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Final Report

The Use and Evaluation of Hair Analysis, Urinalysis, and Ion Mobility Spectrometry in a Juvenile Diversion Program in New Orleans

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Executive Summary

The Use and Evaluation of Hair Analysis, Urinalysis, and Ion Mobility Spectrometry in a Juvenile Diversion Program in New Orleans

Introduction

This project was designed to support the development and implementation of a Juvenile Diversion Program modeled after the ongoing New Orleans (Adult) Diversion Program. Among the distinctive and unique features of this program are the combined use of three drug detection technologies; urinalysis, hair analysis, and ion mobility spectrometry (IMS). The Juvenile Diversion Program is modeled on the principles of the on-going Adult Diversion Program, but contains a number of unique and specific features that target the specific client juvenile population; young, primarily teenage, first-time criminal offenders who are involved in drug-abuse. This report describes in detail the conceptual basis of the juvenile diversion process, its specific operational character, the integration of the three drug testing technologies into the protocols of the program, and the results of the application of these technologies. The following key summary points apply to the substance of the main report:

- The Juvenile Diversion Program is an example of an important method for responding to drug-involved, arrested juveniles. The amount of drug use by criminally involved youth is substantial. There are large numbers of arrests of youth for drug crimes. Furthermore, in monitoring youthful arrestees, empirical data indicate that in many areas of the country 50% or more of youthful arrestees are positive for an illegal drug at the time of their arrest. Diversion represents an effective way to deliver treatment and services to this population, and consequently maximize the likelihood of long-term, positive behavior change. Furthermore, diversion as a general approach to the handling of juvenile offenders represents a mechanism of criminal justice response that is less financially costly than traditional approaches relying on incarceration.

- While the number of referrals to the New Orleans Juvenile Diversion Program is comparable to the number of referrals typical of the adult program, the number of eligible juveniles choosing to enter diversion is around 60%, lower than comparable rates of entry for adults in the Adult Diversion Program. Therefore, offering diversion may not be enough. While it is beyond the scope of this project to examine the specific issues in detail, the findings here indicate that the lack of established trust and confidence criminal justice authorities may inhibit some juveniles (or their parents) from participating in and taking advantage of the opportunities diversion can afford them.

- The diversion program offers a wide range of aid, services, and support in addition to traditional correctional monitoring. The report offers in detail the

intensive diagnostic and clinical assessments, treatment options, and ancillary support that are central components of a viable diversion process.

- The examination of the patterns of outcomes of multiple modes of drug testing constitutes a critical component of the Juvenile Diversion Program. Drug testing is done to assure participant conformity to the requisite drug cessation and to verify long-term drug abstinence. But it is also done as a diagnostic and assessment activity, in order to assess the particular drug problems a client faces at the outset of their participation, and to provide a sound, empirical basis for the establishment of treatment modalities and in the design of an effective behavior-changing regimen applicable to the individual offender. This battery of drug tests includes drug assessments performed by urinalysis, hair analysis, and IMS. In general this project, which documents and assesses the results of these assays, has found that urinalysis and hair analysis results, when weighed for factors of time, have good concordance and are reliable indicators of drug use or abstinence. IMS outcomes, which are described for both particulate and sweat swab specimens, have reduced concordance when compared to hair and urine specimens. The ultimate utility of IMS is still, we believe, a matter to be settled by further research. The IMS outcome and levels of concordance do vary by specimen type and drug, however.

Method

The methodology of the project was conceptually simple: the data that form the basis of this report is derived from the operations of the implemented Juvenile Diversion Program. The Program is described in detail in the main body of the report. The collection of the various hair, urine, sweat, and particulate samples are part of the routine protocols and is a normal component of the diversion process. There was no modification of existing treatment and supervision protocols in order to accommodate this project, nor were there interruptions or differentiation in treatment protocols between clients that were not indicated on the basis of the clinical needs of the juvenile. During the course of ordinarily scheduled appointments, clients were asked by counselors to submit samples for analysis. These specimens were all collected on site. Urine specimens and hair specimens were sent to designated laboratories for analysis. A trained IMS technician did IMS analysis on-site. Counselors used the IMS to assay skin swabs, and surface-vacuum particulate samples obtained from clients. Each referred juvenile client upon entry into the diversion program undergoes an intake assessment including an intake RIA hair assay, and an RIA hair assay every 60 days. Each client was also urine tested at intake, and was assigned to a random urinalysis screening pool. The juveniles, additionally, must agree as a condition of diversion that they can be tested by any technique on demand by their caseworker.

At intake, each juvenile had an IMS-based analysis of a skin wipe, and a ten-second vacuum scan of their clothing, hands. Each juvenile client also had a urine sample collected for screening at a local laboratory and a hair sample collected for

assay at an off-site laboratory. Juveniles in the program were subject to these actions on an on-going, as-needed basis per the practice design of the program.

Findings

The study collected data on 253 program eligible participants. These participants were subject to 801 IMS assays, 514 RIA hair assays, and 2,053 urinalyses. Of these 253 program-eligible participants, 150 (59.3%), elected to enter the program, and 103 declined entry. The program was comprised primarily of African-Americans (83%), and males (81.4%) with an overall mean age of around 15 years.

- The comparison of outcomes of these different assays and the comparison of the assay results to participants' self-reported drug use shows that the degree of concordance between test outcome and self-reported drug use varies substantially by drug category, as does the concordance between different assay technologies.

- In this study 69.9% of all urinalyses were assay negative, 46.7% of all hair assays were negative, 80.2% of all IMS particulates analyses and 66.9% of all IMS sweat swabs were negative. Consequently, at some point in their case history in diversion, 31.1% of all urinalysis tests, 53.3% of all hair assays, 18.8% of all particulate assays, and 33.1% of sweat swab assays produced a drug positive outcome. Comparison by percentage positive across all test types supports the generalization that hair analyses and IMS particulate tests tend to be more effective for cocaine detection than urinalysis. Urinalysis and hair assay are effective and nearly equivalent in detecting marijuana, and both are also more effective for marijuana detection than IMS.

- Hair analysis is the testing technique that most frequently identified cocaine. Of the 514 hair assays done during the course of the study, 76 were cocaine-positive (14.8%). Urinalysis is relatively less effective at cocaine detection, with a positive rate of 1.3%. IMS particulate samples detected cocaine at a rate of 13%, a rate comparable to hair analysis. IMS sweat performed at a rate comparable to urinalysis, with a cocaine identification rate of 1.4%

- In considering cocaine, there were 167 cases that were negative by every assay technique. There was no case that was cocaine positive by all four potential measures (urine, hair, particulates, sweat swab). There were 7 cases that had cocaine detections by three different techniques, 23 that had detections by a least 2 different techniques, and 56 cases that had cocaine detections by a single technique.

- For marijuana there were 67 cases that were negative by every assay technique. There were 2 cases that were marijuana positive by all four potential measures (urine, hair, particulates, and sweat swab). There were 24 cases that had marijuana detections by three different techniques, 103 that had detections by a

least 2 different techniques, and 57 cases that had cocaine detections by a single technique.

- The outcome of IMS in relation to the detection of LSD presented peculiar findings. There was little self-reported use of hallucinogens. Only 4 persons self-reported general lifetime hallucinogen use, and two persons reported hallucinogen use within the last 90 days. One of these persons reported a single use and the other reported 2 uses over the retrospective three months. However, IMS sweat swabs tested LSD positive 61 times, a number so high that it strains the credibility of the accuracy of the detection for this particular drug.

Self-Reported Drug Use and Assay Outcomes

Comparing self-reported use of drugs to various assay outcomes demonstrates that both hair analysis and urinalysis revealed more cocaine use than was admitted to by clients. While there were a few cases of cocaine positive urinalysis for those who denied cocaine use, they were markedly less than those revealed by hair analysis.

- The concordance between self-reported marijuana use and hair and urine assays is good. For both of these techniques the rates of detection are about 30%. Self-reported use and marijuana detections are not as strongly linked for IMS sweat swabs with a detection rate of 12%, and weakly linked with IMS particulate samples, with a detection rate of only 2.6%.

- The outcome for cocaine is substantially different than the marijuana results. Cocaine use is rarely self-reported by clients, but is the second most frequently detected drug by urinalysis and hair analysis. Cocaine use appears, as a consequent, to be substantially under-reported by juveniles in the program.

- Except for marijuana and cocaine, the self-reports of all other drugs and drugs identified by assay techniques are so low as to make comparisons generally uninformative (with the exception of the identification of LSD, as mentioned in a previous summary point). However, we do note the following: urinalyses revealed 16 positive specimens for benzodiazepines and 3 barbiturate positive specimens. There were 11 juveniles who self-reported lifetime use of "tranquilizers" and "sedatives". Of these 11, 4 persons reported some use of sedatives and 3 reported some use of tranquilizers within the prior 90 days.

- There were also 10 juveniles who tested opiate positive by urinalysis. There were 6 juveniles who self-reported some lifetime use of analgesics, and 2 who reported analgesic use within the prior 90 days. No client reported heroin use.

- There were 6 amphetamine positive urines specimens. There were 3 juveniles who reported some lifetime use of stimulants, and 1 juvenile who reported stimulant use on 4 occasions in the prior 90 days.

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Introduction

Juvenile Crime

The criminal justice system has been uniquely charged with the responsibility of monitoring the behavior of criminal offenders. One of the most critical areas of offender surveillance has been the intensive use of drug testing in a variety of settings. In virtually all circumstances, as a condition of probation, diversion, parole, house arrest, or other forms of non-incarceration sanctions, the condition of drug abstinence is a requirement of the eligibility for and continuation of participation in these types of alternative sanction programs. Historically, the use of drug testing has been largely associated in the popular culture with adult offenders. However, as the use of drugs and associated criminal activity have drifted into lower age groups, the monitoring of juvenile offenders has become more commonplace, and is now more readily used and accepted in criminal justice practice than at any time in the past.

Juvenile crime is a serious, costly, and widely recognized part of the general crime problem confronting American society. In 1999 alone more than 1.5 million juveniles (< 18 years of age) were arrested. If 18 year-olds are also included in the category of juveniles, then the number of arrestees 18 years of age or younger is greater than 2 million. Juvenile drug arrests constitute a substantial portion of the total arrests. Table 1 reports some data from recent measures of youthful offending for both general and drug-specific crimes.

Table One. Arrests, 1999, Uniform Crime Report

	Arrests, All Crimes	Arrests, Drug Offenses
Arrestees < 18 Years Old	1,588,839	128,286
Arrestees, 18 Years Old	460,578	67,123
Total, 18 Yrs. And <	2,049,417	205,409

U.S. Dept. of Justice, 1999, Federal Bureau of Investigation
Crime in the United States

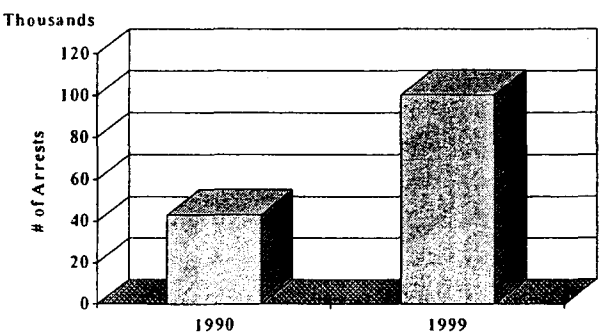
Crime prevalence research with juveniles continues to support the hypothesis that as the number of criminal justice contacts increase and as the juvenile ages, their criminal career is likely to lengthen and become more serious. Approximately 14.6% of juveniles are classified as "chronic offenders" having four or more referrals to the juvenile justice system. These offenders constitute about 45% of all delinquent referrals, and about 60% of the serious, violent offenses which juvenile justice authorities must confront each year (Office of Juvenile Justice and Delinquency Prevention, 1997). It indicates that there is support for the belief in a "core" of dangerous offenders. Furthermore, there is support for the hypothesis that these serious juvenile offenders are very likely to go on and offend as adults. Contemporary work has shown that the offense rate for these "grown-up" juvenile offenders is high, in the range of a 60% to

80% likelihood of arrest as an adult, with a substantial proportion having numerous, multiple adult arrests.

Drug Use and Juvenile Crime

Juvenile offenders have constituted an increasing segment of the drug-involved criminal justice population at all levels of interaction with law enforcement. The increase in juvenile drug arrests over the last decade, for example, as portrayed in Figure 1, has increased an astounding 132%.

Figure 1. Arrests for Drug Law Violation:
Arrestees < 18 Years of Age, 1990 and 1999



U. S. Department of Justice. Federal Bureau of Investigation. Uniform Crime Reports. 1999
U.S. Government Printing Office. Washington DC

Not only has drug use increased, but the availability of drugs to students within schools has also increased to the point of nearly universal proportions. Chandler et al., for example, report that currently 80% of 11th and 12th grade students report ready access to drugs in their school (Chandler, Chapman, Rand, and Taylor 1998). They also reveal that more than 50% of 7th and 8th grade students reported that they have had ready access to drugs in their school.

