	Consumption	2.83333	2.50000	2.66667	2.83333
Biol marker, Gamma GT, Blood	Consumption	2.50000	2.00000	1.40000	1.50000
Biol marker, Urin dolic, Urine	Consumption	2.60000	2.40000	1.75000	1.60000
Biol marker, CDT, *	Consumption	2.40000	2.20000	1.33333	1.50000
Biol marker, AST, Blood	Consumption	2.20000	2.20000	1.50000	1.60000
Biol marker, MCV, Blood	Consumption	2.40000	2.20000	1.50000	1.60000
Biol marker, ACH, *	Consumption	2.50000	2.25000	1.33333	1.50000
Tobacco inv, Smoking, SR	Consumption	1.28571	2.28571	2.83333	2.85714
Tobacco inv, Chewing, SR	Consumption	1.16667	2.28571	2.83333	2.85714
Rec drg use, Q-F by drug, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Rec drg use, Top drug, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Rec drg use, Pattern, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Rec drg use, Selling drugs, SR	Consumption	2.66667	2.42857	2.50000	2.85714
Pr drg prbl, Age @ 1st use, SR	Consumption	2.42857	2.57143	2.50000	2.85714
Pr drg prbl, Age @ 1st prblm, SR	Consumption	2.57143	2.57143	2.50000	2.85714
Pr drg prbl, Age @ 1st help, SR	Consumption	2.57143	2.57143	2.50000	2.85714
Pr drg prbl, Time day/day wk, SR	Consumption	2.42857	2.57143	2.50000	2.85714
Pr drg prbl, Past drg scrns, Archives	Consumption	2.42857	1.83333	2.40000	2.42857
DSM IIIR symp, Withdrawal, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Withdrawal, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Tolerance, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Tolerance, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Preoccupation, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Preoccupation, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Loss cntrl, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Loss cntrl, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Persistence, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Persistence, Coll	Dependence	2.80000	2.20000	2.00000	2.20000

Table A-2: Adult Problem Drinkers, Criterion Rating Means as a Function of Criterion and Criterion Group (Continued)

Criterion	Criterion Group	Mean, Discrim	Mean, Obtain	Mean, Feas	Mean, Cost
Hist of dpnd, DTs, Med hist	Dependence	2.85714	1.85714	1.66667	2.28571
Hist of dpnd, # trt epis, Med hist	Dependence	3.00000	1.66667	1.80000	2.50000
Hist of dpnd, # detox, Med hist	Dependence	3.00000	1.66667	1.50000	2.66667
Med problems, Gross tremor, *	Dependence	2.33333	1.66667	1.60000	1.80000
Med problems, Nystagmus, *	Dependence	2.40000	1.60000	1.50000	1.80000
Med problems, Imp cogn func, *	Dependence	2.20000	1.80000	1.50000	1.80000
Med problems, Acute abst synd, ARF index	Dependence	2.57143	2.14286	2.00000	2.00000
Med problems, Alc withdrawal, ARF index	Dependence	2.50000	2.16667	2.00000	2.14286
Elev BAC @ arr, BAC, Breath	Dependence	2.00000	2.33333	2.60000	2.66667
Pr traff off, DWI arrests, *	Consequences	3.00000	2.50000	2.80000	2.83333
Pr traff off, Oth drug-rel arr, *	Consequences	2.50000	2.40000	2.50000	2.80000
Pr traff off, BAC test ref, *	Consequences	2.83333	2.40000	2.50000	2.83333
Non-traff off, Domestic viol arr, *	Consequences	2.16667	2.14286	2.33333	2.83333
Soc serv cont, *, *	Consequences	2.50000	1.75000	1.25000	1.33333
Life role, Workplace, *	Consequences	2.28571	2.71429	2.66667	2.85714
Life role, School, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Marital, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Financial, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Legal, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Drugs, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Psychiatric, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Psychosocial distress, *	Consequences	2.42857	2.71429	2.66667	2.85714
Hist of trauma, MV inj, *	Consequences	2.33333	2.28571	2.33333	2.83333
Hist of trauma, Oth acc inj, *	Consequences	2.60000	2.16667	2.20000	2.80000
Hist of trauma, Intentional inj, *	Consequences	2.20000	2.16667	2.00000	2.60000
Hist of trauma, Suicide attempts, *	Consequences	2.20000	2.16667	2.00000	2.60000
Liver function, CGT, *	Consequences	2.25000	1.40000	1.66667	2.00000
Liver function, Diagn of cirrhosis, *	Consequences	2.25000	2.00000	1.66667	1.50000
GI problems, *, *	Consequences	1.50000	1.83333	1.40000	2.00000
Hypertension, *, *	Consequences	1.50000	1.83333	1.40000	2.00000
Cardiopul prblms, *, *	Consequences	1.50000	1.83333	1.40000	2.33333
Impaired sexual func, *, *	Consequences	1.42857	2.00000	1.83333	2.60000
Blackouts, hangovers, *, *	Consequences	2.71429	2.57143	2.50000	2.83333
Acute intox syndrome, *, *	Consequences	3.00000	2.57143	2.50000	2.83333
Neurolog symptoms, *, *	Consequences	2.14286	2.16667	1.80000	1.80000
STD, *, *	Consequences	1.83333	2.00000	1.66667	2.16667
Family hist alc abuse, *, *	Vulnerability	2.42857	2.85714	2.85714	2.57143
Substance abuse, *, *	Vulnerability	2.28571	2.57143	2.83333	2.83333
Personality disorder, *, *	Vulnerability	1.85714	2.14286	2.50000	2.66667
Anti-social history, *, *	Vulnerability	2.00000	2.28571	2.50000	2.66667
Hi risk fact in child - genl, *, *	Vulnerability	2.16667	2.16667	2.20000	2.60000
Hi risk fact in child - ADD, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - Hyper, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - Sex abuse, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - cond disord, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Other, Self-medic mood enhanc, SR	Vulnerability	2.20000	2.40000	2.60000	2.60000
Other, Reasons for drinking, SR	Vulnerability	2.20000	2.20000	2.40000	2.60000
Other, Expect of drnk benefit, SR	Vulnerability	2.00000	2.20000	2.40000	2.60000

Table A-3: Adult Problem Drinkers, Rating Means Sorted by Discriminability Mean as a Function of Criterion and Criterion Group

Criterion	Criterion Group	Mean, Discrim	Mean, Obtain	Mean, Feas	Mean, Cost
Heavy drnk, Q-F by beverage, SR	Consumption	3.00000	2.80000	3.00000	3.00000
DSM IIIR symp, Withdrawal, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Tolerance, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Preoccupation, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Loss cntrl, SR	Dependence	3.00000	2.57143	2.33333	2.42857
DSM IIIR symp, Persistence, SR	Dependence	3.00000	2.57143	2.33333	2.42857
Hist of dpnd, # trt epis, Med hist	Dependence	3.00000	1.66667	1.80000	2.50000
Hist of dpnd, # detox, Med hist	Dependence	3.00000	1.66667	1.50000	2.66667
Pr traff off, DWI arrests, *	Consequences	3.00000	2.50000	2.80000	2.83333
Acute intox syndrome, *, *	Consequences	3.00000	2.57143	2.50000	2.83333
Chron drnk, Duration, Coll	Consumption	2.85714	2.28571	2.66667	2.57143
Hist of dpnd, DTs, Med hist	Dependence	2.85714	1.85714	1.66667	2.28571
Early onset, Age @ 1st prblm, Coll	Consumption	2.83333	2.16667	2.40000	2.66667
Early onset, Age @ 1st prblm, SR	Consumption	2.83333	2.50000	2.66667	2.83333
Early onset, Age @ 1st help, Coll	Consumption	2.83333	2.16667	2.40000	2.66667
Early onset, Age @ 1st help, SR	Consumption	2.83333	2.50000	2.66667	2.83333
Pr traff off, BAC test ref, *	Consequences	2.83333	2.40000	2.50000	2.83333
Chron drnk, Duration, SR	Consumption	2.80000	2.60000	2.80000	2.80000
DSM IIIR symp, Withdrawal, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Tolerance, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Preoccupation, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Loss cntrl, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
DSM IIIR symp, Persistence, Coll	Dependence	2.80000	2.20000	2.00000	2.20000
Chron drnk, Years of abst, SR	Consumption	2.75000	2.75000	2.75000	2.75000
Chron drnk, Years of drnk, Coll	Consumption	2.71429	2.28571	2.66667	2.57143
Rec drg use, Q-F by drug, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Rec drg use, Top drug, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Rec drg use, Pattern, SR	Consumption	2.71429	2.42857	2.66667	2.85714
Blackouts, hangovers, *, *	Consequences	2.71429	2.57143	2.50000	2.83333
Heavy drnk, Q-F by beverage, Coll	Consumption	2.66667	2.66667	3.00000	2.66667
Early onset, Age @ 1st drnk, Coll	Consumption	2.66667	2.16667	2.40000	2.66667
Rec drg use, Selling drugs, SR	Consumption	2.66667	2.42857	2.50000	2.85714
Rapid drnk, Speed of drnk, SR	Consumption	2.60000	2.40000	2.20000	2.60000
Inapp cont, Time of day, SR	Consumption	2.60000	2.60000	2.80000	2.80000
Biol marker, Urin dolic, Urine	Consumption	2.60000	2.40000	1.75000	1.60000
Hist of trauma, Oth acc inj, *	Consequences	2.60000	2.16667	2.20000	2.80000
Recent Use, Alcohol on breath, PBT	Consumption	2.57143	2.71429	3.00000	3.00000
Pr drg prbl, Age @ 1st prblm, SR	Consumption	2.57143	2.57143	2.50000	2.85714
Pr drg prbl, Age @ 1st help, SR	Consumption	2.57143	2.57143	2.50000	2.85714
Med problems, Acute abst synd, ARF index	Dependence	2.57143	2.14286	2.00000	2.00000
Symp @ arr, Gait, FT	Consumption	2.50000	2.50000	2.20000	2.57143
Symp @ arr, Field sobr test, FT	Consumption	2.50000	2.50000	2.20000	2.57143
Chron drnk, Years of drnk, SR	Consumption	2.50000	2.75000	2.75000	2.75000
Inapp cont, Time of day, Coll	Consumption	2.50000	2.16667	2.40000	2.66667
Early onset, Age @ 1st drnk, SR	Consumption	2.50000	2.50000	2.66667	2.83333
Biol marker, Gamma GT, Blood	Consumption	2.50000	2.00000	1.40000	1.50000
Biol marker, ACH, *	Consumption	2.50000	2.25000	1.33333	1.50000
Med problems, Alc withdrawal, ARF index	Dependence	2.50000	2.16667	2.00000	2.14286
Pr traff off, Oth drug-rel arr, *	Consequences	2.50000	2.40000	2.50000	2.80000
Soc serv cont, *, *	Consequences	2.50000	1.75000	1.25000	1.33333
Chron drnk, Years of abst, Coll	Consumption	2.42857	2.28571	2.66667	2.57143
Pr drg prbl, Age @ 1st use, SR	Consumption	2.42857	2.57143	2.50000	2.85714
Pr drg prbl, Time day/day wk, SR	Consumption	2.42857	2.57143	2.50000	2.85714
Pr drg prbl, Past drg scrns, Archives	Consumption	2.42857	1.83333	2.40000	2.42857
Life role, School, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Marital, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Financial, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Legal, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Drugs, *	Consequences	2.42857	2.71429	2.66667	2.85714
Life role, Psychiatric, *	Consequences	2.42857	2.71429	2.66667	2.85714

Table A-4: Adult Problem Drinkers, Rating Means Sorted by Discriminability Mean as a Function of Criterion and Criterion Group (Continued)

Criterion	Criterion Group	Mean, Discrim	Mean, Obtain	Mean, Feas	Mean, Cost
Drnk+drugs, Other drug use, SR	Consumption	2.40000	2.80000	2.80000	2.80000
Biol marker, CDT, *	Consumption	2.40000	2.20000	1.33333	1.50000
Biol marker, MCV, Blood	Consumption	2.40000	2.20000	1.50000	1.60000
Med problems, Nystagmus, *	Dependence	2.40000	1.60000	1.50000	1.80000
Drnk+drugs, Other drug use, Coll	Consumption	2.33333	2.16667	2.40000	2.66667
Inapp cont, Places of drnk, Coll	Consumption	2.33333	2.16667	2.40000	2.66667
Med problems, Gross tremor, *	Dependence	2.33333	1.66667	1.60000	1.80000
Hist of trauma, MV inj, *	Consequences	2.33333	2.28571	2.33333	2.83333
Recent Use, BAC at arrest, Breath	Consumption	2.28571	2.85714	3.00000	3.00000
Recent Use, BAC at ER, Blood	Consumption	2.28571	1.57143	2.00000	2.60000
Symp @ arr, Speech impairment, FT	Consumption	2.28571	2.50000	2.20000	2.57143
Life role, Workplace, *	Consequences	2.28571	2.71429	2.66667	2.85714
Substance abuse, *, *	Vulnerability	2.28571	2.57143	2.83333	2.83333
Liver function, CGT, *	Consequences	2.25000	1.40000	1.66667	2.00000
Liver function, Diagn of cirrhosis, *	Consequences	2.25000	2.00000	1.66667	1.50000
Recent Use, BAC test refusal, Log	Consumption	2.20000	2.66667	3.00000	3.00000
Inapp cont, Places of drnk, SR	Consumption	2.20000	2.60000	2.80000	2.80000
Biol marker, AST, Blood	Consumption	2.20000	2.20000	1.50000	1.60000
Med problems, Imp cogn func, *	Dependence	2.20000	1.80000	1.50000	1.80000
Hist of trauma, Intentional inj, *	Consequences	2.20000	2.16667	2.00000	2.60000
Hist of trauma, Suicide attempts, *	Consequences	2.20000	2.16667	2.00000	2.60000
Other, Self-medic mood enhanc, SR	Vulnerability	2.20000	2.40000	2.60000	2.60000
Other, Reasons for drinking, SR	Vulnerability	2.20000	2.20000	2.40000	2.60000
Non-traff off, Domest viol arr, *	Consequences	2.16667	2.14286	2.33333	2.83333
Hi risk fact in child - genl, *, *	Vulnerability	2.16667	2.16667	2.20000	2.60000
Neurolog symptoms, *, *	Consequences	2.14286	2.16667	1.80000	1.80000
Symp @ arr, Alcohol on breath, FT	Consumption	2.00000	2.50000	2.20000	2.57143
Rapid drnk, Speed of drnk, Coll	Consumption	2.00000	2.00000	2.00000	2.80000
Elev BAC @ arr, BAC, Breath	Dependence	2.00000	2.33333	2.60000	2.66667
Anti-social history, *, *	Vulnerability	2.00000	2.28571	2.50000	2.66667
Hi risk fact in child - ADD, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - Hyper, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - Sex abuse, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Hi risk fact in child - cond disord, *, *	Vulnerability	2.00000	2.28571	2.33333	2.66667
Other, Expect of drnk benefit, SR	Vulnerability	2.00000	2.20000	2.40000	2.60000
Personality disorder, *, *	Vulnerability	1.85714	2.14286	2.50000	2.66667
STD, *, *	Consequences	1.83333	2.00000	1.66667	2.16667
Parapherna, Evidence in veh, FI	Consumption	1.66667	2.28571	1.80000	3.00000
Recent Use, BAC at prior arrest, Breath	Consumption	1.57143	2.28571	2.66667	3.00000
Recent Use, Drug metabolites, Urine	Consumption	1.57143	1.50000	1.40000	2.33333
Recent Use, Drug metabolites, Blood	Consumption	1.57143	1.33333	1.20000	1.66667
GI problems, *, *	Consequences	1.50000	1.83333	1.40000	2.00000
Hypertension, *, *	Consequences	1.50000	1.83333	1.40000	2.00000
Cardiopul prblms, *, *	Consequences	1.50000	1.83333	1.40000	2.33333
Impaired sexual func, *, *	Consequences	1.42857	2.00000	1.83333	2.60000
Recent Use, Drug metabolites, Hair	Consumption	1.33333	1.83333	1.50000	1.80000
Tobacco inv, Smoking, SR	Consumption	1.28571	2.28571	2.83333	2.85714
Tobacco inv, Chewing, SR	Consumption	1.16667	2.28571	2.83333	2.85714

