

**ADOLESCENT DRUG AND ALCOHOL  
ASSESSMENT INSTRUMENTS IN CURRENT USE:**

***A Critical Comparison***

**1993**

**by James A. Farrow, M.D.  
Wayne R. Smith, Ph.D.  
Michael D. Hurst, M.P.H.**

**prepared for the Washington State  
Division of Alcohol and Substance abuse**

Reprinted by  
Alcohol and Drug Abuse Institute, University of Washington  
*<http://adai.washington.edu>*

October 2002

## Table of Contents

Introduction and Purpose	4
Special Topics: Settings and Ethnic Differences	4
How the Review is Organized	5
<b>Section I: Narrative Review</b>	<b>6</b>
Screening Instruments	6
SASI: Substance Abuse Screening Instrument	6
PESQ: Personal Experience Screening Questionnaire	6
ADI: Adolescent Drinking Index	6
DAPQS: Drug and Alcohol Quick Screen	7
ADIS: Adolescent Drug Involvement Scale	7
RARI: Rutgers Alcohol Problem Index	7
AAIS: Adolescent Alcohol Involvement Scale	8
Mid-Range Assessment Instruments	9
CSI: Client Substance Index	9
DUSI: Drug Use Screening Inventory	9
POSIT: Problem-Oriented Screening Instrument for Teenagers	9
ACHI: Assessment of Chemical Health Inventory	10
T-ASI: Teen-Addiction Severity Index	11
Comprehensive Assessment Instruments	12
ADI: Adolescent Diagnostic Interview	12
PMES: Prevention Intervention Management System	12
PEI: Personal Experiences Inventory	13
ADAD: Adolescent Drug Abuse Diagnosis	14
Instruments Not Reviewed	15
MAST: Michigan Alcoholism Screening Test	15
ADAS: American Drug and Alcohol Survey	15
SADC: Substance Abuse Dependence Checklist	15
SAPD: Screen for Adolescent Problem Drinkers	15
QIAD: Quantitative Inventory of Alcohol Disorders	15
SAAST: Self-Administered Alcoholism Screening Test	15
AUI: Alcohol Use Inventory	15
DAST: Drug Abuse Screening Test	15
ME: Manson Evaluation	15
SASSI-A: Substance Abuse Subtle Screening Inventory – Adolescent	15
APSI: Adolescent Problem Severity Index	16

<b>Section II: Instrument Characteristics</b>	<b>17</b>
Table 1. Characteristics of Instruments	18
<b>Section III: Evaluation of Instrument</b>	<b>20</b>
Table 2. Ratings of Instruments	22
<b>Section IV: Overall Evaluation</b>	<b>23</b>
Best Screening Instrument	23
Best Mid-Range Instrument	23
Best Comprehensive Instruments	24
<b>References</b>	<b>25</b>
<b>Acknowledgments</b>	<b>28</b>

# EVALUATION INSTRUMENTS FOR ADOLESCENT DRUG AND ALCOHOL ABUSE

## Introduction and Purpose

In this era of widespread alcohol and drug use among teenagers and of limited treatment resources, there is an obvious need to make sound treatment decisions. Standardized evaluation instruments with demonstrated reliability and validity are the best means available for making decisions about who to treat, how to secure their cooperation, what life problems to address and how, and what behavioral indicators to use to measure change.

The purpose of this booklet is to identify and evaluate the standardized assessment tools for adolescent drug and alcohol use. Further information is presented that will allow providers in various settings to choose which of the standardized assessment tools is best for their purpose. Of course, "best" must be judged along several dimensions --ease of administration and scoring, cost, what exactly it is designed to measure, as well as whether it is psychometrically sound (that is, actually measures what it purports to measure).

## Special Topics: Settings and Ethnic Differences

Faced with choosing the "best" instrument, providers are usually concerned about whether the instrument will accomplish its task with adolescents like those seen in their setting, and specifically, those with the particular ethnic and cultural backgrounds of the setting. A general discussion of these issues follows.

Settings. One might think of settings varying on a dimension of "preselectedness", ranging from a public school classroom setting (least preselected) to a group of teens in juvenile court in presentencing evaluation (most preselected). Most of the reliability and validity work undertaken on the instruments reviewed below was undertaken with groups of teens who were minimally preselected -- typical settings were school-based health clinics or other health-provider agencies functioning as a primary referral for evaluation and treatment of adolescent substance abuse. Thus, in general, the more closely the target setting matches this type of setting, the more likely the reliability and validity work will generalize to the target setting.

At end of the "preselection" continuum is the juvenile justice or legal setting. Not only are the adolescents in such a setting likely to be different in important ways from those upon which the tests were normed, they also are likely to be highly motivated to portray themselves a certain way on the tests. This is likely to have significant, but often unpredictable, effects on the reliability and validity of the tests. In general, none of the tests reviewed below are designed to be used in such a setting. It is inappropriate to use any of the following tests in such a setting without a thoughtful study of the instrument's reliability and validity in making the decisions made in that setting with the adolescents who actually are evaluated in that setting.

Having said this, it is important to note that some of the tests reviewed below have attempted to deal with this by: including highly preselected and/or legal subgroups in their reliability, validity or norming samples; including so-called "validity" or "response-bias" measures in the instrument; or by evaluating the effects of a legal setting on responses to the instrument. Those instruments which we have nominated in Section IV, below, have all attempted one or more of these methods with varying success. But none have, in our judgment, sufficiently accounted for the effects of a legal setting.

Ethnic Differences. Similar problems and solutions exist with respect to the issue of ethnic differences. None of the instruments reviewed below were designed specifically for African-Americans, Hispanics, group, or Asian-Americans. Thus, in general, if the target group consists of significant numbers (e.g. a simple majority) of non-Caucasians, use of these tests may be inappropriate without, again, a study of the instrument's reliability and validity with a subsample of the actual target group with which it will be used.

Again, having said this, it should be pointed out that some of the following I tests have made serious and

worthy attempts to reduce the effects of ethnic differences: e.g. including ethnic groups in the reliability, validity and norming samples; evaluating whether ethnic status affects the factor structure or the rates at which certain instrument-based decisions are made. The instruments we nominate in Section IV, below, have generally undertaken these kinds of procedures. However, none of the tests have undertaken the difficult work of identifying the culture-specific item content or true culture-specific base rates of the dimensions the tests purport to measure.

A relatively easy first step for assuring negligible impact of ethnic differences is to systematically evaluate whether the specific language and reading level of the test is appropriate for the specific target group. With regard to the effects of both setting and culture, the choice of whether or not to use an instrument must be weighed against the alternative. If there is no satisfactory instrument, then a clinician must ask whether the best of the unsatisfactory instruments may still offer advantages over no instrument at all.

### **How the Review is Organized**

The evaluation instruments are organized into three broad categories: screening instruments, mid-range assessment instruments and comprehensive assessment instruments. Though the distinctions are somewhat arbitrary, they are made based on amount of time needed to administer and how many of the basic areas necessary for treatment are actually measured.

