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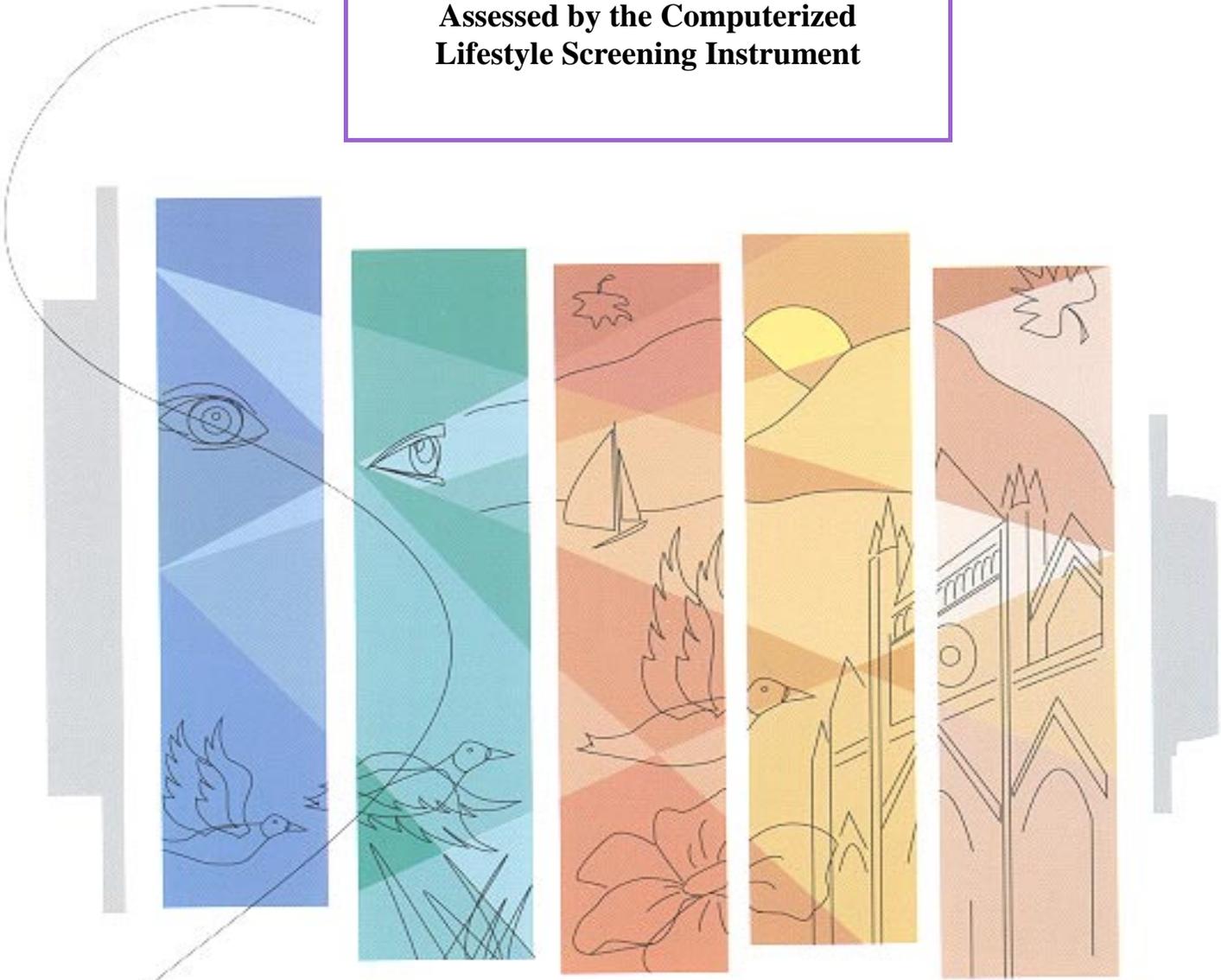Canada Canada

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Patterns of Alcohol and Drug Abuse Among Federal Offenders as Assessed by the Computerized Lifestyle Screening Instrument

Canada

Patterns Of Alcohol And Drug Use Among Federal Offenders As Assessed By The Computerized Lifestyle Screening Instrument

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Acknowledgements

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I. Introduction

The introduction of the Computerized Lifestyle Screening Instrument (CLSI) was a collaborative effort of the Educational and Personal Development Division and the Research and Statistics Branch of the Correctional Service of Canada. A comprehensive substance abuse assessment tool, the CLSI was implemented as a response to increasing concerns over the degree of drug and alcohol abuse among offenders and the need to screen reception inmates for assignment to appropriate substance abuse treatment programming. A Substance Abuse Task Force (Correctional Service of Canada, 1990) recommended the implementation of the CLSI as a "front-end" method of screening offenders for substance abuse treatment.[1]

The CLSI takes a comprehensive approach to assessment, examining a variety of lifestyle factors which may be associated with substance abuse. These include physical health, nutrition, mental health, quality of functioning in family and social relationships, criminal behaviour patterns, and readiness for substance abuse treatment programming. The comprehensive assessment provides a wealth of research data concerning the drug and alcohol abuse patterns of offenders and how substance use affects criminal activity.

This research report is the first in a series which will examine substance abuse and criminal behaviour using data from the CLSI. This initial report presents descriptive information derived from the various components of the instrument and explores the development of a typology for the purpose of screening and priorizing offenders for treatment. The data for this report are based on a sample of 503 offenders who completed the CLSI in the Atlantic and Prairie Regions of the Correctional Service of Canada.

The CLSI is based on the work of Dr. Harvey Skinner, formerly of the Addiction Research Foundation of Ontario, who developed a computer-assisted approach for assessing lifestyle factors related to substance abuse. The assessment approach was first developed for use in family medical practices to provide a method for family practitioners to quickly and reliably screen large numbers of presenting patients for substance abuse problems (Skinner, Allen, McIntosh, and Palmer, 1985).

The Research and Statistics Branch, with the initial collaboration of the Ministry Secretariat, Corrections Branch, adapted and modified Skinners's computerized assessment procedure for use with offenders. The adaptation involved the revision of survey items so that they could be easily understood by offenders and a restructuring of the content in appropriate terms to reflect the circumstances normally experienced by federal offenders (e.g., arrest, conviction, incarceration). In addition, a lengthy section of the CLSI was designed to measure substance abuse as it relates to criminal behaviour patterns and to assess offenders' motivation for treatment.

Two key components included in the CLSI, which were also designed by Skinner, are the Drug Abuse Screening Test (DAST) (Skinner, 1982) and the Alcohol Dependence Scale (ADS) (Skinner and Allen, 1982). Both instruments have been widely used in research for determining severity of drug and alcohol abuse.

The first version of the CLSI was piloted with inmates in the Atlantic Region on a small scale in 1989. Based on feedback from the initial trials with the instrument, the software for the CLSI was revised and a large scale pilot was implemented in the Atlantic and Prairie Regions. Site training for the large scale pilot occurred in late 1989 and early 1990. At this time, the CLSI became a normal component of the inmate reception procedure in one medium and one maximum institution in the Atlantic region and one medium institution in the Prairie region.

To date, the CLSI has only been used with males but can also be employed with female offenders. The CLSI was first introduced in English and is currently being translated for use with Francophone offenders. A manual has been developed which provides detailed instructions on all facets of the administration and maintenance of the CLSI.

II. Overview Of The Computerized Lifestyle Screening Instrument

The unique feature of the CLSI assessment procedure is that the full battery of questionnaire items is administered to offenders using a micro-computer. Each question in the battery is presented to the offender on a computer screen and responses are displayed in a multiple-choice format. The offender indicates his/her response by making the appropriate selection on a keyboard. A staff member who is familiar with the computerized system introduces the offender to the procedure at the beginning of the session and remains available to answer any questions or concerns that arise for the offender.

Normally the procedure takes less than 2 hours to complete. However, the offender can complete the survey at his/her own pace, pausing to take a break at anytime during the procedure. There are also a number of section "skip" functions in the CLSI which ensure that offenders do not answer questions which are irrelevant to their personal situation. For example, offenders who report that they have not consumed any drugs in the six months prior to their arrests are not required to answer the set of questions from the DAST concerning possible symptoms of drug abuse.

During the assessment session the computer provides the offender with instantaneous feedback about his/her functioning in the various areas examined in the questionnaire battery. The feedback takes the form of a series of "thermometers" displayed on the computer screen which graphically display the level of problems associated with each area of assessment (e.g., nutrition, tobacco use, substance abuse) as compared to normative data from the general population. At the end of the session the offender receives computer printout summarizing his/her responses to the survey. In addition, a more comprehensive computer printout is prepared for the benefit of the offender's case management officer.

This innovative approach to acquiring self-report data is believed to be preferable to other methods for a number of reasons (Skinner and Allen, 1983). An important assumption that guided the introduction of the CLSI was that reception inmates would be less inhibited and therefore more likely to answer truthfully on a computer than in an interview situation. In addition, instantaneous feedback to the offender using the computer, personalizes the assessment process for the offender and removes some of the mystique and boredom which are normally associated with

questionnaires items. It was believed that the provision of feedback would encourage the offender to complete an honest self-assessment, and retain his/her attention and level of motivation during the adminstration of the survey.

The computerized approach has been shown to provide assessment data that is as reliable and valid as alternative methods of collecting the information such as paper and pencil tests, and interviews (Skinner and Allen, 1983). An added advantage of the CLSI in the current setting is that large numbers of inmates may be assessed without the involvement of highly skilled staff who might normally collect the information through interviews. The computer-generated reports also eliminate time-consuming coding and interpretation of the questionnaire responses. Although the system requires the availability of one staff member while assessments are in process, the staff may be occupied with other tasks. Depending on the availability of computer hardware, a staff member can monitor the completion of the assessment procedure by more than one offender at a time.

The survey contains a demographic section and a brief computer practice exercise followed by 11 sections focusing on a variety of issues related to lifestyle patterns, substance use and abuse, and criminal behaviour. The eleven sections, labelled A to K, are briefly described below. A more comprehensive description of the CLSI is available (The Computerized Lifestyle Assessment Instrument Training Manual, Education and Personal Development Division and Research and Statistics Branch, 1989).

A. Physical and Mental Health
A variety of health-related factors including nutrition, tobacco use, exercise, sleep patterns, stress, and general emotional well-being are assessed. The section also focuses on how drinking patterns are related to health risks. The items measure current functioning and functioning prior to incarceration.

B. Social Functioning
This section collects information about the offenders' social functioning prior to incarceration. It includes questions related to who the offender resided with prior to incarceration and the general quality of his relationships with friends, spouse, and other family members, as well as attachment to community groups.

C. Drugs
Questions that probe the offender's drug use pattern and extent of abuse are presented. This lengthy section includes Skinner's Drug

Abuse Screening Test (DAST). The DAST has been integrated into this section to assess the severity of drug abuse. This scale involves 20 items which measures the severity of problems related to an individual's drug use. The DAST items, which tap a range of substance abuse symptoms and pathological drug use (See Appendix A), were modeled after items comprising the popular Michigan Alcoholism Screening Test (Selzer, M. L., 1971). After scoring, the DAST items classify each offender into the following five levels of drug abuse problems: "none", "low", "moderate", "substantial", and "severe".

D. Alcohol

Section D. is similar to Section C. with a focus on alcohol use and abuse patterns. Skinner's ADS is incorporated into this section to measure the severity of alcohol dependence problems. The ADS, which is modeled after the larger Alcohol Use Inventory (Horn, Wanberg and Foster, 1974), is a 25 item scale that focuses on alcohol dependency symptoms and pathological alcohol consumption patterns (See Appendix B). Using the same classification scheme as in the DAST, the ADS classifies each respondent into "none", "low", "moderate", "substantial", and "severe" alcohol dependency.

E. Substance Abuse Treatment

This section involves questions used to determine whether the offender has ever been treated for substance abuse and current motivation for treatment. It also includes questions that focus on whether, and for what reasons, offenders would seek future treatment.