Table A-5: Means of Criterion Ratings, Adult Problem Drinkers by Criterion Group

GROUP	N Obs	Variable	Label	Mean	Std Error
Consumption	364	R1	Discriminability	2.371	0.040
		R2	Obtainability	2.342	0.038
		R3	Feasibility	2.413	0.041
		R4	Cost	2.601	0.034
Dependence	133	R1	Discriminability	2.743	0.051
		R2	Obtainability	2.167	0.077
		R3	Feasibility	2.021	0.064
		R4	Cost	2.274	0.058
Consequences	189	R1	Discriminability	2.293	0.055
		R2	Obtainability	2.325	0.056
		R3	Feasibility	2.232	0.064
		R4	Cost	2.633	0.055
Vulnerability	84	R1	Discriminability	2.091	0.046
		R2	Obtainability	2.338	0.054
		R3	Feasibility	2.478	0.076
		R4	Cost	2.652	0.061

Table A-6: Sources of Items - Consumption

Item	Self Report		Collateral	
	Adult	Adolescents	Adults	Adolescents
Q-F by beverage	HAP, 36-47	ADI	--	--
Chronic drinking, duration at current level	CDP	ADI	CDP	ADI-P
Chronic drinking, years of abstinence	CDP	ADI (months)	CDP	ADI-P (months)
Drug use by drug (frequency)	IAP, HAP	ADI	--	--
Preferred drug	IAP, ASI	ADI	--	--
Inappropriate context, time and place, alcohol	CDP	ADI	CDP	ADI-P
Age at first drink	IAP	ADI	--	--
Age at first drug use	IAP	ADI	--	--
Context of drug use, time and place	CDP (mod), HAP	ADI	--	--
Drinking plus drug use, other drug use	HAP (mod)	HAP (mod)	HAP (298 rev)	HAP (298 rev)
Which drugs do you think they use	--	--	Form 90-C	ADI-P
Which drugs most frequently used, relative frequency	--	--	CDIP-C	ADI-P
How long known respondent (at beginning)	--	--	CDIP-C	Form 90-C

Table A-7: Sources of Items - Dependence

Item	Self Report		Collateral	
	Adult	Adolescents	Adults	Adolescents
DSM-IIIIR, withdrawal	DIS	ADI	RDC, DIS	ADI
DSM-IIIIR, tolerance	DIS	ADI	--	--
DSM-IIIIR, pre-occupation	DIS	ADI	--	--
DSM-IIIIR, loss of control	DIS	ADI	RDC, DIS	ADI
DSM-IIIIR, persistence	DIS	ADI	RDC, DIS	ADI
History of dependence, no. of treatment episodes	IAP or ASI	ADI	--	--
History of dependence, no. of detoxifications	IAP or ASI	ADI	--	--
History of dependence, no. of DTs	DIS, CDP	ADI	--	--
Impaired cognitive function	ADI	ADI	--	--
Age at first problem, alcohol	CDP	--	--	--
Age at first help, alcohol	CDP	ADI	--	--
Age at first problem, drugs	CDP (mod)	--	--	--
Age at first help, drugs	CDP (mod)	ADI	--	--
Gross tremor	Observation	--	--	--
Have you ever had a problem with alcohol?	ASI	ASI	--	--
When was your last drink?	ASI	ASI	--	--
How troubled or bothered are you by alcohol problems?	IAP no. D23	IAP no. D23	--	--
How important to you is treatment for your alcohol problem?	IAP no. D24	IAP no. D24	--	--
How severe is the subject's alcohol problem?	--	--	IAP no. D23 (mod)	IAP no. D23 (mod)
Does the subject need treatment for an alcohol problem?	--	--	IAP no. D24 (mod)	IAP no. D24 (mod)

Table A-8: Sources of Items - Consequences

Item	Self Report		Collateral	
	Adult	Adolescents	Adults	Adolescents
History of trauma / medical history				
Accidental injuries	TS expanded	TS expanded	TS expanded (rev)	TS expanded (rev)
Cirrhosis	TS expanded	TS expanded	TS expanded (rev)	TS expanded (rev)
Hepatitis	TS expanded	TS expanded	TS expanded (rev)	TS expanded (rev)
Intentional injury	TS expanded	TS expanded	TS expanded (rev)	TS expanded (rev)
Suicide attempts	TS expanded	TS expanded	TS expanded (rev)	TS expanded (rev)
DTs	DIS, CDP	ADI	DIS, CDP (rev)	ADI (rev)
Impaired cognitive function	ASI	ASI	ASI	ASI
Memory problems	ASI	ASI	ASI	ASI
Life role				
School	ASI	APSI	ASI (rev)	APSI (rev)
Work	ASI	APSI	ASI (rev)	APSI (rev)
Financial	ASI	APSI	ASI (rev)	APSI (rev)
Legal, conduct disorders	ASI	APSI	ASI (rev)	APSI (rev)
Psychiatric	ASI	APSI	ASI (rev)	APSI (rev)
Psychosocial distress	ASI	APSI	ASI (rev)	APSI (rev)
Peer relations	ASI	APSI	ASI (rev)	APSI (rev)
Opposite sex	ASI	APSI	ASI (rev)	APSI (rev)

Table A-9: Sources of Items - Vulnerability

Item	Self Report		Collateral	
	Adult	Adolescents	Adults	Adolescents
Family history, substance abuse	IAP (D22)	ADI	--	ADI-P
Self-medication, mood enhancement	AEQ	AEQ add	--	--
Reasons for drinking	AEQ, HAP (83)	AEQ (add)	--	--

Table A-10: Other Sources

Source	Item	Criterion Category
Driver History File	Number of prior DWI arrests	Consequences
	Number of prior BAC test refusal	Consequences
	Number of prior moving violations	Consequences
	Number of prior crashes	Consequences
Alcohol Incidence Report	Symptoms at arrest, gait	Consumption
	Symptoms at arrests, field sobriety test result	Consumption
	Symptoms at arrest, nystagmus	Consumption
	BAC at arrest	Consumption
	Breath test refusal	Consumption
	General demeanor	Consumption
Emergency Room Records	BAC at admission (recent use)	Consumption
Breath Test Log	BAC at arrest (recent use)	Consumption
	BAC test refusal (recent use)	Consumption
Police Information Network	Number of non-traffic offenses	Consequences
Urine Test	Urine screen for drugs	Consumption

APPENDIX B - ADULT CRITERION INSTRUMENT

Interviewer _____
Date of Interview _____
Code Number FIELD(1)

Comprehensive Adult Interview - Alcohol

1. Name _____
(first) (middle or maiden names) (last)
(Any nicknames or other names) _____

2. Current Address _____

3. State of Drivers License _____ 4. Drivers License Number _____

5. Social Security Number _____ - _____ - _____ 6. Gender M F
(circle one)

7. Current Social Status (circle one): Married / Never Married / Divorced / Separated / Widowed

8. Number of Children _____ 9. Respondent's Date of Birth:
_____/_____/_____
Month Day Year

10. Height _____ 11. Weight _____

12. Race (circle one)

Response categories:

- 1 = White (Not of Hispanic Origin)
- 2 = Black (Not of Hispanic Origin), African-American
- 3 = American Indian, Native American
- 4 = Alaskan Native
- 5 = Asian or Pacific Islander
- 6 = Hispanic American of Mexican origin
- 7 = Hispanic American of Puerto Rican origin
- 8 = Hispanic American of Cuban origin
- 9 = Other Hispanic

13. Breath test result _____

Now I'd like to ask you a few questions about your reasons for drinking.

14. How important to you is (was) each of the following as a reason for drinking?

<i>Reason</i>	<i>Not at all Important</i>	<i>Somewhat important</i>	<i>Important</i>	<i>Very Important</i>	<i>Extremely Important</i>	<i>Refuses</i>
<i>a. To become more social</i>						
<i>b. Because you like the taste</i>						
<i>c. Because the people you know drink</i>						
<i>d. When you want to forget your problems</i>						
<i>e. Because it helps you relax</i>						
<i>f. Because it helps you go to sleep</i>						
<i>g. Out of habit</i>						
<i>h. To celebrate special occasions</i>						
<i>i. Because it helps you forget your worries</i>						
<i>j. Because a small drink improves your appetite for food</i>						
<i>k. Because it is the polite thing to do in certain situations</i>						
<i>l. Because it helps cheer you up when you're in a bad mood</i>						
<i>m. Because it helps when you're tense and nervous</i>						
<i>n. Because it helps you when you're angry with someone</i>						

15. How old were you the first time you used alcohol on about a monthly basis? _____ (years)

Think about the days when you drank alcohol during the last 30 days:

One standard drink is approximately:

- 12 oz (341 ml) bottle or can of beer (5% alcohol)*
- or 1.5 (43 ml) shot of liquor (40% alcohol)*
- or 5 oz (142 ml) glass of wine (11% alcohol)*
- or 3 oz (85 ml) glass of sherry, port or vermouth (18% alcohol)*

16. On how many days in the last month did you have 5 or more drinks? _____ days
17. On how many days in the last month did you have only 3 or 4 drinks? _____ days
18. On how many days in the last month did you have only 1 or 2 drinks? _____ days
19. On how many days in the last month did you not have any alcoholic beverages to drink? _____ days
- TOTAL 30 days

If one or more days to question #16, then ask (otherwise continue to next page):

20. On the days during the last month when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? _____ drinks
21. On the days during the last month when you had 5 or more drinks, what was the maximum number of drinks you had in one day? _____ drinks
22. On how many days during the last month did you have this number of drinks? _____ days

Think about the days when you drank alcohol during the 30 days just before you were arrested:

23. On how many days in the month before your arrest did you have 5 or more drinks? _____ days
24. On how many days in the month before your arrest did you have only 3 or 4 drinks? _____ days
25. On how many days in the last month did you have only 1 or 2 drinks? _____ days
26. On how many days in the month before your arrest did you not have any alcoholic beverages to drink? _____ days
- TOTAL 30 days

If one or more days to question #23 then ask (otherwise skip to #38, next page):

27. On the days during the month before your arrest when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? _____ drinks
28. On the days during the month before your arrest when you had 5 or more drinks, what was the maximum number of drinks you had in one day? _____ drinks
29. On how many days during the month before your arrest did you have this number of drinks? _____ days
30. Was your drinking in this month (the 30 days before your arrest) typical of your drinking during the twelve months before your arrest? No Yes

If no, then ask (otherwise skip to question #38):

31. On how many days in a typical month do you have 5 or more drinks? _____ days
32. On how many days in a typical month do you only 3 or 4 drinks? _____ days
33. On how many days in a typical month do you have only 1 or 2 drinks? _____ days
34. On how many days in a typical month do you not have any alcoholic beverages to drink? _____ days
- TOTAL 30 days

If one or more days to question #31, then ask (otherwise skip to #38):

35. On the days during a typical month when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? _____ drinks
36. On the days during a typical month when you had 5 or more drinks, what was the maximum number of drinks you had in one day? _____ drinks
37. On how many days during a typical month did you have this number of drinks? _____ days

38. When you drink, what do you usually drink:

- a. beer None Some of the time Most of the time All of the time
- b. liquor None Some of the time Most of the time All of the time
- c. wine None Some of the time Most of the time All of the time
- d. fortified wine None Some of the time Most of the time All of the time

39. How many times in the past six months did you drink:

	Never	Once or Twice	Three to Five Times	10 Times or More
a. Beer				
b. Liquor				
c. Wine				
d. Fortified wine				

40. How long have you been drinking at your current level? ____ (years)

41. Do you think drinking is or was a problem for you? No Yes

If yes, ask:

42. *At what age did you first become concerned about your drinking -- that is, when did drinking first begin to be a problem for you?*

1. _____ *Age at first problem*
2. _____ *Denies that drinking is a problem*

43. How troubled or bothered are you by alcohol problems Not at all troubled *
 Slightly troubled
 Moderately troubled
 Very troubled

**If not at all troubled, skip to question 47, otherwise continue.*

44. How confident are you that you can deal with your alcohol problems on your own? Not at all confident
 Slightly confident
 Moderately confident
 Very confident
45. To what extent do you feel that you need treatment or help with your alcohol problems? None needed
 A slight extent
 A moderate extent
 A great extent
46. How important to you now is treatment or counseling for alcohol problems? Not at all important
 Slightly important
 Moderately important
 Very important
47. How many times in the past twelve months have you driven after you thought you had too much to drink? Never
 Once or Twice
 Three to Five Times
 10 or more times
48. Have you ever on your own given up drinking? No Yes
 If yes, how many times? _____
49. What is the longest period of time that you have given up drinking? _____
 (indicate whether years, months, days)
50. How many nights in the past month have you spent in jail? _____
51. How many nights in the past month have you spent in a hospital or treatment center? _____
52. In the past 12 months have you ever had enough alcohol for your speech to get slurred or for you to feel unsteady on your feet? _____
53. How old were you when you first drank enough for your speech to get thick or for you to feel unsteady on your feet? _____
 (in years, 99=refused)
54. Have you ever been on a drinking binge? No Yes
 (very heavy drinking two or more days in a row)

Now I am going to ask you some questions about things that might have happened to you in the twelve months just before you were arrested.