Screening instruments generally require less than 10 minutes and result in a single scale score meant to identify those adolescents who are best referred for further evaluation and/or treatment. They are appropriate for settings where client contact is relatively brief, or where a relatively large proportion of the adolescents are expected to be screened as not having an alcohol or drug problem.

Mid-range instruments generally require between 10 and 60 minutes and yield measures of at least some of the major life areas typically effected by substance abuse, as well as estimates of the frequency/amount of various substances. They are appropriate for referents and case managers who have longer contact time with clients at each visit.

Comprehensive instruments take more than an hour and yield valid measures on important dimensions necessary to make effective treatment decisions. They are appropriate for assessment centers and treatment centers which have case planning responsibility.

This review is organized around these four sections, within which the three categories of instruments are grouped. The first section provides a brief narrative description of each instrument, with a brief evaluation of its psychometric properties. The second section provides much of the descriptive information for each instrument in tabular form. The third section is a table of the author's ratings of how well the instrument meets criteria such as ease of administration, reliability, validity and norms. The final section presents our judgment of the best instrument in each category.

## **Section I: Narrative Review**

### **SCREENING INSTRUMENTS**

#### **SASI: Substance Abuse Screening Instrument**

The SASI is a 15-item questionnaire with 3 forms, based on items taken from the CSI. It yields a single score, which, with cut-offs, categorizes the respondent's severity of substance involvement.

Measure: Severity of substance involvement

Comment: The SASI is in its early develop stage, but looks very promising in its concordance with the Chemical Severity Scale of the much longer PEI.

Source: Olympic Counseling  
1215 Regents Blvd., A&B  
Tacoma, WA 98466-6032  
(206) 564-0220

#### **PESQ: Personal Experience Screening Questionnaire**

The PESQ is a 40-item questionnaire designed to identify those who need comprehensive evaluation from among unselected (e.g. school-based) samples of adolescents. It yields a single score which if above cutoff identifies the need for evaluation, and includes items on drug use frequency and psychosocial problems.

Measure: Need for comprehensive evaluation

Comment: The test was rigorously developed and provides very good ability to selectively discriminate those adolescents who are judged to need comprehensive evaluation. The norms are weak, however, in that there were less than 5% nonwhites in the development sample. However, there was adequate representation in the validation samples.

Source: Western Psychological Services  
12031 Wilshire Blvd.  
Los Angeles, CA 90025  
1-800-648-8857

#### **ADI: Adolescent Drinking Index**

The ADI consists of 24-items with two types of multiple-choice response formats. It is suitable as a nonclinical sample screen (e.g. classroom), but is primarily intended to screen for alcohol abuse in adolescents referred for psychological, emotional or behavioral problems. It yields a single scale score with cutoffs, as well as 2 subscale scores which are intended as research scales.

Measures: Alcohol abuse, Self-medicating drinking, rebellious drinking

Comment: A well-constructed, psychometrically sound scale with norms that accounted for socioeconomic and ethnic differences. It is limited by its inability to provide even rough use estimates, and that it is specific to alcohol only.

Source: PAR (Psychological Assessment Resources, Inc.)  
P.O. Box 998  
Odessa, FL 33556  
1-800-331-TEST

### **DAPQS: Drug and Alcohol Quick Screen**

The DAPQS has several versions, with the 30-item and 14-item scales having some validity work reported. Responses are "yes", "no" and "uncertain". It is designed for a general practice pediatric office to detect adolescents who abusing drugs or alcohol. The score is a sum of the endorsed items which is positive for abuse if above a cutoff.

Measure: Likelihood of abusing substances

Comment: The scale appears to be adequately reliable, but the work done thus far is inadequate to establish its validity as a measure of abuse. The samples reported are too small; they are convenience samples of unknown demographic distribution; there is no independent evaluation of its ability to discriminate those who are abusing from those who are not. It may have potential for use in a primary care medical setting.

Source: Vienna Pediatric Associates, Ltd.  
410 Maple Ave., Suite 5  
West Vienna, VA 22180  
(703) 938-2244

### **ADIS: Adolescent Drug Involvement Scale**

The ADIS is 13-item multiple response questionnaire that is adapted from the MIS. Responses to each item are weighted, leading to a single score. All items involve aspects of drug use. A final item asks for use frequency estimates of various types of drugs.

Measure: Drug Involvement

Comment: Only validity work done involved teenagers who were already referred to treatment programs. Although it has adequate reliability, the validity work is limited and seriously flawed. The validity work was done on white mid-western youth from small cities, and cutoffs have not been empirically evaluated.

Source: Dr. Paul Moberg, Ph.D.  
Center for Health Policy and Program Evaluation  
University of Wisconsin-Madison  
707 WARF Bldg.  
610 Walnut St.  
Madison, WI 53705

### **RAPI: Rutgers Alcohol Problem Index**

The RAPI consists of 23 problems associated with problem drinking. The adolescent is asked to indicate "how often each event has happened while they were drinking or as a result of drinking", responding on a 5-point format. It was developed on an unselected community sample, so may be appropriate for school-based screening. It yields a single measure and no use estimates.

Measure: Severity of Alcohol-related Problems

Comment: Though based on self-report responses from a large unselected sample, the only validity work we are aware of relies on correlations with self-report measures that are also unevaluated with respect to validity. The instruction to identify problems "while" or "as a result of" drinking appears to be an overly complex task and further underscores the need for solid validity work on the scale.

Source: Center of Alcohol Studies

Rutgers University  
Piscataway, NJ 08855

**AAIS: Adolescent Alcohol Involvement Scale**

The AAIS is a 14 item questionnaire with multiple-choice responses designed to identify teenagers who are using alcohol, misusing alcohol or using it like adolescent alcoholics. It yields a single score.

Measure: Use/abuse of alcohol

Comment: Adequate reliability has been established with a telephone version of the MIS. Validity work used mainly unnormed comparison measures and ratings by experts. Norms are likely inadequate based on paucity of information on age, socioeconomic and racial distributions.

Source: William Filstead  
Lutheran Center for Substance Abuse  
1700 Luther Lane  
Park Ridge, IL 60068

## **MID-RANGE ASSESSMENT INSTRUMENTS**

### **CSI: Client Substance Index**

The CSI is a structured interview in three sections: 19 items on type and frequency of substance use, 105 yes/no items, and 3 short answer questions. Besides yielding use frequency estimates of alcohol and several substances, it yields only one score on a single dimension ranging from "no problem," to "at-risk," "misuse," "abuse," and "dependency."

Measures: "no substance problem" to "substance dependency"

Comment: Though keyed to DSM-III, the CSI does not yield a diagnosis of dependency. The hypothetical dimension ranging from "no problem" to "dependency" is theoretically sound and very well developed in the CSI. Cut-off scores yield categorizations, which hold up well in comparison to judgments made by counselors after thorough evaluation. The CSI has the advantage of being integrated with several other instruments in a comprehensive case management system.