F. Criminal Behaviour

This lengthy section measures criminal history and the relationship between substance abuse and past and current criminal activities. The bulk of the questions in this section are intended for offenders who were under the influence of drugs or alcohol when they committed their current offences. Very detailed information is collected on the circumstances of crimes that were committed while under the influence of alcohol or drugs.

G. Education

This section measures educational achievement and aspirations and asks the offender to indicate how substance use has influenced educational pursuits.

H. Work and Finances

This section focuses on labour force participation and extent of financial problems. Questions concerning the link between work and finances and substance abuse are included.

I. Substance Use and Global Functioning
This section contains a variety of summary questions focusing on physical health, mental health, social relationships, criminal behaviour, and job, educational, and financial functioning. The section attempts to relate each of these domains to the offenders' substance use patterns. The intent of the measures is to provide information on the willingness of the offender to conduct a self-assessment of his/her problems.

J. Treatment Motivation
This section deals with a variety of indicators of treatment motivation and the extent to which the offender views treatment as a potentially helpful component of his correctional plan while serving time.

K. Client Satisfaction

The final section of the CLSI invites feedback from offenders regarding the assessment procedure. This includes evaluations of the computer approach, the length of the survey, level of clarity of questions, and helpfulness of assessment feedback.

III. Patterns Of Drug And Alcohol Use Among Offenders

Sample

Completed assessment data from a total of 503 male offenders received by the Research and Statistics Branch by December 1990 are included in the present sample. This represents a sequential sample of offenders who were admitted to the pilot sites for a period of approximately one year following the introduction of the CLSI. The sample consists of 28 (5.6%) inmates admitted to Dorchester Institution, 189 (37.7%) admitted to Drumheller Institution, and 285 (56.7%) admitted to Springhill Institution. Circumstances at Dorchester Institution prevented the reception unit from remaining in the pilot for the full period.

Each pilot site maintained detailed log sheets on the number of offenders who were asked to complete the CLSI package in order to keep account of offenders who refused the assessment. Only 8.4% of offenders fell in this category and an additional 1.2% opted not to complete the instrument because they had already undergone the assessment previously. A small number of offenders did not complete the CLSI because they were unable due to illiteracy (1.5%) or because the instrument was not available in their mother tongue (0.8%).

Taken together, approximately 11.9% of offenders who were asked to do the CLSI, for various reasons, did not complete it. Since the majority of these offenders were "flat" refusers, it is likely that they would not have agreed to any type of substance abuse assessment (e.g., interview or paper and pencil questionnaire). A positive finding was that illiteracy does not play a major role in preventing people completing the CLSI. This suggests that the instrument designers were successful in adapting the instrument to the literacy levels of an offender population, a basic criterion to meet if the CLSI is to be useful in correctional settings.

Demographic Characteristics

The average age of reception inmates who completed the <u>CLSI</u> was 28.9 years (S.D. = 8.07). Only 5% were under the age of 20 years, while almost 58% were between the ages of 20 and 29. About 25% of the offenders were between 30 and 39, and only about 12% were 40 years or older. The racial background of the offenders was 74.2% Caucasian, 16.3% Native, and the remaining 9.5% consisted of offenders who identified themselves as Asians, Blacks and 'Others'.

Selected Descriptive Data
The following descriptive section provides selected statistics generated from the various sections (A to K) of the <u>CLSI</u>. In the section we provide only a snapshot of the type of information that is available using the <u>CLSI</u> database.

Nutrition and Health
Based on information provided about the six month period prior to the current arrest, over 83% of the offenders were found to have an "average" to "above average" level of nutrition. In terms of caffeine consumption during the same period, 18.6% had risky levels and 21.4% were found to have potentially hazardous caffeine intakes. Nearly 75% of the sample admitted to smoking every day in the 6 months before incarceration, and of these, almost 70% had been smoking daily for more than 10 years. When asked how many cigarettes per day they smoked, over 25% answered at least 25, and 21.7% stated 30 cigarettes or more.

Almost 37% of the offenders felt they did not get enough exercise in the six month period under investigation, but the majority (61.2%) stated they got enough, and 2% claimed they exercised too often. Thirty-one percent indicated they did not get adequate amounts of sleep and 5.6% said they slept too much. When asked to rate their overall physical health, almost 60% stated it was either good (46.4%) or excellent (12.4%), but 31% said their physical health was fair, and 10.2% declared that it was poor.

Social Functioning
The offenders were asked about their living arrangements in the 6 months prior to their arrest. Almost 62% indicated a stable living style by either residing in their own house or apartment or a rented room. The remaining 38% had been living in temporary dwellings such as a friend's place, a shelter, or at no fixed address. Only 14.6% said they were living with a spouse during the time period. Of those who said they were married (23.6%), 14% admitted that they worried to some extent about their relationship with their wives during the six months.

Drug Use
Almost 75% of the inmate sample admitted to using drugs at least once in their lifetime. Close to 10% had first used drugs under the age of 10 and 28.6% were between the ages of 11 and 13 when they were first introduced to drugs. The main focus of the drug section of the <u>CLSI</u> is concerned with the measurement of drug use in the 6 month period prior to arrest. About 57% indicated that they used drugs at least once during this timeframe.

Figure 1 displays the frequency of use categories that characterized this group of reception inmates in the six month period. It should be noted that more than 10% said they used drugs every day, and more than 30% said they used drugs at least a few times each week. Figure 2 shows the proportions of offenders who admitted to using drugs in "binges" or "bouts" to the extent that they were affected by drugs for at least a couple of days in a row. Twenty percent of the total sample said that binges occurred at least once every week in the six month period prior to arrest.

The types of drugs used by those who consumed drugs during the measurement timeframe are displayed in Figure 3. It is not surprising that the majority of users consumed marijuana or hashish (92%). In the "harder" drug categories, 50.7% reported using stimulants such as cocaine or amphetamines, 34.1% consumed opiates such as heroine or morphine, and 34.6% had used hallucinogens such as LSD.

Information on severity of substance abuse in this population is reserved for a later section of the report when the DAST measure is examined.

Some under-reporting of substance use is likely to occur in both offender and non-offender samples. Therefore, the pattern of responses to the drug items was examined to determine whether or not any response inconsistencies could be detected. We identified 55 offenders (10.9%) who initially said they had never used drugs and later admitted that they had been under the influence of drugs when they committed one or more crimes in the past. If these offenders are removed from the group who said they never used drugs, the adjusted figure would be 85.8% who said they used drugs at least once in the past.

Figure 1
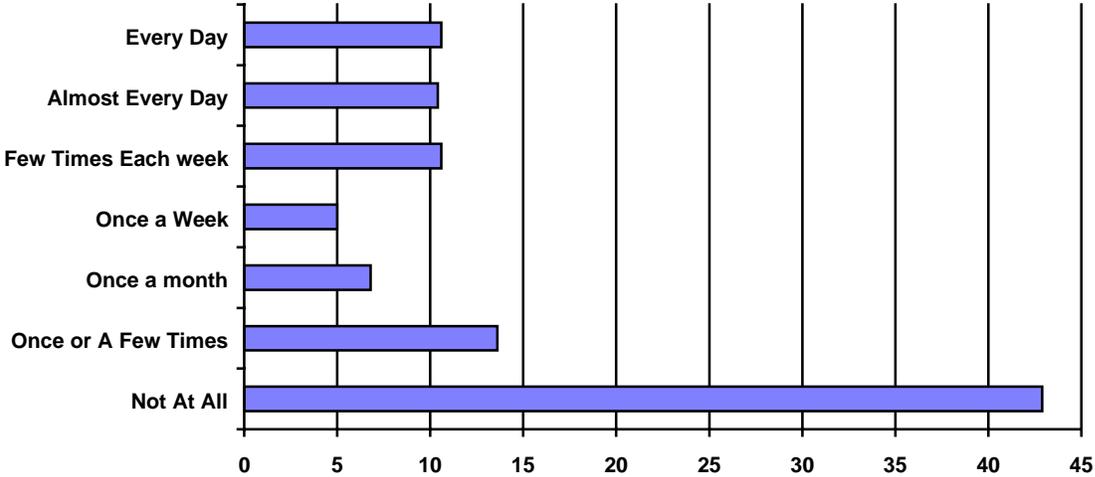**Frequency of Drug Use in the 6 Months Prior to Arrest**

Figure 2
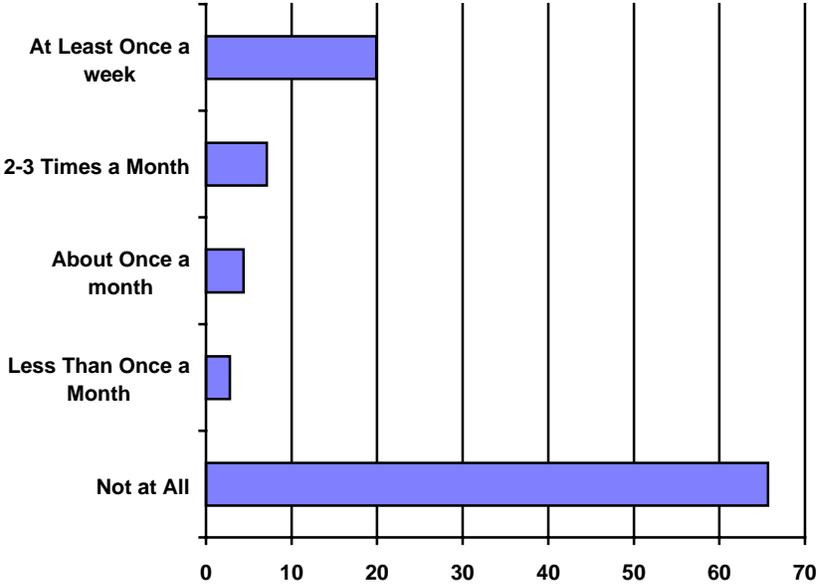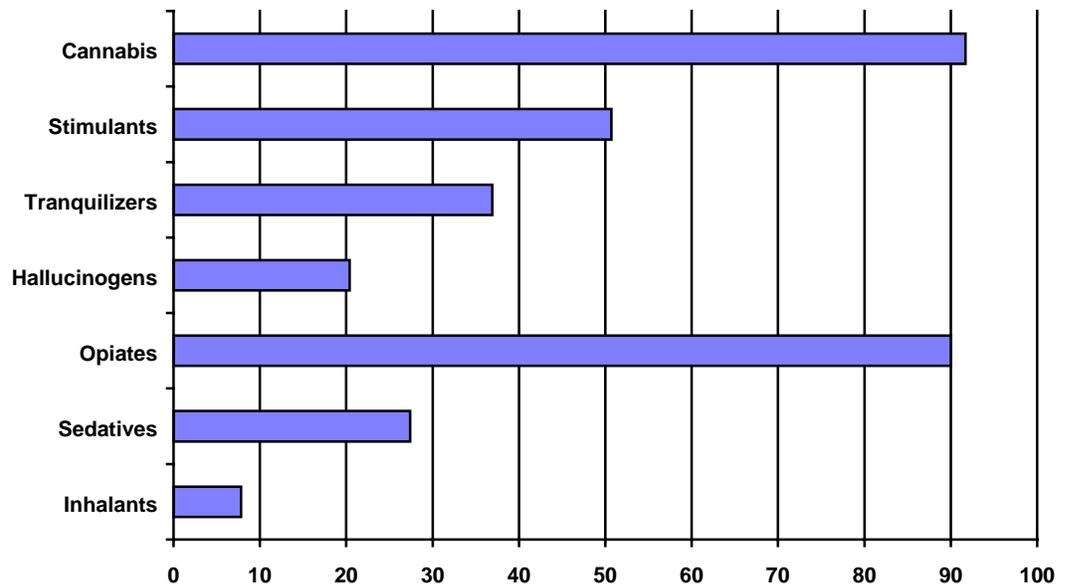**Frequency of "Binge" Drug Use in the 6 Months Prior to Arrest**

Figure 3
Types of Drugs Consumed by Drug Using
Offenders in the Six-Month Period Prior to Arrest

Since the number of inconsistent responders is small it is unlikely that their inclusion in <u>CLSI</u> samples will result in major underestimations of the number of offenders who have substance abuse problems. However, the <u>CLSI</u> software can be modified to decrease the occurrence of the number of response inconsistencies. The <u>CLSI</u> will be programmed so that inconsistent responders will automatically be given an opportunity to adjust their original response when an inconsistency has been detected by the computer.