55. In the twelve months prior to your arrest, have you:

(If yes, was it due to alcohol use or drug use or both?)

	NO	YES	Related to Alcohol Use	Related to Drug Use
<i>a. Had legal problems such as being arrested, police called to your house, or lawsuits</i>				
<i>b. Gotten into fights or violent disputes with other people</i>				
<i>c. Felt severely depressed or really down</i>				
<i>d. Thought about killing yourself</i>				
<i>e. Had problems remembering things or concentrating</i>				
<i>f. Had problems sleeping such as insomnia, early waking, or nightmares</i>				
<i>g. Felt tense or really anxious for days at a time</i>				
<i>h. Had problems with your spouse or partner</i>				
<i>i. Had problems with other family members</i>				
<i>j. Had problems with friends or coworkers</i>				
<i>k. Had problems with your boss</i>				
<i>l. Had sexual problems</i>				
<i>m. Had problems getting your work done well</i>				
<i>n. Had serious financial problems</i>				
<i>o. Experienced hallucinations</i>				

Now I would like to ask you about some things that you may have experienced.

56. Since your 18th birthday ...

(If yes, was it due to alcohol use or drug use or both?)

	NO	YES	Related to Alcohol Use	Related to Drug Use
a. Have you had any broken bones or dislocated joints?				
b. Have you been injured in a traffic accident?				
c. Have you injured your head?				
d. Have you been injured in a fight or assault (do not count during sports)?				
e. Have you been injured while or after drinking alcoholic beverages?				

57. Have you ever had liver disease related to alcohol or drugs? No Yes
58. Have you ever used alcohol repeatedly in situations in which it is physically hazardous, like driving a car, operating machinery, using a gun or a knife, or swimming, when you were under the influence of alcohol? No Yes
59. Have there been many days when you drank much more than you expected to when you began, or have you often continued drinking for more days in a row than you intended to? No Yes *
60. Have you more than once wanted to quit or cut down on your drinking? No Yes *
61. Did you find you couldn't quit or cut down? No Yes *
62. Were you unable to quit or cut down more than once? No Yes *
63. Was there ever a period when you spent a great deal of time drinking or recovering from the effects of it? No Yes *
64. Has your drinking or being hung over often kept you from working, taking care of children, or doing other things that were expected of you? No Yes *
65. Have you ever given up or greatly reduced important activities in order to drink -- like sports, work, or associating with friends or relatives? No Yes *
66. Did you give up or cut down on important activities for a month or more, or several times, in order to drink? No Yes *
67. Did you ever get tolerant to alcohol, that is you needed to drink a lot more in order to get an effect, or found that you could no longer get high on the amount you used to drink? No Yes *

68. Some months or years after you started drinking, did you begin to be able to drink a lot more before you would get drunk (slurred speech or unsteady on your feet)? No Yes *
69. People who cut down or stop drinking after drinking for a considerable time often have withdrawal symptoms. Common ones are the ``shakes" (hands tremble), being unable to sleep, feeling anxious or depressed, sweating, and heart beating fast. Have you had any problems like that when you stopped or cut down on drinking? No Yes *
70. Have you had withdrawal symptoms several times? No Yes *
71. Did you ever drink to avoid or relieve withdrawal symptoms? No Yes *
72. Have you ever had fits or seizures after stopping or cutting down on drinking? No Yes *
73. Have you ever heard voices or seen things that weren't there after drinking? No Yes *
74. Did you continue to drink (more than once) knowing that drinking caused you to have a (health problem/injury)? No Yes *
75. Have you continued to drink when you knew you had any (other) serious problem that might be made worse by drinking, such as problems with your spouse, employment, police, etc., or psychological problems like being depressed? No Yes *
76. *Interviewer should review **POSITIVE** responses to questions dealing with the dependence/abuse diagnosis (59-72 indicated by *) that contain **UNDERSCORED** phrases. The interviewer should say ``you mentioned that in the past year you had (fill in positive responses).*

Did 3 or more of these occur at about the same time in your life, for example, within the same month?

Did 3 or more of these occur during the year prior to your arrest? Which ones?"

Recapitulate and Code Positive Responses	Ever	Last Year
59 Drank more than expected		
60, 61, 62 Unable to cut down		
63 Time spent drinking		
64 Role obligations interfered with		
65, 66 Given up important activities		
67, 68 Developed tolerance		
69, 70 Developed withdrawal symptoms		
71 Drank to relieve withdrawal symptoms		
72, 73, 74, 75 Continued to use despite problems		

Now I am going to ask some questions about drugs.

(Ask the next six questions for each drug in the chart on the next page. Use 0 if never, 99 if refused.)

77. Have you ever used any of these drugs? *(column 1)*
78. How old were you when you first used *(name of drug)*? *(column 2)*
79. On about how many days did you use *(name of drug)* during the past 30 days? *(column 3)*
80. Which letter on this card indicates how often you used *(name of drug)* during the past 12 months?
(column 4)

Response Categories:

- 1 = three or more times a day*
- 2 = twice a day*
- 3 = once a day*
- 4 = twice a week*
- 5 = or 4 times a week*
- 6 = or 6 times a week*
- 7 = once a week*
- 8 = or 3 times a month*
- 9 = once a month*
- 10 = 3 or 4 times in past year*
- 11 = once in past year*
- 12 = not in past year*

81. When you used *(name of drug)* during the past year, did you ever use it at the same time, or within a couple of hours of when you drank beer, wine or liquor? *(column 5)*

Response Categories:

- 1 = Almost Never*
- 2 = Some of the time*
- 3 = Half of the time*
- 4 = Most of the time*
- 5 = Almost always*

82. Have you ever driven just after using this drug? *(column 6)*

Response Categories:

- 1 = Never*
- 2 = Once or twice*
- 3 = Three to five times*
- 4 = 10 or more times*

Interviewer Codes	1=yes 0=never 99=refuse	Age in years or 0=never 99=refuse	# of days or 0=never 99=refuse	1=three or more times a day 2=twice a day 3=once a day 4=twice a week 5=or 4 times/week 6=or 6 times/week 7=once a week 8=or 3 times/mo. 9=once a month 10=3-4 times in past year 11=once-past yr 12=not in past yr	1= almost never 2= some of the time 3= half of the time 4= most of the time 5= almost always	1= never 2= once or twice 3= three to five times 4= 10 or more times
--------------------------	-------------------------------	---	--------------------------------------	--	--	---

Drug	77. Ever Used?	78. Age at first use?	79. Number of days used in 30 days prior to arrest?	80, How often used in past year?	81. Used with alcohol?	82. Ever driven while under influence?
a. Marijuana or hashish						
b. Cocaine						
c. Crack						
d. Heroin and/or other opiates						
e. Inhalants such as glue, amyl nitrite, "poppers," aerosol spray						
f. Hallucinogens such as LSD, PCP, peyote, mescaline						
g. Non-medical use of drugs including sedatives, tranquilizers, stimulants, or pain killers						
h. Other drugs						
i. More than one drug per day						

83. How troubled or bothered are you by your drug use? Not a problem
A slight problem
A moderate problem
A major problem

84. At what age (how long ago) did using drugs begin to have an effect on your life which you did not approve of - when did using drugs first begin to be a problem for you?

a. Age at first problem _____

b. Years of problem duration (*Age minus age at first problem*) _____

c. Denies that drug use is a problem _____

85. How confident are you that you can handle your drug problems on your own? Not at all confident
Slightly confident
Moderately confident
Very confident

86. To what extent do you feel that you need treatment or help with your drug problems? None needed
A slight extent
A moderate extent
A great extent

87. Have you ever received treatment for alcohol or drug problems? No Yes

If yes fill in table below in response to questions #88 and #89.

88. How many times have you received treatment at (a.,b....) for alcohol? _____ # of times.

89. How many times have you received treatment at (a.,b....) for drugs? _____ # of times? _____ what drugs?

Type Facility	Alcohol -# of Times	Drug-# of Times	Primary Drug
a. A therapeutic community or other long-term residential treatment unit?			
b. A short-term inpatient unit?			
c. Any outpatient day hospital program or any intensive outpatient program that is 2 or more hours of treatment each day for at least 3 days every week?			
d. Any outpatient program (1-2 times/week)			
e. A detoxification unit in a hospital or free-standing residential facility (24-hour services)?			
f. Detoxification services in an outpatient or ambulatory setting?			
g. AA, NA or other self-help program			
h. DWI programs (If yes, specify)			
i. Any other (specify)			

90. If any previous treatment or self-help, how old were you when you first entered a treatment program or self-help program?

91. How many times have you been treated for any psychiatric or emotional problems?

1. In a hospital

If any, age at first time

2. As an outpatient

If any, age at first time

92. Have you had a significant period that was not a direct result of drug/alcohol use in which you have:

- a. Experienced serious depression? No Yes
- b. Experienced serious anxiety or tension? No Yes
- c. Experienced hallucinations? No Yes
- d. Experienced difficulty understanding, concentrating, or remembering? No Yes
- e. Experienced trouble controlling violent behavior? No Yes
- f. Experienced serious thoughts of suicide? No Yes
- g. Attempted suicide? No Yes
- h. Been prescribed medication for any psychological/emotional problem? No Yes
- i. Been sexually abused by someone inside or outside of your family? No Yes
- j. Been hit by someone in your family? No Yes
- k. If yes to j., was medical treatment sought? No Yes

93. Have any of your relatives had what you would call a significant drinking, drug use or psychiatric problem?

Relative	Alcohol	Drug	Psychiatric
Father			
Mother			
Brother or sister			
Grandmother or Grandfather			
Other relatives			

94. Have you ever been arrested other than your current DWI charge? No Yes

95. How many times have you been convicted for:

- a. Possession of drugs? _____
- b. Traffic offenses? _____
- c. Delinquency? _____
- d. Misdemeanor? _____
- e. Felony? _____

96. Since age 18, have you ever been under the supervision of a probation or parole officer? No Yes

97. How many months have you been incarcerated in your life? _____

98. Have you ever broken into someone else's house, building, or car? No Yes
 a. If yes, how often has this happened in the past 12 months? _____

99. Do you ever get into physical fights? No Yes
 a. If yes, how often has this happened in the past 12 months? _____

100. Have you ever used a weapon (knife, club, gun) in a fight? No Yes
 a. If yes, how often did you do this in this past 12 months? _____

101. Have you ever stolen something from someone in front of them? No Yes
 (For example, a mugging, purse-snatching, or robbery.)

END OF FORMAL INTERVIEW

OBSERVATIONS AND IMPRESSIONS OF THE INTERVIEWER

102. Gross tremor? (Observation by interviewer) Present
Not present

103. Interviewer's impressions

Do you suspect that the information in this interview was distorted by the interviewee's:

	No	Possibly	Definitely
a. Dishonesty / misrepresentation?			
b. Inability to understand?			
c. Cooperativeness?			
d. Defensiveness/denial?			
e. Language comprehension?			
f. Physical/Mental state?			

104. Interviewer's instructions:

If you indicated "definitely" for any of the categories in the last question, please elaborate and indicate the sections of the interview to which it applies.

APPENDIX C - ADOLESCENT CRITERION INSTRUMENT

Interviewer _____
Date of Interview _____
Code Number _____

Comprehensive Young Adult Interview - Alcohol

1. Name _____
(first) (middle or maiden names) (last)
(Any nicknames or other names) _____

2. Current Address _____

3. State of Drivers License _____ 4. Drivers License Number _____

5. Social Security Number _____ - _____ - _____ 6. Gender M F
(circle one)

7. Current Social Status (circle one): Married / Never Married / Divorced / Separated / Widowed

8. Number of Children _____ 9. Respondent's Date of Birth:
_____/_____/_____
Month Day Year

10. Height _____ 11. Weight _____

12. Race (circle one)

Response categories:

- 1 = White (Not of Hispanic Origin)
- 2 = Black (Not of Hispanic Origin), African-American
- 3 = American Indian, Native American
- 4 = Alaskan Native
- 5 = Asian or Pacific Islander
- 6 = Hispanic American of Mexican origin
- 7 = Hispanic American of Puerto Rican origin
- 8 = Hispanic American of Cuban origin
- 9 = Other Hispanic

13. Breath test result _____

14. This is a question about the effects of alcohol. Listen to each statement carefully and respond according to your own personal feelings, thoughts, and beliefs about alcohol now. I am interested in what you think about alcohol regardless of what other people might think.

When the statements refer to drinking alcohol, you may think in terms of drinking any alcoholic beverage, such as beer, wine, whiskey, liquor, rum, scotch, vodka, gin, or various alcoholic mixed drinks. Whether or not you have had actual drinking experiences yourself, you are to answer in terms of your beliefs about alcohol. It is important that you respond to every question.

PLEASE BE HONEST. REMEMBER, YOUR ANSWERS ARE CONFIDENTIAL. RESPOND TO THESE ITEMS ACCORDING TO WHAT YOU PERSONALLY BELIEVE ABOUT ALCOHOL.

If you think the statement is true, or mostly true, or true some of the time, then answer "AGREE". If you think the statement is false, or mostly false then answer "DISAGREE".