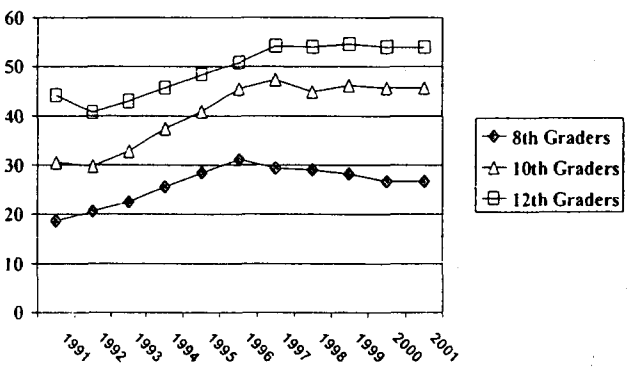
An important aspect of juvenile crime is the role of drugs in contributing to juvenile criminality and delinquency. The combination of substance-abusing behavior along with criminal activity is one the bleakest indicators of the future of a young person in America. As Vander Waal et al. have pointed out:

> For more than two decades, researchers, clinicians, and juvenile justice program administrators have known the link between drug use (including alcohol) and juvenile crime . . . Research indicates that juvenile drug use is related to recurring, chronic, and violent delinquency that continues well into adulthood. Juvenile drug use is also strongly related to poor health, deteriorating family relationships, worsening school performance, and other social and psychological problems. (Vander Wall et al., 2001, p. 1)

The relationship between drug use, drug sales, and criminality in juveniles is complex. It may involve both causal relationships (e.g., violence that emerges out of

disputes related to drug sales) or it may emerge as a correlate with other anti-social or criminogenic behaviors (e.g., failure to attend school due to drug use). Current monitoring has consistently shown that drug use is prevalent among in-school youth and is rising. Nearly half of all youth in school report having used a drug at least once by their senior year in high school (Johnson, O'Malley, and Bachman 2001). Furthermore, after a long period of steady decline since 1981, recent years have shown an increase in lifetime self-reported use of an illicit drug. Figures 2 shows the Monitoring the Future trend data for 8TH graders, high school sophomores, and high school seniors from 1991 through 2001 for lifetime use of an illegal drug. For high school seniors, this figure has been consistently above 50% for more than half a decade.

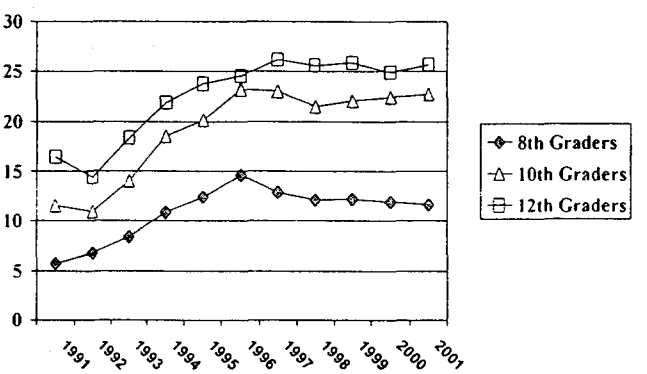
Figure 2. Lifetime Use Any Illicit Drug, 8th, 10th, and 12th Grade Students



Johnston, L.D., O'Malley, P.M., & Bachman, J.G. (2001)
Monitoring the Future national survey results on drug use, 1975-2001

Figure 3 shows data for the same time period for self-reported use of an illicit drug within the past month.

Figure 3. 30-Day Use, Any Illicit Drug, 8th, 10th, and 12th Grade Students



Johnston, L.D., O'Malley, P.M., & Bachman, J.G. (2001).
Monitoring the Future national survey results on drug use, 1975-2001

While not as high as the lifetime rates of use, high school seniors have shown a consistent rate of drug use at greater than 25% for the last five years. And 30-day past use in drug epidemiology is typically considered "current use". Thus by the measures of

the Monitoring the Future data one can argue that nearly one-quarter of high school seniors are current illicit drug users.

Consistent with the findings of the Monitoring the Future study, survey and urinalysis data for juveniles who are arrested demonstrates that there are even more dramatic findings for the degree of drug involvement. Table 2 presents findings from the National Institute of Justice's ADAM Program indicating that a very large number of arrested juveniles, tested at the time of arrest, are drug positive. On average, for example, more than one half of all juveniles test positive by urinalysis for an illegal drug at the time of their arrest.

Table Two. Percent Positive Urinalysis for Juvenile Arrestees in Nine U.S. Cities by Drug Type

City	Any Drug	Cocaine	Marijuana	Opiates	MAMP[1]	PCP	Multiple Drugs
Birmingham, AL	45.9	4.9	42.7	0.0	0.0	0.0	1.7
Cleveland, OH	62.0	9.3	59.7	0.3	0.0	6.4	12.5
Denver, CO	62.2	9.3	58.8	0.3	0.3	0.0	6.5
Los Angeles, CA	53.9	8.0	51.9	0.7	2.2	1.0	9.2
Phoenix, AZ	68.5	15.9	62.2	2.4	5.6	2.1	19.5
Portland, OR	43.3	2.5	40.9	2.5	4.9	0.0	6.4
San Antonio TX	56.1	7.0	53.1	2.6	0.4	0.0	6.6
San Diego, CA	56.8	2.5	52.5	0.4	15.8	0.7	14.0
Tucson, AZ	55.8	11.6	53.1	0.7	0.7	0.0	9.9
Mean Value	56.1	7.8	52.7	1.1	3.3	1.1	9.5

[1]Methamphetamine

Source: U.S. Department of Justice, National Institute of Justice, 1999 Annual Report on Drug Use Among Adult and Juvenile Arrestees, NCJ 181426, Washington DC, 2000, pp. 90-98

Responses to the Problem

The traditional strategy of the criminal justice system has been to rely on increased enforcement and enhanced sanctions in trying to control the escalation of illegal behaviors. Increasing the sanction intensity for juvenile drug offenses is one such approach. Another strategy used in dealing with juvenile crime is to increase the "waiving" of youth into the adult criminal justice system. The number of "waived cases" in juvenile justice has increased by 71% over the last decade (Office of Juvenile Justice

and Delinquency Prevention, 1997). The national average for waived cases is 1.52%, with crimes against the person having the highest percentage of waivers (2.7%) and drug offenses having the second highest (1.6%).

However, as the data have largely shown, these strategies, and similar punitive ones, are not likely to yield good long-term results (Reuter, 1991). As Lynch noted in his crime policy report for the Urban Institute, "for drug offenders, the prison stock increased eightfold during the 1980's, but there has been no demonstrable effect on reducing drug crime" (Lynch, 1997). Youthful offenders are often characterized by the "revolving doors" syndrome of arrest, release and re-arrest (Bureau of Justice Statistics, 1992).

As a consequence of the failure of purely punitive models a number of criminal justice practitioners and theorists have argued for a more nuanced approach. This alternative emphasizes early identification, response, and humane but effective intervention and accountability for juvenile criminal behaviors, especially those that involve concomitant substance abuse and alcohol abuse as part of the assessment profile of the offender. In general, advocates of this approach have argued that this type of model can offer an enhanced likelihood of long-term success with juveniles who are on a path towards escalating criminal and criminogenic behavior (Schinke, 1995).

The Balanced and Restorative Justice Model

A generalized model, which incorporates the principles utilized in the New Orleans Juvenile Diversion Program, is the "balanced and restorative justice model" (Bazemore and Umbreit, 1998). As Vander Waal et al. have stated:

> This juvenile justice model integrates the traditional rehabilitative philosophy of the juvenile court with increasing societal concern about victim's right and community safety. Specifically, the model strikes a balance among offender accountability (making amends to the victim and community), competency development (changing behaviors and improving functional skills), and community safety (protecting the community by carefully monitoring the juvenile's behavior). (Vander Wall et al., p. 2)

There are three keys elements in the application of the balanced and restorative justice model to practical implementation in a diversion setting:

- Graduated Sanctions
- Systems Collaboration
- Integrated Case Management

Graduated sanctions are designed to allow program staff to apply, when appropriate, the level of sanction consistent with the program violations committed by the program

participant. It has been characterized as a "carrot and stick" approach. Staff increases rewards (such as reductions in the degree of supervision) in response to improvements in behavior. Failures to comply with program requirements (e.g., a failure to remain drug abstinent) merit a negative sanction, such as increased therapeutic contact or more frequent and intensive levels of drug testing. *Systems collaboration* is the commitment that the diversion staff has to identifying and providing the appropriate range of services that assessment of the individual offender call for, and to do so in a coordinated and coherent fashion. Systems collaboration is accomplished through coordination by case manager of the kind of services required, and the timing and monitoring of the services. This desire calls into play the third key factor, *integrated case management*. This is the coordinating and monitoring function that the caseworker provides in following the transit of an offender as they progress through the diversion program. It includes the identification of, referral to, and monitoring of the variety of therapeutic and skills programs identified as important for the offender. As well, it involves the monitoring of the offender's behavior in order to determine compliance to program requirements. One critical aspect of this monitoring is the performance of drug tests.

The New Orleans Juvenile Diversion Program

Diversion Programs for non-violent drug offenders have become attractive in recent years as the number of criminally prosecuted drug cases has expanded and their claim on criminal justice system resources has grown. It is generally accepted that supervision of offenders in community settings is cost-attractive when compared to incarceration. As well, cost benefits are associated with Diversion Programs, which place offenders in supervised and regulated environments but do not require the costly processing associated with full-blown adjudication. There are other benefits in diverting non-violent offenders and keeping them in community life. There include, lower recidivism rates, less disruption of work and family life, and the potential for offering various treatment regimens to offenders in need of them. In such circumstances an important aspect of community acceptance of diversion is linked to the credibility of monitoring those offenders who enter programs for compliance to program requirements. The use of drug testing can be a major factor in helping these programs gain credibility and acceptance. Furthermore, drug testing plays an important role in the assessment and evaluation of program participants, and is viewed as valuable by program staff.

Certainly, this perception, based largely on experiences with adult diversion models can in many ways be extended to juvenile offenders. The structural aspects of this approach (reduced costs, expedited handling) are directly applicable, and the operational aspects (provision of counseling, maintenance in school settings, provision of necessary specialized services) can be well utilized in diversion of juvenile offenders. And it is probably safe to say the community attitude towards rehabilitative efforts has historically been high for juvenile offenders. In effect, in a community that is willing to divert adult offenders, is probably even more willing to divert juvenile offenders. Given the history of a successful adult diversion program in place, the District Attorney's Office and Adult Diversion Program staff designed, funded and implemented a juvenile

diversion program with the goal of providing a parallel experience for juvenile offenders consistent with the successful experience they had accomplished within the adult diversion program.

The Orleans Parish District Attorney's Juvenile Diversion Program was established to explore cost-effective, early intervention methods to reduce the rate of recidivism and drug use among first-time adolescent arrestees. It was designed to offer comprehensive services primarily through two intervention plans to address the use of drugs and associated problematic behaviors. The strategies employed in an effective delinquent youth substance abuse intervention program require the collaborative efforts of adolescent alcohol and drug treatment programs, the juvenile justice system, and the network of other social service community providers to successfully rehabilitate adolescent offenders. This program is committed to provide personalized services designed to reduce drug use, prevent further juvenile justice involvement and delinquent behaviors, strengthen familial systems, enhance and support educational participation, and promote healthier passage through adolescent developmental challenges.

Program Goals

The New Orleans District Attorney's goal was to develop an effective program to divert from criminal prosecution, eligible, non-violent, juvenile first offenders engaged in drug use, offering these youth treatment services to deter further involvement in drugs and crime. The overall goals of the Juvenile Diversion Program can be summarized in 10 major objectives. The program, by the adoption and pursuit of these objectives is designed to:

1. Reduce drug use by:
- Assisting diverted juveniles to become drug free during their involvement with the program;
- Providing access to a full range of comprehensive treatment services;
- Providing individualizing treatment-matching;
- Encouraging choice in the discontinuation of drug use after program discharge;
- Providing recovery and relapse prevention tools for those youth to maintain abstinence;
- Identifying and addressing co-existing mental health and developmental concerns;

2. Reduce criminal recidivism and delinquent behaviors by:
- Assisting diverted juveniles to make constructive lifestyle changes,
- Promoting awareness and avoidance of high risk activities (e.g. drug dealing, affiliating with drug using peers or family members),
- Encouraging adoption of prosocial behaviors and activities;

3. Provide consistent and immediate accountability of diverted juvenile offenders:

- Through a system of rewards and sanctions by diversion and/or treatment staff who meet regularly with clients to discuss their success or failure in meeting the conditions of their program;
- By providing close and frequent case monitoring and contact

4. Strengthen family relationships and communications of clients by;
- Encouraging participation of all persons in a parental, custodial, or supervisory role to the diverted juvenile (family participation is a high priority program goal);
- Providing education and support for parents/guardians about effective parenting techniques, drug education, and communication skills;
- Providing family counseling

5. Provide case management services to the juvenile and entire family to strengthen family and personal functioning by;
- Providing assessment of needs and referral services;
- Developing a referral network with community resources;
- Promoting direct contact and advocacy between service providers and juveniles and their families.