Source: Olympic Counseling  
1215 Regents Blvd., A&B  
Tacoma, WA 98466-6032  
(206) 564-0220

### **DUSI: Drug Use Screening Inventory**

The DUSI is a 149-item (159 items for the DUSI-R) true-false response self-administered questionnaire, which yields scores on 10 problem density subscales and an overall problem density index.

Measures:

1. Substance Use
2. Behavior Problems
3. Health Status
4. Psychiatric Disorder
5. Social Skills
6. Family System
7. School
8. Peer Relations
9. Leisure and Recreation
10. Overall Problem Density

Comment: We are not aware of any reliability – and none but the barest validity – work completed on the DUSI. Norms are at this point inadequate. The DUSI does not include use estimates into its scale computations, but does provide a means for collecting such information.

Source: David J. Gorney  
The Gordian Group P.O. Box 1587  
Hartsville, SC 29950  
(803) 383-2201

### **POSIT: Problem-Oriented Screening Instrument for Teenagers**

The POSIT is a 139-item questionnaire with a yes/no response format. It is a refined version of the DUSI (reviewed above). It is designed to identify teenagers who may possibly have problems suggesting further assessment. It yields measures on 10 areas – a combined chemical use measure and 9 measures of areas which may be problematic.

Measures:

1. Substance Use/Abuse
2. Physical Health
3. Mental Health
4. Family Relationships
5. Peer Relationships
6. Educational Status
7. Vocational Studies
8. Social Skills
9. Leisure/Recreation
10. Aggressive Behavior

Comment: We are not aware of any data that indicates the POSIT reliably measures anything. We are not aware of any empirical testing to date of the cut-off scores used to identify those for whom further evaluation is indicated. Neither are we aware of any empirically based norms. A major study is currently underway, however, that will provide information on the test's psychometric properties as well as its computer compatibilities.

Source: National Institute on Drug Abuse  
5600 Fishers Lane  
Rm. 10A-30  
Rockville, MD 20857  
(301) 443-4060

**ACHI: Assessment of Chemical Health Inventory**

The ACHI contains 128 questions to which the teenager responds on a 5- point scale ranging from "strongly agree" to "strongly disagree". It has a paper-and-pencil format and a computer format for direct entry of responses by the respondent. Norming procedures appear to make it suitable for a wide range of settings, from unreferred school settings to treatment-program entry. It yields an overall score representing which is designed to place the teen within a continuum of alcohol and/or drug use-abuse-dependency. It yields scores on 9 other dimensions associated with chemical misuse.

Measures:

1. ACHI Score: Degree to which respondent's score is similar to scores by chemically dependent teens
2. Family Estrangement
3. Personal Consequences
4. Use Involvement
5. Alienation
6. Social Impact
7. Depression
8. Family Support
9. Family Chemical Use
10. Self Regard/Abuse

Comment: The ACHI appears to have good reliability and validity, and good ability to identify those whom expert judges assess as chemically dependent. Its automated report format and adequate norming with African American and Native American populations are also strengths. We are not aware, however, of any validity on the life area scales {i.e. Family Estrangement, etc.}. This is, we believe, a serious deficit. Use estimates are not generated from the ACHI.

Source: James Sipe  
Recovery Software, Inc.  
One Corporate Center  
7401 Metro Blvd., Suite 445

Minneapolis, MN 55439  
(612) 831-5208

### **T-ASI: Teen-Addiction Severity Index**

The T-ASI is a semistructured interview requiring 30-45 minutes for administration. It yields 7 measures – a combined chemical use measure and measures of 6 areas believed to be affected if an adolescent is abusing drugs or alcohol.

#### Measures:

1. Chemical Use
2. School Status
3. Employment-Support Status
4. Family Relationships
5. Peer-Social Status
6. Legal Status

Comment: We are not aware of any data that indicates the T-ASI has any validity or utility in identifying users or abusers. The one study we are aware of suggests satisfactory inter-rater reliability when used with adolescents already admitted to a substance abuse treatment program.

Source: Ralph Tarter, Ph.D.  
Western Psychiatric Institute and Clinic  
3811 O'Hara Street  
Pittsburgh, PA 15213

## COMPREHENSIVE ASSESSMENT INSTRUMENTS

### ADI: Adolescent Diagnostic Interview

The ADI is a comprehensive structured interview aimed at determining whether the adolescent meets DSM-III-R criteria for a psychoactive substance use disorder, either abuse or dependency. It is designed as a complement to the PEI. It yields a DSM-III-R diagnosis in the area of psychoactive substance use, level of functioning scores in 7 life areas, symptom ratings in 8 psychiatric areas, and an orientation and memory screen.

#### Measures:

1. Psychoactive Substance Use Disorder
2. Level of Functioning in:
  - a. Peer Relations
  - b. Opposite-Sex Relations
  - c. School Social Functioning
  - d. Academic Functioning
  - e. Leisure Activities
  - f. Home Behavior
  - g. Legal Status
3. Symptom Ratings
  - a. Depression
  - b. Mania
  - c. Delusional Thinking
  - d. Hallucinations
  - e. Attention Deficit Disorder
  - f. Anxiety Disorder
  - g. Conduct Disorder
4. Orientation Screen
5. Memory Screen

Comment: The ADI is unique among the comprehensive batteries in that it yields a psychiatric diagnosis of psychoactive substance use disorder. The individual symptom ratings and level of functioning ratings are rough and of limited use outside the context of deriving. It is designed for a treatment setting; its utility in a legal setting is unclear. An important deficit is that, at this time, it has not been demonstrated that the ADI yields a valid diagnosis with non-white teens.

Source: Western Psychological Services  
12031 Wilshire Blvd.  
Los Angeles, CA 90025  
1-800-648-8857

### PMES: Prevention Intervention Management System

The PMES is a 150-item structured interview and questionnaire designed to evaluate teenagers already identified and in treatment for substance abuse. The first part, the Client Intake Form, yields qualitative information on demographics, family background, school and legal problems, and drug and alcohol use history. The second part is a 95-item questionnaire yielding several measures in each of three main areas: family relations, peer activity, and self-esteem and satisfaction.

#### Measures:

1. Family Relations
  - a. Control
  - b. Consistent Parenting
  - c. Conflict
  - d. Trust and Understanding

- e. Care and Support
- f. Affiliation
- 2. Peer Activity
  - a. Peer Activity Level
  - b. Peer's Legal Involvement
  - c. Peer's School Problems
  - d. Peer's Familiarity with Parents
  - e. Peer's Conventional Involvement
- 3. Self-Esteem and Satisfaction
  - a. Self-Esteem
  - b. Social Satisfaction
  - c. Material Satisfaction
  - d. School Satisfaction
  - e. Job Satisfaction

Comment: The PMES appears to be an excellent method for collecting a wide range of treatment-related information and keeping track of change. It does not yield as many measures of actual substance abuse as other comprehensive instruments. We have little information on the norming. Reliability of scales appears good but validity work is to our knowledge sparse.