Alcohol Use
A total of 97.6% of the reception inmates acknowledged that they had consumed alcohol at some point in their lives. A little more than half of the sample were under 12 years of age when they first tried alcohol and 13.4% were regularly drinking (at least once a week or more) before the age of 14. As Figure 4 shows, roughly 85% of the sample consumed alcohol in the six month period prior to arrest, but only a minority (5.3%) were daily alcohol users. However, as Figure 5 indicates, at least 15.4% said they drank in "bouts" or "binges" at least once a week in the six month timeframe.

Information on severity of alcohol abuse is presented in a later section on the ADS measure.

The database was also examined for inconsistencies in reporting on alcohol use items. Only 3 inconsistent responders were identified (0.6%). These offenders initially said they had never consumed alcohol and later reported that they had been under the influence of alcohol when they committed one or more crimes. Again, the CLSI software can be modified to reduce the occurrence of this type of response inconsistency.

Substance Abuse Treatment
Over 57% of the reception inmates had participated in some type of treatment program in their lifetime. More than half (57%) of those who had received treatment had participated two or more times. Those who had been involved in treatment were asked about the most recent program in which they participated. As Figure 6 indicates, Alcoholics Anonymous was the most frequent mode of treatment reported. At least 12% of those who had been treated had been exposed to detoxification and almost 2% had participated in drug maintenance.

Close to 60% of the offenders who had been exposed to treatment claimed they had completed their most recent treatment program and only 11.5% felt that the treatment had been "not at all helpful". This suggests a generally positive attitude toward substance abuse treatment programming in this sample of reception inmates.

The offenders were also asked if they thought they needed help for alcohol and drug problems, and if so, what treatment modality they would prefer most. In total, 43.6% felt theyneeded some degree of assistance for a substance abuse problem. Figure 6, which also shows the treatment preferences for this group of offenders, indicates that Alcoholics Anonymous was not only the most frequently received treatment, but it was also the most popular treatment preference. It is interesting that while only a few offenders had received individual therapy for substance abuse problems in the past, this type of treatment was chosen frequently as a preferred option.

Figure 4
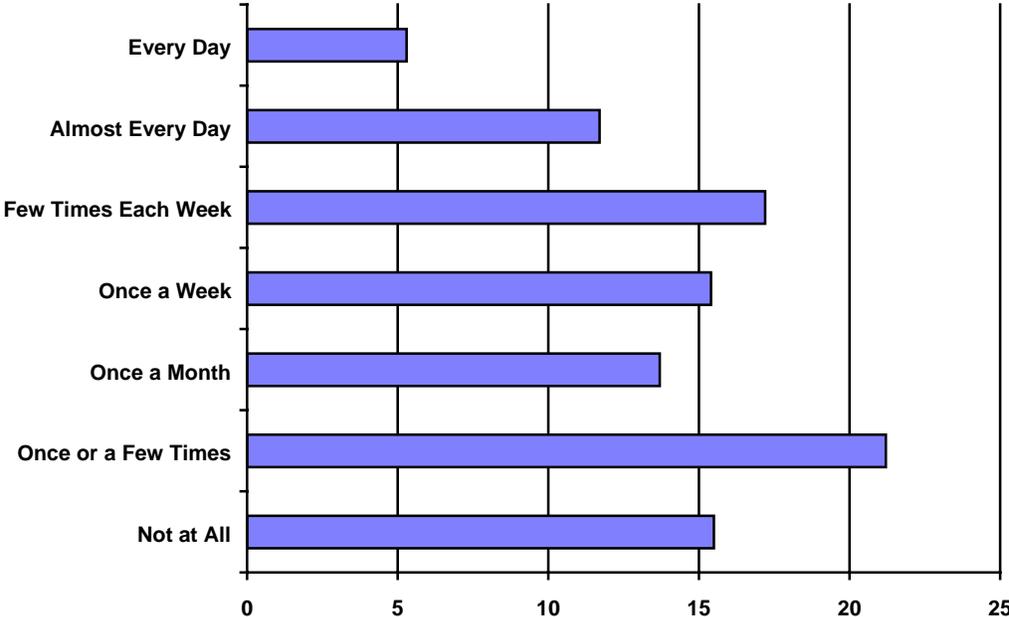**Frequency of Alcohol Use in the 6 Months Prior to Arrest**

Figure 5
Frequency of "Binge" Drinking in the 6 Months Prior to Arrest
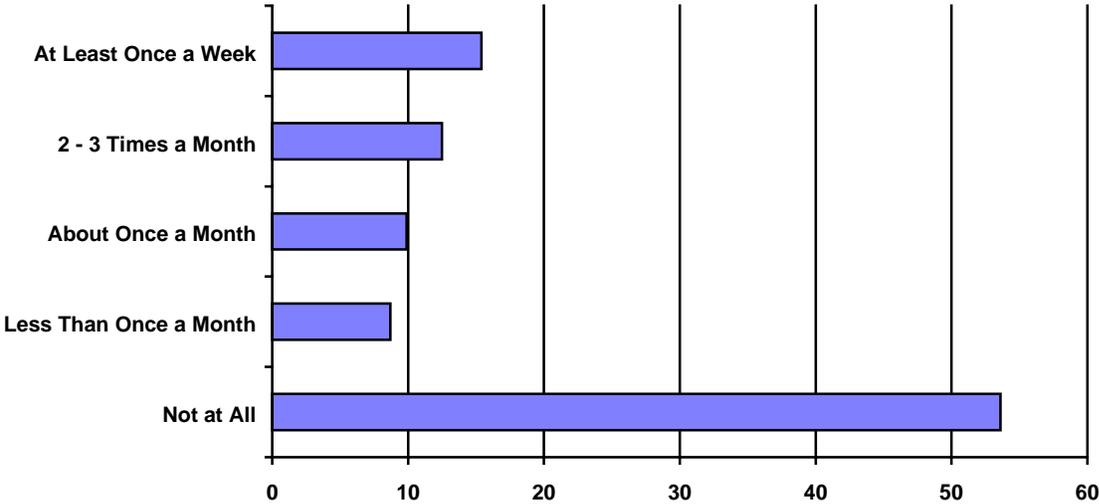
Figure 6
Most Recent Drug/Alcohol Treatment Received and Treatment Type Preferred
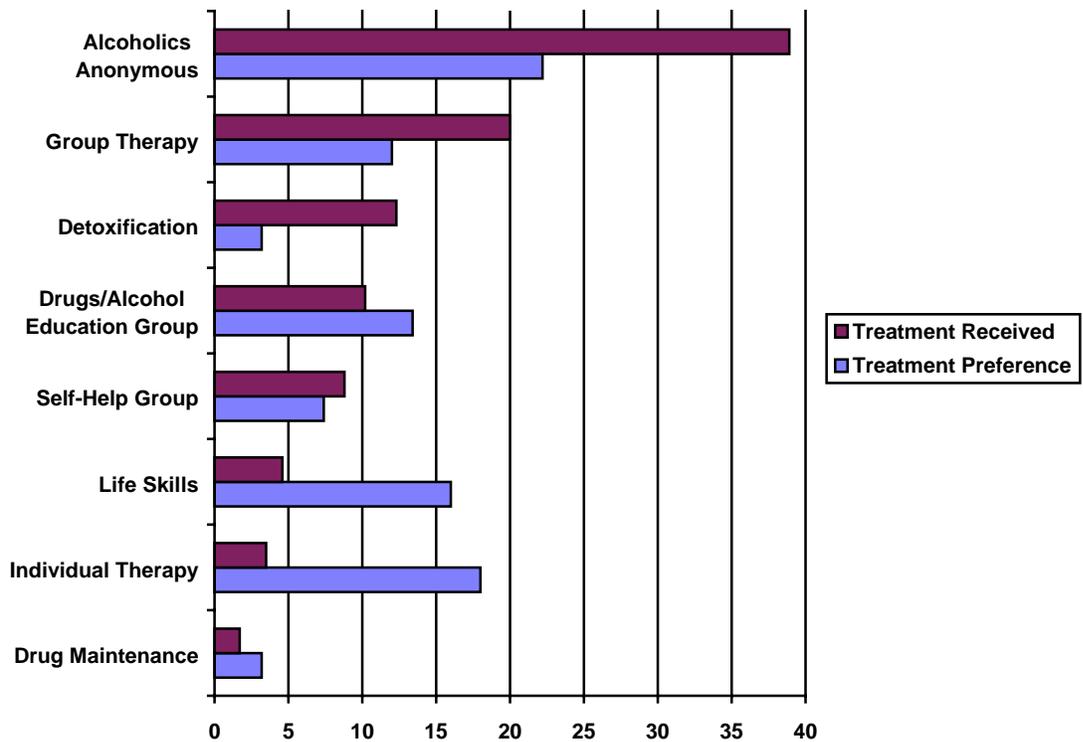
Criminal Behaviour

The criminal behaviour section of the CLSI solicits information about current and past criminal activities. More than 85% of the offenders had been found guilty of at least one previous crime and nearly half admitted to becoming involved in illegal activity by the age of 15. About 37% said they had accumulated 10 or more convictions during their lifetimes.

A substantial number of offenders had consumed drugs or alcohol on the days of at least some of the crimes on their current sentences. Sixty-two percent of the sample reported this situation. A total of 32.7% of the offenders said they had been under the influence of drugs at the time they committed at least one of the crimes on their current sentences. The comparable figure for alcohol was 43.8%. A significant proportion (28.7%) acknowledge that they had been under the influence of both alcohol and drugs when they committed at least one of the index crimes.

Offenders who admitted to being under the influence of alcohol or drugs when they committed crimes were asked to select one of the crimes and provide detailed information about the circumstances surrounding that crime. Figures 7, 8 and 9 provide descriptions of the types of crimes committed under the influence of drugs, alcohol, and both drugs and alcohol for those offenders who said they were under the influence of some type of substance.

It is interesting that violent offences were more often committed under the influence of alcohol or both alcohol and drugs, rather than under the influence of drugs alone. Robbery, on the other hand, appears to be associated more with drug use than with alcohol. The proportion of break and entry offences was comparable across all three types of substance use.

Of those who had used only drugs, 71.1% admitted that the drug use made their level of judgement worse and 74.5% stated their drug use made them more likely to commit the crime. A similar proportion (71.1%) agreed that they would not have committed a crime if they had not been using drugs. The corresponding proportions for offenders who had used alcohol were very similar. Roughly 76% indicated that alcohol use made their judgement worse, 72.4% said it made them more likely to commit a crime, and 81.3% felt they would not have committed the crime if they had not been using alcohol.

The offenders were also asked to recall all of the times they engaged in criminal activity, including the times they committed crimes for which they were never caught, and estimate how many crimes were committed under the influence of drugs or alcohol. Over 17% said they were under the influence of drugs for most of the crimes they committed, and another 18.2% answered they were under the influence for all of their past crimes. For alcohol, 13.9% were under the influence most of the time when they committed crimes, and 18.4% said they were under the influence for all previous crimes.