6. Strengthen juveniles' educational/vocational involvement and achievement through;
- Maintaining close relationships with school officials;
- Encouraging academic engagement though improved school attendance and decreased truancy;
- Providing advocacy to juveniles for readmission into school after expulsion/suspension or for entry into alternative educational settings;
- Providing tutoring assistance or access to community resources;

7. Promote healthy self-esteem and ego-development to juveniles through;
- Promoting positive relationships with staff, mentors or other adult figures who recognize and affirm the personal worth and strengths of each participant;
- Increasing clients' awareness of feelings and promotion of healthy self-expression;
- Increasing clients' insight into behaviors,
- Reducing influence of negative peer pressure,
- Increasing clients' choices and abilities to adopt constructive coping mechanisms;

8. Provide ethical treatment and quality assurance of services by;
- Providing appropriate clinical supervision of staff and frequent oversight of cases;
- Maintaining confidentiality of clients and records according to state and
- federal law;

- Monitoring, evaluating, and documenting the quality and appropriateness of intervention services;
- Employing professional clinical staff with direct experience in adolescent substance abuse treatment;
- Providing services in an environment that reflects dignity and respect of the population served.

9. Evaluate the effectiveness of the diversion interventions;
- On a longitudinal basis (6 and 12 months after arrest) by comparison of psychosocial, educational, drug use self report and drug testing results, recidivism measures at the intake, discharge, and follow-up data collection points;
- Conducted by research evaluators with quality checks on psychometric test scoring and data entry under proper authorization for research on human subjects

10. Provide cost savings to the criminal justice system by:
- Targeted early intervention in drug-involved behaviors through cost-effective strategies that reduce recidivism and the progressive expenses of habitual or violent offenders;
- Developing stable and adequate sources of program funding;
- Diverting as many eligible juvenile cases as funding allows,
- Maintaining appropriate caseload levels for optimal monitoring and provision of services;
- Creating eligibility criteria that is balanced for level of supervision and public safety/risk management needs;
- Avoiding redundancy of services in juvenile justice continuum;

The Diversion Process

Diversion offers the opportunity for an arrestee on non-violent offenses who would otherwise be charged and prosecuted for a criminal delinquent offense to enter a voluntary alternative program in lieu of the prosecution. Upon completion of the program conditions, the district attorney closes the case by refusing or dismissing the charges without further legal action. If the participant fails to successfully complete the program conditions, the district attorney files a petition that formally charges the offender with the originally diverted offense. Normal prosecution follows. There is no additional penalty for failing to complete the program. The program requirements are well defined in the program agreement that the juvenile and parent/guardian sign at intake. The case manager spends extra time to ensure that all parties understand the document.

The program provides a careful balancing of needs between public safety concerns for the community and the therapeutic needs of the offender. To complete the program, clients must comply with and complete a number of requirements which are

intended to provide: 1) adequate accountability for the offender through supervision and monitoring, and 2) services and support to the client and family to begin to address underlying issues that led or may have contributed to the criminal behavior. A generalized point-of-entry/point-of-exit path model of the Juvenile Diversion Program is shown in Figure 4.

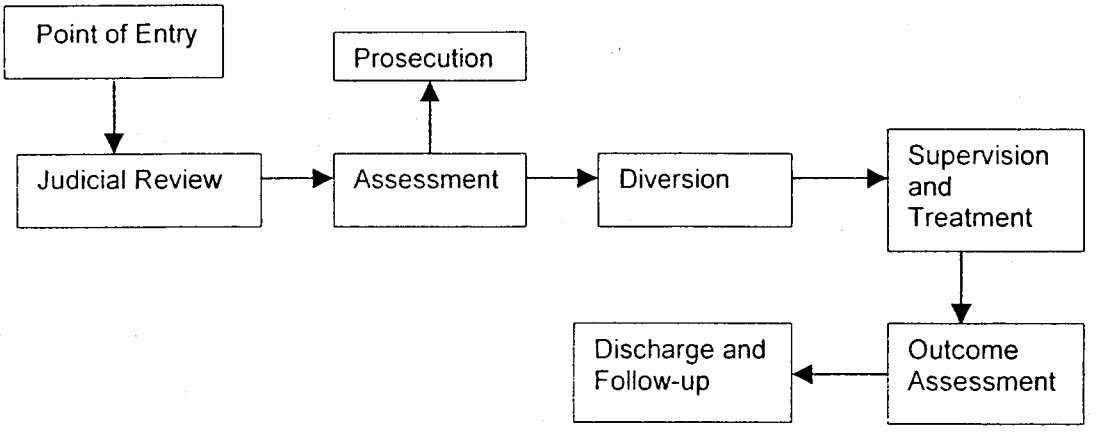


Figure 4. A Path Model of the New Orleans Juvenile Diversion Process

The Orleans Parish District Attorney's Office was initially funded in January 1993 by the National Institute of Justice to implement a Diversionary Program for first-time, non-violent adult offenders with substance abuse problems. Hair analysis based on RIA and urinalysis was incorporated into the monitoring protocols of this program. In 1996, the program was awarded a National Institute of Justice grant that added an ion mobility spectrometer to the repertoire of drug testing techniques. It uses these technologies in practical implementation, and also provides the opportunity to evaluate their use for purposes of research and evaluation. In 1998 the New Orleans District Attorney's Office received a grant from the Office of National Drug Control Policy to fund expansion of the diversion program to include juvenile offenders. However, funding to pay for the hair analysis and IMS testing was not been included in the basic operational grant, and the cost of these activities was funded by the National Institute of Justice (1999-IJ-CX-0018).

The Diversionary Program for juvenile offenders targets substance abusing first-time, non-violent offenders between the ages of 12 and 16 years (17 year olds are handled in the adult system in Louisiana). The identification of juveniles for program participation occurs by the following protocol: After a juvenile is arrested and taken into custody, assistant district attorneys (ADA's) in the Juvenile Division of the Orleans Parish District Attorney's Office screen the case for acceptance or refusal of charges. If the case is prosecutable, the ADA reviewing the case determines whether the juvenile meets Diversion criteria based on the prior arrest history and the nature of the arresting charge. Broadly, these cases fall into two categories; Non-detention cases and Detention cases.

Non-Detention Cases (i.e., those who are not detained after arrest): Non-detention cases include such charges as criminal damage under $500, shoplifting, and

other property offenses. The Diversionary Program contacts those eligible arrestees and their parents/guardians once a screening decision is made by the Orleans Parish District Attorney's Office in these non-detention cases. It typically requires 3 to 6 weeks for a charging decision to be made, awaiting a police report. During this 3- to 6-week waiting period the program staff administers to the "program-eligible" several screening measures.

Detention Cases: Diversion-eligible detention cases consist mainly of "simple possession" of narcotics violations. Juvenile cases that rise to level of potential detention are presented at a Detention Hearing the day following the juvenile's arrest. At the hearing, the District Attorney's Office makes a case decision regarding charging the juvenile. In cases where the juvenile meets the legal criteria for program participation, the District Attorney's Office "temporarily refuses" the case allowing time for staff to interview and assess the arrested juvenile for suitability for the program. The holding of the case in abeyance is a mechanism used to provide a suitable time period for interviewing, administration of the eligibility screening measures, and decision-making, with the goal of a 7 to 10 day disposition. Juveniles whose families refuse the program have charges accepted, and the prosecution proceeds as normal.

Case Identification

Shortly after a juvenile is arrested, the Juvenile Division of the Orleans Parish District Attorney's Office screens the police report to determine whether the charges will be accepted for prosecution or refused. If the case is prosecutable, the assistant district attorney reviewing the case will determine whether the juvenile meets legal eligibility criteria for Diversion that is based on the prior arrest history and the nature of the arresting charge. The District Attorney legal staff and Diversion Program staff developed this criterion. In developing criteria, it must identify a specific target population for which specialized services in the juvenile justice system are not currently provided. An important consideration is the development of criteria that nets a manageable number of cases in relation to the available resources of the program. Burdensome caseload sizes for this population are counterproductive, as addressing needs of this population is labor-intensive. These criteria are briefly stipulated in the following section, and covered in detail under the section Program Requirements.

Eligibility Criteria for Project Participation

The following list constitutes the Juvenile Diversion Program's Inclusion Criteria:

- A prosecutable, state arrest
- Ages 12 to 16 at time of arrest
- First-time offenders or those with a limited number of prior non-criminal status offenses or non-violent charges

- Residence in the greater New Orleans metropolitan area

- Evidence of alcohol abuse or other problematic drug use, abuse, or dependence by the juvenile through clinical screening, self-report, family member interview, and drug test results, if available.

- Agreement by the juvenile and parental/guardian through signed consent to enter the program.

- The juvenile must acknowledge culpability in the offense

- Full restitution of any monetary damages or loss must be made prior to program entry, if applicable.

Exclusion Criteria:

- Excludes any charges of violence, weapons, sex crimes, possession with intent to distribute narcotics (unless the arresting charge would be reduced to "simple possession") and home burglary.

- Excludes any current or previous charges of violence, weapons possession, sex crimes, arson, home burglary, distribution of or possession with intent to distribute controlled dangerous substances, and auto theft (unless considered a "joy riding" situation in which the juvenile is a passenger, not the driver and drug use is involved). Due to the varied circumstances surrounding an arrest, some exclusionary criteria may, on occasion, be waived when the overall governing factors are reviewed with the juvenile, family, chief assistant district attorney of the Juvenile Division, and Diversion.

Initial Intake and Eligibility Screening

Juveniles presented for eligibility determination receive the following battery of screening instruments as a part of the intake procedure:

- *The Juvenile New Orleans Target Cities Project Intake Assessment (JNIA)*

The JNIA was designed to serve as a standard biopsychosocial assessment with integrated components for screening, diagnosis consistent with DSM-IV (1994) criteria, treatment planning, outcome monitoring, and evaluation. It includes the following sections:

a) The *Substance Abuse Section* consists of a structured interview that includes the following scales: 11 item Substance Problem Index, 17 item Substance Dependence Index, 14 item Substance Abuse Index, and 20 item Substance Withdrawal Index. The JNIA questions check for major problem areas and any recent incidence of problematic behaviors. Main Symptom count indexes also provide DSM-IV diagnostic recommendations.

b) *Suicide Screening Section* - If the individual responds positively to a direct question about thoughts of suicide within the last 90 days, additional questions are asked about the frequency of these thoughts and any suicide attempts.

c) *Overt Aggression Screening Section* - This consists of 10 yes/no questions concerning overt aggression in disagreement with other people. These range from insulting another to actually using a weapon against another.

d) *Short Blessed Scale Exam* - This is a status exam designed to detect Intoxication or lack of touch with reality.

- *The Kaufman Brief Intelligence Test (K-BIT)* is a brief, individually administered measure of verbal and nonverbal intelligence of a wide range of children, adolescents, and adults, spanning the ages of 4 to 90 years. It is composed of two subtests: Vocabulary (including Part A, Expressive Vocabulary and Part B, Definitions) and Matrices. The K-BIT's standard scores were normed to have the same metric as numerous intelligence and achievement tests, permitting direct comparisons with global scores earned by an individual on Wechsler's (1974, 1981, 1989) series of scales.

- *Conners' Rating Scales – Revised* is administered on an as-needed basis to screen for Attention Deficit and Hyperactivity Disorder. This instrument was added well after the start up of the project as an additional tool for problem identification. Appropriate treatment resources for those screened with ADHD often fall short of the treatment needs for indigent youth.

Program Requirements

The Diversion Program is voluntary. To enroll, the juvenile and family must agree to the following program conditions that are requirements to complete the program and to have the delinquency charges dismissed. The juvenile and parent/legal guardian must sign a contract or agreement to these conditions to enter the program. If a juvenile is admitted into the Diversion Program, they are required to conform to and complete program requirements. If they are successful in this, it will result in the case dismissal and a cleansed arrest history.

The program has a series of fundamental conditions to which the client must agree. These are:

- Agree to meet with their Diversionary Program Case Manager weekly, with the possibility of earned benefits to reduce the supervision schedule upon program compliance and progress.

- Parents are required to participate in the intake process, attend family sessions with the Diversion case manager, and participate in the parenting education and drug information sessions.

- Agree to be alcohol/drug-free for the duration of their participation and to avoid situations where drugs or alcohol are unlawfully used, dispensed, or sold. The youth must agree to be alcohol and drug free or accept treatment that is more intensive if unable to do so. Tobacco use is also discouraged and forbidden on program premises.

- The youth and parent must consent (by signing an authorization for release of information) to allow the case manger to maintain contact with the school regarding their progress. The youth must be enrolled in an educational program while in Diversion.

- The youth cannot leave the state without staff permission during the time they are in the program.

- The youth must submit to urinalysis on a random basis, averaging 2-3 times per month, with greater frequency immediately upon program admission.

- The youth must submit to ion mobility spectrometry testing as deemed necessary by the case manager

- The youth must submit to baseline, midterm (felony cases only), program termination, and follow-up hair analysis.

- Agree that the juvenile/family will pay full restitution, when applicable, in a property offense as determined by the assistant district attorney.
- Agree to be subject to sanctions for program violations that can include extended time in the program, an increase in supervision schedule, additional 12-step meetings, and/or placement in an inpatient or residential drug treatment facility. Program violations include;

    - Unexcused absences with the treatment provider or the Diversionary Program staff
    - Missed or positive drug screens
    - Curfew violations, or
    - Non-compliance to any other program conditions

The youth must not be arrested for any new violation. If a juvenile is re-arrested and charged with new offenses, immediate termination from the program will result.