	Agree	Disagree
1. People become harder to get along with after they have had a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
2. Drinking alcohol creates problems	<input type="checkbox"/>	<input type="checkbox"/>
3. Drinking alcohol makes a bad impression on others	<input type="checkbox"/>	<input type="checkbox"/>
4. People drive better after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
5. Teenagers drink alcohol in order to get attention	<input type="checkbox"/>	<input type="checkbox"/>
6. Parties are <u>not</u> as much fun if people are drinking alcohol	<input type="checkbox"/>	<input type="checkbox"/>
7. People feel more caring and giving after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
8. It is easier to play sports after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
9. A person can do things better after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
10. Drinking alcohol makes people more friendly	<input type="checkbox"/>	<input type="checkbox"/>
11. Drinking alcohol is O.K. because it allows people to join in with others who are having fun	<input type="checkbox"/>	<input type="checkbox"/>
12. When talking to people, words come to mind easier after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
13. Drinking alcohol makes people feel more alert	<input type="checkbox"/>	<input type="checkbox"/>
14. Sweet alcoholic drinks taste good	<input type="checkbox"/>	<input type="checkbox"/>
15. Most alcoholic drinks taste good	<input type="checkbox"/>	<input type="checkbox"/>
16. Most people think better after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
17. People understand things better when they are drinking alcohol	<input type="checkbox"/>	<input type="checkbox"/>
18. People act like better friends after a few drinks of alcohol	<input type="checkbox"/>	<input type="checkbox"/>
19. Most alcohol tastes terrible	<input type="checkbox"/>	<input type="checkbox"/>
20. Having a few drinks of alcohol is a nice way to enjoy the holidays	<input type="checkbox"/>	<input type="checkbox"/>
21. It's fun to watch others act silly when they are drinking alcohol	<input type="checkbox"/>	<input type="checkbox"/>
22. Teenagers drink alcohol because they feel forced to do so by their peers	<input type="checkbox"/>	<input type="checkbox"/>
23. People can control their anger better when they are drinking alcohol	<input type="checkbox"/>	<input type="checkbox"/>
24. Alcoholic beverages make parties more fun	<input type="checkbox"/>	<input type="checkbox"/>
25. Alcohol makes people better lovers	<input type="checkbox"/>	<input type="checkbox"/>
26. People get in better moods after drinking alcohol	<input type="checkbox"/>	<input type="checkbox"/>
27. Drinking alcohol helps teenagers do their homework	<input type="checkbox"/>	<input type="checkbox"/>

15. How important to you is (was) each of the following as a reason for drinking?

Reason	Extremely Important	Very Important	Important	Somewhat Important	Not At All
a. To become sociable					
b. Because you like that taste					
c. Because the people you know drink					
d. When you want to forget everything					
e. Because it helps you relax					
f. Because it helps you go to sleep					
g. Out of habit					
h. To celebrate special occasions					
i. Because it helps you forget your worries					
j. Because a small drink improves your appetite for food					
k. Because it is the polite thing to do in certain situations					
l. Because it helps cheer you up when you're in a bad mood					
m. Because it helps you when you are tense and nervous					

Now I want to ask you some questions about your drinking of alcoholic beverages.

16. How old were you the first time you used alcohol on about a monthly basis? _____ (years)

One standard drink is approximately:

- 12 oz. (341 ml) bottle or can of beer (5% alcohol)
- or 1.5 oz. (43 ml) shot of liquor (40% alcohol)
- or 4 oz. (142 ml) glass of wine (11% alcohol)
- or 3 oz. (85 ml) glass of sherry, port or vermouth (18% alcohol)

Think about the days when you drank alcohol during the last 30 days:

17. On how many days in the last month did you have 5 or more drinks? _____ days

(INTERVIEWER: If answer to ques. #17 equals 1 or more days, then ask:)

17a. On the days during the last month when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? . . . _____ drinks

17b. On the days during the last month when you had 5 or more drinks, what was the maximum number of drinks you had in one day?
..... _____ drinks

17c. On how many days during the last month did you have this number of drinks? _____ days

18. On how many days in the last month did you have only 3 or 4 drinks? _____ days

19. On how many days in the last month did you have only 1 or 2 drinks? _____ days

20. On how many days in the last month did you not have any alcoholic beverages to drink? _____ days

TOTAL OF QUESTIONS 17, 18, 19 AND 20 30 days

Think about the days when you drank alcohol during the 30 days just before you were arrested:

24. On how many days in the month before your arrest did you have 5 or more drinks? _____ days

25. On how many days in the month before your arrest did you have only 3 or 4 drinks? _____ days

26. On how many days in the last month did you have only 1 or 2 drinks? _____ days

27. On how many days in the month before your arrest did you not have any alcoholic beverages to drink? _____ days

TOTAL OF QUESTIONS 24, 25, 26 AND 27 30 days

(INTERVIEWER INSTRUCTIONS: If one or more days to question #17c then continue, if 0, go to 35:)

28. On the days during the month before your arrest when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? _____ drinks
29. On the days during the month before your arrest when you had 5 or more drinks, what was the maximum number of drinks you had in one day? _____ drinks
30. On how many days during the month before your arrest did you have this number of drinks? _____ days
31. Was your drinking in this month (the 30 days before your arrest) typical of your drinking during the twelve months before your arrest? No Yes

(INTERVIEWER INSTRUCTIONS: If question 31 is no, then ask:)

- 31a. *On how many days in a typical month do you have 5 or more drinks?* _____ days
- 31b. *On how many days in a typical month do you only 3 or 4 drinks?* _____ days
- 31c. *On how many days in a typical month do you have only 1 or 2 drinks?* _____ days
- 31d. *On how many days in a typical month do you not have any alcoholic beverages to drink?* _____ days

TOTAL OF QUESTIONS 31a, 31b, 31c AND 31d

30 days

(INTERVIEWER INSTRUCTIONS: If one or more days to question #30, then ask following questions, otherwise proceed to question #35.)

32. On the days during a typical month when you had 5 or more drinks, how many drinks did you usually have per **drinking** day? _____ drinks
33. On the days during a typical month when you had 5 or more drinks, what was the maximum number of drinks you had in one day? _____ drinks
34. On how many days during a typical month did you have this number of drinks? _____ days

35. When you drink, what do you usually drink: beer, liquor, wine or fortified wine?

- a. beer None Some of the time Most of the time All of the time
- b. liquor None Some of the time Most of the time All of the time
- c. wine None Some of the time Most of the time All of the time
- d. fortified wine None Some of the time Most of the time All of the time

36. How often have you driven just after drinking alcohol?

- Never
- Once or twice
- Three to five times
- 10 or more times

37. When drinking, how often do you drink with friends?

- Never
- Occasionally
- Sometimes
- Often

38. When drinking, how often do you drink with brothers or sisters?

- Never
- Occasionally
- Sometimes
- Often

39. Have you ever on your own given up drinking? No Yes

If yes, how many times? _____

40. What is the longest period of time that you have given up drinking? _____ (years/months/days)

41. How many nights in the past month have you spent in jail? _____

42. How many nights in the past month have you spent in a hospital or treatment center? _____

43. In the past 12 months have you ever had enough alcohol for your speech to get slurred or for you to feel unsteady on your feet? No Yes

44. How old were you when you first drank enough for your speech to get slurred or for you to feel unsteady on your feet? _____ (in years, 99=refused)

45. Have you ever been on a drinking binge? (Very heavy drinking for two or more days in a row.)
..... No Yes

Now I am going to ask you some questions about things that might have happened to you in the twelve months just before you were arrested.

(INTERVIEWER INSTRUCTIONS: If respondent answers "YES" below, was it due to alcohol use or drug use or both? Indicate in the table.)

46. In the twelve months prior to your arrest have you:

	NO	YES	ALCOHOL USE RELATED	DRUG USE RELATED
a. Had legal problems such as being arrested, police called to your house, or lawsuits.				
b. Gotten into fights or violent disputes with other people.				
c. Felt severely depressed or really down.				
d. Thought about killing yourself.				
e. Had problems remembering things or concentrating.				
f. Had problems sleeping such as insomnia, early waking, or nightmares.				
g. Felt tense or really anxious for days at a time.				
h. Had problems with your spouse or partner.				
i. Had problems with other family members.				
j. Had problems with friends or co-workers.				
k. Had problems with your boss.				
l. Had sexual problems.				
m. Had problems getting your work done well.				
n. Had serious financial problems.				
o. Experienced hallucinations.				
p. Had problems with school, such as poor grades or trouble with teachers or principals.				
q. Had problems with your girl/boy friend.				

Now I would like to ask you about some things that you may have experienced.

(INTERVIEWER INSTRUCTIONS: If respondent answers "YES" below, was it due to alcohol use or drug use, or both? Indicate in the table.)

47. Since your 18th birthday ...

	NO	YES	Related To Alcohol Use	Related To Drug Use
a. Have you had any broken bones or dislocated joints?				
b. Have you been injured in a traffic accident?				
c. Have you injured your head?				
d. Have you been injured in a fight or assault (do not count during sports)?				
e. Have you been injured while or after drinking alcoholic beverages?				

48. Have you ever had liver disease related to alcohol or drugs? No Yes

******INTERVIEWER SHOULD LOCATE A 12-MONTH PERIOD THAT REPRESENTS THE SUBJECT'S RECENT HEAVIEST DRINKING PERIOD.******

49. Have you ever used alcohol at school or on the job? No Yes

How many times? _____

50. During this 12-month period, have you gone to school or work while high from using alcohol? No Yes

How many times? _____

51. During this 12-month period, have you driven a car or motorcycle while high from using alcohol? No Yes

How many times? _____

52. During this 12-month period, have you done anything else risky while high from using alcohol that could have led to danger or physical harm to you or someone else? No Yes

If yes, ask a and b

a. What did you do? _____

b. How many times did you do this?

53. (IF FEMALE) During this 12-month period, have you been pregnant and continued to use alcohol even though you knew it was against medical advice? No Yes

54. During this 12-month period, have you had the "shakes" or tremors of your hands after stopping or cutting down on drinking, or had that feeling the morning after drinking? No Yes

55. During this 12-month period, have you had any fits or seizures? No Yes

56. During this 12-month period, have you seen or heard things that weren't really there? No Yes

57. Do you find that you now must take much larger amounts of alcohol to get "high" or drunk? No Yes

If yes, ask a, b, and c:

a. What beverage do you usually drink when getting high? Beer
Wine
Hard liquor drinks

b. Presently, how many drinks of that beverage do you need to get high?

c. When you first started to use alcohol, how many drinks of the same beverage did it take to get high?

58. Do you spend a lot of time getting or buying alcohol? No Yes

59. Do you spend a lot of time drinking alcohol? No Yes

60. Do you spend a great deal of time recovering from heavy use of alcohol? No Yes

61. Have you stopped participating in a club, sports team, or other after school activity because it gets in the way of using alcohol? No Yes

62. Have you gone without important things you wanted or needed in order to get or pay for alcohol? No Yes

63. Have you spent less time in a hobby because it takes time away from using alcohol? No Yes

64. Have you stopped doing anything else that used to be important to you because it gets in the way of using alcohol? No Yes

65. During this 12-month period, have you tried unsuccessfully to cut down or stop using alcohol? No Yes

If yes, how many times?

- 66. During this 12-month period, have you tried to control your use of alcohol by switching to another drug? ... No Yes

How many times?

- 67. Do you often wish you could control your use of alcohol? ... No Yes
68. Have you continued to use alcohol when you knew you had a serious physical problem that might be made worse by using alcohol? ... No Yes

(MUST BE CHRONIC CONDITION OR SERIOUS ENOUGH TO REQUIRE MEDICAL CARE)

- 69. During this 12-month period, have you been told by a physician or a doctor that your use of alcohol has caused you a physical disability or problem? ... No Yes
70. Have you continued to use alcohol when you knew you had a serious mental or psychological problem that might be made worse by using alcohol? ... No Yes
71. During this 12-month period, have you been told by a physician or doctor that your use of alcohol has caused you to suffer a serious mental or psychological problem? ... No Yes
72. Have you continued to use alcohol even though you didn't do as well at school or work dropped because of using alcohol? ... No Yes
73. Has your use of alcohol upset any of your friends to the point where they no longer speak to you or associate with you? ... No Yes

(CANNOT BE MINOR DISAGREEMENT)

- 74. Sometimes people experience the DT's when they quit drinking. During this 12-month period, have you had the DT's? ... No Yes

If yes ask:

What symptoms did you experience?

- a. Being very confused (e.g. not knowing place or time of day). ... No Yes
b. Rapid heart beat and breathing. ... No Yes
c. Fever. ... No Yes
d. Sweating. ... No Yes
e. Elevated blood pressure. ... No Yes
f. Seeing or hearing things that are not really there. ... No Yes

75. How long have you been drinking at your current level of drinking? _____ (years)
76. At what age did you first become concerned about your drinking -- that is, when did drinking first begin to be a problem for you?
- a. Age at first problem _____
- b. Denies that drinking is a problem _____

77. How troubled or bothered are you by alcohol problems? Not at all troubled
 Slightly troubled
 Moderately troubled
 Very troubled

(INTERVIEWER INSTRUCTIONS: If troubled, then ask next three questions, but if "Not at all troubled", skip to "Now I am going to ask some questions about drugs." Question 81, next page.)

78. How confident are you that you can deal with your alcohol problems on your own? Not at all confident
 Slightly confident
 Moderately confident
 Very confident

79. To what extent do you feel that you need treatment or help with your alcohol problems? None needed
 A slight extent
 A moderate extent
 A great extent

80. How important to you now is treatment or counseling for alcohol problems? Not at all important
 Slightly important
 Moderately important
 Very important

Now I am going to ask some questions about drugs.

(INTERVIEWER INSTRUCTIONS: Ask the next six questions for each drug in the chart on the next page. Use 0 if never, 99 if refused.)

81. Have you ever used any of these drugs? (column 1)
82. How old were you when you first used (name of drug)? (column 2)
83. On about how many days did you use (name of drug) during the past 30 days? (column 3)
84. Which letter on this card indicates how often you used (name of drug) during the past 12 months? (column 4)

Response Categories:

- 1 = or more times a day
- 2 = twice a day
- 3 = once a day
- 4 = twice a week
- 5 = or 4 times a week
- 6 = or 6 times a week
- 7 = once a week
- 8 = or 3 times a month
- 9 = once a month
- 10 = 3 or 4 times in past year
- 11 = once in past year
- 12 = not in past year

85. When you used (name of drug) during the past year, did you ever use it at the same time, or within a couple of hours of when you drank beer, wine or liquor? (column 5)

Response Categories:

- 1 = Almost Never
- 2 = Some of the time
- 3 = Half of the time
- 4 = Most of the time
- 5 = Almost always

86. Have you ever driven just after using this drug? (column 6)

Response Categories:

- 1 = Never
- 2 = Once or twice
- 3 = Three to five times
- 4 = 10 or more times

Drug	81. Ever Used?	82. Age at first use?	83. Number of days used in 30 days prior to arrest?	84. How often used in past year?	85. Used with alcohol?	86. Ever driven while under influence?
a. Marijuana or hashish						
b. Cocaine						
c. Crack						
d. Heroin and/or other opiates						
e. Inhalants such as glue, amyl nitrite, "poppers," aerosol spray						
f. Hallucinogens such as LSD, PCP, peyote, mescaline						
g. Non-medical use of drugs including sedatives, tranquilizers, stimulants, or pain killers						
h. Other drugs						
i. More than one drug per day						

87. At what age (how long ago) did using drugs begin to have an effect on your life which you did not approve of - when did using drugs first begin to be a problem for you?