Figure 7
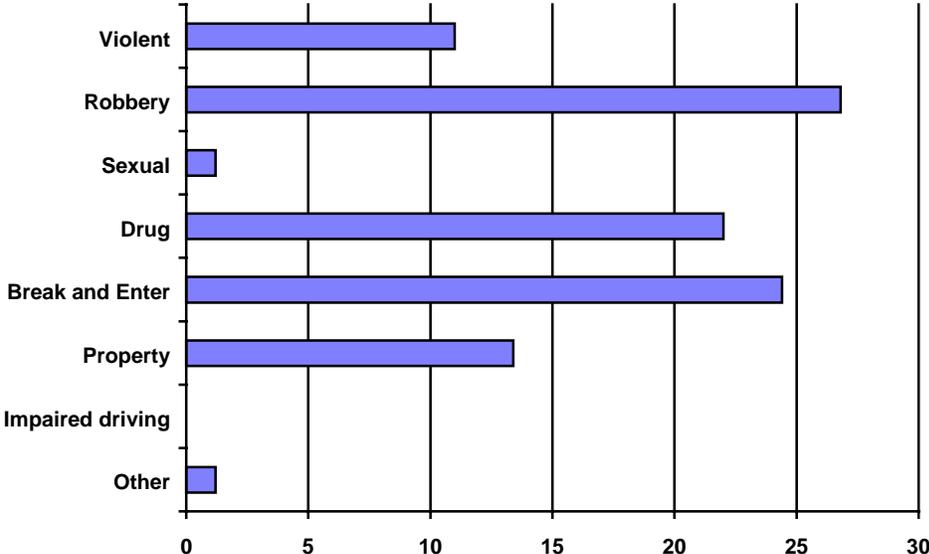**Offences Committed While Under the Influence of Drugs**

Figure 8
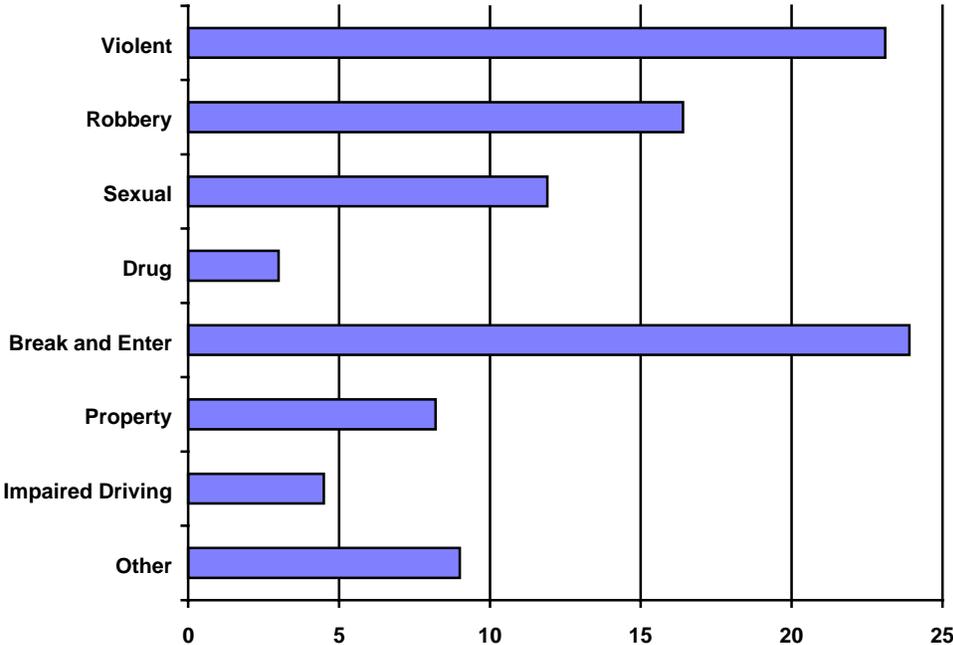**Offences Committed While Under the Influence of Alcohol**

Figure 9
Offences Committed While Under the Influence of Drugs and Alcohol
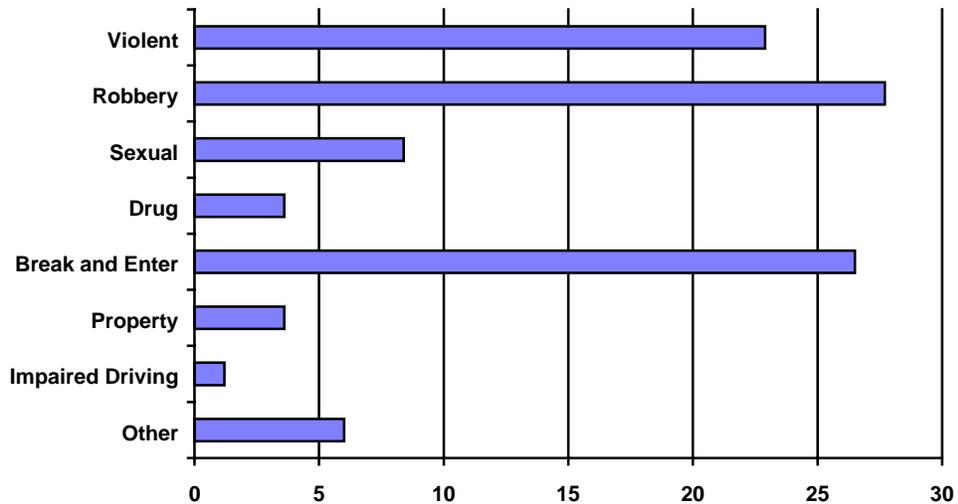
CLSI Substance Use Figures Compared to U.S. Figures
The United States Bureau of Justice Statistics published the findings of an alcohol and drug use survey of U.S. state prisoners in 1983. Some of the substance use characteristics measured in the CLSI were also included in the United States study (Bureau of Justice Statistics, 1983a, 1983b).[2] In the U.S. study the information was collected through personal interviews. The alcohol and drug use patterns of the U.S. inmates were very similar to the patterns reported by reception inmates using the CLSI.

Table 1 compares self-reported drug use and Table 2 compares alcohol use in the two samples. The figures are almost identical in both samples with respect to the number of offenders reporting that they "ever" used drugs, used drugs in the period prior to the offence, and the number who were under the influence when they committed at least one of the crimes for which they were currently serving time. There is less similarity in reporting of alcohol use in the U.S. and CLSI samples, although the differences are not dramatic. The reception inmates in the current sample were less likely to report that they were under the influence of alcohol when they committed crimes than their U.S. counterparts.

Response to the CLSI
One of the objectives of the pilot project was to obtain an assessment of how responsive offenders would be to having the

assessment procedure administered in a computerized format. Offenders reacted favourably to the administration procedure. The responses to the evaluation questions are summarized below:

- 91% indicated that they understood the computer instructions quite well.
- 80% indicated that the length of the assessment was "about right", 10.8% indicated it was "too long" and 9.2% felt it was "too short".
- 79.5% felt that the assessment was "easy" to do on the computer, 17.9% said it was a "little difficult" and the remainder said that it was "quite" (1.5%) or "very" (1.1%) difficult.
- 91.1% responded yes to the question: "Overall, did you like doing the Lifestyle survey?
- 86.6% said they would encourage a friend to complete the assessment package.

The offenders were also asked to evaluate the CLSI in terms of the utility of the feedback information that was provided:

Table 1
Frequency of Drug Use Among U.S. State Inmates and CSLI Reception Inmates

	U.S. State Inmates	CLSI Sample
Ever used drugs	78.0%	74.9%
Used drugs in time-frame before crime*	56.0%	58.1%
Committed crime under the influence of drugs	33.0%	32.7%

* Use of drugs in the U. S. sample referred to use in the month preceding the occurrence of the crime for which the offender was currently serving time. In the CLSI sample the timeframe was six months previous to the current arrest.

Table 2
Frequency of Alcohol Use Among American State Inmates and CLSI Reception Inmates

	U.S. State Inmates	CLSI Sample
Alcohol use*	81.9%	84.5%
Under the influence of alcohol at the time of the crime	50.0%	43.8%

* Alcohol use in the U. S. sample referred to use in the year preceding the occurrence of the crime for which the offender was currently serving time. In the CLSI sample the timeframe was six months previous to the current arrest.

- 81.8% said they learned something from the assessment, "learned a little" and 18.2% said they did not learn anything.
- 9% said they didn't understand the computerized feedback "too well".
- 75.3% said the feedback gave them a clear picture of their lifestyle habits.

In summary, the CLSI received positive evaluations from inmates in terms of the ease with which the assessment could be completed by computer, and the relevance of the assessment feedback that is provided.

IV. Screening For Drug And Alcohol Problem

The Drug Abuse Screening Test (DAST) and the Alcohol Dependency Scale (ADS) are principal components of the CLSI used to classify levels of severity of substance abuse problems among reception inmates. This section of the report describes the distribution of scores for the two assessment tools and examines the potential utility of the measures for treatment assignment purposes. As outlined earlier, each measure yields a classification of substance abuse problems in terms of "none", "low", "moderate", "substantial", and "severe". Offenders who are classified in the "moderate to severe" range of these scales exhibit problems which are similar in magnitude to the level of problems experienced by individuals in the community who seek professional help for an alcohol or drug problem. Therefore, it is assumed that offenders who are classified in this range of the DAST or the ADS require some level of intervention to assist them in dealing with substance abuse problems.

Reliability of the CLSI
A first step in evaluating the measures was to examine scale reliability in terms of the consistency of offender responses on the items that are combined to obtain a severity score. The indices of reliability (Cronbach Alphas) that were obtained were .91 for the DAST and .95 for the ADS, indicating a very high degree of internal consistency for this sample.[3] There was a possibility that the internal consistency of the scales would be inflated by the fact that offenders who reported no drug or alcohol use would have scores of zero on each of the items in the respective scales. However, when the internal consistency was recomputed on the subsamples of drug and alcohol users, the coefficients remained stable (DAST = .90, ADS = .94).

Reliability estimates for the DAST and the ADS have not yet been reported for offender samples. The previous reliability coefficients for the (DAST = .95, Skinner and Horm, 1982; ADS = .92, Skinner and Allen, 1982) were derived from non-offender samples of individuals who were being assessed for alcohol or drug treatment programming. The present data indicate that the DAST and the ADS perform well on this criterion of reliability, in both offender and non-offender groups.

Level of Severity of Drug and Alcohol Abuse
Figure 10 displays the distribution of DAST scores for this sample of offenders.[4] Over half of the sample (52.4%) reported no

substance abuse problems in the six months before their last arrest, while slightly more than 6% fell within the level reserved for the most severe substance abuse problems. In total, 27.5% of the current sample, were classified as having "moderate to severe" drug abuse problems in the six months prior to their current arrests. Based on these data, it would be estimated that about one quarter of the reception population require some type of assistance for substance abuse problems.