- Understand that he/she will be offered placement in an in-patient or residential program for failure to acquire a drug-free status as an alternative to unsuccessful termination from the program.

- Agree to comply with curfew restrictions per local city ordinance.

- Agree to comply with a "no weapon" restriction while in the program.

- Understand that their Diversion Case Manager will provide case management services to the juvenile and family in collaboration with the treatment program in which the juvenile is participating; this will include referral for psychiatric evaluation, as needed, at the LSU Department of Psychiatry.

- The youth must successfully complete the individualized primary intervention services (drug education, outpatient, intensive outpatient, detoxification, inpatient, residential services or other tailored treatment). In addition, other program activities include case management services and family sessions, drug testing, and other prescribed ancillary services.

- The youth must not threaten, harm, or damage any person or property involved with the program.

- The youth must notify the program of any change of residence.

The youth has the right to voluntarily withdraw from the program at any time. This will result in the original charges being accepted for prosecution. The juvenile's case returns to Juvenile Court and enters the normal judicial system as with any other non-Diversion case. There is no penalty for withdrawal.

Violations and Sanctions

Violations of these conditions usually result in a sanction or consequence that best fits the violation and the individual. Typical violations are a positive drug test, missed appointment with Diversion case manager, or missed treatment sessions. Sanctions are intended to be motivational and therapeutic in nature and not strictly punitive. They need to be dispensed as a timely response to the violation so that participants quickly learn that an infraction will not be overlooked. The expectation that the violations will be consistently addressed is, in itself, an important intervention. Depending upon the violation, the following options are used to respond to the violation.

- Increased frequency of contact with case manager
- Increased frequency of drug testing
- Intensified or lengthened treatment
- Additional time in the Diversion Program
- Volunteer work
- Additional recovery-based assignments (e.g. completing step work) or other homework assignments
- Participation in 12-step groups (or increased frequency)

Another therapeutic approach that is used is called "Meet the Team" in which the client meets with the Diversion team, comprised of all four case managers and at least

one supervisor. The parents are typically included in at least part of this meeting to keep them engaged in the close and unified attention on this youth. This is used particularly when a client is continuing to test positive for alcohol or drugs but denies use or when program absences become problematic. If intensification in treatment and other therapeutic interventions fail to keep a participant from drug use, the client may ultimately be given a choice of residential treatment or a return to court.

The ultimate sanction is termination from the program. Some violations warrant immediate termination, as in the case of a rearrest on a non-status offense charge. This exception is for a curfew or truancy violation that occurs shortly after the youth enters the program when the youth is not yet well integrated into the program. Like a voluntary withdrawal, there is no additional penalty that follows the child to court.

Incentives

The major incentive for the client is program graduation and dismissal of charges. A graduate receives a Certificate of Achievement signed by the District Attorney and other staff. Clients also receive a discharge photo of themselves with their parent(s) and case manager.

In addition, an on-site group celebration (with food) is held at the completion of the 16-week drug education group. Food is a positive incentive for many of these clients. Snacks are routinely provided when they come for their meetings at the District Attorneys office, since they typically come directly from school in the afternoons. Bus tokens or passes are also provided to clients to attend all case management and treatment sessions.

There are also intrinsic incentives for clients through their attendance in the program that can be highly reinforcing. These benefits include developing a relationship with a safe adult, positive supportive relationships with other peers going through many of the same life struggles, and structure for those clients who may be experiencing chaos in other life areas. Verbal praise offered from staff when a client demonstrates progress and improvement seems to have significant meaning to many participants. Another minor incentive for positive progress is excused absences from the program. This may occur when a family wishes to take their child away for a family vacation or other trip or when the client wants to participate in an extracurricular activity that would conflict with the program.

Drug Analysis of Urine and Hair Specimens: Background Literature

Urinalysis

As Deschenes and Anglin (1992) have noted, when drug testing is done in supervised programs there are "significant deterrent effects" to further drug use. They have also shown that legal supervision without drug testing is no better and "sometimes worse than no supervision at all." The "key to effective supervision" is the ability to carry out "objective confirmation of drug use" (Speckart, Anglin, and Deschenes, 1989). Urinalysis has clearly been shown to be superior to lack of any drug testing. Findings from this program suggest that the use of hair analysis improves compliance even more. However, hair analysis is relatively expensive (approximately $40-$50 per test). The introduction of testing procedures that, on a per-test basis, are relatively inexpensive but can identify both short term and long term drug use would be a major improvement for such programs.

Historically, monitoring offenders for drug use has relied almost exclusively on urine testing. In criminal justice drug monitoring there are three major limitations associated with urinalysis. These are:

- The relatively short retrospective window of 48-72 hours for cocaine, heroin, and several other popular drugs.
- The inability to effectively estimate intensity of use by measuring the concentration of drug or drug metabolites in urine.
- The relative ease of manipulating testing circumstances to either defeat the urine test entirely, or to minimize the likelihood of being detected. This is especially acute for detection of crack or other types of cocaine use.

The short retrospective period for urine tests is a serious operational limitation in many settings. In recent years one of the most common drugs of abuse in criminal populations has been cocaine. Because of the rapid rate of excretion of cocaine, it is effectively undetectable in the urine within 48 to 72 hours after use. This imposes a significant limitation on supervisory effectiveness, and also adversely effects the morale for those working in criminal justice agencies with drug-abusing populations (Mieczkowski, Newel, Allison, Coletti, 1994). For example, a sense of frustration develops in the supervisory staff and a cynical attitude may also develop in the clients. Clients come to believe that the probabilities of being detected as a cocaine or heroin user are rather small in most "real-world" operational conditions. Unless agencies are willing to carry out nearly continuous testing, the likelihood of detection for any one-use episode is often remote. Fiscal and staff size constraints mean in reality that supervising agencies typically target a goal of testing clients once a month. Many test considerably less than that. Even under a regimen of random testing, manipulating the circumstances to produce a delay in reporting for a urine test, even by as much as a single day,

substantially increases the probability that a person who has used cocaine or heroin will evade detection.

Hair Analysis: Expanding the Window of Detection

Hair analysis can reveal exposure weeks prior to the testing period. Because many drugs are entrapped and stabilized in the hair as it grows, hair acts like a slow running "recording tape". Every ½" of scalp hair represents approximately 30 days of exposure. Thus hair can be cut into sequential segments, and analysis of those segments can reveal a temporal pattern of use. Hair specimens also have several other desirable properties:

1. When used in combination with urine testing, hair assays offer the clinician the capability of long-term and short-term detection of drug exposure.

2. Hair analysis also can aid in determining the extent of use by giving a quantitative reading of the hair specimen, so that the pattern of exposure of several hair segments can aid in interpreting the present status of the client. The ability to estimate dosages is not possible, but the relative ranking of samples can be useful. Also, individuals from whom one has gathered sequential samples over time can act as their own control. Thus, they can have their hair specimens analyzed to track the shedding of drug from hair or to identify and coordinate "spikes" in the segments to known consumption or exposure events. (Martz, Donnelly, Fetteroff, Lasswell, Hime, and Hearn, 1991: Staub, 1992: Cone, 1990: Uematsu, 1992: Brewer, 1995).

3. Hair specimens are difficult to manipulate compared to urine specimens. As a consequence, strategies designed to evade detection are much less likely to succeed. While quantitative levels can be modified, even rather harsh cosmetic treatments of hair cannot remove sufficient material to defeat an assay (Allgood, Sniegoski, Welch 1991)

4. Repeat tests can be done which cover any time frame. Evasion strategies premised on delaying testing are not viable. This has practical importance for scheduling client testing and for managing clients who fail to appear for testing appointments. Supervisory personnel and clients alike generally view the process of hair specimen collection as less invasive, embarrassing, and cumbersome than the collection of urine specimens.

In early work on the use of hair assays in a criminal justice population, Baumgartner et al. (Baumgartner, Hill, and Blahd, 1989) reported on testing hair samples from federal probationers and comparing the outcomes to the probationers' self-reported drug use and urinalysis testing for drug use. Their work showed that the rates of discovery of drug use compared to either self-report or urine tests were much higher for hair assays. Two years later Baer and his colleagues (Baer, Baumgartner, Hill, and Blahd 1991) conducted a retrospective study comparing self-reported drug use, urinalysis outcomes, and RIA of hair outcomes in a probation and parole population of approximately 200 subjects. Hair analysis increased by 25% the detection of persons

who were cocaine negative by self-report and urine test but positive by hair assay.

Work with other criminal justice system subjects has generally supported these same conclusions (Magura, Freeman, Siddiqi, and Lipton 1992). For example, Mieczkowski, Barzelay, Wish, and Gropper (1991) reported on the use of hair samples to assay self-reported cocaine use among arrestees. They reported substantially more cocaine positive hair samples than urine samples. Mieczkowski et al. (Mieczkowski, Newel, Allison, Coletti 1994) reported similar findings for probationers in Florida. Recently Knight et al. (Knight, Rwan-Szal, Hiller, Chatham, Simpson 1995) reported similar findings in Texas. These results have also been reported among juvenile offenders (Feucht, Stephens, Walker 1994: Gropper, Newel, Mieczkowski, Feucht 1995) and in specialized circumstances, such as with pregnant women Callahan, Grant, Phipps, Clark, Novack, Streissguth, Raisys, 1992: Marques, Tippetts, Branch, Marques 1993: Graham, Koren, Klein, Schneiderman, Greenwald, 1989). When persons in treatment are tested, opiates and cocaine results for hair and urine assays are reported as highly concordant (Wish, Hoffman, Nemes 1995).

Application of Drug Assay Technology in the Juvenile Program

Juveniles in the diversion program are subject to drug monitoring by urinalysis, radioimmunoassay of hair, and IMS analysis during their entire tenure in the program. Drug testing is a critical aspect of the ongoing monitoring, counseling, and case management of each adolescent participant. It provides objective feedback on drug use at program entry and throughout the program, abstinence being a goal and requirement. Testing is also an important tool in formulating treatment plans. It offers critical information to parents who may be unaware of or in denial about their child's use of drugs and promotes a reality-based therapeutic intervention with the juvenile. In keeping with the program goal of engaging parents/guardians as much as possible in the program, all positive results are discussed with at least one parent, preferably during a family meeting.

The testing program is unique because of the multiple means of drug detection. In all testing methods, quantitative values are reported so changes in drug use can be tracked. While urine testing is the most common and useful method of drug detection, it has great fallibility due to the variety of ways a person can evade detection. Considerable professional literature supports the merits of other matrices for analysis. The Diversion case managers are all trained in proper collection procedures for each testing method to assure accurate results and health-safety collection techniques.

Urine Screening

With parental approval, the first urine collection is requested from the adolescent at the first contact at court, shortly after the juvenile is released from detention and offered the opportunity to consider the program. Urine testing is conducted unannounced on a quasi-random basis with each participant, averaging about 3 times per month. The Diversionary Program staff creates a random drug testing schedule for each case manager such that, for example, all clients of a particular

case manager would be required to be tested on that same day. Juvenile clients are required to call a recorded message line every weekday after 9:00 AM to determine if they must report that day to provide a urine specimen. If informed by phone that it is their testing day, they must report that same day for a drug test. Clients who continue to use drugs, or who are at high-risk to do so, are tested more frequently. Direct observation of urine collections is conducted but restricted to same gender participant and observer.

The Tulane Drug Analysis Laboratory, a licensed and certified laboratory, provides analysis of urine for presence of drugs. Collections of specimens are done by same-sex personnel at the location of the District Attorney's Juvenile Diversionary Program and/or the comprehensive treatment program as appropriate. The urinalysis is a 10-panel drug screen that includes amphetamines, cocaine, opiates, PCP, marijuana, barbiturates, benzodiazepines, methaqualone, methadone, and propoxyphene. When a presumptive positive urine result is received, the client is asked to sign a form in which one of two options must be selected: 1) admits to drug use, or 2) contests the results. For contested results, the laboratory is requested to perform gas chromatography/mass spectroscopy testing on the same sample that was reserved for a possible confirmation request. This process virtually eliminates the possibility of false positives. If the presumptive positive is confirmed, the family pays the cost of the confirmation unless financially unable to afford this. This minimizes superfluous challenges.

All test results are be confidential within the DA's Diversionary Program and are **not** be used as evidence against the juvenile in the event of prosecution of any charge. Release of drug testing results is done only with signed authorization for release of information.

Hair Testing

Once a juvenile agrees to enter the program, an entry hair sample is taken. This is followed by a sample collection every two to three months. A final hair test is taken at the time of the scheduled discharge to assure that clients leaving the program have substantiated abstinence for the prior 2 to 3 months, at least for the drugs that are tested.

Psychemedics, Inc., a licensed clinical laboratory specializing in hair analysis, performs the analysis of hair samples for all participants in the diversion program, both adult and juvenile. An initial hair sample is collected as a baseline measure once a participant is admitted into the program. A second sample is taken at a midterm point with felony cases to monitor possible drug use and compliance to conditions. All participants have hair specimens collected at the discharge point (at 4 month or 6 month post-project entry, depending on initial charge). A final sample is collected at 6 months post-program discharge for this group of juvenile offenders.