- a. Age at first problem _____
- b. Years of problem duration (Age minus age at first problem) _____
- c. Denies that drug use is a problem _____

88. How much of a problem have drugs been for you?

- a. In the past year Not a problem
A slight problem
A moderate problem
A major problem
- b. In the past 30 days Not a problem
A slight problem
A moderate problem
A major problem

89. How confident are you that you can handle your drug problems on your own?

- Not at all confident
- Slightly confident
- Moderately confident
- Very confident

90. To what extent do you feel that you need treatment or help with your drug problems?

- Not at all
- Slightly
- Moderately
- Very much

91. Did you ever receive treatment for drug or alcohol problems at ...

Type of Treatment Facility	Ever Treated? (circle)	Number of Times (if yes)	Primary Drug (if yes)
a. A therapeutic community or other long-term residential treatment unit?	No Yes		
b. A short-term inpatient unit?	No Yes		
c. Any outpatient day hospital program or any intensive outpatient program that is 2 or more hours of treatment each day for at least 3 days every week?	No Yes		
d. Any outpatient program (1-2 times/week)	No Yes		
e. A detoxification unit in a hospital or free-standing residential facility (24-hour services)?	No Yes		
f. Detoxification services in an outpatient or ambulatory setting?	No Yes		
g. AA, NA or other self-help program	No Yes		
h. School-based drug prevention or drug intervention program	No Yes		
i. DWI programs (If yes, specify) _____	No Yes		
j. Any other (specify) _____	No Yes		

92. If any previous treatment or self-help, how old were you when you first entered a treatment program or self-help program?

93. How many times have you been treated for any psychological or emotional problems?

1. In a hospital

If any, age at first time

2. As an outpatient

If any, age at first time

94. Have any of your relatives had what you would call a significant drinking, drug use or psychiatric problem - one that did or should have led to treatment?

<i>Relative</i>	<i>Alcohol</i>	<i>Drug</i>	<i>Psychiatric</i>
<i>a. Father</i>			
<i>b. Mother</i>			
<i>c. Brother or sister</i>			
<i>d. Grandmother or Grandfather</i>			
<i>e. Other relatives</i>			

95. Now let's discuss how your life has been the past 12 months. I am going to read you a list of experiences or events, some are positive and some are negative. Tell me if you experienced the event in the past 12 months. Remember, I'm only interested in the past 12 months, so that would make it since last (SPECIFY MONTH). (INTERVIEWER INSTRUCTIONS: Skip down to the list and read each event, marking Yes or No for each item.)

(INTERVIEWER INSTRUCTIONS: After the event list has been read and marked Yes or No, proceed to the next column and rank each Yes answer from 1 to 5.) Now let's find out how happy or unhappy you felt about the events you experienced. Think back to when the event occurred and try to recall how happy or unhappy the event made you feel at the time you experienced it. Rate the degree of happiness or unhappiness for each event by selecting a number from 1 to 5. A number 1 would mean you were very unhappy and a number 5 would mean you felt very happy. I will read each event you experienced in the past 12 months and you can tell me which rating to assign.

(INTERVIEWER INSTRUCTIONS: Move to final column and code each category ranked 1 or 2 under Happy/Unhappy column. Code "0" for less than six months or "6" for more than six months.) Finally, I want to learn more about the events that you rated as very unhappy or unhappy. I want to know which of these events caused you to feel unhappy for more than six months. I will read each event you rated as very unhappy or unhappy, and you can indicate whether you were this unhappy for less than or more than 6 months.

		How Happy/ Unhappy (1-5)	More or Less than 6 months (6 or 0)
a. Your parents got divorced or separated	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
b. You feared that someone might physically hurt you	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
c. You feared that someone might make sexual advances towards you	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
d. You broke up with someone you were dating on a regular basis	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
e. (FOR GIRLS) You became pregnant or gave birth to a child or did not complete pregnancy	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
f. (FOR BOYS) Your girlfriend became pregnant	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
g. A close friend or family member died	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____
h. Your mother or father lost a job	<input type="checkbox"/> No <input type="checkbox"/> Yes	_____	_____

96. Have you ever been arrested other than your current DWI charge? No Yes
(INTERVIEWER INSTRUCTIONS: If yes, then ask #97 and #98, if no skip to #99.)

97. How many times have you been arrested on any of the following charges?
(INTERVIEWER INSTRUCTIONS: Read charges and record answers on table below.)

98. How many times were you convicted?
(INTERVIEWER INSTRUCTIONS: Record on table below.)

<i>Charge</i>	<i>No. of Arrests</i>	<i>No. of Convictions</i>
<i>a. Possession of drugs</i>		
<i>b. Traffic offenses</i>		
<i>c. Delinquency</i>		
<i>d. Other Misdemeanor</i>		
<i>e. Other felony</i>		

99. Since age 18, have you ever been under the supervision of a probation or parole officer? No Yes

100. How many months have you been incarcerated in your life? ____

101. Have you ever broken into someone else's house, building, or car? No Yes

a. If yes, how often has this happened in the past 12 months? ____

102. Do you ever get into physical fights? No Yes

a. If yes, how often has this happened in the past 12 months? ____

103. Have you ever used a weapon in a fight? No Yes

a. If yes, how often did you do this in this past 12 months? ____

104. Have you ever robbed someone?
 (For example, a mugging, purse-snatching, or robbery.) No Yes

105. Are you a member of a street gang? No Yes

END OF FORMAL INTERVIEW

(INTERVIEWER INSTRUCTIONS: COMPLETE BACK PAGE)

OBSERVATIONS AND IMPRESSIONS OF THE INTERVIEWER

106. Gross tremor? Present
Not present

107. Do you suspect that the information in this interview was distorted by the interviewee due to:

- 1. Dishonesty/misrepresentation? No Possibly Definitely
- 2. Inability to understand? No Possibly Definitely
- 3. Cooperativeness? No Possibly Definitely
- 4. Defensiveness/denial? No Possibly Definitely
- 5. Language comprehension? No Possibly Definitely
- 6. Physical/Mental state? No Possibly Definitely

108. If you indicated "definitely" for any of the categories in the last question, please elaborate and indicate the sections of the interview to which it applies.

**APPENDIX D - DRAFT ADULT CRITERION INSTRUMENT CONTAINING
SOURCES**

ADULT SELF-REPORT DATA ITEMS - CONSUMPTION

1. Q-F by beverage

HAP, 36-47 indicated

How often have (did) you generally drink BEER?

- | | | |
|--------------------------|-------------------------|------------------------|
| a. 3 or more times a day | e. twice a week | i. 3 or 4 times a year |
| b. twice a day | f. once a week | j. once a year |
| c. once a day | g. 2 or 3 times a month | k. never |
| d. 3 or 4 times a week | h. once a month | |

How much BEER do (did) you generally drink at one sitting or session? Please answer in ``bottles," where each bottle is 12 ounces.

- | | | |
|--------------|--------------------------------|--------------------------------|
| a. 1 bottle | h. 8 bottles | o. 25-30 bottles (5 six-packs) |
| b. 2 bottles | i. 9 bottles | p. 31 bottles or more |
| c. 3 bottles | j. 10 bottles | |
| d. 4 bottles | k. 11 bottles | |
| e. 5 bottles | l. 12 bottles (2 six-packs) | |
| f. 6 bottles | m. 13-18 bottles (3 six-packs) | |
| g. 7 bottles | n. 19-24 bottles (4 six-packs) | |

How much BEER do (did) you drink when you drank more than your usual amount of (of beer)?

- | | | |
|--------------|--------------------------------|--------------------------------|
| a. 1 bottle | h. 8 bottles | o. 25-30 bottles (5 six-packs) |
| b. 2 bottles | i. 9 bottles | p. 31 bottles or more |
| c. 3 bottles | j. 10 bottles | |
| d. 4 bottles | k. 11 bottles | |
| e. 5 bottles | l. 12 bottles (2 six-packs) | |
| f. 6 bottles | m. 13-18 bottles (3 six-packs) | |
| g. 7 bottles | n. 19-24 bottles (4 six-packs) | |

How often do (did) you generally drink more than your usual amount (of beer)?

- | | | |
|--------------------------|-------------------------|------------------------|
| a. 3 or more times a day | e. twice a week | i. 3 or 4 times a year |
| b. twice a day | f. once a week | j. once a year |
| c. once a day | g. 2 or 3 times a month | k. never |
| d. 3 or 4 times a week | h. once a month | |

How often have (did) you generally drink WINE?

- | | | |
|--------------------------|-------------------------|------------------------|
| a. 3 or more times a day | e. twice a week | i. 3 or 4 times a year |
| b. twice a day | f. once a week | j. once a year |
| c. once a day | g. 2 or 3 times a month | k. never |
| d. 3 or 4 times a week | h. once a month | |

How much WINE do (did) you generally drink at one sitting or session, a glass being 5 ounces?

- | | |
|---|---------------------------------------|
| a. 1 wine glass (typical 5-ounce glass) | i. 9 glasses |
| b. 2 glasses | j. 10 glasses (2 bottles, 1.5 liters) |

- c. 3 glasses
- d. 4 glasses
- e. 5 glasses
- f. 6 glasses
- g. 7 glasses
- h. 8 glasses
- k. 11 glasses
- l. 12-15 bottles (3 bottles)
- m. 16-20 bottles (4 bottles; 3 liters)
- n. 21-25 bottles (5 bottles; 4 liters; 1 gallon)
- o. 26-30 bottles (6 bottles)
- p. 31 glasses or more

How much WINE do (did) you generally drink on those occasions when you drink more than your usual amount (of wine)?

- a. 1 wine glass (typical 5-ounce glass)
- b. 2 glasses
- c. 3 glasses
- d. 4 glasses
- e. 5 glasses
- f. 6 glasses
- g. 7 glasses
- h. 8 glasses
- i. 9 glasses
- j. 10 glasses (2 bottles, 1.5 liters)
- k. 11 glasses
- l. 12-15 bottles (3 bottles)
- m. 16-20 bottles (4 bottles; 3 liters)
- n. 21-25 bottles (5 bottles; 4 liters; 1 gallon)
- o. 26-30 bottles (6 bottles)
- p. 31 glasses or more
- q. Always drink the same

How often do (did) you generally drink more than your usual amount (of wine)?

- a. 3 or more times a day
- b. twice a day
- c. once a day
- d. 3 or 4 times a week
- e. twice a week
- f. once a week
- g. 2 or 3 times a month
- h. once a month
- i. 3 or 4 times a year
- j. once a year
- k. never

How often have (did) you generally drink LIQUOR?

- a. 3 or more times a day
- b. twice a day
- c. once a day
- d. 3 or 4 times a week
- e. twice a week
- f. once a week
- g. 2 or 3 times a month
- h. once a month
- i. 3 or 4 times a year
- j. once a year
- k. never

How much LIQUOR do (did) you generally drink at one sitting or session, where a typical shot is 1 1/2 ounces and a typical drink would contain one shot?

- a. 1 shot (1 shot is about 1 1/2 ounces)
- b. 2 shots
- c. 3 shots
- d. 4 shots
- e. 5 shots
- f. 6 shots
- g. 7 shots
- h. 8 shots
- i. 9 shots
- j. 10 shots (1 pint)
- k. 11 shots
- l. 12 shots
- m. 13-17 shots (1 bottle; 750 ml: 1 fifth)
- n. 18-22 shots (1 quart; 1 liter)
- o. 23-27 shots
- p. 28 shots or more

How much LIQUOR do (did) you generally drink on those occasions when you drink more than your usual amount (of liquor)?

- | | |
|--|---|
| a. 1 shot (1 shot is about 1 1/2 ounces) | j. 10 shots (1 pint) |
| b. 2 shots | k. 11 shots |
| c. 3 shots | l. 12 shots |
| d. 4 shots | m. 13-17 shots (1 bottle;
750 ml: 1 fifth) |
| e. 5 shots | n. 18-22 shots (1 quart; 1 liter) |
| f. 6 shots | o. 23-27 shots |
| g. 7 shots | p. 28 shots or more |
| h. 8 shots | q. always drink the same |
| i. 9 shots | |

How often do (did) you generally drink more than your usual amount (of liquor)?

- | | | |
|--------------------------|-------------------------|------------------------|
| a. 3 or more times a day | e. twice a week | i. 3 or 4 times a year |
| b. twice a day | f. once a week | j. once a year |
| c. once a day | g. 2 or 3 times a month | k. never |
| d. 3 or 4 times a week | h. once a month | |

2. Chronic drinking, duration at current level

CDP indicated

No question. Suggest:

How long have you been drinking at your current level of drinking? _____ years

3. Chronic drinking, years of abstinence

CDP indicated

Use B40 and B41

Since you first started drinking, what is the longest period of time that you have gone without taking a drink? _____ years

When was the last time that you went for 2 or 3 days without drinking any alcohol? How long ago?

4. Drug use by drug (frequency)

IAP indicated

Use D1, D4, and D5

Have you used (name the drug) more than 5 times? _____

Thinking about the time when you were using (name the drug) the most (heaviest), about how often were you using it? _____

Which number on this card indicates how often you used (name the drug) during the past 12 months?

- _____
- | | | | |
|----|-----------------------------------|----|-------------------------|
| 00 | Not used at all over the period | 05 | 5-6 times per week |
| 01 | Used less than one time per month | 06 | Daily/1 time per day |
| 02 | 1-3 times per month | 07 | 2 or 3 times per day |
| 03 | 1-2 times per week | 08 | 4 or more times per day |
| 04 | 3-4 times per week | | |

HAP indicated

Use Q301

In the last year (of use) how often have (did) you used (use) (name the drug)?