Figure 10
DAST Levels (%)

27.5% {

Severe 6.5

Substantial 10.5

Moderate 10.5

Low 20.1

None 52.4
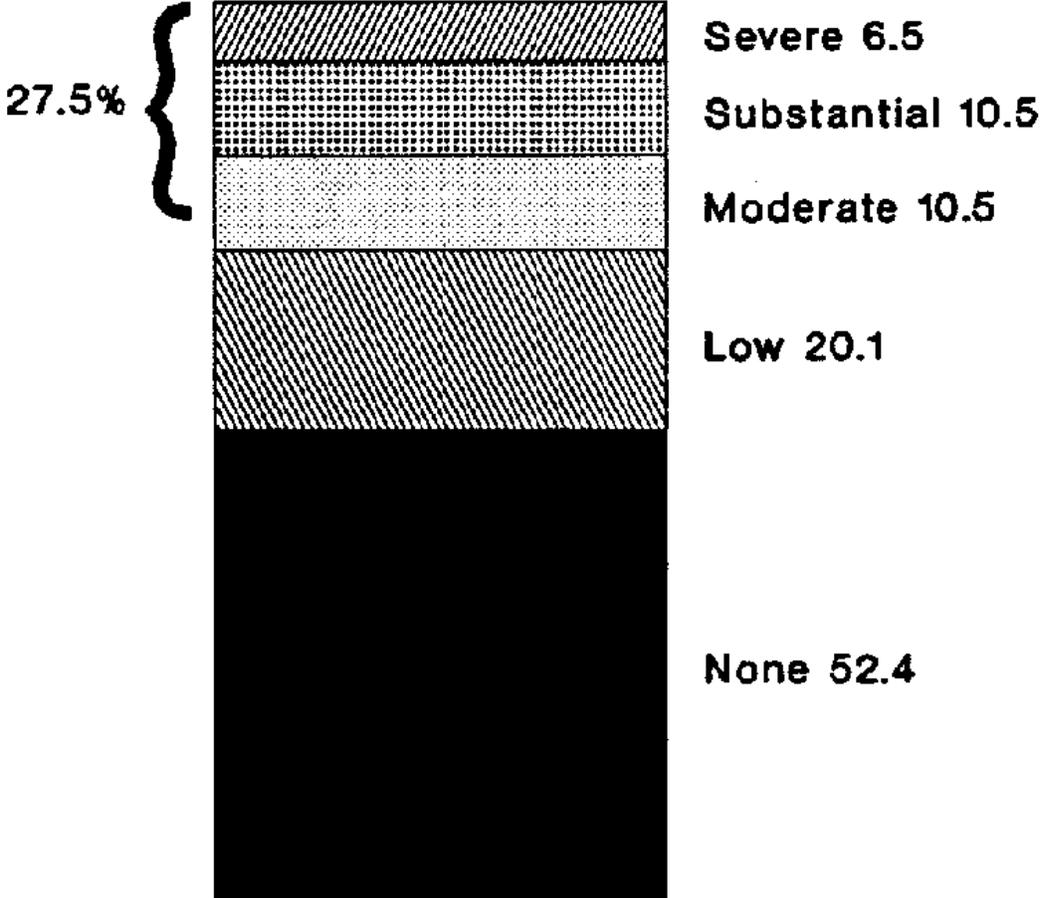
Figure 11
ADS Levels (%)
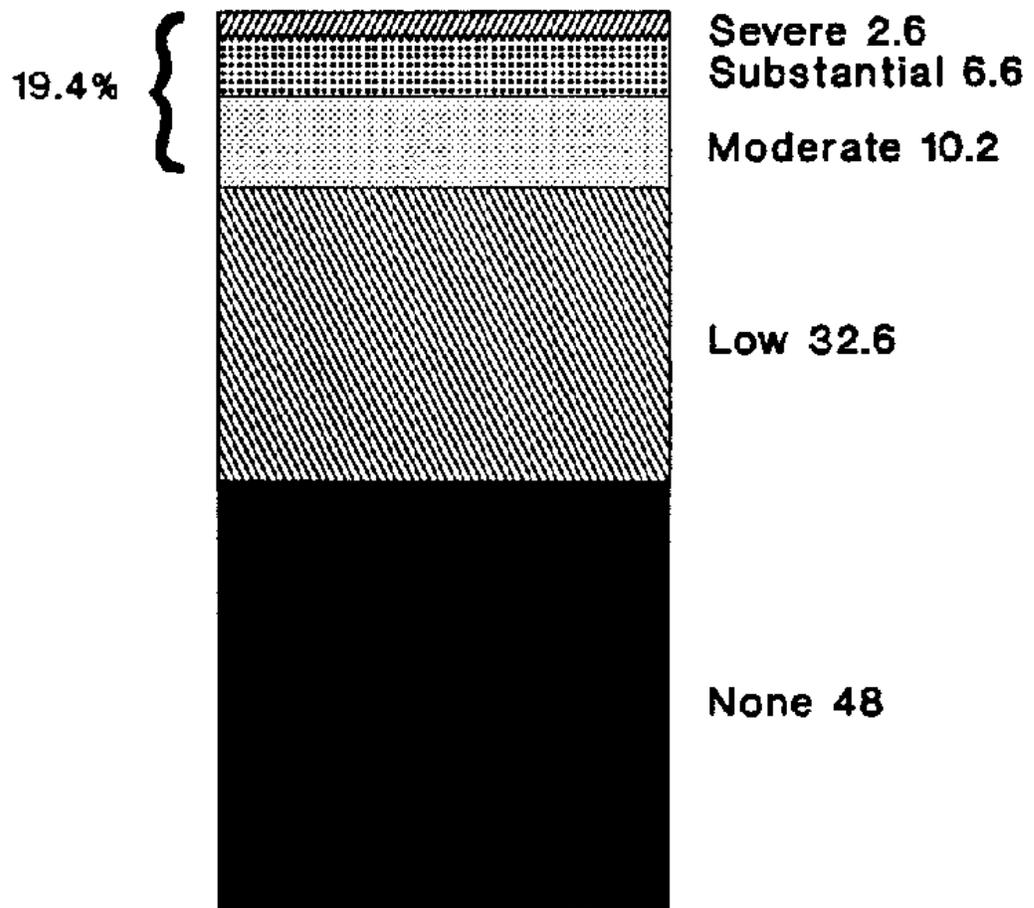
The levels of severity for the ADS scale are shown in Figure 11.[5] "Moderate to Severe" alcohol problems were less frequent than "moderate to severe" drug problems in this sample of offenders - only 19.4 of the offenders had "moderate to severe" scores on the ADS and only 2.6% fell within the most "severe" alcohol dependency category. It is interesting that roughly one third of the sample (32.6) had "low" levels of alcohol dependency compared to 20.1% who scored in the "low" level for drug problems.

An examination of the DAST and ADS levels across the two regions that participated in the pilot project (Atlantic and Prairies) revealed no statistically significant differences.6 Figure 12 shows the proportion of cases from each region that fall within each level of severity for the DAST and ADS. As the figure suggests, only marginal differences between the two regions were present.

Other Estimates of Offender Substance Abuse Problems

If the DAST and ADS are to be used as front-end screening tools for offender drug abuse programming, it is important to demonstrate that the measures yield estimates that are consistent with available normative knowledge about drug problems in our offender population. Our estimates of the number of offenders requiring treatment for drug (27.5%) and alcohol (19.4%) problems based on the CLSI is somewhat lower than figures reported in an earlier study conducted in the Ontario Region by Lightfoot and Hodgins (1988). The study was based on alcohol and drug interviews with 275 inmate volunteers using the DAST and ADS items. Lightfoot and Hodgins reported that approximately 63.5% of the volunteer respondents were classified as having a "moderate to severe" drug abuse problem in the six month period prior to the interviews. Approximately 47% were categorized as having "moderate to severe" alcohol dependency problems. Figure 13 and Figure 14 compare the respective DAST and ADS estimates derived from the Lightfoot and Hodgins sample and the current CLSI sample.

It is important to underscore that the Lightfoot and Hodgins study was not designed to provide a measure of substance abuse problems for the purpose of estimating the number who need treatment in the offender population. Lightfoot and Hodgins designed their study to collect information that might be of value for developing substance abuse programming options for offenders (see Hodgins and Lightfoot, 1988). The discrepancy between the findings is therefore likely a result of self-selection sampling biases operating in their sample of volunteers. Since potential respondents were informed of the objectives of the study, offenders with drug problems were recruited and may have been willing to participate in the study because they had a personal interest in the subject. For this reason, the present CLSI estimates based on a sequential sample of reception inmates would appear to provide the most valid DAST and ADS estimates of the number of offenders who are in need of substance abuse treatment in our offender population.

Figure 12
DAST and ADS Levels by Region

DAST Scores

Legend: Atlantic, Prairies

Categories: None, Low, Moderate, Substantial, Severe

ADS Scores

Legend: Atlantic, Prairies

Categories: None, Low, Moderate, Substantial, Severe
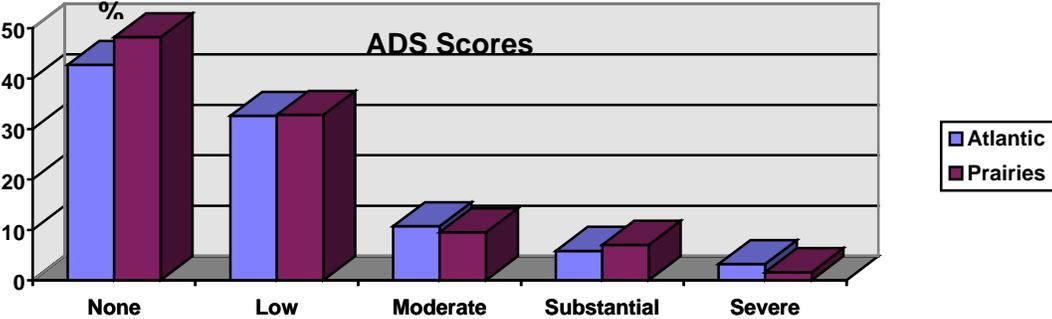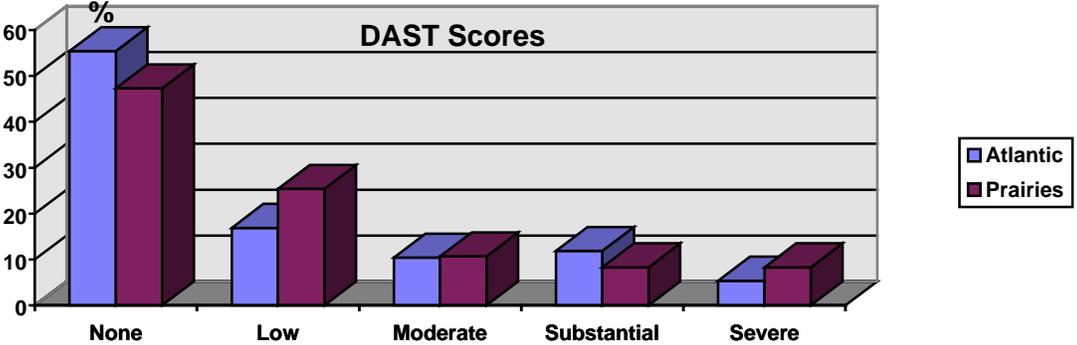
Figure 13
DAST Levels for Ontario Volunteer Sample
and Current Lifestyle Sample
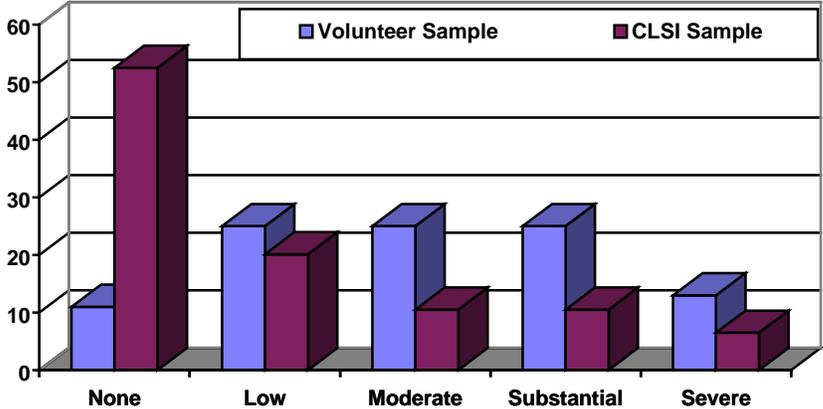
Figure 14
ADS Levels for Ontario Volunteer Sample
and Current Lifestyle Sample
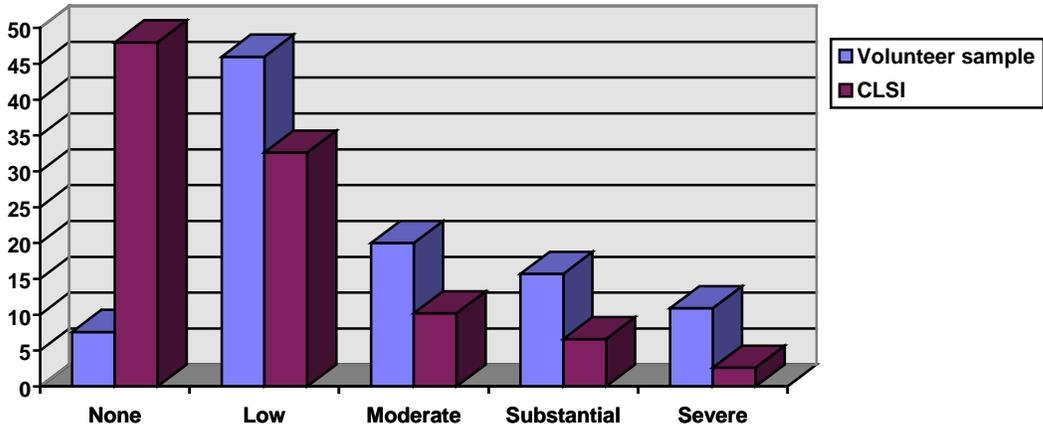
The CLSI figures are also more consistent with other available data on substance abuse problems of federal inmates using alternative measuring instruments. The Mental Health Survey (Research and Statistics Branch, 1990) provided both "lifetime" and "previous year" estimates of the proportion of offenders who had substance abuse/dependence problems. The survey employed the Diagnostic Interview Schedule (DIS, United States National Institute of Mental

Health) to arrive at DSM III diagnoses for a national random sample of over 2000 federal inmates.