Psychemedics, Inc., uses an analytic method based on radioimmunoassay (RIA), a sensitive technology for screening hair specimens. All samples that are positive by the

RIA screen are confirmed with GC/MS or GC/MS/MS. The standard panel for hair samples includes cocaine, opiates, marijuana, methamphetamine, and PCP. Psychemedics has established reliable methods for distinguishing external from endogenous deposition through their washing and testing the wash protocols as well as relying on the detection of drug metabolites.

Hair testing, coupled with urinalysis, has been a standard protocol in the adult Diversionary Program for nearly five years. The experience of the New Orleans Adult Diversion Program has demonstrated the utility of this approach for staff, and the enhanced confidence staff has in assuring that clients are conforming to program requirements for drug abstinence. It has been an especially effective tool for cocaine detection, and counselors in the program report that clients exhibit greater resistance to relapse to drug use. Furthermore, the program has received broad public support, and support from others within the criminal justice as a whole, because public confidence in detecting violators is enhanced by the use of hair and urine tests in combination.

The enhancement that hair testing brings to the program is its greatly expanded time window for the detection of exposure to several types of illicit drugs in comparison to sole reliance on urine testing. Hair analysis can reliably reveal exposure several weeks prior to the testing period. Hair specimens also have other advantages. When used in combination with urine testing, hair assays offer the clinician the capability of long-term and short-term detection of drug exposure. Hair analysis can aid in determining the extent of use by giving a quantitative reading of the hair specimen, so that the pattern of exposure of several hair segments can aid in interpreting the present status of the client. Hair specimens are also very difficult for clients to manipulate, compared to urine specimens. As a consequence, strategies designed to evade detection are much less likely to succeed when both hair and urine are collected. Since hair growth is relatively slow, repeat tests can be done which cover most time frames by re-sampling. Thus, evasion strategies premised on delaying testing (often used in urine-only situations) are not viable. Therefore, the use of hair analysis has tremendous importance for practical matters such as scheduling clients for testing and responding to clients who fail to appear for urine testing. Supervisory personnel and clients alike typically view the process of hair specimen collection as less invasive, embarrassing, and cumbersome than the collection of urine specimens.

Ion Mobility Spectrometry (IMS)

This third method of testing is particularly unique to this program. IMS technology was first used in this office's adult program as a National Institute of Justice-funded investigation into its usefulness in supervising offenders. IMS testing is very helpful in determining whether the youth has been around drugs. It offers the opportunity to open a therapeutic dialogue with the client about potential or ongoing problematic lifestyle issues, such as drug cooking, preparation, packaging for distribution, or selling. It may uncover other environmental situations that greatly affect the youth's life, such as homes in which parents or other family members are involved in

drugs. The opportunity to have an indicator of this underground activity is highly useful. IMS results are not used, however, for sanction purposes in the program.

In this method, participants' clothing and hands are routinely vacuumed and analyzed for particles of drugs, and an alcohol-pad swipe of neck sweat is collected and analyzed. Cocaine is the main drug of detection. Each juvenile referral had an IMS-based a skin wipe, and a ten-second vacuum scan of their clothing, and hands. At subsequent visits each juvenile had a repeat of the IMS scan utilizing a skin swab, and a scan of clothing or body area. Clients had additional vacuum scans done of other clothing (hats, etc), hands, pocket interiors, and similar sites when deemed appropriate by a counselor. The spectrometer is programmed to detect 12 different drugs, including metabolites, in one analysis. It can be programmed for a broader range of drugs that may be more prevalent in different geographic areas.

The IMS is a highly sensitive analytic chemical detector. The IMS is a "time of flight" instrument based on the ionization and movement in an electromagnetic field of an unknown analyte. The ionized material of interest is introduced into a "drift tube" followed by the detection and recording of the collision of the ionized material with a collector plate. The combination of the length of time of the material in the drift tube (the drift time) plotted with the energy detected by the collector plate produces a characteristic "signature"- a plasmagram - which can be uniquely associated with a known material. A complete treatment of IMS technology and its development can be found in Eiceman and Karpas (1994). The conceptual basis of IMS identification is premised on identification of ion velocities measured during a process of acceleration or "drift" in a weak electromagnetic field. Substances of interest are characterized by a unique ion mobility (K). Unknown materials subject to IMS analysis are identified by comparison to a library of known values of K, and a match of these values is the basis for identifying the unknown substance. Vaporized material enters the reaction region where an energy source and a reactant material create ionized molecules of the desorbed substance. These materials are injected into the drift tube in a series of pulses, and accelerated in a weak magnetic field. At the distal end of the drift tube they strike a detector plate, which measures an electromagnetic pulse that is recorded on a signal detector. In general, the ions created by the ionization process in an IMS are "robust, long-lived, low-energy species that retain, as well as can ascertained, much of the original shape and size of the [parent] molecule" (Eiceman and Karpas 1994). Because these product ions have unique characteristics that affect the ion's dynamics in the drift region, the drift time can be used as a unique identifier.

The output of an IMS instrument can be displayed as a graph that tracks the amount of time the ionized molecule travels through the drift tube and the amplitude of the detected signal the ion produces when striking the collector plate. The technological basis of the IMS is well established, and has already been applied in areas such as explosives detection, chemical warfare detection applications, and environmental toxin detection. IMS technology is currently used for detection of drug traces by a number of federal agencies, such as the Coast Guard, Customs, the FBI, the DEA, and the various

U.S. military services. The primary features of the IMS that are relevant to our concerns as a drug-testing instrument are:

(1) The high sensitivity that the instrument possesses (the pico- and nanogram range).

(2) High analytic specificity using plasmagram spectra profiles

(3) The capability of making identifications of multiple compounds simultaneously

(4) Very rapid analytic output from the device even when used in field applications. The IMS cycles in about 5 to 8 seconds

(5) A potentially low cost method for analyzing certain specimen types, such as hair, whose analysis costs are presently relatively high. This potential is dependent on the number of screenings a program conducts and is most relevant to programs engaged in high volume testing.

(6) The potential of the device to test many different types of specimens including urine, hair, sweat. saliva, and other materials suspected of being drug contaminated, such as pocket lint, clothing swatches, etc.

An additional advantage of the IMS as opposed to immunoassay-based testing is the ability to analyze novel substances without developing specific reagents. The IMS can be programmed for a variety of substances, so that the device is relatively easy to adapt to newly emerging drugs.

IMS has proven to be important on-site testing because it has permitted the quick identification of persons who are apparent drug negative clients, that is, who lack any apparent drug contamination. Furthermore, IMS has been important in giving guidance to counselors who can identify potential involvement in drug selling, packaging, or manufacturing, activities which are associated with high levels of drug contamination. A complete and comprehensive discussion of this can be found in our recently submitted Final Report on the use of the IMS in the adult diversion program and other publications (Mieczkowski, Mumm, Connick, 1998; Mieczkowski, 1998).

Purposes of Multi-specimen Drug Testing in the Diversion Program

The New Orleans Juvenile Diversion Program employs RIA hair analysis, urine assays, and ion mobility spectrometry (IMS) scans for the purposes of objectively evaluating drug use and drug contact. The program recognizes that the use of bioassays for drug use detection is not without complications and difficulties.

In the Adult Diversion Program's extensive experience with adult offenders, program staff has come to deal with many questions and controversies about drug use and exposure. Interpretation of test results and correlation with particular behaviors

arise between supervising staff and offenders under supervision even with the relative rigor of the multiple types of drug tests. Occasionally, for example, results may be contradictory for the two specimens and this cannot be readily resolved. Sometimes an outcome pattern that is rare may be of concern (e.g., a client has a negative hair assay but a positive urine test for a rapidly excreted drug like cocaine). Periodically an offender may express strong and convincing denial of drug use in the face of apparently clear assay evidence from both types of specimens, but show high degrees of drug contamination of clothing, skin, and sweat by IMS testing. Clients may sometimes offer explanations for drug positive results that the counselor has difficulty finding credible. Experience with the adult diversion clients have shown that in such circumstances the use of multiple test types done over several periods of time often provide information that can help resolve doubts or corroborate explanations. Furthermore, enhanced testing of clients, we believe, can reduce or deter spurious claims of assay error.

Intervention and Treatment Services Provided in the Juvenile Diversion Program

Initial Treatment Planning

Upon completion of the initial clinical assessment, client cases are staffed to determine what service elements are appropriate for inclusion into the initial treatment plan. Decisions are made in a group setting involving case management staff and clinical supervisors. Many factors help determine the appropriateness of treatment options. These include prior treatment experience, level of substance use, mental health issues, family situation, level of aggression, school performance and any other environmental stressors that might affect the individual's participation in treatment. The vast majority of clients referred to this program have been adolescent males. Communities who experience a larger proportion of female arrests need to specifically look at developmental and social issues related to adolescent girls involved with substance use.

Outpatient levels of care have been primarily used to meet the needs of most clients presenting with varied biopsychosocial backgrounds. The majority of clients receive either an intensive outpatient treatment program or a drug education intervention with accompanying parent support services, both programs offered during after-school hours. In all cases, individually tailored case management referrals for ancillary services are made for other client and family needs as assessed. A smaller number of participants are assessed to need immediate residential support, inpatient treatment or medical detoxification or other mental health intervention. Families in which violence is suspected may also warrant immediate notice to the state child protection agency.

The same case management staff and clinical supervisors continue to meet on a regular basis thereafter for reassessment of the treatment plan throughout the client's enrollment.

Afterschool Intensive Outpatient Treatment Program

Ruach Inc. established the Ruach Restorative Program (RRP) to meet the intensive outpatient substance abuse treatment needs of the Juvenile Diversion Program. In planning the Diversion Program, there were no existing adolescent intensive outpatient services in the community. It was anticipated that a sizable portion of the juveniles entering Diversion would need this level of treatment and, in fact, over thirty-five percent (35%) of all clients were so assessed. Services were tailored for Juvenile Diversion clients. One significant advantage of this arrangement is the ability to send juvenile clients for timely psychiatric assessments at RRP prior to a treatment plan decision or for emergency evaluation purposes. This eliminated the problem of securing assessments elsewhere in the community that often result in delays and communication hurdles. Another significant advantage is the proximity of the program to the District Attorney's office, 1-1/2 blocks away. This assures ease of communication between programs.

The RRP treatment curriculum meets the guidelines established by the State of Louisiana for licensed intensive outpatient substance abuse treatment programs, which require established policy and procedures to ensure the delivery and documentation of appropriate clinical interventions while protecting the integrity of every client. RRP recognizes the often difficult and crucial developmental tasks of adolescents in the context of substance abuse. Interventions aim to counter the negative and regressive impact of substance use in the lives of enrolled adolescents and to assist youth to become more active, growing, responsible, and positive members of their families and communities.

Staff selected for the program represents the cultural diversity found in the client population. The program also incorporates many cultural factors in its design. For example, the program was placed at a central location easily accessible on bus lines throughout the city, and bus passes and tokens were provided to minimize transportation barriers.

RRP Intake

The RRP clinical coordinator attends the weekly Diversion case staffing that considers client placement into RRP through discussion about the suitability of the client for the program. If agreement occurs, the Diversion case manager arranges an intake interview for the client and family and provides the pertinent assessment information to RRP.

The RRP clinical coordinator meets with the prospective client and his/her legal guardian to discuss treatment expectations and guidelines for program participation. Each client is assigned a primary counselor who conducts a psychosocial assessment and develops an initial treatment plan with the client. The treatment plan is submitted to the treatment team for approval within five days of the treatment start date. The client also meets with an RRP teacher to define academic goals while participating in RRP.

Once a juvenile is attending the program, the treatment team meets at the end of each week to discuss client progress and modify treatment and academic plans accordingly.

RRP Treatment Schedule

The average length of stay for the majority of Diversion referrals (those with misdemeanor 'simple possession of marijuana' charges) is sixteen weeks. The first twelve weeks are dedicated to primary treatment. The client attends sessions Monday – Friday from 4:00 PM to 7:00 PM. Each client is assigned to a group, which is led by the primary counselor. Snacks are provided to the clients during the first activity, the milieu/community group. Any variation in the schedule is planned in advance and dependent upon the community's health, i.e. degree of participation and progress.

Treatment interventions include group sessions (process, family, substance abuse education, and life skills training), individual sessions, family sessions, and academic tutoring (group and individual). A multi-disciplinary treatment team that includes a psychiatrist, social workers, marriage and family therapists, substance abuse counselors, teachers, and volunteers provides the treatment interventions. To address issues specific to the treatment population and offer comprehensive services, RRP established relationships with other community agencies such as NO/AIDS Task Force, Planned Parenthood, LSU 4-H Extension Services, and the Substance Abuse Services Alliance. These agencies provide weekly seminars and educational materials for RRP clients.

RRP Drug Testing

RRP clients submit urine samples based on a pre-determined schedule developed by the Juvenile Diversion Program. In addition, however, RRP staff may require a drug test from the client at any time if there is suspicion of drug use. Any positive drug test results are reviewed at the RRP weekly staffing to discuss any changes in the client's treatment plan.