- | | | | |
|----|-----------------------|----|--------------------------|
| a. | 3 or more times a day | g. | 2 or 3 times a month |
| b. | twice a day | h. | once a month |
| c. | once a day | i. | 3 or 4 times a year |
| d. | 3 or 4 times a week | j. | once a year |
| e. | twice a week | k. | once or twice in my life |
| f. | once a week | | |

5. Preferred drug

IAP indicated

Can be determined from item 4, above

ASI indicated

No question

6. Inappropriate context, time and place, alcohol

CDP indicated

Use B45-16, B46 and B47

Do you ever drink before noon?

Drinking Locations card sort.

(Indicate rank ordering: 1 = most frequent setting; 9 = least)

- _____ At Home (My own house, apartment or room)
_____ At Work
_____ In Other People's Homes
_____ Outdoors
_____ Private or Social Clubs
_____ Restaurants
_____ Social Events (such as Weddings, Parties, Dances)
_____ Tavern or Bar
_____ While Driving

_____ *Other places (if mentioned):* _____
_____ *TOTAL locations indicated as drinking locations*

Social Situations card sort

(Indicate rank ordering: 1 = most frequent setting; 9 = least)

_____ *I Drink Alone*
_____ *I Drink with my Spouse (Husband, Wife, Companion)*
_____ *I Drink with Relatives Other than my Spouse*
_____ *I Drink with a Male Friend or Friends (No Females Present)*
_____ *I Drink with a Female Friend or Friends (No Males Present)*
_____ *I Drink with Friends of Both Sexes*
_____ *I Drink with Strangers (or with People I Meet After I have started drinking)*
_____ *I Drink with Business Associates (for Business Purposes)*
_____ *Other companions (if mentioned):* _____
_____ *TOTAL situations indicated as drinking situations*

7. Age at first drink

IAP indicated

Use D2, D16, D16a, and D16b

How old were you the first time you used alcohol? _____ years

Have you ever been drunk or had at least 5 drinks in one sitting? _____

How old were you when you first got drunk? _____

Have you ever been drunk for several days in a row? _____

8. Age at first drug use

IAP indicated

Use D2

How old were you the first time you used (name the drug)? _____ years

9. Context of drug use, time and place

CDP indicated

Use B46 (mod) and B47 (mod)

Drinking Locations card sort.

(Indicate rank ordering: 1 = most frequent setting; 9 = least)

_____ *At Home (My own house, apartment or room)*
_____ *At Work*
_____ *In Other People's Homes*
_____ *Outdoors*

- _____ *Private or Social Clubs*
- _____ *Restaurants*
- _____ *Social Events (such as Weddings, Parties, Dances)*
- _____ *Tavern or Bar*
- _____ *While Driving*
- _____ *Other places (if mentioned):* _____
- _____ *TOTAL locations indicated as drug use locations*

Social Situations card sort

(Indicate rank ordering: 1 = most frequent setting; 9 = least)

- _____ *I Use Drugs Alone*
- _____ *I Use Drugs with my Spouse (Husband, Wife, Companion)*
- _____ *I Use Drugs with Relatives Other than my Spouse*
- _____ *I Use Drugs with a Male Friend or Friends (No Females Present)*
- _____ *I Use Drugs with a Female Friend or Friends (No Males Present)*
- _____ *I Use Drugs with Friends of Both Sexes*
- _____ *I Use Drugs with Strangers (or with People I Meet After I Have Started Using Drugs)*
- _____ *I Use Drugs with Business Associates (for Business Purposes)*
- _____ *Other companions (if mentioned):* _____
- _____ *TOTAL situations indicated as drug use situations*

10. Drinking plus other drug use, other drug use

HAP (mod) indicated

Use Q298

On the occasions that you use (name the drug) how often do you also use alcohol?

- a. *Always*
- b. *Most of the time*
- c. *About half of the time*
- d. *Some of the time*
- e. *Never*

ADULT SELF-REPORT DATA ITEMS - DEPENDENCE

1. DSM-IIIIR, withdrawal

DIS indicated

Use M21

People who cut down or stop drinking after drinking for a considerable time often have withdrawal symptoms. Common ones are the 'shakes' (hands tremble), being unable to sleep, feeling anxious or depressed, sweating, heart beating fast or the DTs or seeing or hearing things that aren't really there. Have you had any problems like that when you stopped or cut down on drinking? _____

Have you had withdrawal symptoms several times? _____

2, DSM-IIIIR, tolerance

DIS indicated

Use M7

Did you ever get tolerant to alcohol, that is you needed to drink a lot more in order to get an effect or found that you could no longer get high on the amount you used to drink? _____

Some months or years after you started drinking, did you begin to be able to drink a lot more before you would get drunk (that is, your speech would get thick or you would get unsteady on your feet)? _____

Did your ability to drink more without feeling these effects last for a month or more? _____

3. DSM-IIIIR, pre-occupation

DIS indicated

Use M12, M13, M28

Have you ever given up or greatly reduced important activities in order to drink -- like sports, work, or associating with friends or relatives? _____

Did you give up or cut down on activities for a month or more, or several times, in order to drink? _____

Has your drinking or being hung over often keep you from working or taking care of children? _____

Have you often worked or taken care of children at a time when you had drunk enough alcohol to make your speech thick or to make you unsteady on your feet? _____

Has there ever been a period in your life when you needed alcohol to help you function--that is, you could not do your work well unless you had something to drink? _____

When was the (first/last) time you needed a drink in order to do your work well?

4. DSM-III-R, loss of control

DIS indicated

Use M8, M9, M10

Has there been many days when you drank much more than you expected to when you began, or have you often continued drinking for more days in a row than you intended to? _____

Have you more than once wanted to quit or cut down on your drinking? _____

Have you ever tried to quit or cut down on drinking? _____

Did you find you couldn't quit or cut down? _____

Were you unable to quit or cut down more than once? _____

5. DSM-III-R, persistence

DIS indicated

M26, M27

Did you continue to drink (more than once) knowing that drinking caused you to have a (health problem/injury)? _____

Have you continued to drink when you knew you had any (other) serious physical illness that might be made worse by drinking? _____

When was the (first/last) time you drank in spite of an illness that could be made worse by drinking?

6. History of dependence, no. of treatment episodes

IAP indicated

Use the table on page H-1, columns H2 and H2a

Did you ever receive treatment for drug or alcohol problems at ...

	<i>Ever Treated?</i>	<i>Number of Admissions</i>
a. <i>A short-term inpatient unit (28-day)?</i>	_____	_____
b. <i>A therapeutic community or other long term residential treatment unit?</i>	_____	_____
c. <i>Any outpatient methadone program?</i>	_____	_____
d. <i>Any outpatient nonmethadone program or any intensive outpatient program that is 2 or more hours of treatment each day for at least 3 days every week?</i>	_____	_____
e. <i>A drug detoxification unit in a hospital or free-standing residential facility (24-hour services)?</i>	_____	_____
f. <i>Detoxification services in an outpatient or ambulatory setting?</i>	_____	_____
g. <i>Any other (Specify _____)</i>	_____	_____

7. History of dependence, no. of detoxifications

IAP indicated

Use the table from item 6 (don't repeat here)

ASI indicated

Use Q17, Q18

How many times in your life have you been treated for alcohol abuse? _____

How many of these were detox only? _____

8. History of dependence, no. of DTs

DIS indicated

Use M22

Have you ever had fits or seizures after stopping or cutting down on drinking? _____

CDP indicated

Use Question B45, item 19

Have you ever heard voices or seen things that weren't there after drinking? _____

9. Impaired cognitive function

ADI indicated

Use G. Memory and Orientation Screen

I have some questions for you that will help me check your memory.

Can you tell me what day of the week this is? _____

What is the date today _____
Month Day (± 1) Year

(Note: assume correct response if within one day of actual day)

What season of the year is it now, spring, summer, fall, or winter? _____

Please tell me the month of the year in order. (CODE PERFORMANCE)

RECORD HERE:

Now I will ask you three things to remember, and in a few minutes I will ask you what they are.

- *The name of a man: John Smith*
- *An address: 500 Minnesota Avenue*
- *A color: green*

Please repeat those 3. (CODE PERFORMANCE)

3 = Accurate

2 = Needs prompting

1 = Cannot repeat any

I want you to listen carefully and repeat these numbers after me.

(BEGIN WITH 1 AND CONTINUE UNTIL RESPONDENT FAILS; CODE LAST CORRECT REPETITION)

1 = 3 - 9 - 6

2 = 4 - 3 - 1 - 9

3 = 8 - 5 - 1 - 9 - 2

4 = 9 - 3 - 5 - 2 - 8 - 6

5 = 7 - 5 - 8 - 3 - 9 - 2 - 4

*Please repeat these numbers backward. (BEGIN WITH 1 AND CONTINUE UNTIL FAILURE;
CODE LAST CORRECT REPETITION)*

1 = 9 - 1
2 = 4 - 7 - 3
3 = 8 - 5 - 9 - 2
4 = 6 - 2 - 4 - 7 - 1
0 = *Unable*

What were those three things I wanted you to remember? (CODE PERFORMANCE)

CODE

4 = *All three correct*
3 = *2 out of 3*
2 = *1 only*
1 = *None*

Alternative: IAP H14 and H14a.

In your life, did you have at least one period lasting 2 or more weeks when you had trouble understanding, concentrating, or remembering? _____

When was the last time you had a period lasting at least 2 weeks when you had trouble understanding, concentrating, or remembering? _____

10. Age at first problem, alcohol

CDP indicated

Use Question B28 (first part only)

At what age (how long ago) did drinking begin to have an effect on your life which you did not approve of - when did drinking first begin to be a problem for you?

_____ *Age at first problem* _____ *Denies that drinking is a problem*
_____ **Years of problem duration (Age minus age at first problem)*

11. Age at first help, alcohol

CDP indicated

No question

12. Age at first problem, drugs

CDP (mod) indicated

Use Question B28 (first part only) re-phrase, substitute "using drugs" for "alcohol"

At what age (how long ago) did using drugs begin to have an effect on your life which you did not approve of - when did using drugs first begin to be a problem for you?

_____ *Age at first problem* _____ *Denies that using drugs is a problem*
_____ **Years of problem duration (Age minus age at first problem)*

13. Age at first help, drugs

CDP (mod) indicated

No question

14. Gross tremor

Observation by interviewer

15. Have you ever had a problem with alcohol?

ASI indicated

No question. Use:

Have you ever had a problem with alcohol? _____

16. When was your last drink?

ASI indicated

No question. Suggest:

When was your last drink? _____ (use appropriate units)

17. How troubled or bothered are you by alcohol problems?

IAP indicated

Use Question D23

How troubled or bothered are you by alcohol problems?

____ *Not at all*

____ *Slightly*

____ *Moderately*

____ *Considerably*

____ *Extremely*

18. How important to you is treatment for your alcohol problem?

IAP indicated

Use Question D24

How important to you now is treatment or counseling for alcohol problems?

____ *Not at all*

____ *Slightly*

____ *Moderately*

____ *Considerably*

____ *Extremely*

ADULT SELF-REPORT DATA ITEMS - CONSEQUENCES

1. History of trauma / medical history

(Accidental injuries, cirrhosis, hepatitis, intentional injury, suicide attempts, DTs, impaired cognitive functioning, memory problems.)

TS (expanded) indicated for all items except last 3. DIS and CDP for DTs, and ASI for impaired cognitive functioning and memory problems. ASI does not have indicated items. TS does not have cirrhosis, hepatitis, intentional injury, or suicide items.

TS items:

Since your 18th birthday ...

1. *Have you had any fractures or dislocations to your bones or joints?* _____
2. *Have you been injured in a traffic accident?* _____
3. *Have you injured your head?* _____
4. *Have you been injured in a fight or assault (do not count during sports)?* _____
5. *Have you been injured while or after drinking alcoholic beverages?* _____

Alternative: Use IAP G7 for medical items. Also, H14 and H14a for last 2 items.

IAP G7

During the past 12 months did you have:

Cirrhosis of the liver? _____

Hepatitis? _____

ASI Psychiatric Status items 8 and 9

Have you had a significant period (that was not a direct result of drug/alcohol use) in which you have:

Experienced serious thoughts of suicide? _____ *past 30 days* _____ *in your life*

Attempted suicide? _____ *past 30 days* _____ *in your life*

IAP H14 and H14a

In your life, did you have at least one period lasting 2 or more weeks when you had trouble understanding, concentrating, or remembering? _____

When was the last time you had a period lasting at least 2 weeks when you had trouble understanding, concentrating, or remembering? _____

Note: DTs addressed under Dependence, item 8.

2. Life role

(School, work, financial, legal, conduct disorders, psychiatric, psychosocial distress, peer relations, opposite sex.)

ASI indicated for all items. ASI does not have these items.

Alternative: Use CDP C75.

Do you currently have any of the following problems?

- School problems*
- Work problems*
- Financial problems*
- Conflicts with the law (being arrested, drunk driving, police visits, lawsuits, etc.)*
- Aggression (fighting, anger, hostility)*
- Depression (or negative self-concept)*
- Problems with memory or concentration*
- Problems with sleeping (insomnia, early waking, nightmares)*
- Suicidal thoughts*
- Tension or anxiety*
- Family problems*
- Problems with social contacts (sociability and meeting people, losing friends, loneliness)*
- Sexual problems*

Are any of the these problems at least partly related to alcohol? _____

ADULT SELF-REPORT DATA ITEMS - VULNERABILITY

1. Family history, substance abuse

IAP indicated

Use D22

Did any of your (children or) relatives, including parents, grandparents, aunts, uncles, brothers, and sisters, ever have a problem with drugs or alcohol? Just include those who are related to you by blood. _____

2. Self-medication, mood enhancement; and

3. Reasons for drinking

AEQ indicated

Use abbreviated AEQ, items 1-69

This is a question about the effects of alcohol. Read each statement carefully and respond according to your own personal feelings, thoughts, and beliefs about alcohol now. I am interested in what you think about alcohol regardless of what other people might think.