The DIS diagnosis of substance abuse/dependence is based on evidence of pathological drug use and impairment in social and occupational functioning as a result of drug use. Similar criteria are used for the diagnosis of alcohol abuse/dependence using DSM III diagnostic criteria. According to the mental health survey, 52.9% of federal inmates were diagnosed as having suffered from substance abuse/dependence and 69.8% from alcohol abuse/dependence at some time during their lifetimes. However, only 16.8% met the conditions for a diagnosis of substance abuse/dependence during the last year. Only 13.1% met the criteria for alcohol abuse/dependence in the last year.[7]

The DAST measure was based on drug abuse problems experienced by reception inmates during the six months prior to their current arrests. For this reason, the estimates of substance abuse problems derived from the DAST (27.5%) and the ADS (19.4%) should be compared to the Mental Health Survey substance abuse prevalence figures referring to diagnoses in the last year (16.8% and 13.1%, respectively) rather than the lifetime diagnoses (52.9% and 69.8%).

Although not to a dramatic degree, the current DAST and ADS estimates of substance abuse problems are higher than the DIS prevalence rates. Since the DAST and ADS measures are based on reception inmates, many of these offenders would have been in the community immediately prior to completing the assessment battery. It can be argued that this group would have had more recent access to alcohol and drugs than the majority of offenders in the general inmate population that was sampled in the Mental Health Survey. For this reason, it is not surprising that our CLSI estimates are somewhat higher than the Mental Health Survey prevalence rates. Another possibility, which cannot be ruled out, is that the computerized format is more successful in encouraging offenders to reveal their alcohol and drug usage patterns than the interview approach employed in the Mental Health Survey.

The available evidence suggests that the DAST and ADS scales, as measured using self-report information derived from the CLSI, furnish a reasonable index of the number of reception inmates who require some type of alcohol and drug abuse programming. The measures possess more than adequate reliability, and the estimated number of offenders who require substance abuse treatment is relatively consistent with previous reports.

Overlap of Drug and Alcohol Problems
It was expected that many offenders would show signs of problems with both alcohol and drugs. Table 3 presents a detailed cross-tabulation of DAST and ADS scores for offenders who had valid data for both total scores (n=448). The data are also summarized graphically in Figure 15. As the figure demonstrates, there was some overlap in the severity of alcohol and drug problems. About 9.2% of the total offender sample was classified in the "moderate to severe" range on both DAST and ADS scales. By analyzing the figures in Table 3, it can be seen that roughly half of the offenders (47.6%) who scored in the "moderate to severe" range on the ADS also scored in the same range on the DAST. On the other hand, one third (33.3%) of offenders who scored on the high end of the DAST had high scores on the ADS.

An important question concerns the total number offenders who appear to be in need of some type of substance abuse intervention. In Figure 15 the DAST and ADS categories are combined to show the proportion of offenders who have either alcohol or drug problems. The figure shows that a total of 37.4% of offenders scored in the "moderate to severe" range on at least one of the scales. Based on these data, therefore, it would be estimated that approximately 37% of reception inmates require some treatment assistance with a drug or alcohol problem.

There was an indication that a lower level of attention was needed for less serious alcohol and drug problems. Nearly 30% of the sample showed "low" levels on alcohol or drug problems. The remaining 32.8% of the cases reported no alcohol or drug problems. With respect to programming, this group might be considered candidates for preventative educational efforts.

Selecting Offenders for Programming
According to the data presented up to this point, it appears that a very large proportion of reception inmates possess substance abuse problems requiring a treatment response. Only about a third of the offenders in the sample appear to possess no degree of substance abuse as defined by the DAST and ADS. This leaves two-thirds of our reception population that appear to need help in dealing with their substance abuse problems. Clearly there is a need for criteria to assign varying treatment levels to this large group.

By employing the ADS and DAST criteria we might assign the 37.5% cases that fall within the moderate to severe problem ranges

to our most intensive treatment modality (e.g., therapeutic communities). The next group (29.7%) who have a "low" level of alcohol or drug problems might be assigned to a less intensive from of treatment (e.g., relapse prevention training). Finally, the group reporting no alcohol or drug problems (32.8%) might be offered primary prevention programming of a low intensity. The obvious objection to this assignment scheme would be that it would be unfeasible to extend intensive treatment to all offenders who score high on the DAST or ADS - this would mean that approximately 40% of admitting inmates would receive such treatment exposure. The alternative of offering progressively higher levels of treatment to offenders with "no", "low", "moderate", "substantial" and "severe" substanceabuse problems might be an answer to this problem. However, such a system would be somewhat cumbersome to administer because of the number of treatment categories, and difficult to justify because of the reliance on only one criterion (DAST or ADS score) to determine treatment intensity and mode.

Table 3
Distribution of DAST and ADS Levels

	None % (n)	Low	Moderate	Substantial	Severe	Total
None	32.74 (146)	6.05 (27)	4.48 (20)	2.69 (12)	2.69 (12)	(217)
Low	13.45 (60)	10.31 (46)	4.26 (19)	3.36 (15)	0.67 (3)	(143)
Moderate	4.04 (18)	3.14 (14)	0.09 (4)	1.79 (8)	0.67 (3)	(47)
Substantial	1.57 (7)	0.67 (3)	0.90 (4)	2.02 (9)	0.67 (3)	(26)
Severe	0.67 (3)	0.00 (0)	0.00 (0)	0.45 (2)	1.79 (8)	(13)
Total	(234)	(90)	(47)	(46)	(29)	(446)

Figure 15
Distribution for Combined
ADS and DAST Levels

Moderate to
Severe on both
ADS and DAST — 9.2%

Moderate to
Severe on
ADS or DAST — 28.2%

} 37.4%

Low on
ADS or DAST — 29.8%

No Problem on
ADS and DAST — 32.8%
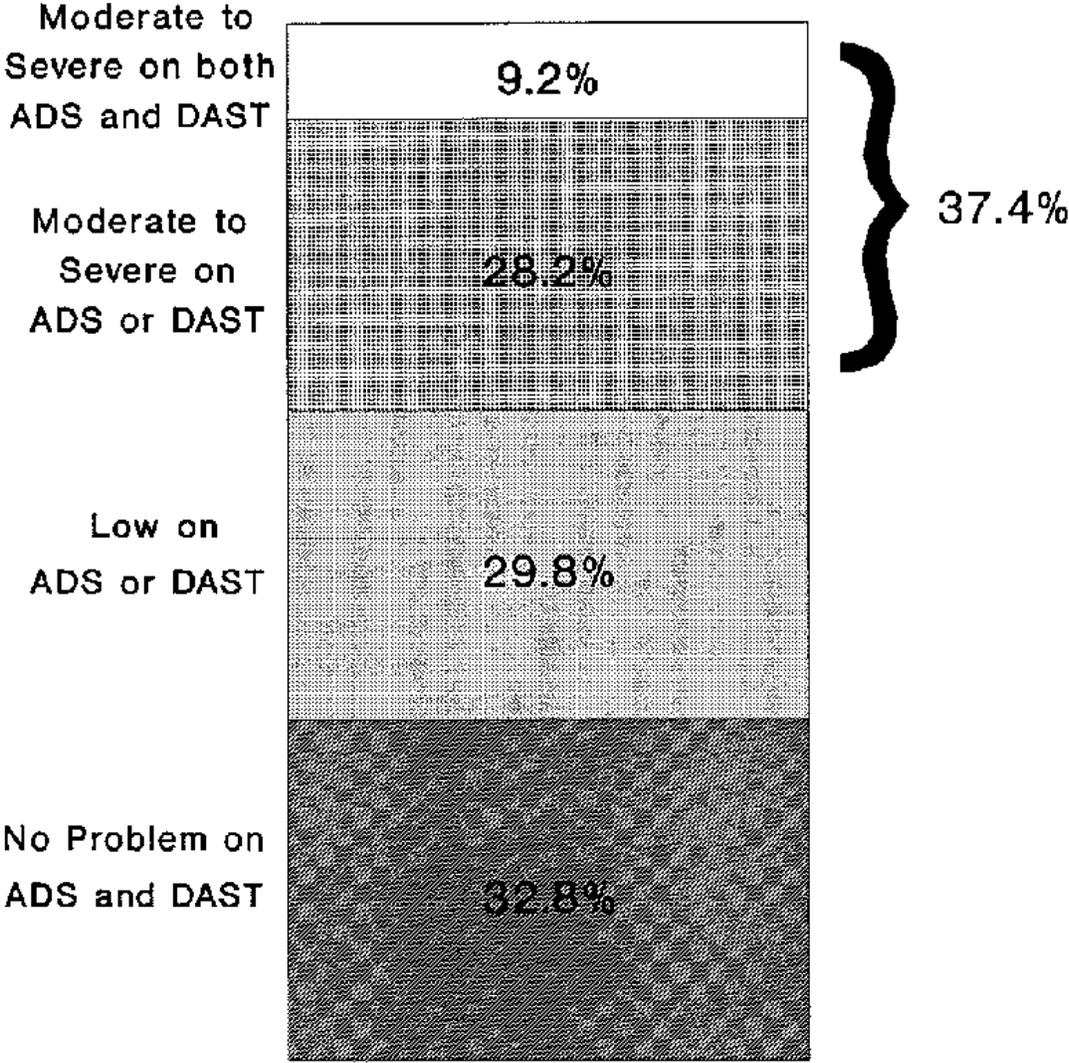
One solution to this problem would be to use additional criteria to select which offenders are to be given priority to access scarce treatment resources. By combining indicators of "risk" (e.g., chronicity of substance abuse problems, proneness to violence while under the influence of a substance, an association between substance use and criminal behaviour) with the index of severity of abuse, it would be possible to incorporate issues which are of prime correctional concern to decisions about how to allocate substance abuse services.

Using this approach to classifying offenders for treatment, the DAST and ADS measures might be used as a "first cut" in the screening process. The tools would be used to identify offenders who appear to have the most serious substance abuse problems at the reception stage. A "second cut" would involve identifying, among the latter group, a smaller number of offenders who show some evidence of risk according to the selected risk criteria. The most intensive modality would be reserved for this group, and the less intensive treatments would be extended to the remaining offenders who were identified as substance abusers. This scheme would reduce the number of offenders eligible for intensive treatment to a more manageable number, and provide good decision rules for establishing which offenders should be given priority in treatment assignments.

We explored the feasibility of applying both substance abuse severity and correctional risk criteria to the screening process using the CLSI data. This is a first attempt to classify offenders according to treatment need and it is clear that more research will be required in order to develop practical typologies for treatment assignment. Additional risk criteria may be appropriate and the current examples might be reconceptualized. However, the data that follow provide an example of the types of decision rules that could be applied, and the distributions of offenders in the various treatment groups that might result.

We began first by selecting all offenders who scored in the "moderate to severe" range on the DAST and the ADS as a "first-cut". We then selected further criteria reflecting factors that appear to possess some relevance for predicting negative correctional outcomes among substance abusing offenders. The following criteria were used to select a sub-sample of cases from among those who scored high on the DAST:

- Offenders who indicated that they were under the influence of drugs when they committed one or more of the crimes on their current sentences
- Offenders with chronic and long-standing patterns of substance abuse as indicated by the use of drugs at least once a week by the age of 16 or younger
- Poly-drug users who were involved in the use of more than one type of drug in the six months prior to the index arrest

All three conditions had to be met before an offender was selected for the priority treatment group. The application of these criteria

resulted in the selection of 38.5% of the offenders who had scored in the "moderate to severe" range on the DAST.