RRP Aftercare

If the client meets established treatment goals (attendance, completing assignments, appropriate clinical progress, remaining drug free, and other clinical milestones), he/she is promoted to the aftercare phase. Aftercare meets weekly for a minimum of four weeks or up to twelve weeks for felony cases. During this time, the client is expected to finalize relationships with groups or individuals that will serve as support once participation in RRP ceases.

Coordination with Diversion Case Management

Once per week, the RRP clinical coordinator attends the Juvenile Diversion staffing. Not only are new cases for RRP considered, but progress on each of the current RRP Diversion clients is also reviewed. In this way, any changes in treatment

plans and any sanctions necessary for program violations can be jointly coordinated. The results of this collaboration are very beneficial as the treatment team and Diversion staff (case managers and supervisors) share impressions of the client and consider appropriate interventions. On occasion, there are disagreements between programs about recommendations for the client that cannot be reconciled. In these cases, Diversion staff has the final decision.

It is not unusual for the juvenile client to attempt "triangulating" between programs, sharing different information with each party. This dynamic may mirror a similar behavior that the juvenile uses with parents. The program collaboration tends to keep this in check. There are other times when a client is called in for a joint staffing with RRP and Diversion. This unity of support provides a good psychological structure for the client to receive compatible information.

RRP Treatment Modalities

Group Counseling

Group counseling is a mainstay of the treatment program because of the positive pressure it provides and is an important part of treatment for this age group. Frequently the peer group is the most effective modality in achieving therapeutic gains. The adolescent-specific group process enables the adolescent to look at him/herself in relation to and about family, peer group, community, and society. An eclectic approach to group therapy is used with the therapist as the choreographer-leader and the adolescents actually setting the pace and the tone as they help each other.

Individual Counseling

Individual counseling is supportive and important in relation to the group process. In these face-to-face meetings with the counselor, individual treatment issues are discussed for the formulation and ongoing development of the individual treatment plan. Adolescents, because of their life experience, need new and affirming relations with adults who serve as both role models and authority figures; therefore, the relationship between the adolescent and the counselor is of great importance. The unspoken aspects of the individual counseling relationship are often as important as the words exchanged.

Individual counseling must be used in relation to and in support of group counseling. In-group counseling, the adolescents work through issues often first discussed in individual counseling. In individual counseling, adolescents often share issues so sensitive that they may not initially (if ever) share them in-group sessions. Most often, this involves issues such as sexual abuse where the adolescent might be either the victim or the predator. Similarly, issues of criminal and gang affiliation may not be appropriate for group disclosure. Traumatic experiences may initially be explored best in private counseling sessions. In the overall treatment program, individual counseling is best

when it encourages each adolescent to work through individual issues in a group setting involving adolescent peers.

Multi-Family Education

Multi-family groups are a task-oriented, supportive component in the treatment process. The groups focus on lecture material and individual project assignments completed by family members to enhance recovery skills for living with a chemically dependent or abusing adolescent. Joint sharing of experiences and assignments enhances the impact of the group process.

Family Counseling

Ideally, parents should participate in all phases of their child's treatment. Because most substance-abusing adolescents live in problematic families where one or both parents may not be involved in rearing the child, RRP encourages participation in family counseling by all the client's significant caregivers. Family involvement is comprehensive in nature. Treatment is individualized to the needs of each unique family unit.

There are varying degrees of parent-child conflict in all participants' families. These conflicts, along with other family issues, have great bearing on the treatment outcome of the juvenile client. Family counseling may offer the only opportunity for a family to begin to address dysfunction in a therapeutic environment. Family counseling assists parents to see their roles as part of the solution, not just a part of the problem, and to empower them to take a more effective parenting role.

Family counseling offers significant information to the RRP therapist. This includes direct observation of family dynamics and awareness of parental substance abuse (parents have attended meetings clearly intoxicated). This information better equips the therapist to assist the juvenile in handling these stresses.

Focus Groups

Focus groups provide the adolescent client a way to learn about the effects of substance abuse in a non-threatening way and offer specialized information and experiences clients need to assist in their individual development. Lessons focus on developing new social and living skills in support of a recovery-oriented lifestyle. Topics include drug information, the disease concept, progression of addiction, adolescent-geared relapse prevention, spirituality, HIV and AIDS education, anger management, and other issues suggested by the interests of each group. Often it is necessary to adjust the didactic content to the developmental needs of the adolescent.

Gender Groups

These process-oriented groups are essential in providing a safe and supportive environment where clients can discuss what they see as gender specific issues such as sex, sexual harassment, sexual abuse, and gender identity issues. These issues are often powerful aspects of alcohol and drug abuse/addiction and recovery. Typically, neither boys nor girls will discuss these issues in gender mixed groups. Males in particular are less likely to disclose experiences of being sexually abused although prevalence rates may not be much different than for females. Gender identification and learning are important parts of the socialization and developmental process, both in adolescence and recovery. Often, information related to basic human sexuality needs to be presented, including issues related to heterosexuality, homosexuality, and bisexuality. These issues are often on the minds of adolescents who are in the midst of fully discovering and defining their sexuality. A male counselor leads the male groups and a female counselor leads the female groups.

Because the vast majority of diverted clients in this program is male, the need for gender-specific groups does not often arise. When a lone female is enrolled in the program, issues are handled in individual counseling sessions.

Support Groups

Support groups focus on learning about the purpose of various twelve-step meetings in adolescent recovery. Outside speakers are invited to discuss the availability of these support groups to the adolescent in the community. Topics for discussion include the rationale for use of support systems and the role of the sponsor in the life of the adolescent, and behavior appropriate for participation in community twelve-step meetings is modeled. RRP also takes clients to 12-step recovery meetings in the community.

Therapeutic Milieu Sessions

These milieu sessions are brief meetings that allow clients and staff to assess the present emotional climate within the program population. The sessions assess and/or circumvent problems with early detection, refocusing the client population on treatment issues and restoring group cohesiveness.

Academic Tutoring

After reviewing current academic functioning of each client, a RRP teacher develops a tutoring plan based on the client' s strengths and weaknesses. The plan includes assistance with assigned homework and limited remediation in key academic areas. Some clients are not enrolled in school at the time they enter RRP due to a school expulsion from their drug arrest on campus. The tutoring provides the only avenue for continued education during their expulsion period.

Activities Planning Group

Clients are actively involved with the staff in planning off-campus outings and activities. This peer involvement around a positive planning task serves to further the peer group cohesion of the program. Through their active involvement, clients learn to choose among various community options. Staff models a decision-making process and other aspects of making activity choices in support of a recovery-oriented lifestyle.

Continuing Care Planning Sessions

Counselors work with clients who are nearing treatment completion in a group setting to make continuing care plans. The group members are often able to provide information from a peer perspective about resources and potential barriers that each other might face after discharge.

Aftercare Group

Aftercare groups provide a post treatment opportunity to meet again in a group and share experiences. Participation in this group is seen as an important way to maximize benefits gained from the primary treatment program. Clients are encouraged to discuss both positive and negative aspects of their experiences with a recovery-oriented lifestyle. These problems may originate at home, at school, or with their peers.

Drug Education Track

The DA's Juvenile Diversion case management staff administers the Drug Education and Parent Support Track. Juveniles clinically assigned to this intervention track are assessed to have the least problematic drug use history or related circumstances. Typically, however, they still face multiple situational and life problems.

The clients attend the program twice weekly, once for an individualized meeting and once for the drug education group meeting. At the individual meeting, the assigned case manager reviews treatment plan progress and compliance to program conditions, case management services, and offers individual counseling to address the particular needs of the juvenile. Family members are invited to some of these meetings on an as-needed or as-available basis. The group offered to diverted juveniles is a 16-session psycho-educational series of drug education and other pertinent curriculum. With many youth, their knowledge about drugs is most often from the streets rather than the classroom and can be, therefore, highly inadequate and distorted.

A portion of both the individual and group counseling sessions remains unstructured, providing the client ample opportunity to explore idiosyncratic areas of therapeutic interest. Each group of clients is different in their needs and adaptations are made to address these needs and the particular group dynamics. Non-directional group time is also provided to emphasize common principles that underlie therapeutic experiences: instillation of hope, universality, development of socialization skills,

imitative behavior, interpersonal learning, group cohesiveness, catharsis, and certain existential factors.

Contingent Treatment

Clients who are unable to maintain a drug-free status while in this intervention track are reviewed for reassignment into a treatment program. While alcohol and drug abstinence is expected, achieving this immediately upon program entry is not always embraced or even possible. When a youth continues to demonstrate the inability or unwillingness to refrain from alcohol and drug use, a more intensive treatment intervention is recommended. The program allows for this transition to some extent and does not discharge a client from the program until sufficient treatment exposure has been offered.

Directly addressing drug use with a juvenile client is only part of an effective comprehensive intervention. Drug education should be incorporated as one of several components of a comprehensive approach to impact both the clients and their families for a better outcome. Drug education alone is unlikely to be effective for many if not most adolescents already using drugs.

A few clients have entered the program who have no history of drug use but who are later determined to be engaged in drug dealing. (Their arrest circumstances may not have warranted charges more than a ' simple possession' of a controlled dangerous drug.) The drug education group addresses the life styles that accompany these behaviors and some of the underlying motivations. It is not uncommon, for example, for indigent parents to covertly endorse their child's drug dealing income to assist the family. The clothing and other material gains purchased with this money are highly rewarding to some juveniles. Like drug addiction, this behavior is resistant to quick and easy change.

Other Intervention Treatment Options

The following are examples of general treatment plans that have been utilized when a juvenile is assessed to have needs other than the intensive outpatient program or the drug education track.

Detoxification Services

There exist but limited local services for youth who need immediate, medical stabilization in a hospital setting. This is very short term, usually no longer than 3 to 5 days. Ideally, the juvenile is referred for immediate follow-up services to inpatient or residential programs upon discharge from the detoxification program.

Inpatient Substance Abuse Treatment

The closest state facility that serves juveniles is about 90 miles away. This presents transportation issues and diminishes the opportunities for family involvement. Most juveniles have no other means for third party payment services. Medicaid does

not pay for substance abuse treatment in Louisiana. The average length of stay at this facility is 30 to 45 days.

Residential Treatment

Two facilities are available in the New Orleans area for youth under 18. The juvenile attends school in the community but resides at the facility. Counseling services are offered in-house or clients can be taken to the local state outpatient clinic to receive treatment off-site. The average program length is 9 months to one year at these facilities.

Outpatient Services for Co-Occurring Disorders

When a juvenile has service needs requiring tailored outpatient counseling, community resources are available for this purpose. Examples are juveniles needing specialized crisis, trauma, and/or grief counseling; youth with primary mental health disorders and secondary substance abuse issues; younger adolescents (11, 12, or 13 year olds) who are not appropriate for grouping in typical older adolescent programs; or youth with primary family counseling as the recommended intervention, secondary to substance abuse. In some situations, multiple providers are utilized.

In each situation, the Diversion case managers continue to meet with the juvenile once per week to administer random drug testing and to serve as the primary coordinator of these collateral services.

Services for Families

All families are required to participate in various activities to support their child's involvement in the program. Family involvement begins with their first contact with the Diversion Case Manager at Juvenile Court after their child's arrest. This continues throughout the assessment period and at subsequent meetings with Diversion staff throughout the program. Over time, parents often see the case manager as an ally to help them deal with their troubled adolescent. It is common for parents to call the case manager when they are experiencing isolation, frustration, anger, or confusion about handling a problem with their child.

The traditional definition of parent and family takes on new meanings when viewed in relation to the adult caregivers encountered in this project. Often the biological parent(s) are no longer the child's legal guardian. In many instances, a grandmother, aunt, or older sibling is the primary caregiver for the adolescent, more common in African American families. In other situations, there may be an unrelated adult male serving as a functional father. Fluid changes in family structures are also not uncommon. A careful and ongoing assessment of family functioning is essential to uncover which significant adults are actively involved in what would traditionally be considered parenting functions.

Parent Support

Parents, guardians, custodial caretakers, and any other person providing direct care or a parental role with the child are highly encouraged to attend the parent's component of the program when a child is assigned to the Drug Education track. (If a child is in treatment at one of the community programs, parents are encouraged to attend that family component for more integrated treatment.) While the initial contract states that attendance by the family is mandatory, in reality, many parents are unable or unwilling to participate. On occasion, this has been enforced with families, but the program philosophy supports continuing to work with the child so as not to penalize the child for the parent's failure to participate.

There are two six-session psycho-educational groups in which the parents/guardians are asked to participate: 1) The Family and Friends Support Group and 2) the Parent Education Group. The main purpose of these groups is to offer services tailored for parents of children abusing drugs. These groups provide presentations and discussion materials.

Family and Friends Support Group

This series focuses on educating loved ones on adolescent drug use and addiction as well as exploring common dysfunctional family responses and co-dependency issues. This group helps parents identify their emotional and behavioral responses to their child's arrest, drug use, and other issues. They are assisted to personally identify any non-constructive enabling or controlling behaviors and offered alternative, more effective approaches. They are provided with specific tools they can use to improve family functioning in relation to identified problems and are introduced to community support services such as *Al-Anon or Tough Love* whose representatives come to speak to the group.