If you think the statement is true, or mostly true, or true some of the time, then mark the number 0, for "AGREE", on your computer sheet. If you think the statement is false, or mostly false, then mark the number 1, for "DISAGREE" on your computer sheet. When the statements refer to drinking alcohol, you may think in terms of drinking any alcoholic beverage, such as beer, wine, whiskey, liquor, rum, scotch, vodka, gin, or various alcoholic mixed drinks. Whether or not you have had actual drinking experiences yourself, you are to answer in terms of your beliefs about alcohol. It is important that you respond to every question.

PLEASE BE HONEST. REMEMBER, YOUR ANSWERS ARE CONFIDENTIAL. RESPOND TO THESE ITEMS ACCORDING TO WHAT YOU PERSONALLY BELIEVE ABOUT ALCOHOL. [List]

HAP indicated

Use Q83

How important to you is (was) each of the following as a reason for drinking? [List]

Response categories:

- | | |
|------------------------|-------------------------|
| a. Extremely important | d. Somewhat important |
| b. Very important | e. Not at all important |
| c. Important | |

**APPENDIX E - DRAFT ADOLESCENT
CRITERION INSTRUMENT CONTAINING SOURCES**

ADOLESCENT SELF-REPORT DATA ITEMS - CONSUMPTION

1. Q-F by beverage

ADI indicated

Use Q42-Q43

A. *How many times in the past six months have you drunk enough alcohol to feel pretty high?*

- 1 = 0 - 5 times
- 2 = 6 - 10 times
- 3 = 11 - 20 times
- 4 = 21 - 40 times
- 5 = 41 - 100 times
- 6 = over 100 times

B. *How many times in the past year?* _____ C. *In your life?* _____
(CODE B. AND C. SEPARATELY)

- 1 = 0 - 5 times
- 2 = 6 - 10 times
- 3 = 11 - 20 times
- 4 = 21 - 40 times
- 5 = 41 - 100 times
- 6 = 100+ times

D. *Have you used alcohol regularly for at least a month?* _____

During the period when you drank regularly, how much alcohol did you usually drink at one time or sitting? _____

- 1 = About 1 beer (12 oz.); 1 mixed drink; 1 glass of wine (3-4 oz.)
- 2 = 2-3 beers; 2-3 mixed drinks; 2-3 glasses of wine
- 3 = 4-9 drinks
- 4 = 10-17 drinks
- 5 = 3 six packs; a fifth; 3 bottles of wine; or more

2. Chronic drinking, duration at current level

ADI indicated

No question. Suggest:

How long have you been drinking at your current level of drinking? _____ years

3. Chronic drinking, years of abstinence

ADI indicated

No question. Suggest:

CDP B40 and B41

Since you first started drinking, what is the longest period of time that you have gone without taking a drink? _____ months

When was the last time that you went for 2 or 3 days without drinking any alcohol? How long ago?

4. Drug use by drug (frequency)

ADI indicated

Use Q111-Q113, Q115-Q117B

Q111

A. Now I want to discuss your experience with drugs other than alcohol. Have you ever used any drug on this list? (SHOW CARD B) _____

B. Have you ever taken any other drugs to get high that are not on this list? _____

IF NOT TO BOTH A AND B, SKIP TO QXXX

Q112

Which drugs have you used 5 or more times in your life?

- AA. Marijuana _____*
- *A. Amphetamines/Stimulants _____*
- *B. Sedatives/Hypnotics _____*
- C. Cocaine _____*
- *D. Opioids _____*
- E. Hallucinogens _____*
- F. PCP _____*
- G. Inhalants _____*
- H. Other () _____*

*IF NO TO ENTIRE LIST, SKIP TO QXXX, IF YES TO * DRUGS, ASK Q113*

Q113

A. Were any of these drugs you were taking prescribed to you by a doctor?

- a. Amphetamines/Stimulants _____*
- b. Sedatives/Hypnotics _____*
- c. Opioids _____*

IF YES TO ANY ABOVE DRUG, ASK B

B. *Were you taking more of the drug than was prescribed, or more often?*

- a. *Amphetamines/Stimulants* _____
- b. *Sedatives/Hypnotics* _____
- c. *Opioids* _____

5. Preferred drug

ADI indicated

Can be determined from item 4, above

6. Inappropriate context, time and place, alcohol

ADI indicated

Use Q47-Q51

Q47

Have you ever used alcohol at school or on the job? _____
How many times? _____

Q48

Have you ever gone to school or to work while high from using alcohol? _____
How many times? _____

Q49

Have you ever driven a car or motorcycle while high from using alcohol? _____
How many times? _____

Q50

Have you ever done anything else risky while high from using alcohol that could have lead to danger or physical harm to you or someone else? _____
(IF YES, ASK A AND B)

A. *What did you do?* _____

B. *How many times did you do this?* _____

Q51

(IF FEMALE) Have you ever been pregnant and continued to use alcohol even though you knew it was against medical advice? _____

7. Age at first drink

ADI indicated

Use Q38-Q41

Q38

Have you ever drunk alcohol? _____

Q39

Have you used alcohol more than 5 times? _____

Q40

How old were you the first time you ever drank to the point of getting pretty high? _____

Q41

How long has it been since you last used alcohol to get high? _____

CODE

1 = within last day

2 = within last 2 days

3 = within last 1 week

4 = within last 2 weeks

5 = within last month

6 = within last 6 months

7 = more than 6 months ago

8 = more than 1 year ago

8. Age at first drug use

ADI indicated

Use Q114

How old were you when you first used (drug)? (CODE AGE)

AA. Marijuana _____

A. Amphetamines/Stimulants _____

B. Sedatives/Hypnotics _____

C. Cocaine _____

D. Opioids _____

E. Hallucinogens _____

F. PCP _____

G. Inhalants _____

H. Other (_____) _____

9. Context of drug use, time and place

ADI indicated

Use Q121-Q125

Q121

Have you ever used (drug) at school or on the job? (How many times?)

- AA. Marijuana _____
- A. Amphetamines/Stimulants _____
- B. Sedatives/Hypnotics _____
- C. Cocaine _____
- D. Opioids _____
- E. Hallucinogens _____
- F. PCP _____
- G. Inhalants _____
- H. Other (_____) _____

Q122

Have you ever gone to school or to work high from using (drug)? How many times?

- AA. Marijuana _____
- A. Amphetamines/Stimulants _____
- B. Sedatives/Hypnotics _____
- C. Cocaine _____
- D. Opioids _____
- E. Hallucinogens _____
- F. PCP _____
- G. Inhalants _____
- H. Other (_____) _____

Q123

Have you ever driven a car or motorcycle while high from using (drug)? How many times?

- AA. Marijuana _____
- A. Amphetamines/Stimulants _____
- B. Sedatives/Hypnotics _____
- C. Cocaine _____
- D. Opioids _____
- E. Hallucinogens _____
- F. PCP _____
- G. Inhalants _____
- H. Other (_____) _____

Q124

While high from using (drug), have you ever done anything else risky that could have lead to danger or physical harm to you or someone else? How many times?

- AA. Marijuana _____
- A. Amphetamines/Stimulants _____
- B. Sedatives/Hypnotics _____
- C. Cocaine _____
- D. Opioids _____
- E. Hallucinogens _____
- F. PCP _____
- G. Inhalants _____
- H. Other (_____) _____

(IF YES, ASK A)

What did you do? SPECIFY: _____

Q125

(IF FEMALE) Have you ever been pregnant and continued to use (drug) even though you knew it was against medical advice?

- AA. Marijuana _____
- A. Amphetamines/Stimulants _____
- B. Sedatives/Hypnotics _____
- C. Cocaine _____
- D. Opioids _____
- E. Hallucinogens _____
- F. PCP _____
- G. Inhalants _____
- H. Other (_____) _____

10. Drinking plus other drug use, other drug use

HAP (mod) indicated

Use Q298

On the occasions that you use (name the drug) how often do you also use alcohol?

- a. Always
- b. Most of the time
- c. About half of the time
- d. Some of the time
- e. Never

ADOLESCENT SELF-REPORT DATA ITEMS - DEPENDENCE

1. DSM-IIIIR, withdrawal

ADI indicated

Use Q73-Q75

Q73

Have you ever had the "shakes" or tremors of your hands after stopping or cutting down on drinking, or had that feeling the morning after drinking? _____

Q74

Have you ever had any fits or seizures? _____

Q75

Have you ever seen or heard things that weren't really there? _____

2. DSM-IIIIR, tolerance

ADI indicated

Use Q70-Q72

Q70

*Do you find that you now must take much larger amounts of alcohol to get "high" or drunk? _____
IF YES, ASK Q71 AND Q72*

Q71

*Presently, how many drinks do you need to get high? _____
(CODE NUMBER)*

Q72

*When you first started to use alcohol, how many drinks of the same beverage did it take to get high?
_____ (CODE NUMBER)*

INTERVIEWER: CODE TYPE OF BEVERAGE REFERRED TO IN ABOVE QUESTIONS

1 = Beer

2 = Wine

3 = Hard liquor drinks

3. DSM-IIIIR, pre-occupation

ADI indicated

Q52-Q58

Q52

Do you spend a lot of time getting or buying alcohol? _____

Q53

Do you spend a lot of time drinking alcohol? _____

Q54

Do you spend a great deal of time recovering from heavy use of alcohol? _____

Q55

Have you stopped participating in a club, sports team, or other after school activity because it gets in the way of using alcohol? _____

Q56

*Have you gone without important things you wanted or needed in order to get or pay for alcohol?
_____*

Q57

Have you spent less time in a hobby because it takes time away from using alcohol? _____

Q58

Have you stopped doing anything else that used to be important to you because it gets in the way of using alcohol? _____

SPECIFY _____

4. DSM-IIIIR, loss of control

ADI indicated

Use Q44-Q46

Q44

*Have you ever tried unsuccessfully to cut down or stop using alcohol? _____
How many times? _____*

Q45

*Have you ever tried to control your use of alcohol by switching to another drug? _____
How many times? _____*

Q46

Do you often wish you could control your use of alcohol? _____

5. DSM-III-R, persistence

ADI indicated

Use Q64-Q69

Q64

Have you continued to use alcohol when you knew you had a serious physical problem that might be made worse by using alcohol? _____ (MUST BE CHRONIC CONDITION OR SERIOUS ENOUGH TO REQUIRE MEDICAL CARE)

Q65

Have you ever been told by a physician or a doctor that your use of alcohol has caused you a physical disability or problem? _____

Q66

Have you continued to use alcohol when you knew you had a serious mental or psychological problem that might be made worse by using alcohol? _____

Q67

Have you ever been told by a physician or doctor that your use of alcohol has caused you to suffer a serious mental or psychological problem? _____

Q68

Have you contained to use alcohol even though you know that your grades have dropped because of using alcohol? _____

Q69

Has your use of alcohol upset any of your friends to the point where they no longer speak to you or associate with you? _____ (CANNOT BE MINOR DISAGREEMENT)

DETAILS: _____

6. History of dependence, no. of treatment episodes

ADI indicated

Use Q34

Have you ever been in treatment for alcohol problems? _____

A. How old were you when that happened the first time? _____

B. How old were you when that happened the last time? _____

C. How many separate times have you been admitted to a program for treatment? _____

Now I will ask you three things to remember, and in a few minutes I will ask you what they are.

- The name of a man: John Smith
- An address: 500 Minnesota Avenue
- A color: green

Please repeat those 3. (CODE PERFORMANCE)

- 3 = Accurate
- 2 = Needs prompting
- 1 = Cannot repeat any

I want you to listen carefully and repeat these numbers after me.

(BEGIN WITH 1 AND CONTINUE UNTIL RESPONDENT FAILS; CODE LAST CORRECT REPETITION)

- 1 = 3 - 9 - 6
- 2 = 4 - 3 - 1 - 9
- 3 = 8 - 5 - 1 - 9 - 2
- 4 = 9 - 3 - 5 - 2 - 8 - 6
- 5 = 7 - 5 - 8 - 3 - 9 - 2 - 4

Please repeat these numbers backward. (BEGIN WITH 1 AND CONTINUE UNTIL FAILURE; CODE LAST CORRECT REPETITION)

- 1 = 9 - 1
- 2 = 4 - 7 - 3
- 3 = 8 - 5 - 9 - 2
- 4 = 6 - 2 - 4 - 7 - 1
- 0 = Unable

What were those three things I wanted you to remember? (CODE PERFORMANCE)

CODE

- 4 = All three correct
- 3 = 2 out of 3
- 2 = 1 only
- 1 = None

10. Age at first problem, alcohol

Not indicated for adolescents

11. Age at first help, alcohol

ADI indicated

Contained in item 6., above

12. Age at first problem, drugs

13. Not indicated for adolescents

14. Age at first help, drugs

ADI indicated

Use Q34. Substitute "drugs" for "alcohol."

Have you ever been in treatment for drugs? _____

A. How old were you when that happened the first time? _____

B. How old were you when that happened the last time? _____

C. How many separate times have you been admitted to a program for treatment? _____

15. Gross tremor

Observation by interviewer

16. Have you ever had a problem with alcohol?

ASI indicated

No question. Use:

Have you ever had a problem with alcohol? _____

17. When was your last drink?

ASI indicated

No question. Suggest:

When was your last drink? _____ (use appropriate units)

18. How troubled or bothered are you by alcohol problems?

IAP indicated

Use Question D23

How troubled or bothered are you by alcohol problems?

____ *Not at all*

____ *Slightly*

____ *Moderately*

____ *Considerably*

____ *Extremely*

19. How important to you is treatment for your alcohol problem?

IAP indicated

Use Question D24

How important to you now is treatment or counseling for alcohol problems?

- Not at all*
- Slightly*
- Moderately*
- Considerably*
- Extremely*

ADOLESCENT SELF-REPORT DATA ITEMS - CONSEQUENCES

1. History of trauma / medical history

(Accidental injuries, cirrhosis, hepatitis, intentional injury, suicide attempts, DTs, impaired cognitive functioning, memory problems.)

TS (expanded) indicated for all items except last 3. ADI for others. TS does not have cirrhosis, hepatitis, intentional injury, or suicide items. ADI does not have cirrhosis or hepatitis items.

TS items:

Since your 13th birthday ...

1. *Have you had any fractures or dislocations to your bones or joints?* _____
2. *Have you been injured in a traffic accident?* _____
3. *Have you injured your head?* _____
4. *Have you been injured in a fight or assault (do not count during sports)?* _____
5. *Have you been injured while or after drinking alcoholic beverages?* _____

Alternative: Use IAP G7 for medical items.