Source: Institute of Behavioral Research  
 Texas Christian University  
 P.O. Box 32880  
 Fort Worth, TX 76129  
 (817) 921-7226

### **PEI: Personal Experiences Inventory**

The two major sections of the PEI (i.e. the Chemical Involvement Severity and the Psychosocial) consist of a 276-item questionnaire designed to supply information for problem identification, and treatment planning and tracking. The PEI offers a companion screening questionnaire (PESQ, see above), and a structured interview (Adolescent Diagnostic Interview) which follows DSM-III-R criteria for alcohol/drug abuse/dependency.

#### Measures:

##### Section I: Chemical Involvement Problem Severity

- 1. Basic Scales
  - a. Personal Involvement with Chemicals
  - b. Effects from Use
  - c. Social Benefits of Use
  - d. Personal Consequences
  - e. Polydrug Use
- 2. Clinical Scales
  - a. Transitional Use
  - b. Psychological Benefits of Use
  - c. Social-Recreational Use
  - d. Preoccupation with Use
  - e. Loss of Control
- 3. Validity Scales
  - a. Infrequent Responses
  - b. Defensiveness
  - c. Pattern Misfit

##### Section II: Psychosocial Section

- 1. Personal Adjustment Scales
  - a. Negative Self-Image

- b. Psychological Disturbance
  - c. Social Isolation
  - d. Uncontrolled
  - e. Rejecting Convention
  - f. Deviant Behavior
  - g. Absence of Goals
  - h. Spiritual Isolation
2. Family and Peer Environment
- a. Peer Chemical Use
  - b. Sibling Chemical Use
  - c. Family Pathology
  - d. Family Estrangement

Comment: The development of the PEI was thoughtful and rigorous. It measures most of the relevant dimensions for drug and alcohol abuse treatment; it yields frequency of use but not quantity of use estimates for various types of substances. Reliability as reported is adequate, but the validity work on the numerous scales is uneven, though generally adequate for its intended use. It has been used in a variety of settings. The PEI has demonstrated that it does not yield different mean scores for different ethnic groups; thus it is unlikely that the PEI has significant ethnic bias.

Source: Western Psychological Services  
 12031 Wilshire Blvd.  
 Los Angeles, CA 90025  
 1-800-648-8857

### **ADAD: Adolescent Drug Abuse Diagnosis**

The ADAD is a 150-item semistructured interview suitable for making treatment planning decisions for adolescents identified as having a drug or alcohol problem. It yields composite scores on drug and alcohol use and on 6 other life areas. It provides structured ways of obtaining the interviewer's severity ratings in each of the composite areas, and a way of collecting use frequency information.

Measures:

- 1. Alcohol Abuse
- 2. Drug Abuse
- 3. Medical Problems
- 4. School Problems
- 5. Social Problems
- 6. Family Problems
- 7. Psychological Problems
- 8. Legal Problems

Comment: Though a bit cumbersome, the ADAD is well designed for collecting information needed for making treatment decisions. Norms include good representation of minorities (except Native American). The scales suffer from lack of cut-off scores for making decisions about whether or not to initiate treatment in specific areas. Another weakness is that the scales do not readily lend themselves to DSM-III diagnoses of alcohol or drug dependence.

Source: Belmont Center for Comprehensive Treatment  
 4200 Monument Rd.  
 Philadelphia, PA 19131  
 (215) 877-6408

## **INSTRUMENTS NOT REVIEWED**

### **MAST: Michigan Alcoholism Screening Test**

Designed for adults with items and scale not specifically appropriate nor valid for teenagers.

### **ADAS: The American Drug and Alcohol Survey**

The ADAS is a 57-item questionnaire with excellent psychometric properties, which yields information on use and abuse of 36 types of substances including alcohol, frequency of use, risky situations, lifestyle factors and use-related problems. It is, however, an anonymously completed questionnaire that yields sample-based results only, making it useless for making individual assessment and treatment decisions.

### **SADC: The Substance Abuse Dependence Checklist**

We are not aware of any reliability work on the SADC. It appears to be a structured checklist of the steps to making a DSM-II-R diagnosis of alcohol dependence.

### **SAPD: Screen for Adolescent Problem Drinkers**

The SAPD is not reviewed because it is intended to measure only one small aspect of an adolescent drinking problem, namely problem drinking in a parent.

### **QIAD: Quantitative Inventory of Alcohol Disorders**

We are not aware of any evidence of reliability, validity or utility with adolescents. Use limited to adult alcoholics.

### **SAAST: The Self-Administered Alcoholism Screening Test**

Again, the SMST has limited reliability and validity work with teenagers and the item pool has an inappropriate emphasis on work, spouse and historical items indicative of long-term use.

### **AUI: Alcohol Use Inventory**

A comprehensive multidimensional tool for treatment planning that is designed for adults, though norms are available for ages as young as 16 years old. Not reviewed because of lack of adequate tailoring of items and scales to adolescent drinking issues.

### **DAST: Drug Abuse Screening Test**

The DAST, like the MAST, does not appear to have been normed adequately for adolescents. Some items appear inappropriate, and some important dimensions for teenagers are untapped. Not appropriate for general use with adolescents only.

### **ME: Manson Evaluation**

Although extremely popular, and with norms that purport to make the test suitable for adolescents 16 years old or older, the same reservations exist as with the other tools primarily designed for adults.

### **SASSI-A: Substance Abuse Subtle Screening Inventory-Adolescent**

An 81-item questionnaire that produces overall measures of alcohol and other-drug problems, as well as several scales of response style. Inadequate psychometric work at this time.

**APSI: Adolescent Problem Severity Index**

A 45-minute computer-administered interview with no psychometric work reported.

## **Section II: Instrument Characteristics**

In **Table 1** we list in tabular form the basic characteristics of each of the tests. The information provided in selected columns is described below.

**Format:** There are three main categories of response format.

- "SELF" = self-administered questionnaire
  - "Y/N" = a yes/no response option
  - "multi answer" = multiple choice response option
- "INTERV" = structured interview
- "COMPUTER" = computer-assisted administration

**Functions:** This refers to what we judge, based on available development and validation work, to be the major function of instrument.

- "ABUSE" = The major function is to distinguish substance abusers from nonabusers.
- "DEPEND" = The major function is to distinguish those who would be considered substance-dependent from those who are not substance-dependent. Since this judgment typically requires more comprehensive information from the respondent, many of the tests whose prime function is "DEPEND" are also able to distinguish abusers from nonabusers.
- "LIFE" = Life Areas. The major function of these tests is to characterize the severity of the respondent's problems in various life areas that are typically affected by alcohol and/or drug misuse.
- "EVAL" = Evaluation. The major function of these tests is to distinguish those who are likely to benefit from more comprehensive substance use evaluation from those who are not likely to benefit.

**Settings:** This refers to the settings in which we judge the instrument is most suited for administration.

- "S" = school classroom
- "H" = school health clinic
- "T" = mental health or substance treatment agency

**Other Areas Inquired?:** In Section I we identified what life areas were measured by each instrument. In this section we identify which life areas are covered in the questions asked the respondent, but do not necessarily result in a scale score.