Parent Education Group

This is designed to enhance communication between the parent and adolescent child. Participants are given an opportunity to identify their own parenting style and disciplinary methods. Effective and ineffective disciplinary and communication styles are examined, with careful consideration to cultural issues. Parents are reminded that their child may be attempting changes in their behaviors at home and are encouraged to support these changes. Educating parents about the developmental tasks of adolescents often allows the parents to be more patient and empathic to the child. Role playing exercises are used for practice in more effective communication.

All parents, regardless of their child's treatment assignment, are asked to participate on an as-needed basis to assist with significant issues in the child's functioning. These individualized family sessions include clinical issues such as positive drug screens or other program violations, crisis intervention, discussions about special needs that have been identified, family issues that may arise, recommended

changes in treatment planning or program time extensions. The family must attend a discharge/ closure session. The case manager also offers case management services to the parents.

Most of the families who participate also have other children close in age to the client in Diversion. As they become more familiar with the family program, they begin to raise parenting questions in relation to other youth in the home. Family participation has the potential to impact far beyond the legally participating client.

Barriers to Family Participation

Despite the services offered, eliciting parent participation remains a major challenge for case managers. It is not unusual for a parent to first react with anger at these requirements, questioning why they are being "punished" when it is their child who was arrested. While the barriers to family participation are often formidable, case managers work with each family to secure the maximum participation possible.

Parents may have very demanding life circumstances for which the meetings are perceived as an additional burden rather than a source of support. These families typically consist of single mother households in which childcare for other children or the need to work two jobs to meet basic living expenses is a priority. In other instances, evening work schedules interfere with the group schedule. Transportation issues or lack of bus money can also be a hurdle. It is also not uncommon for a parent to be limited in participation because of a major medical problem or to be the primary caregiver for someone with such problems. The case managers remain flexible to support each family to the greatest degree possible and to work at overcoming these barriers. Once a parent/guardian signs the consent to enroll their child in the program, however, the client is not penalized for the failure or inability of the parent to participate.

Emotional pain from underlying family issues and dysfunctional or non-existent parent-child relationships is evidenced in a number of juvenile participants for whom the effects of drug use is a welcomed relief or distraction. Without opportunities for family healing or engaging parents in the process, the beneficial effects of the program may be limited or short term. While it is easy to see many of the child's problems in relationship to inadequate or poor parenting, the role of the case manager is to also recognize the needs of the parents who carry their own stresses and wounds and to assist them when possible.

For youth, family wounds come in many forms, such as not knowing who one's father is, witnessing or experiencing family violence and abuse, having an incarcerated parent or one engaged in criminal behaviors, extreme family poverty, inadequate supervision, parental drug use or mental illness, mothers who feel powerless or fearful with their adolescent sons or parents who are too psychologically enmeshed with their children. There are also parents who overindulge their child with expensive material items or unchecked freedoms rather than providing adequate time, interest, guidance,

and structure. In most cases, however, there is some degree of dysfunction in the parent-child relationship.

This is not to imply that family is the source of all risk factors that enhance the child's likelihood to use drugs. Significant risk factors are derived from the child's school, community, and peers, as well as intrapersonal factors. These include, for example, the availability of drugs, community norms and laws favorable to drug use, low neighborhood attachment and community disorganization, peers who engage in drug use, and hereditary predisposition. This program works with clients who have numerous risk enhancing experiences. These include trauma experiences, being a witness to violence, unaddressed mental health issues, significant academic underachievement and/or cognitive deficiencies, and extreme poverty. With all these factors, however, the program operates from the philosophy that a nurturing and supportive parent/caregiver carries the single most effective drug prevention and healing potential in a child's life.

Case Management Services

All clients and their families receive case management services from their assigned Diversion case manager. The case manager meets with each client every week at a scheduled face-to-face meeting. The case manager also meets with the family at the point of assessment, when major program changes occur, and/or on an as-needed basis. Because the client's problem often involves much more than just drugs, the Diversion Program works across many spheres of influence to affect the life of each client and family.

There are usually numerous obstacles that impede successful involvement in the program, such as transportation issues, lack of telephones, inadequate parental supervision, overt and covert resistance to participate, and lack of parental participation. Mistrust in the District Attorney's office is often great, although not unexpected, since the primary role of the office is to prosecute offenders. This mistrust is usually overcome as the case manager/client relationship builds over time.

From experience in developing and managing this program, it is very apparent that an intervention directed exclusively at the issue of drugs is insufficient and likely to be limited or short-term in its effectiveness. The outcomes this program attempts to achieve necessitate the use of support and ancillary services to be successful.

Assessment and Referral

As described earlier, a psychosocial assessment is conducted at intake using a variety of methods including individual and family interviews, standardized psychometric instruments, drug testing, and collaboration with other involved agencies or persons, such as schools, health care providers, and counselors. These information sources help the case manager examine substance use history, living situation, coping style, criminal offense history, educational history, physical health, sexual history, cognitive skills, mental health, and family history. The Diversion staff consults with community

providers to gain additional information on a participant for a more comprehensive assessment. An example of this is referral for psychiatric evaluation before treatment and service plans are implemented.

Matching specific needs of the individual and family with available community resources is a major function of case management services, as well as client advocacy in accessing services. Some families enter the program requesting help for various concerns. More often, the case manager identifies problem areas for which support or intervention services could benefit the family. Assessment and reassessment is a dynamic and ongoing part of a continuous feedback loop.

Community Resources

Case managers and clinical supervisors meet regularly as a group to interview and assess new and existing community resources and maintain a current file on each provider. Ideally, these files are kept up-to-date and case managers enter notes on success or problems with each provider. In some cases, information is shared about how best to access a gatekeeper for an often-scarce service. Timely placement in a residential treatment may depend on the case managers' knowledge of a person in the system who can assist with jumping through bureaucratic hoops. Experience in working with a provider can streamline the referral process and greatly improve client access. Because case managers are encouraged to maintain positive and frequent contact with providers, providers are, in turn, more willing to respond to the program's service referral needs.

Other than substance abuse treatment agencies, the following list demonstrates some of the types of services that have been coordinated into the formal treatment plan or have been offered to juveniles and their families:

- Mental health/psychiatric assessment and counseling
- Intensified individual or family counseling
- Family violence programs
- Victim-witness trauma counseling
- Mentoring (academic and non-academic)
- Dental care, medical care
- Vision and auditory screenings
- Sex education, STD/HIV screening
- Job training and placement (juvenile and parents)
- Resources for free school uniforms
- Medicaid benefits application
- Teen pregnancy
- Homelessness
- Transportation assistance
- Mental health case management programs
- Church programs

- Assistance for appealing high utility bills
- Suicide intervention
- Public housing advocacy
- Outdoor adventure programs
- Grief issues counseling
- Learning disabilities assessment
- GED programs
- Parents and troubled teens websites
- Christmas gift assistance

School Coordination

Education is one of the major developmental tasks in preparing an adolescent for adulthood. In Diversion, each client must be enrolled in some type of educational program. This is no small feat, as these clients have frequently been expelled from school due to the arrest that occurred on campus and are unable to reenter the system. In these cases, alternative schools and GED programs are utilized when possible. Many clients have experienced failure or high levels of frustration in school or have other significant obstacles that interfere with achieving their learning potential. In addition to cognitive impairment from drug use, these include mild to significant learning disabilities, emotional and behavioral disorders, and underachievement. Juveniles may be performing below an age-appropriate academic level or be in a grade level for which they are not prepared.

Case managers work with clients to overcome educational barriers. If necessary, they provide information and advocacy to the student hearing committee or officer who evaluates the juvenile for readmission into school. Case managers provide educational options to the family, such as home schooling or private placements. They work with school personnel to arrange excused absences for treatment or other Diversion meetings. They have assisted indigent students in acquiring needed uniforms or supplies for school. They have requested information about school performance or discipline to broaden their knowledge of a client's behavior. Close collaboration with the school is very important in assessing the client's progress or lack thereof and in maintaining a unified approach in helping the client achieve success.

Program Objectives

The New Orleans Juvenile Adult Diversion Program has a number of goals and objectives, but ultimately it seeks to respond to illegal behavior by juveniles in a way consonant with two philosophic objectives: to assure the community's safety and security by carrying out the appropriate level of monitoring and control of program participants and to accomplish the maximum degree of rehabilitation of the offender in order to create the greatest potential for desistence from future criminal activity. The program seeks to do this by way a humane and enlightened approach to sanction application, diagnosis, education, and support.

The New Orleans Juvenile Diversion Program is a multifaceted diagnosis and referral effort that seeks to identify and respond to particular problems that contribute to drug and life-management problems as they apply to juveniles. The Juvenile Diversion Program incorporates clinical assessment, specialized counseling, focused educational assistance, and treatment for a range of problems and disorders, many of which are linked to alcohol and drug abuse, school behavioral problems, and family disorganization and disorder. The program emphasizes certain approaches:

1. The use of diagnostic techniques at program intake is intensive. This is to better understand the nature of the difficulties that have brought the juvenile offender into conflict with the law. This includes assessing drug and alcohol abuse, mental health disorders, domestic difficulties (including family stability), family violence, and school environment, educational and life-skill deficiencies.

2. The program emphasizes close supervision and frequent contact between the juvenile, the juvenile's family, the various treatment and service providers, and the District Attorney's supervisory staff. Continuing contact and accurate tracking of behavior and conformity to program requirements are a critical part of enhancing the likelihood of a person successfully competing the program, and staying out of further legal difficulties once he or she completely re-enters community life.

3. Drug and alcohol abuse appears to play a prominent role in a large number of cases processed by the juvenile courts. Under diversion the use of drugs is forbidden to participants. To assure compliance with this requirement, the use of accurate, affordable, and rapid drug testing, with sanctions and rewards tied to their outcome, is an important aspect of program supervision.

The objectives of the Juvenile Diversion program can be summarized as follows:

- To divert non-violent, drug-involved juvenile offenders out of the court system and into a clinically appropriate intervention and treatment plan including supervision, drug testing, and family participation

- To evaluate the effectiveness of this alternative to court through the examination of outcome measures such as recidivism, drug use, and other indicators of adolescent functioning

- To review, in an on-going manner, of eligibility criteria and intake procedure to ensure appropriate levels of program referrals and intake levels

- To review, in an on-going manner, clinical assessment, clinical intervention, and treatment placement and their related procedures

The Diversion Program: A Shift in the Program Evaluation Model

The initial program conceived under the application for support directed to the Office of National Drug Control Policy was designed to be a three-group comparison, including the use of a no-treatment control group. In brief, the initial design of the project for evaluation purposes was as follows: The *Comprehensive Intervention Condition* consisting of a special after-school program providing licensed intensive outpatient substance abuse treatment and educational tutoring and enhancement services, the *Contingent Drug Treatment Condition* consisting of a treatment paradigm that parallels the established Adult Diversionary Program. Juveniles in the Contingent Drug Treatment Condition were to be referred to local community drug treatment providers, and no specialized counseling or educational services. Participants in the first two groups were to be randomly assigned. There would be a third group, the *Treatment-as-Usual Control.* This group would be Diversion-eligible juveniles who were not randomly assigned to either the Comprehensive Intervention Condition or the Contingent Drug Treatment Condition. This group would be prosecuted and face the usual sentencing conditions for those convicted of offenses.

The original program pilot plan, which was subsequently discontinued, was based on a research design with the goal of exploring the relative effectiveness of the two intervention methods (*comprehensive* and *contingent*) in reducing recidivism and drug use among juvenile arrestees. Differences in effectiveness between the groups and with a control group, if any, would assist policy-makers in selecting programs with cost-effectiveness in mind, as the two intervention approaches carried significantly different price tags.

The research design was based on random assignment of juvenile participants into one of three conditions: 1) an Intensive After-school Treatment Program (the *Comprehensive* group) 2) a drug education/contingent treatment intervention (the *Contingent* group) and 3) a no-intervention control group in which selected participants were not "diverted" from criminal prosecution but returned to the normal judicial process and followed by the research team. The Institutional Review Board (IRB) of a local university had approved the procedure after considerable discussion and careful scrutiny.

The impact, however, on some participants and their families in the random assignment procedure was to create anxiety. The actual protocol called for each blindfolded participant to select a colored ball from a raffle drum that would determine which condition he or she would enter. In fear of selecting the "no-services control group", participants reported having prayer sessions before the selection, sleep problems the night before the event, or other abnormal levels of anticipatory anxiety. The selection of the control group meant that the juvenile's case would return to court for prosecution, as would normally occur without the program. Staff observed that the actual "drama" of drawing the ball was somewhat stressful and may have had an exacerbating effect on this fear of going to court.

After the initiation of the program there were concerns expressed about the impact of the differential levels of treatment afforded to the different groups of juveniles, and especially the creation of the third group, which was, in effect, denied any access to diversion or treatment under the auspices of the District Attorney's Office. Therefore, after program initiation, the Office of the District Attorney - upon the appeal of the parents of juveniles who were denied assignment to Comprehensive Intervention Condition group - decided, in conjunction with ONDCP, that it was not desirable or defensible to deny the enhanced level of services to juveniles in the program, and modified the program to include all juveniles in the Comprehensive Intervention group. This meant, of course, that they cross-groups comparison could not be done as initially opposed, and that the evaluation model would not have a control group. Thus the basis upon which the evaluation of the various drug testing was adjusted accordingly. As a consequence of this change, the evaluation plan for the project was modeled after the similar evaluation plan done in 1996 and 1997 for the adult diversion program. The District Attorney's Office and the Diversion staff found that this represented the best application of evaluation efforts which were also consistent with the ethical obligations concomitant with delivering services to the juveniles in the program

To compensate the early participants who were assigned to the control group (about a dozen juveniles), attempts were made to contact each family with an offer to enter the program. Most chose to do so and voiced considerable gratitude for the policy change.