A similar procedure was repeated for the cases scoring high on the ADS scale. The risk criteria for the alcohol problem cases was altered to reflect risk factors surrounding alcohol use. In particular, propensity toward violence while under the influence of alcohol was chosen as an important factor because of its status as a correctional outcome. The following criteria were used to select a sub-sample of cases from among those who scored high on the ADS:

- Offenders who indicated that they were under the influence of alcohol when they committed one or more of the crimes on their current sentences
- Offenders with chronic and long-standing patterns of alcohol abuse as indicated by the use of alcohol at least once a week by the age of 16 or younger
- Offenders who admitted that alcohol caused them to be more physically aggressive or violent

All three conditions had to be met before an offender was selected for the priority treatment group. The use of the risk criteria resulted in the selection of 46.5% of the offenders who had scored in the "moderate to severe" range on the ADS.

To estimate the number of offenders who would be defined as "priority" cases for intensive substance abuse treatment, the two groups (ie., as defined by drug and alcohol problems) of selected offenders were combined. The criteria led to the selection of 45% of the cases that had originally been identified as having "moderate to severe" substance abuse problems using the ADS and the DAST. This represents approximately 17% of the entire reception inmate sample. Therefore, the use of the two-stage screening method resulted in a substantial decrease in the number of cases identified for priority treatment. Recall, that using only the DAST and ADS, about 37.5% of the inmate reception sample fell in severity levels that indicated treatment.

Figure 16 provides a breakdown of the treatment categories that might result using a selection procedure similar to the one being explored here. Labels are proposed for each group according to the need for treatment rankings established using the exploratory screening procedure. The treatment groups presented in Figure 16 are proposed as one possible method of dividing up the offender population into intensity levels for substance abuse treatment.

The priority treatment cases are labelled "intensive" treatment offenders in Figure 16. The next priority for substance abuse treatment are offenders who score in the "moderate to severe" range for substance abuse, but were excluded from the priority selection because they do not meet the risk conditions. In Figure 16, these offenders are referred to as the "intermediate" treatment group. Offenders who were classified in the "low" ranges of the DAST or the ADS are defined as the "low" intensity treatment group. Finally, offenders with no alcohol or drug problems are targeted for "educational/preventative" efforts.

Figure 16
Level of Treatment Intensity (Using Two-Stage Screening Procedure)

Intensive	16.8%
Intermediate	20.6%
Low	29.8%
Educational Preventative	32.7%
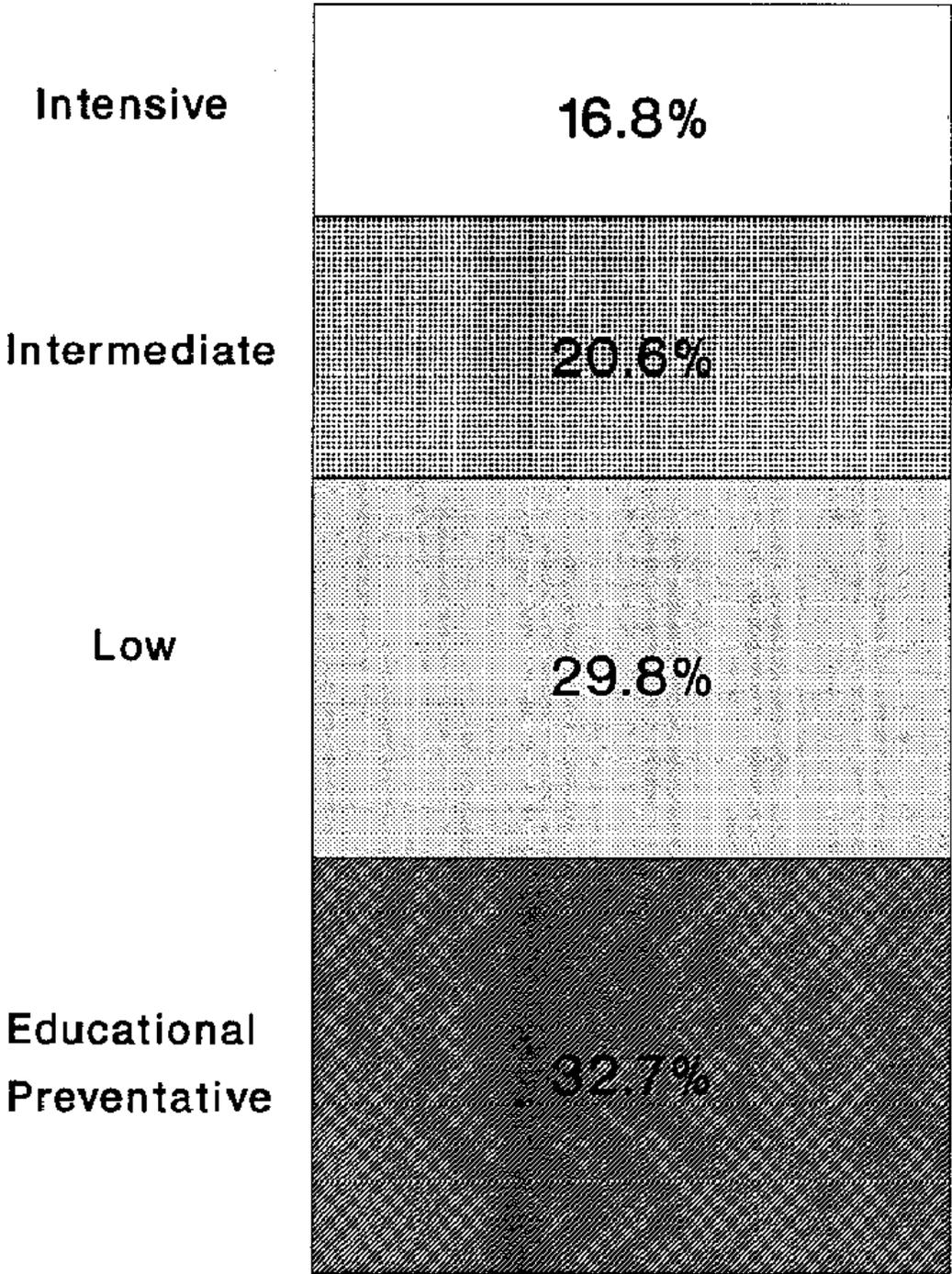
Using the two-stage screening model, the number of groups selected and the distribution across groups would be a function of the number, type, and variety of risk factors included in the selection procedure. It is also likely that overlap between the various intensity levels will be apparent when offenders are assigned to the treatment groups. For example, in the present example, "intermediate treatment" cases might be better accommodated in "low intensity" treatments, while "educational/preventative" might be optimal for some "low intensity" cases. The essential advantage of the screening procedure, is that it can be used to aid initial decisions about treatment assignments at the inmate reception phase. In an ideal treatment delivery system ongoing assessments would determine the ultimate composition of the various treatment groups that operate and would ensure that treatment needs are matched with appropriate interventions.

Up to this point, the process of selecting offenders for substance abuse treatment and classifying them for priority treatment has been considered without regard to the willingness of offenders to participate in programming at various levels of intensity. Of particular concern is the level of motivation to seek treatment among cases defined as appropriate for high intensity programming. Treatment motivation was examined for the sub-sample of offenders who were selected for intensive treatment using the procedure outlined above (n=75). This groups appears to be highly motivated for treatment according to a number of indices displayed in Figure 17. Only 13.6% of this group failed to acknowledge the need for help with substance abuse problems. Moreover, 90.4% said they would like to participate in a treatment program, and about 80% felt that it was mostly or completely true that participating in an institutional program would help them quit using alcohol or drugs. Therefore, according to data from the sample, it does not appear that lack of treatment motivation would significantly hamper attempts to apply the results of the screening procedure.

The selection technique explored above has considerable potential as a front-end screening method. Future research will need to investigate additional risk factors which could be used to structure the front-end screening process in a fashion that takes into account both the severity of substance abuse problems and the need for correctional intervention. Further work will be required to select factors and develop appropriate coding procedures so that the number of priority cases identified will correspond to the level of

treatment resources that Correctional Service of Canada can reasonably devote to intensive interventions with substance abusers.

Figure 17
Treatment Motivation Among Offenders Identified
As High Priority for Substance Abuse Treatment

Do you think you need help for drug and/or alcohol abuse problems?
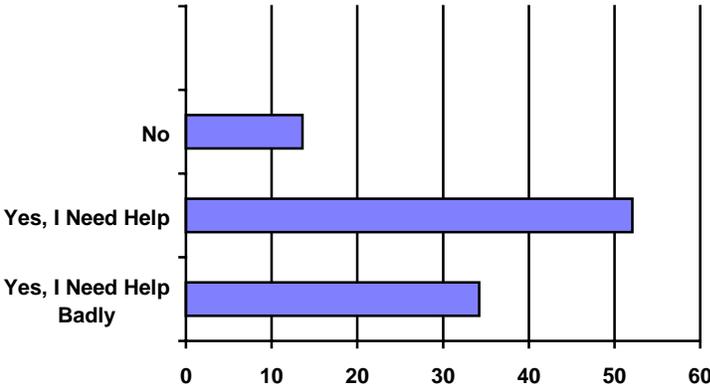
Would you like to participate in a drug and/or alcohol abuse treatment program?
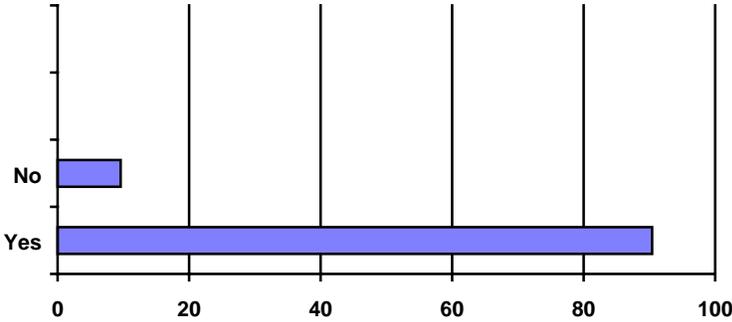
Participating in a drug and/or alcohol abuse treatment program in this institution would help me to quit my drug and / or alcohol use?

Conclusion

The CLSI has been tested using a large sample of reception inmates. At this stage in exploring the data generated to date, the utility of the CLSI appears very promising. The current analyses suggest that the self-reported information provided on alcohol and drug problems can be used to reliably measure levels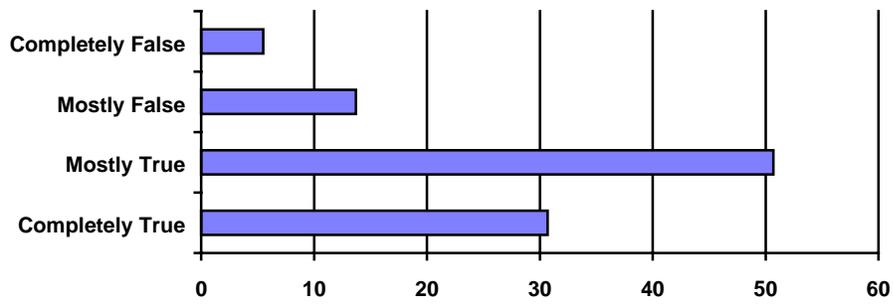 of substance abuse problems among reception inmates. The reported frequency of alcohol and drug use and their link with criminal behaviour was found to be similar to the self-reports obtained previously for a U.S. sample of inmates. The estimates of the number of offenders who require assistance for substance abuse problems is also consistent with previous attempts to measure the prevalence of substance abuse problems in our inmate population. In addition, the sample of reception inmates who completed the CLSI assessment battery were very positive in their evaluation of the system.