IAP G7

During the past 12 months did you have:

Cirrhosis of the liver? _____

Hepatitis? _____

- Note:
1. DTs addressed under Dependence, item 8.
 2. Concentration and memory addressed under Dependence, item 9.
 3. Suicide addressed under 2., below.

2. Life role

(School, work, financial, legal, conduct disorders, psychiatric, psychosocial distress, peer relations, opposite sex.)

ADI indicated for all items.

Q159, Q160, Q156, Q148-Q155, Q157, Q158. Also, Q37 for psychosocial stressors.

Q159

I want to ask some questions about school in the past year. (USE CODE BELOW)

CODE

4 = Good

3 = O.K.

2 = Not so good

1 = Bad

- A. *How did you feel about school in the past year?* _____
- B. *How did you feel about your school work?* _____
- C. *How did you feel about your teachers?* _____
- D. *How did your teachers feel about you?* _____

- E. What about the other kids in school, how did you get along with them? _____
- F. Have any of these school problems happened to you in the past year.
- a. being sent to the principal? _____
 - b. had a family conference? _____
 - c. Been suspended? _____
 - d. Been expelled? _____

Q160

In the past year, what kinds of grades did you get in these classes? (USE CODE BELOW)

CODE

- 4 = Above average (A's and B's)
- 3 = Average (C's)
- 2 = Below Average (D's)
- 1 = Fail (F's)
- 0 = N/A - Not applicable

- A. Reading/English _____
- B. Math/Arithmetic _____
- C. Science _____
- D. Social Studies _____
- E. (_____) _____

Q 156

- A. Have you been in trouble with the law in the last year? _____
- B. (IF YES) Were you arrested? _____
- C. (IF YES) What were you charged with? _____
- D. Do you have any current charges pending for
status offense? _____
misdemeanor? _____
felony? _____
- E. Are you currently under the supervision of a
probation officer? _____
social worker? _____

Q148

Depression

- A. Has there been a continuous two-week period when you felt sad or down most of the time and felt as if you didn't care anymore about anything? _____
- B. Have you ever felt like crying for several days in a row? _____
- C. Have you ever had difficulty sleeping for many days on end? _____
- D. Have you ever felt so down that you felt like ending your life? _____
- E. Have you ever actually attempted suicide? _____
- F. (If yes to any above) Did you experience these problems in the past 12 months? _____

Q149

Mania

Has there ever been a period of at least several days when you were not using drugs but felt (differentiate from feeling good after depression, normal excitement or happiness)

- A. *On top of the world and felt like you had superhuman talents?* _____
- B. *Did you feel that you had limitless energy?* _____
- C. *Did you feel that your thoughts were racing?* _____
- D. *Could you go for a long period without sleep?* _____
- E. *This high feeling gets you into trouble?* _____
- F. *(If yes to any above) Did you experience these problems in the past 12 months?* _____

Q150

Eating Disorder

- A. *Have you ever eaten so much food in a short period of time that you felt out of control and would be embarrassed if others saw you?* _____
- B. *Have you ever made yourself vomit after eating in order to lose weight?* _____
- C. *Have you ever used laxatives to make yourself lose weight?* _____
- D. *Have you ever lost a lot of weight by dieting and were told by others that you looked too thin?* _____
- E. *(If yes to any above) Did you experience these problems in the past 12 months?* _____

Q151

For Q151 & Q152 do not count as positive if subject was physically ill, dreaming, in a half awake state, intoxicated, or withdrawing from drug use, or if beliefs are part of shared religious or subcultural belief system.

Delusions

Have you ever had ideas or beliefs that other people found difficult to understand, such as:

- A. *That people are harassing or persecuting you for some strange reason?* _____
- B. *That someone is controlling your mind to the point that you feel like a robot?* _____
- C. *That your thoughts are being broadcast to other people without your control?* _____
- D. *If yes to A, B, or C, tell me about these ideas.*

E. *Past 12 months?* _____

Q152

Hallucinations

- A. Has your imagination ever played tricks on you where you heard voices talking to you yet no one was actually there? _____
- B. Have you ever seen things that other people couldn't see? _____
- C. If yes to A or B, can you tell me about these experiences?

- D. Past 12 months? _____

Q153

ADD

Do you find that you are the type of person that:

- A. Starts one task, then drops it to do something else? _____
- B. Often gets complaints from parents or teachers that you don't listen to instructions or directions?

- C. Often acts before thinking? _____
- D. Has difficulty waiting for your turn in games or when with other kids? _____
- E. Finds it difficult to sit still or fidgets a lot? _____
- F. Have you ever been told that you were hyperactive, or have been prescribed medication for hyperactivity? _____
- G. Past 12 months? _____

Q154

Anxiety

- A. Do you worry a great deal when you are away from home that something bad might happen to your parents? _____
- B. Have you ever refused to go to school because you were afraid that something bad might happen to your parents or some other important person? _____
- C. Do you worry a great deal about how well you are performing as a student or whether you have enough friends? _____
- D. Do you worry excessively about how future events will turn out? _____
- E. Past 12 months? _____

Q155

Conduct Disorder

- A. Are you often truant from or skip school? _____
- B. Have you ever broken into someone's house, building, or car? _____
- C. Do you often start physical fights? _____
- D. Have you ever used a weapon in a fight? _____
- E. Have you ever stolen something from someone in front of them? _____
(For example, a mugging, purse-snatching, or robbery.)
- F. (If yes to any of above) Did you do any of these things in the past 12 months? _____

Q157

Peer

I am going to read you a statement and I want you to indicate for me "how true" the statement describes your life in the past year. (USE CODE BELOW)

CODE

- 4 = Very much true
- 3 = Somewhat true
- 2 = Only slightly true
- 1 = Not at all true

- A. I got along well with other kids in the past year. _____
- B. I made new friends in the past year. _____
- C. Kids often called on me to do things. _____
- D. I was a popular person with my friends last year. _____
- E. I spent a lot of time with a best friend or two. _____
- F. I spent a lot of time with a steady group of friends during the past year. _____
- G. I was the kind of person that other friends would follow along. _____
- H. I used alcohol or other drugs with friends. _____

Q158

Opposite Sex

I want to ask you about your dating in the past year (USE CODE BELOW)

CODE

- 4 = Very much true
- 3 = Somewhat true
- 2 = Only slightly true
- 1 = Not at all true

- A. I have a lot of friends who are (opposite sex). _____
- B. I enjoyed spending time with (opposite sex) in the past year. _____
- C. I often went to school dances, parties, or other kinds of social activities that include (opposite sex). _____
- D. I had a boyfriend/girlfriend during the past year. _____
- E. I often used alcohol or other drugs with a boyfriend/girlfriend. _____

Q37

Now let's discuss how your life has been the past 12 months. I am going to read you a list of experiences or events, some are positive and some are negative. Tell me if you experienced the event in the past 12 months. Remember, I'm only interested in the past 12 months, so that would make it since last (SPECIFY MONTH). (READ THE EVENT LIST TO SUBJECT AND CIRCLE THE LETTER NEXT TO THOSE EVENTS INDICATED AS PRESENT.)

(AFTER THE EVENT LIST HAS BEEN READ AND MARKED) Now let's find out how happy or unhappy you felt about the events you experienced. Think back to when the event occurred and try to recall how happy or unhappy the event made you feel at the time you experienced it. Rate the degree of happiness or unhappiness for each event by selecting a number on this 5-point scale. (GIVE CARD A TO SUBJECT) I will read each event and you can tell me which rating to assign. (CODE RATING IN THE SPACE PROVIDED TO THE NEAR LEFT OF ITEM)

(AFTER EVENTS HAVE BEEN RATED FOR HAPPINESS AND UNHAPPINESS) Finally, I want to learn more about the events that you rated as very unhappy or unhappy. I want to know which of these events caused you to feel unhappy for more than six months. I will read each event you rated as unhappy, and you can indicate whether it was less than or more than 6 months. (CODE "0" FOR LESS THAN SIX MONTHS OR "6" FOR MORE THAN SIX MONTHS IN SPACE TO THE FAR LEFT OF ITEM)

0 or 6 1-5

- | | | | |
|-------|-------|-----|---|
| _____ | _____ | A. | An important friend left you |
| _____ | _____ | B. | You changed schools |
| _____ | _____ | C. | Your parents argued or fought with each other |
| _____ | _____ | D. | One or both of your parents got remarried |
| _____ | _____ | E. | You met a teacher you liked a lot |
| _____ | _____ | F. | You became heavily involved in religion |
| _____ | _____ | G. | Your parents got divorced or separated |
| _____ | _____ | H. | There were serious money problems at home |
| _____ | _____ | I. | A family member had a serious accident or illness that worried you |
| _____ | _____ | J. | Someone in your family had a drinking or drug problem |
| _____ | _____ | K. | You started earning your own money |
| _____ | _____ | L. | You feared that someone might physically hurt you |
| _____ | _____ | M. | You feared that someone might make sexual advances towards you |
| _____ | _____ | N. | A brother or sister was born into the family |
| _____ | _____ | O. | You found a new group of friends |
| _____ | _____ | P. | You took a vacation with kids your own age |
| _____ | _____ | Q. | You broke up with someone you were dating on a regular basis |
| _____ | _____ | R. | a. (FOR GIRLS) You became pregnant or gave birth to a child or did not complete pregnancy |
| _____ | _____ | | b. (FOR BOYS) Your girlfriend became pregnant |
| _____ | _____ | S. | You moved to a new home or neighborhood |
| _____ | _____ | T. | You got poor grades in school |
| _____ | _____ | U. | You had problems at work |
| _____ | _____ | V. | You had a serious accident or illness |
| _____ | _____ | W. | You started dating regularly |
| _____ | _____ | X. | You fell in love |
| _____ | _____ | Y. | You had sexual intercourse for the first time |
| _____ | _____ | Z. | You got your own stereo or TV |
| _____ | _____ | AA. | You got in trouble with the law |
| _____ | _____ | BB. | You were expelled or suspended from school |
| _____ | _____ | CC. | You gained a lot of weight |
| _____ | _____ | DD. | You had a sexual experience with someone of your own sex |
| _____ | _____ | EE. | A close friend died |
| _____ | _____ | FF. | You thought about hurting or killing yourself |
| _____ | _____ | GG. | You had trouble with a brother or sister |

- _____ *HH.* *Your mother or father lost a job*
- _____ *II.* *A brother or sister moved out*
- _____ *JJ.* *You had trouble with a school teacher*
- _____ *KK.* *You were not selected for an extracurricular activity that you wanted to be involved in*
- _____ *LL.* *Someone in your family died*
- _____ *MM.* *You were bothered by a lack of affection and kindness toward you by one or both of your parents*
- _____ *NN.* *You were placed in a new living situation, for example, in a foster home, residential setting, or institution*
- _____ *OO.* *A close friend became seriously ill or had serious medical problems*
- _____ *PP.* *You were given medication by a physician*
- _____ *QQ.* *You became heavily involved in a new hobby*
- _____ *RR.* *You stole something valuable*
- _____ *SS.* *One or both of your parents changed jobs*
- _____ *TT.* *You made a decision about college*
- _____ *UU.* *You started seeing a therapist or counselor because of personal problems*
- _____ *VV.* *You ran away from home*
- _____ *WW.* *You joined a club or group*
- _____ *XX.* *You had trouble with classmates*

ADOLESCENT SELF-REPORT DATA ITEMS - VULNERABILITY

1. Family history, substance abuse

ADI indicated

Use Q19, Q20, Q21, Q22, Q23, Q32, Q33

Q19, Q20, Q21, Q22

At any point in time, has your:

birth mother had a problem with alcohol or drugs? _____

birth father had a problem with alcohol or drugs? _____

(step/adoptive/foster) mother had a problem with alcohol or drugs? _____

(step/adoptive/foster) father had a problem with alcohol or drugs? _____

DETAILS: _____

Q23

(IF YES IN Q19 - Q22) Have they ever been in treatment or attended AA?

Natural Mother _____

Natural Father _____

(Step/Adoptive/Foster) Mother _____

(Step/Adoptive/Foster) Father _____

DETAILS: _____

Q32

Have any of your brothers or sisters ever had a problem with alcohol or drugs?

A. Brother(s) _____

B. Sister(s) _____

C. (Step/Half) Brother(s) _____

D. (Step/Half) Sister(s) _____

DETAILS: _____

Q33

(IF YES IN Q32) Have they been in treatment or attended AA?

- A. Brother(s) _____
- B. Sister(s) _____
- C. (Step/Half) Brother(s) _____
- D. (Step/Half) Sister(s) _____

DETAILS: _____

- 2. Self-medication, mood enhancement; and
- 3. Reasons for drinking

AEQ indicated

Use abbreviated AEQ, items 70-97

This is a question about the effects of alcohol. Read each statement carefully and respond according to your own personal feelings, thoughts, and beliefs about alcohol now. I am interested in what you think about alcohol regardless of what other people might think.

If you think the statement is true, or mostly true, or true some of the time, then mark the number 0, for "AGREE", on your computer sheet. If you think the statement is false, or mostly false, then mark the number 1, for "DISAGREE" on your computer sheet. When the statements refer to drinking alcohol, you may think in terms of drinking any alcoholic beverage, such as beer, wine, whiskey, liquor, rum, scotch, vodka, gin, or various alcoholic mixed drinks. Whether or not you have had actual drinking experiences yourself, you are to answer in terms of your beliefs about alcohol. It is important that you respond to every question.

PLEASE BE HONEST. REMEMBER, YOUR ANSWERS ARE CONFIDENTIAL. RESPOND TO THESE ITEMS ACCORDING TO WHAT YOU PERSONALLY BELIEVE ABOUT ALCOHOL.

[List]

TEENHAP indicated

Use Q49 (next page)

How important to you is (was) each of the following as a reason for drinking?

- To become sociable*
- Because you like the taste*
- Because the people you know drink*
- When you want to forget everything*
- Because it helps you relax*
- Because it helps you go to sleep*
- Out of habit*
- To celebrate special occasions*
- Because it helps you forget your worries*
- Because a small drink improves your appetite for food*
- Because it is the polite thing to do in certain situations*
- Because it helps cheer you up when you're in a bad mood*
- Because it helps you when you are tense and nervous*

Response categories:

- a. *Extremely important*
- b. *Very important*
- c. *Important*
- d. *Somewhat important*
- e. *Not at all important*

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