- "F" = family relations
- "P" = peer relations
- "S" = school performance
- "H" = personal health
- "MH" = mental health
- "D" = delinquent behavior
- "E" = employment
- "A" = abuse (sexual/physical)
- "PT" = patterns of drug/alcohol use
- "EX" = expectancies/attitudes about substances

**Table 1: Characteristics Table**

<b>INSTRUMENT</b>	<b>Format</b>	<b>Number of Questions</b>	<b>Reading Level</b>	<b>Admin. Time (min)</b>	<b>Available in other languages?</b>	<b>Cost to Start</b>	<b>Cost per Test</b>	<b>Functions</b>	<b>Settings</b>	<b>Other Areas Inquired</b>	<b>Training Recommendations?</b>
<b>SCREENING INSTRUMENTS</b>											
Personal Experience Short Questionnaire (PESQ)	Self	38	6th	15	No	\$21.50 manual	\$1.10	Eval	H,T	D,MH,F,P	\$2,000 For info (612) 626-2879
Adolescent Drinking Index (ADI)	Self	24	5th	5	No	\$35	\$1.20	Abuse	S,H,T	P,D,PT,F,EX	None
Drug and Alcohol Problem Quick Screen (DAPQS)	Self (YorN)	30 & 14	7th	10	No	Contact Source		Abuse	H,T	MH,P,D,S	None
Adolescent Drug Involvement Scale (ADIS)	Self (mult. answer)	13	5th	10	No	Contact Source	Free	Abuse	H,T	None	None
Rutgers Alcohol Problem Index (RAPI)	Self (YorN)	23	6th	15	No	Contact Source	Free?	Abuse	H,T	PT,EX,MH,D	None
Problem Oriented Screening Instrument for Teenagers (POSIT)	Self (YorN)	139	5th	15	Spanish	Free	Free	Eval	H,T,P	D,H,MH,P,F	None
Adolescent Alcohol Involvement Scale (AAIS)	Self or Interv	14	6th	10	No	Contact Source	Free	Abuse	H,T	PT	None
Substance Abuse Screening Instrument (SASI)	Self (YorN)	15	4th	10	Spanish	Contact Source	Contact Source	Abuse	P	F,P,PT	None
<b>MID-RANGE INSTRUMENTS</b>											
Drug Use Screening Inventory (DUSI)	Self or Comp. (YorN)	149	6th	35	NI	\$495 CA	\$2.00 paper	Life	S,H	D,H,MH,P,F,S,E	None
Assessment of Chemical Health Inventory (ACHI)	S/CA	128	6th	25	NI	\$179	\$5.76	Abuse	H,T	F,D,P,MH,H,A	1 day (\$700/day)
Teen-Addiction Severity Index (T-ASI)	Interv	129	6th	60	N/A	Contact Source	Little/None	Abuse	H,T	MH,D,P,F,E,S,PT	None
Client Substance Index (CSI)	Self (or Interv)	127	4th	60	No	Free	\$1.50	Depend	H,T	D,E,H,MH,F	1 hour
<b>COMPREHENSIVE INSTRUMENTS</b>											
Personal Experience Inventory (PEI)	Self (forced answer)	276	6th	60	French & Spanish	\$170/kit (\$32.50 for manual)	\$17.50	Life	H,T	D,MH,F,P	\$2,000 For info (612) 626-2879
Adolescent Drug Abuse Diagnosis (ADAD)	Interv (mult. answer)	150	N/A	60	No	\$15	Free	Life	H,T	H,S,MH,E,P,F,D	Recom.
Adolescent Diagnostic Interview (ADI)	Interv	Up to 306	N/A	60+	No	\$75	\$6.50	Depend	H,T	MH,PT,H	See PEI
Prevention/Intervention Management & Evaluation System (PMES)	Interv (mult. answer)	150	6th	60		Free	Free	Life	H,T	F,P,S,D,E,PT	N-skilled para- or prof.

**Table 1 (cont.): Characteristics Table**

<b>INSTRUMENT</b>	<b>Format</b>	<b>Number of Questions</b>	<b>Reading Level</b>	<b>Admin. Time (min)</b>	<b>Available in other languages?</b>	<b>Cost to Start</b>	<b>Cost per Test</b>	<b>Functions</b>	<b>Settings</b>	<b>Other Areas Inquired</b>	<b>Training Recommendations?</b>
<b>INSTRUMENTS NOT REVIEWED</b>											
Addiction Severity Index (ASI)	Interv	140	N/A	60	Span & others	Free	Free	Abuse	H,T	H,E,PT,L F,MH	one day; video tape
Alcohol Dependence Scale (ADS)	Self	25	5th	15	No	\$15/kit (guide w/25 tests)	\$0.26			NI	None
American Drug and Alcohol Survey (ADAS)	Self	51 & 58	6th	25	No	None	\$1.00		S	F,PT,S,P	None
Chemical Dependency Assessment Profile (CDAP)	Self & Computer	235	7th	60+	No	\$200 IBM	\$1.10	Abuse		PT,H,MH,P,F,D	None
DAST-10	Self (Y/N)	10	6th	5	No	\$35 manual	\$0.06		H,T	None	None
DAST-20	Self (Y/N)	20	6th	5	French	\$35 manual	\$0.06		H,T	None	None
Drug Abuse Screening Test (DAST)	Self (Y/N)	28	6th	10	No	\$35 manual	\$0.06	Abuse	H,T	None	None
Manson Evaluation (ME)	Self/Computer	72	6th	10	No	\$45/kit; \$185/IBM disk	\$1.10	Abuse	H,T	MH,P,F	None
MAST-10	Self (Y/N)	10	6th	5	No	little/none	\$0.06	Abuse	H,T	None	None
Michigan Alcoholism Screening Test (MAST)	Self (Y/N)	25	6th	10	No	little/none	\$0.06	Abuse	H,T	P,F,D	None
Quantitative Inventory of Alcohol Disorders (QIAD)	Self	22	7th	10	No	contact source	Free?		H,T	PT	None
Screening Adolescent Problem Drinkers (SAPD)	Interv	8	N/A	15	N/A	Free	Free		H,T	F	None
Self-Administered Alcoholism Screening Test (SAAST)	Self (Y/N)	35	7th	15	No	contact source	little/none		H,T	PT,Ex	None
Short Client Substance Index (SCSI)	Self or Interv	15	4th	10	No	Free	\$1.50		H,T		1 hr
Short Michigan Alcoholism Screening Test (SMAST)	Self (Y/N)	13	6th	5	No	little	\$0.06	Abuse	H,T	D	None

### Section III: Evaluation of Instruments

In **Table 2** we summarize our evaluation of the instruments. Although all the ratings are necessarily subjective and sometimes based on incomplete information, they represent our best judgment of each of the dimensions when tests are compared within categories (i.e. screen, mid-range, comprehensive). An explanation of each column and a brief description of the criteria used to make the ratings are described below. In general the ratings range from "A" to "E":

- A = Superior
- B = Very Good
- C = OK
- D = Just Adequate
- E = Inadequate

Other codes include:

- NO = No. The test does not contain that element.
- NI = No Information. We were unable to obtain the requisite information to make that judgment.