A feature of the CLSI which we have only begun to explore is the rich source of data available for addressing questions about how substance abuse relates to criminal behaviour. The CLSI is very comprehensive in scope with respect to the number of variables measured. Future research will need to focus on some of the data relating to substance abuse and crime, and in particular, make further attempts to link this type of assessment information to the overall substance abuse screening process.

The system also contains sufficient information to make possible various reliability checks so that offenders who respond in an inconsistent fashion can be identified. Our analyses suggest that the level of inconsistency being reported on alcohol and drug items is not large enough to warrant major concerns about the reliability of the CLSI. In the current data analyses we were able to identify particular inconsistency problems and minor modifications to the CLSI were specified to reduce the number of problems of this type in the future.

Our current analyses using the CLSI pilot database have identified a large group of offenders who appear to have been experiencing "moderate to severe" alcohol or drug problems when they are admitted to the reception units in the study. In addition, a sizeable proportion of our inmate reception sample showed evidence of experiencing at least minor substance abuse problems. According to the current data, only one third of the inmate reception sample report no symptoms of problem use. The large proportion of offenders who appear to require a treatment response when they

enter our facilities, is consistent with our assumptions about the seriousness of substance abuse problems among offenders. The question that now remains is how we can best select the offenders who are most in need of our treatment attention. In addition, as we have raised the issue in this report, there is also a question of how to select the offenders who will most benefit from treatment resources with respect to the more global correctional outcomes which are a constant concern to our organization.

This report lays some of the groundwork for structuring the front-end screening procedure to address these two primary concerns. A model for developing such a screening system has been proposed in this report. Further research and ongoing input from correctional managers in the Correctional Service of Canada are now needed to refine the model. However, the figures generated from our first attempt to develop a substance abuse treatment typology suggest that the CLSI is a very appropriate tool on which to base the development of such a front-and screening system for substance abuse treatment. The positive feedback received from both offenders and staff who were involved in the pilot, also suggest that with minor modifications, the CLSI will be ready for full implementation as a standard component of the reception routine in all reception sites in the Correctional Service of Canada.

References

Correctional Service Canada (1990). Task Force on the Reduction of Substance Abuse. Ottawa, Correctional Service Canada.

Education and Personal Development Division and Research Branch, Correctional Service of Canada (1989). The Computerized Lifestyle Assessment Instrument Training Manual.

Hodgins, D. C. and Lightfoot, L. O. (1988). "Types of male alcohol- and drug-abusing incarcerated offenders." British Journal of Addiction, 83. 1201-1213.

Horn, J. L. Wanberg, K W. and Foster, F. M. (1974). The Alcohol Use Inventory. Denver, Colorado: Center for Alcohol Abuse Research and Evaluation.

Lightfoot, L. O. and Hodgins, D. (1988). "A survey of alcohol and drug problems in incarcerated offenders." The International Journal of the Addictions, 23, 687-706.

Research Branch Correctional Service of Canada (March, 1990). The Prevalence, Nature and Severity of Mental Health Disorder Among Federal Male Offenders in Canada.

Selzer, M. L. (1971). "The Michigan Alcoholism Screening Test: The quest for a new diagnostic instrument. American Journal of Psychiatry, 127, 1653-1658.

Skinner, H. A. (1982) "Drug abusing screening test." Additive Behaviours, 7. 363-371.

Skinner, H. A. and Allen, B. A. (1982). "Alcohol dependence syndrome: Measurement and validation." Journal of Abnormal Psychology, 91, 199-209.

Skinner, H. A. and Allen, B. A. (1983). "Does the computer make a difference? A computerized versus face-to-face versus self-report assessment of alcohol, drug and tobacco use." Journal of Consulting and Clinical Psychology, 51, 267-275.

Skinner, H. A., Allen, B., McIntosh, M. C., & Palmer, W. H. (1985). Lifestyle assessment: applying microcomputers family practice. British Medical Journal, 290, 212-216.

United States Bureau of Justice Statistics (1983a). <u>Prisoners and Drugs</u>. Washington: U. S.Department of Justice.

United States Bureau of Justice Statistics (1983b). <u>Prisoners and Alcohol</u>. Washington: U. S. Department of Justice.

Endnotes

[1] The Task Force on the Reduction of Substance Abuse was mandated with the task of establishing a policy framework that would define the direction of substance abuse programs and services for federal offenders for the next five years.

[2] The U.S. data was based on a random sample of 12,000 inmates from state correctional facilities surveyed in 1979.

[3] Cronbach Alpha coefficients may range in value from .0 to 1.0. For most measurement purposes, reliability coefficients of .60 or above are considered adequate.

[4] These figures exclude the 55 offenders (10.9%) described earlier who provided inconsistent responses to questions about their drug use. The cases were excluded because they could not be reliably scored on the DAST items.

[5] These figures exclude the 3 offenders described earlier who provided inconsistent responses to questions about their alcohol use. The cases were excluded because they could not be reliably scored on the ADS items

[6] A Chi-square test was used to test for differences in the distributions of the scores between regions. No differences were observed for the DAST or ADS (p > .3).

[7] These prevalence figures are based on "wide" diagnostic criteria. When more "stringent" criteria are employed the prevalence estimates are considerably lower. Using stringent criteria, the lifetime prevalence estimate was 40.9% for drug and 47.2% for alcohol abuse/dependence. The one year prevalence rates were 13.1% and 9.8% respectively.

Appendices

Appendix A

DRUG ABUSE SCREENING TEST

DAST ITEMS

1. Consider the 6 months before your arrest.
Did you use drugs other than those required for medical reasons.

    1. NO
    2. YES

2. Consider the 6 months before your arrest.
Did you use prescribed or over the counter drugs in excess of the directions?

    1. NO
    2. YES

3. Consider the 6 months before your arrest.
Did you abuse more than one drug at a time?

    1. NO
    2. YES

4. Consider the 6 months before your arrest.
Were you able to get through the week without using drugs?

    1. NO
    2. YES

5. Consider the 6 months before your arrest.
Were you always able to stop using drugs when you wanted to?

    1. NO
    2. YES

6. Consider the 6 months before your arrest.
Did you have "blackouts" or "flashbacks" as a result of drug use?

    1. NO
    2. YES

7. Consider the 6 months before your arrest.
Did you ever feel bad or guilty about your drug use?

    1. NO
    2. YES

8. Consider the 6 months before your arrest.
Did your wife (or parents) ever complain about your involvement with drugs?

    1. NO
    2. YES

9. Consider the 6 months before your arrest.
Did your drug abuse create problems between you and your wife or your parents?

    1. NO
    2. YES

10.Consider the 6 months before your arrest.
Did you lose a friend because of your use of drugs?

    1. NO
    2. YES

11.Consider the 6 months before your arrest.
Did you neglect your family because of your use of drugs?

    1. NO
    2. YES

12.Consider the 6 months before your arrest.
Were you in trouble because of drug abuse?

    1. NO
    2. YES

13.Consider the 6 months before your arrest.
Did you lose a job because of drug abuse?

    1. NO
    2. YES

14.Consider the 6 months before your arrest.
Did you get into fights when under the influence of drugs?

    1. NO
    2. YES

15.Consider the 6 months before your arrest.
Did you engage in illegal activities in order to obtain drugs?

    1. NO
    2. YES

16.Consider the 6 months before your arrest.
Were you arrested for possession of illegal drugs?

    1. NO
    2. YES

17.Consider the 6 months before your arrest.
Did you ever experience withdrawal symptoms (feel sick) when you
stopped taking drugs?

    1. NO
    2. YES

18.Consider the 6 months before your arrest.
Did you have medical problems as a result of your drug use (such
as memory loss, hepatitis, convulsions, bleeding, and others)?

    1. NO
    2. YES

19.Consider the 6 months before your arrest.
Did you go to anyone for help for a drug problem?

    1. NO
    2. YES

20.Consider the 6 months before your arrest.
Were you involved in a treatment program specifically related to
drug use?

    1. NO
    2. YES

Appendix B

ALCOHOL DEPENDENCY SCALE

ADS ITEMS

1. Consider the six months before your arrest.
How much did you drink the last time you drank?

    1. ENOUGH TO GET HIGH OR LESS
    2. ENOUGH TO GET DRUNK
    3. ENOUGH TO PASS OUT

2. Consider the 6 months before your arrest.
Did you often have hangovers on Sunday or Monday mornings?

    1. NO
    2. YES

3. Consider the 6 months before your arrest.
Did you have the "shakes" when sobering up (hands tremble, shake inside)?

    1. NO
    2. SOMETIMES
    3. ALMOST EVERY TIME I DRANK

4. Consider the 6 months before your arrest.
Did you get physically sick (vomit, stomach cramps) as a result of drinking?

    1. NO
    2. SOMETIMES
    3. ALMOST EVERY TIME I DRANK

5. Consider the 6 months before your arrest.
Did you have the "DT's" (delirium tremens) -- that is, see, feel or hear things not really there; feel very anxious, restless, over-excited?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

6. Consider the 6 months before your arrest.
When you drank, did you stumble about, stagger and weave?

    1. NO
    2. SOMETIMES

3. OFTEN

7. Consider the 6 months before your arrest.
As a result of drinking, did you feel overly hot and sweaty (feverish)?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

8. Consider the 6 months before your arrest.
As a result of drinking, did you see things that were not really there?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

9. Consider the 6 months before your arrest.
Did you panic because you feared you might not have a drink when you needed it?

    1. NO
    2. YES

10.Consider the 6 months before your arrest.
Did you have blackouts (loss of memory without passing out) as a result of drinking?

    1. NO, NEVER
    2. SOMETIMES
    3. OFTEN
    4. ALMOST EVERY TIME I DRANK

11.Consider the 6 months before your arrest.
Did you carry a bottle with you or keep one close at hand?

    1. NO
    2. SOME OF THE TIME
    3. MOST OF THE TIME

12.Consider the 6 months before your arrest.
After a period of abstinence (not drinking), did you end up drinking heavily again?

    1. NO
    2. SOMETIMES

3. ALMOST EVERY TIME

13. Consider the 6 months before your arrest.
Did you pass out as a result of drinking?

    1. NO
    2. ONCE
    3. MORE THAN ONCE

14. Consider the 6 months before your arrest.
Did you have a convulsion (fit) following a period of drinking?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

15. Consider the 6 months before your arrest.
Did you drink throughout the day?

    1. NO
    2. YES

16. Consider the 6 months before your arrest.
After drinking heavily, was your thinking fuzzy or unclear?

    1. NO
    2. YES, BUT ONLY FOR A FEW HOURS
    3. YES, FOR ONE OR TWO DAYS
    4. YES, FOR MANY DAYS

17. Consider the 6 months before your arrest.
As a result of drinking, did you ever feel your heart beating rapidly?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

18. Consider the 6 months before your arrest.
Did you almost constantly think about drinking and alcohol?

    1. NO
    2. YES

19.Consider the 6 months before your arrest.
As a result of drinking, did you hear "things" that were not really there?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

20.Consider the 6 months before your arrest.
Did you have weird and frightening sensations when drinking?

    1. NO
    2. ONCE OR TWICE
    3. OFTEN

21.Consider the 6 months before your arrest.
As a result of drinking, did you "feel things" crawling on you that were not really there (such as bugs and spiders)?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

22.Consider the 6 months before your arrest.
   With respect to blackouts (loss of memory)

    1. NEVER HAD A BLACKOUT
    2. HAD A BLACKOUT THAT LASTED LESS THAN AN HOUR
    3. HAD A BLACKOUT THAT LASTED FOR SEVERAL HOURS
    4. HAD A BLACKOUT THAT LASTED FOR A DAY OR MORE

23.Consider the 6 months before your arrest.
Did you try to cut down on your drinking and fail?

    1. NO
    2. ONCE
    3. SEVERAL TIMES

24.Consider the 6 months before your arrest.
Did you gulp drinks (drink quickly)?

    1. NO
    2. YES

25.Consider the 6 months before your arrest.
After taking one or two drinks, could you usually stop?

   1. NO
   2. YES