**Dimension:** This refers to whether the instruments is designed to detect...

- ALC = alcohol abuse
- DRUG = drug abuse
- LIFE = life area problems

**Ease to Administer:** Self-administered questionnaires are easier to administer than structured interviews. But within each type, some require more instruction and response monitoring than others. These are rated A to E.

**Ease to Score:** The easiest to score are those screens which require simply counting the number of items endorsed. Increasing complexity comes with templates and multiple calculations. These are rated A to E.

- Send Away = Must be sent to test provider for scoring.
- PC = Is scored with a personal computer program obtainable from test provider.

**Readability:** A subjective rating (A to E) of how simply the test is laid out, how simple the instructions for the respondent and the complexity of language used.

**Face Validity:** This is not face validity in the typical sense, but a subjective rating of the degree that the adolescent respondent will see the relevance of each question. In other words, is the respondent likely to become irritated wondering why a particular question is being asked. Rated A to E.

**Use Estimates?:** Does the test yield valid estimates of how frequently the respondent is using various substances? If it does, how useful are these estimates for monitoring the respondent's changes in substance use over time? Rated A to E, or "No" if there is no use estimate at all.

**Response Bias?:** Does the instrument have some way of accounting for the various kinds of response bias, e.g. defensiveness, denial, social desirability, no-saying? If so, how good is the instrument for accounting in the scale scores for such bias? Rated A to E.

**Extent of Research Use and Extent of Clinical Use:** These are subjective ratings (A to E) of extent of use based on publications and descriptions of test providers.

- NEW = Not enough time to rate. In judging the extent of clinical or research use of the instruments, we excluded those instruments whose major development was completed only in the past 2 years, thereby not allowing enough time to judge how extensively researchers and clinicians have taken up the tool.

- IP'= In Progress. Work which was in progress at the time of this publication.

**Outcome:** This refers to our judgment of how useful this instrument might be in a clinical setting in which the effects of some treatment was to be evaluated over time; i.e., by using the measure both pre-treatment and post-treatment. Tests which provided appropriate frequency-of-use information were rated higher than tests which provided no such information, or provided it in such a format that did not lend itself to comparisons over time. Rated A to E.

**Major Function:** This refers to the main function of the test. The codes are summarized here. See Section II for more detailed description.

- ABUSE = substance abuser vs. non-abuser
- DEPEND= substance dependent vs. non-dependent
- LIFE = severity of problems in life areas
- EVAL = those needing evaluation vs. those not needing evaluation

**Reliability:** An overall rating of the thoroughness, appropriateness, and outcome of the reliability (or internal validity) work performed on the scale or scales used in the test's major function. Primary emphasis was placed on evaluation of internal consistency for self-report scales and for inter-rater consistency for the structured interviews. Rated A to E.

**Validity:** Again, an overall rating of the thoroughness, appropriateness and outcome of the validity (or external validity) work performed on the scale or scales used in the major function. None of the scales evaluated predictive validity (i.e. predicting a future substance-user), and therefore emphasis was on concurrent, know-group, and criterion validity work. Rated A to E.

**Norms:** This represents an overall rating of the adequacy of sampling in samples used both to develop the test and validate it. Adequacy was determined not only by size, but adequacy of distribution of gender, race, age, and socioeconomic class. Superior ratings were given to only those which, besides meeting other criteria, also appeared relevant for both a multi-racial urban environment and a mainly Caucasian semi-rural environment. Rated A to E.

**Cutoffs:** Many tests merely provide mean scores for "normal" teens and substance abusing teens. This is not very helpful in determining whether a particular teen's score suggests he is in one group or the other. Much more helpful are "cutoff scores." These are scores above or below which the respondent falls into the appropriate category. If such cutoffs were provided, were the cut-offs evaluated adequately, do they result in adequate discriminant validity, and therefore provide adequate sensitivity and specificity to criterion?

**Second Function:** Some of the tests appear to have more than one major function. Typically, in the more comprehensive instruments, this involves not only detecting abusers, but also evaluating life area functioning. The "Second Function" column and the next 4 columns repeat the ratings for the second function that the prior 4 columns displayed for the major function.

**Table 2: Ratings Table**

INSTRUMENT	Dimension	Ease to Admin	Ease to Score	Read-ability	Face Validity	Use Estimates?	Response Bias?	Extent of Research	Extent of Clin. Use	Outcome	Major Function	Reliability	Validity	Norms	Cut-off Score ?	Second Function	Reliability	Validity	Norms	Cut-off Score?
<b>SCREENING INSTRUMENTS</b>																				
Personal Experience Short Questionnaire (PESQ)	Drug/Alc	B	B	B	A	B	C	NET	NET	V	EVAL	A	C	C	A					
Adolescent Drinking Index (ADI)	Alc	A	A	B	B	D	NO	B	B	B	ABUSE	A	A	A	B					
Drug and Alcohol Problem Quick Screen (DAPQS)	Drug/Alc	B	A	C	B	NO	NO	D	B	D	ABUSE	D	D	D	D					
Adolescent Drug Involvement Scale (ADIS)	Drug	B	?	B	B	C	NO	NET	NET	C	ABUSE	B	C	D	D	DEPEND	B	C	D	D
Rutgers Alcohol Problem Index (RAPI)	Alc	B	A	B	C	NO	NO	NET	NET	C	ABUSE	B	D	C	N O					
Adolescent Alcohol Involvement Scale (AAIS)	Alc	B	B	C	C	D	NO	NET	NET	D	ABUSE	D	D	D	D	DEPEND	D	D	D	D
Substance Abuse Screening Instrument (SASI)	Drug/Alc	A	A	B	B	NO	NO	NET	NET	D	ABUSE	B	C	D	B					
<b>MID-RANGE INSTRUMENTS</b>																				
Drug Use Screening Inventory (DUSI)		B	C	C	C	C	NO	NET	NET	C	Life	E	D	D	E					
Problem Oriented Screening Instrument for Teenagers (POSIT)	Life	B	B	C	C	NO	NO	NET	NET	D	EVAL	IP	IP	IP	IP					
Assessment of Chemical Health Inventory (ACHI)		B	PC	C	B	NO	B				ABUSE	B	B	A	C	Life	B			
Teen-Addiction Severity Index (T-ASI)		D(SI)	B	D	B	C	NO	NET	NET	D	ABUSE	C	E	E	E	Life	D	E	E	E
Client Substance Index (CSI)		D(SI)	A	B	A	B	C	B	B	C	DEPEND	A	B	C	A					
<b>COMPREHENSIVE INSTRUMENTS</b>																				
Prevention/Intervention Management & Evaluation System (PMES)		D(SI)	SENT AWAY	C	B	C	NO	B	B	B	Life	B	D	D	D					
Personal Experience Inventory (PEI)		A	SENT AWAY	B	A	NO	A	NET	NET	C	Life	A	C	C	C					
Adolescent Drug Abuse Diagnosis (ADAD)		C	SENT AWAY	B	B	A	B	C	B	B	Life	B	C	B	E					
Adolescent Diagnostic Interview (ADI)		D(SI)	D	B	A	B	NO	NET	NET	C	DEPEND	A	B	C	A					

## **Section IV: Overall Evaluation**

This paper was designed to provide potential test users with enough information that they could identify the test or tests that is most likely to suit their particular needs. Some would emphasize ease of administration more than others, others the reliability and validity.

As a way of illustrating how to use the above information, we will make our recommendations of the best tool in each category, given our own beliefs about what features are most important and given the information we gathered on the various tests.

### **Best Screening Instrument: Personal Experience Short Questionnaire (PESQ)**

The following five features represent the most important when choosing a screening instrument, in descending order of priority:

1. Reliability and validity (particularly discriminant validity)
2. 20 items or less
3. Measures both alcohol and drug use
4. Produces frequency-of-use estimates
5. Takes some accounting of response bias

Based on these criteria the PESQ appears to be the best for identifying the need for further evaluation, even though it is a relatively new instrument that has not yet demonstrated its utility for screening general school populations, nor adequate to follow clinical changes over time. It has been used and evaluated with juvenile offender populations, but still requires local evaluation with particular offender groups. African-American and Native American subgroups have been included adequately in offender groups, but ethnic differences among less preselected groups has so far been inadequate. The ADI (Adolescent Drinking Index) may be an appropriate alternative, even though it only assesses drinking.

### **Best Mid-Range Instrument: Client Substance Index (CSI)**

The major strengths of the CSI are the fact that its psychometric properties are sound, and that it yields a useful way to categorize adolescents on the full continuum of use all the way up to substance dependency, and that it can generate use frequency estimates. A major weakness is that it does not provide indices of functioning in major life areas, information usually necessary for treatment planning.

### **Best Comprehensive Instruments: Personal Experience Inventory (PEI) and Adolescent Diagnostic Interview (ADI)**

There are really only three candidates here, since we were unable to get sufficient information on scale development and output on the PMES. Of the three remaining, the PEI and the ADAD both emphasize the assessment of life area functioning and are similar in their adequacy in most psychometric dimensions. Significant advantages for the PEI is that it is a self-administered questionnaire format instead of a structured interview, it has been normed in a wider range of settings, and the PEI results in a much wider array of attitudinal and behavioral variables suitable for treatment planning. (The warning is, however, that some of these scales have not weathered rigorous validity work.) Advantages of the ADAD are that it yields use frequency estimates, it included more African-American and Hispanic teens in the norming samples, and it is normed in urban treatment settings. Less norming of ADAD exists on unselected school populations, and in general, its measures of drug and alcohol use are much less well developed than the PEI.

The remaining instrument is the Adolescent Diagnostic Interview (ADI), which is a very different kind of instrument in that it yields information mainly for psychiatric diagnoses, primarily related to psychoactive substance use disorders. It is a structured interview, both an advantage (in additional information gained) and a disadvantage (in time costs). The ADI may not be appropriate in legal settings, and it has yet to demonstrate a reliable relationship to diagnosis among non-white groups. Since a comprehensive

evaluation must necessarily include diagnostic information, use estimates and information about functioning in major life areas, none of the comprehensive instruments stand alone satisfactorily. Our recommendation would be to use both the ADI and the PEI, either simultaneously or sequentially. Between the two they provide all the requisite information, and were in fact designed to complement one another. The ADAD appears, however, to be a reasonable substitute for the PEI, although the overlap in use information may be problematic.

## REFERENCES

### **Addiction Severity Index**

McLellan, A.T., Luborsky, L., Woody, G.E., & O'Brien, C.P. (1980). An improved diagnostic evaluation instrument for substance abuse patients: The Addiction Severity Index. *The Journal of Nervous and Mental Disease*, 168(1), 26-33.

McLellan, A.T., Luborsky, L., Cacciola, J., Griffith, J., Evans, F., Barr, H.L., & O'Brien, C.P. (1985). New data from the Addiction Severity Index: Reliability and validity in three centers. *Journal of Nervous and Mental Disease*, 173(7), 412-423.

### **Adolescent Alcohol Involvement Scale**

Mayer, J., & Filstead, W. J. (1979). The Adolescent Alcohol Involvement Scale: An instrument for measuring adolescent use and misuse of alcohol. *Journal of Studies on Alcohol*, 40, 291-300.

Mayer, J., & Filstead, W.J. (1980). The Adolescent Alcohol Involvement Scale: An instrument for measuring adolescent use and misuse of alcohol. *Currents in Alcoholism: Recent Advances in Research and Treatment*. Ed. by Galanter, M. NY: Grune and Stratton.

Moberg, D.P. (1983). Identifying adolescents with alcohol problems: A field test of the Adolescent Alcohol Involvement Scale. *Journal of Studies on Alcohol*, 44 (4):701-21

### **Adolescent Diagnostic Interview**

Winters, K.C., Stinchfield, R.D., Fulkerson, J., & Henly, G.A. (1993). Measuring alcohol and cannabis use disorders in an adolescent clinical sample. *Psychology of Addictive Behaviors*, 7(3):185-196

### **Adolescent Drinking Index**

Harrell, T.H., Honaker, L.M., & Davis, E. (1991). Cognitive and behavioral dimensions of dysfunction in alcohol and polydrug abusers. *Journal of Substance Abuse*, 3, 415-426.

Harrel, A., & Wirtz, P.M. (1989). Screening for adolescent problem drinking: Validation of a multidimensional instrument for case identification. *Psychological Assessment*, 1(1), 61-63.

### **Adolescent Drug Abuse Diagnosis**

Friedman, A.S., & Utada, A. (1989). A method for diagnosing and planning the treatment of adolescent drug abusers: The Adolescent Drug Abuse Diagnosis (ADAD) Instrument. *Journal of Drug Education*, 19(4), 285- 312.

### **American Drug and Alcohol Survey**

Getting, E.R., & Beauvais, F. (1990). Adolescent drug use: Findings of national and local surveys. *Journal of Consulting and Clinical Psychology*, 58(4), 385-394.

Getting, E.R., Edwards, R., & Beauvais, F. (1985). Reliability and discriminant validity of the Children's Drug-Use Survey. *Psychological Reports*, 56, 751-756.

Swaim, R.C. (1991 ). Childhood risk factors and adolescent drug and alcohol abuse. *Educational Psychology Review*, 3(4), 363-398.

Swaim, R.C., Getting, E.R., Edwards, R.W., & Beauvais, F. (1989). Links from emotional distress to adolescent drug use: A path model. *Journal of Consulting and Clinical Psychology*, 57(2), 227-231.

### **Adolescent Drug Involvement Scale**

Moberg, D.P., & Hahn, L. (1991). The Adolescent Drug Involvement Scale. *Journal of Adolescent Chemical Dependency*, 2(1), 75-88.

### **Client Substance Index**

Moore, D.D. (1992). A psychometric study of adolescent substance abuse: Internal consistency and validity studies of the revised Client Substance Index. *Dissertation Abstracts International*, 53(1-B), 569-570.

### **Drug Abuse Screening Test**

Gavin, D.R., Ross, H.E., & Skinner, H.A. (1989). Diagnostic validity of the Drug Abuse Screening Test in the assessment of DSM-III drug disorders. *British Journal of Addiction*, 84(3), 301-307.

Skinner, H.A. (1982). The Drug Abuse Screening Test. *Addictive Behaviors*, 7, 363-371.

### **Drug and Alcohol Problem Quick Screen**

Klitzner, M., Schwartz, R.H., Gruenewald, P., & Blasinsky, M. (1987). Screening for risk factors for adolescent alcohol and drug use. *American Journal of Diseases of Children* 141, 45-49.

Schwartz, R.H., & Wirtz, P.W. (1990). Potential substance abuse: Detection among adolescent patients using the Drug and Alcohol Problem (DAP) Quick Screen, a 30-item questionnaire. *Clinical Pediatrics*, 29(1), 38-43.

### **Drug Use Screening Inventory**

Tarter, R.E., & Hegedus, A.M. (1991). The Drug Use Screening Inventory: Its applications in the evaluation and treatment of alcohol and other drug abuse. *Alcohol Health & Research World*, 15(1), 65-75.

Tarter, R.E., Laird, S.B., Bukstein, O., & Kammer, V. (1992). Validation of the Adolescent Drug Use Screening Inventory: Preliminary findings. *Psychology of Addictive Behaviors*, 6(4), 233-236.

### **Manson Evaluation**

Manson, M.P., & Huba, G.J. (1987). *The Manson Evaluation Manual*. Los Angeles, CA: Western Psychological Services.

### **Michigan Alcoholism Screening Test & SMAST**

Seizer, M.L. (1971). The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. *American Journal of Psychiatry*, 127(12), 89-94.

Seizer, M.L., Vinokur, A., & van Rooijen, L. (1975). A self-administered short Michigan Alcoholism Screening Test. *Journal of Studies on Alcohol*, 36(1), 117-126.

### **Personal Experience Inventory**

Guthmann, D.R., & Brenna, D.C. (1990). The Personal Experience Inventory: An assessment of the instrument's validity among a delinquent population in Washington State. *Journal of Adolescent Chemical Dependency*, 1, 19-24.

Henly, G.A., & Winters, K.C. (1988). Development of problem severity scales for the assessment of adolescent alcohol and drug abuse. *International Journal of the Addictions*, 23(1), 65-85.

Henly, G.A., & Winters, K.C. (1989). Development of psychosocial scales for the assessment of adolescents involved with alcohol and drugs. *International Journal of the Addictions*, 24(10), 973-1001.

Winters, K.C., & Henly, G.A. (1987). Advances in the assessment of adolescent chemical dependency: Development of a chemical use problem severity scale. *Psychology of Addictive Behaviors* 1(3), 146-153.

Winters, K.C., & Henly, G.A. (1988). Assessing adolescents who abuse chemicals: The chemical dependency adolescent assessment project. *NIDA Research Monograph* 77, 4-18

Winters, K.C., Stinchfield, R.D., Henly, G.A., & Schwartz, R.H. (1990-91). Validity of adolescent self-report of alcohol and other drug involvement. Special Issue: Nonexperimental methods for studying addictions. *International Journal of the Addictions* 25(11A), 1379-1395.

Winters, K.C., Stinchfield, R.D., & Henly, G.A. (1993). Further validation of new scales measuring adolescent alcohol and other drug abuse. *Journal of Studies on Alcohol*. 54(5):534-41

### **Personal Experience Screening Questionnaire**

Winters, K.C. (1992). Development of an adolescent alcohol and other drug abuse screening scale: Personal Experience Screening Questionnaire. *Addictive Behaviors*, 17, 479-490.

Winters, K.C., Weller, C.I., & Meland, J.A. (1993). Extent of drug abuse among juvenile offenders. *Journal of Drug Issues*, 23, 537 -546.

### **Problem Oriented Screening Instrument for Teens**

Rahdert, E. R. *The Adolescent Assessment/Referral System Manual*. Rockville, MD : U.S. Department of Health and Human Services, ADAMHA, National Institute on Drug Abuse, DHHS Publ. No. (ADM)91-1735.

### **Quantitative Inventory of Alcohol Disorders**

Ridley, T.D., & Kordinak, S. T. (1988). Reliability and validity of the Quantitative Inventory of Alcohol Disorders (QIAD) and the veracity of self-report by alcoholics. *American Journal of Drug and Alcohol Abuse*, 14(2), 263-292.

### **Rutgers Alcohol Problem Index**

White, H.R., & Labouvie, E.W. (1989). Towards the assessment of adolescent problem drinking. *Journal of Studies on Alcohol*, 50(1), 30-37.

### **Self-Administered Alcoholism Screening Test**

Hurt, R.D., Morse, R.M., & Swenson, W.M. (1980). Diagnosis of alcoholism with a self-administered alcoholism screening test: Results with 1,002 consecutive patients receiving general examinations. *Mayo Clinic Proceedings*, 55, 365-370.

### **Teen-Addiction Severity Index**

Kaminer, Y., Bukstein, O., & Tarter, R.E. (1991). The Teen-Addiction Severity Index: Rationale and reliability. *International Journal of the Addictions*, 26(2), 219-226.

## **Prevention Management and Evaluation System**

Barrett, M.E., Simpson, D.D., & Lehman, W.E. (1988). Behavioral changes of adolescents in drug abuse intervention programs. *Journal of Clinical Psychology*, 44(3), 461-473.

Menon, R., Barrett, M.E., & Simpson, D.D. (1990). School, peer group, and inhalant use among Mexican American adolescents. *Hispanic Journal of Behavioral Sciences*, 12(4), 408-421.

Simpson, D.D., & McBride, A.A. (1992). Family, Friends, and Self (FFS) assessment scales for Mexican American youth. *Hispanic Journal of Behavioral Sciences*, 14(3), 327 -340.

## **General References**

Benishek, L.A. (1990). A Summary of Adolescent Substance Abuse Assessment Instruments: Health Care Study Project. Dept. of Psychiatry, Michigan State University, 1-34.

McLellan, T., & Dembo, R. (eds.)(1993). Screening and Assessment of Alcohol- and Other Drug-Abusing Adolescents. Center for Substance Abuse Treatment, Rockville, MD.

National Institute on Drug Abuse (NIDA) (1992). Evaluation Instruments for Drug Abuse Adolescents and Adults. T. Head and Company, Inc.

## **ACKNOWLEDGMENTS**

The authors of this report gratefully acknowledge extensive outside review of the data presented by:

Ken C. Winters, Ph.D. Director  
Center for Adolescent Substance Abuse University of Minnesota

Elizabeth Rahdert, Ph.D.  
Division of Clinical Research  
National Institute on Drug Abuse