Evaluation Objectives Revisited

Purpose of the Report

In light of the modification of the program's original evaluation design, the report on the drug analysis component of the program is somewhat modified from its original conception. In lieu of the tri-partite comparison we had intended, the report will focus on the description of assay outcomes and assessment of assay outcomes for each of the specific testing technologies. It will also examines the comparability of these assay outcomes across the different technologies, and assess the impact of a variety of factors on these outcomes..

In comparing these technologies the report will offer observations on the comparability of their results considered by the technical capacities of each technique. Urinalysis, in general, is an excellent specimen for the assessment of short-term drug use. Most of the commonly abused illicit drugs appear in the urine within an hour or less after consumption, and can generally be detected for 48 to 72 hours. Hair analysis, as explained earlier in the report, is an excellent method for the detection of longer-term drug use (in the one to three month range), and therefore is a very good adjunct to urinalysis. The combination of the two methods offers a relatively "wide window" on drug use. The use of IMS has two potential advantages. One, it can test for drug contamination of surfaces and materials, such as clothing. This allows for the evaluation of exposure to drugs. For example, detection is possible in the case of a person who

has ceased using a drug but continues to package and sell drugs. The IMS also the capability to test different types of specimens very quickly, and produce nearly "instantaneous results on-site. IMS technology has been used in the Adult Diversion Program since 1996, when it expanded the Adult Diversion Program's testing protocols by allowing additional test specimens to be available for analysis. The Juvenile Diversion Project focused specifically on the IMS testing of particulate matter collected by the vacuum sampling of clothing, testing samples gathered by vacuuming skin and skin-derived particulate matter, testing sweat samples collected by vacuum sampling of hands and periodically, clothes, and also testing skin swabs, which were collected by swiping an alcohol prep pad on the skin surface. The report provides data on these results. Some self-reported drug use data is available for these referrals, and the outcome of the various drug assays will be compared to self-reported drug behaviors is presented. As well, the assay comparisons will be evaluated by gender and race/ethnicity. To the extent possible assay outcomes will be evaluated by comparison of juveniles who entered the program in contrast to juveniles who were eligible for the program but declined to participate.

The methodology of the project is conceptually simple: the use of all these techniques is a component of the normal operation of the program. For the purposes of this study there was no meaningful modification of treatment and supervision protocols, as they would normally be done. The drug analysis, as done, is a normal part of intake into the juvenile diversion program as well as normal monitoring during the course of scheduled appointments. Thus, the data arte derived from the records and experiences that are part of the ongoing juvenile diversion program.

As previously noted, hair analysis was done at the laboratories of the Pyschemedics Corporation, a well-established human toxicology laboratory that has served the New Orleans Adult Diversion Program for nearly ten years. The urinalysis was performed at the toxicology laboratory of the Medical Scholl of Tulane University, a NIDA licensed drug-testing facility. The IMS is located on-site at the Diversion Program location that is housed within the New Orleans District Attorney's office complex. Primarily Ms. Barbara Hussey who is a Certified Clinical Research Associate operated the instrument. The instrument was maintained and calibrated on site by Ms. Hussey according to the manufacturer's recommended protocols. Technical assistance was provided throughout the project by Barringer technical support. The IMS assays were integrated into the normal operation of the program in a minimally disruptive manner. The IMS testing was done on-site during the normal appointment times of Juvenile Diversion Program participants, who are required to attend mandatory counseling session with their counselor as a condition of program participation.

Findings

General Data on the New Orleans Diversion Program Clients

The diversion program data includes two types of cases; *clients* (juveniles admitted into and participating in the program) and *non-participating clients*. Non-

participants include arrested juveniles who were eligible and referred to the program, but who declined (or whose parents declined to permit) entry into diversion. The database consists of 253 cases, 150 clients who were admitted, and 103 who were offered diversion but refused entry.

Gender	**Percent**	**N**
Male	81.4	206
Female	18.6	47
Age (years)		
Mean, All	15.12	253
Median, All	15.00	253
Mean, Male	15.16	206
Female	14.96	47
Mean, African American	15.08	210
Mean, White	15.35	34
Mean, Hispanic	15.20	5
Mean, Asian American	16.00	2
Mean, Other	15.00	2
Race		
African American	83.0	210
White	13.4	34
Hispanic	2.0	5
Asian American	0.8	2
Other	0.9	2
Program Entry		
Entered Program	59.3	150
Refused Entry	40.7	103

Table Three. New Orleans Juvenile Diversion Program Clients

General characteristics of these persons in pretrial diversion are given in Tables Three and Four. Table Three provides general information on age race, and gender and program participation. The client were typically 15 years old, male, and African American. Eligible juvenile clients are offered the diversion program, but may opt to face charges in a regular juvenile court. As Table Three indicates, about 60% of those eligible entered into the program. This number is lower than the projected percentage of persons enrolled, and lower than the adult diversion program. We shall, in the final discussion, address some of the issues that we believe led to this relatively low participation.

Table Four reviews basic criminal charges that led the clients into diversion.

Narcotics possession cases are the most frequent charges. They are first by a substantial margin, with larceny theft offenses the second most frequent arrest category. Together these two categories constitute three-fourths of clients' criminal activity At intake approximately 15% of the arrested juveniles reported at least one prior drug or alcohol treatment experience, and about 20% reported a family history of drug or alcohol abuse.

While most of the persons who enter the program are facing a narcotics charge, about one out of five individuals are arrested for a non-drug charge.

Arresting Charge	N	Percent
Possession Marijuana, first Offense	157	66.2
Possession, Schedule II, Other Drugs	24	10.1
Possession, Schedule I, Narcotics	11	4.6
Theft of Goods, < $100	4	1.7
Possession Marijuana, Second Offense	9	3.8
Theft of Goods, $100 to $500	4	1.7
Driving While Intoxicated	5	2.0
Distribution, Schedule I Narcotic	2	0.8
Possession, Schedule I, Non-Narcotic	4	1.7
Distribution, Schedule I Non-Narcotic	6	2.5
Criminal Trespass	1	0.4
Theft, > $500	1	0.4
Possession, Stolen Property $100-$500	1	0.4
Soliciting	1	0.4
Distribution, Schedule II Dangerous Substance	2	0.8
Drug Distribution within 1000' of a School	4	1.7
Curfew Violation/School Attendance	1	0.4
Charges Undetermined	16	6.1
Total	253	100.0

Table Four. Charge: New Orleans Juvenile Diversion Program

If we consider only the narcotics cases presented in Table four, the most likely juvenile candidate was a first-time apprehended marijuana abuser. Although the diversion program is not available to persons who are charged with selling drugs, Table Four lists several persons arrested for distribution charges. The cases listed as "drug distribution cases" apply to persons arrested for this charge, but who were ultimately charged with a lesser crime, drug possession. This typically happens because insufficient evidence existed to sustain a charge of distribution. This reduction in charge made them eligible for the Diversion Program.

Program Entry by Race, Sex, and Charge

		Entered	Refused to Enter	Total
Sex	Male	129	77	206
	Female	21	26	47
Race	White	22	12	34
	Black	119	91	210
	Hispanic	5		5
	Asian	2		2
	Other	2		2
Age Distribution (age in years)	10		1	1
	11	1	2	3
	12	1	6	7
	13	2	9	11
	14	24	12	36
	15	44	27	71
	16	78	43	121
	17		3	3

Table Five. Program Entry by Sex, Race, and Age

Table Five provides a more detailed breakdown on age and demographic characteristics of the juveniles who were referred to the program. It also contrasts the juveniles who entered the program with those who declined diversion. Of all program referrals, a slightly larger percentage of eligible whites (64.7%) entered, in contrast to African Americans (56.7%), but the difference is not substantial. There is a notable difference in gender ratios when contrasting those who entered versus those who refused entry. The gender ratio of the "entered" group is 6:1 male/female, while the "refused" group has a male to female ratio of 3:1. The lower portion of Table Five provides a frequency distribution for age contrasting the two groups. The "refused" group has a slightly lower mean age (14.88 years) in contrast to the "entered" group (15.29 years), which by one-way ANOVA is a significant difference ($F = 7.431$, $p = .07$), but with a very low eta-squared of .029.

General Findings, Assay Outcomes

Hair Analysis

The following series of tables report the outcomes for hair analysis performed on the juvenile diversion clients. The first one, Table Six, reports the outcomes for hair assays and assay results for all juveniles eligible for the program.

Positive for:	Hair Sample 1	Hair Sample 2	Hair Sample 3	Hair Sample 4	Hair Sample 5	Total
Cocaine	37	20	13	5	1	76
Heroin	1					1
MJ	105	32	24	9	2	172
Negative	101	80	46	12	1	240
Invalid	8	10	4	2	1	25
Total	252	142	87	28	5	514

Table Six. Hair Analysis: Overall Outcomes for Juveniles, All Hair Assays

Table Seven reports the number of discrete hair tests as well as the number of hair assay results. Since there can be more than one result from a single hair assay (i.e., the specimen may be positive for two or more drugs), these values are not coincident. Table Seven indicates that of the 103 clients who refused the program, 25 never had a hair assay done, and 60 had a single intake hair analysis, 11 had two hair assays, five had 3 hair assays, and 2 had four. Bear in mind that persons who voluntarily left the program at any time are counted as "refused". In counting across the "totals" row, the row marked "hair tests" counts the number of person who were subject to the column number of tests. For example, looking at the first column, 37 persons who entered the program had a single hair assay, and 60 persons who refused also had a single assay. Thus the "1" column accounts for 97 persons. There were fewer results than assays because some specimens were invalid, generally due to insufficient quantity for testing. The "2" column accounts for 52 persons (41 who entered and 11 who refused) who had a total of 104 hair assay results, etc.

Clients	Frequencies ▶	0	1	2	3	4	5	6	Total
Entered	Discrete Hair Tests		37	41	47	20	5		
	Hair Test Results		34	68	150	76	50	18	
Refused	Hair Tests	25	60	11	5	2	0		
	Test Results	25	50	36	24	8	0		
Total	Hair Tests	25	97	52	52	22	5		253
	Test Results		84	104	174	84	50	18	514

Table Seven. Summary, Hair Assays and Assay Results; Entered and Refused Entry

The 253 clients comprising the database of this study were subject to 514 hair analyses over the course of the data collection period. Table Seven presents the data for the sequence of hair assays administered during the clients' retention in the diversion program and provides the frequency of positive outcomes for specific drugs. Several findings are notable:

- Marijuana (MJ) was the most frequently detected drug by a substantial margin

- Cocaine, the second most frequently detected drug, was less than one-third as frequently identified in comparison to marijuana
- There was almost no opiate use detected by hair assay
- The modal value for the hair analysis was "negative"
- The frequency of detections diminish as the client's time spent in the program increases

Later in this report we will look at the outcomes of hair analysis in comparison to the outcomes of urine and IMS results. In the next section we specify the hair assay outcomes by race/ethnicity and gender.

Hair Analysis Outcomes by Race and Sex

Sex

Positive for:	Gender	Hair Sample 1	Hair Sample 2	Hair Sample 3	Hair Sample 4	Hair Sample 5	Total
Cocaine	*Male*	36	19	13	4	1	73
	Female	1	1	0	1	0	3
Heroin	*Male*	1	0	0	0	0	1
	Female	0	0	0	0	0	0
MJ	*Male*	97	30	22	8	2	159
	Female	8	2	2	1	0	13
Negative	*Male*	68	64	35	9	0	176
	Female	33	16	11	3	1	64
Invalid	*Male*	7	8	4	2	1	22
	Female	1	2	0	0	0	3
Total		252	142	87	28	5	514

Table Eight. Hair Analysis Outcomes by Sex

Table Eight presents data in an identical forma to the previous table, only it specifies the data by gender. The table includes all the drugs detected by hair analysis as well as both negative and invalid hair samples. Because there were relatively few females in the study group, the observations that can be made about gender differences, even speculatively, are limited. However, we note that marijuana is the most frequently detected drug for females, and likely represents the drug of choice for females entering this program. But, even though marijuana is the most frequent choice for females, they are still under-represented for their gender. Female marijuana positive cases represent 8.5% of marijuana cases, but females constitute about 18.6% of the study group.

Race/Ethnicity

Positive for:	Race	Hair Sample 1	Hair Sample 2	Hair Sample 3	Hair Sample 4	Hair Sample 5	Total
Cocaine	White	0	0	0	0	0	0
	Black	36	18	12	4	1	71
	Hispanic	1	1	0	1	0	3
	Asian	0	1	1	0	0	2
	Other	0	0	0	0	0	0
Heroin	White	0	0	0	0	0	0
	Black	1	0	0	0	0	1
	Hispanic	0	0	0	0	0	0
	Asian	0	0	0	0	0	0
	Other	0	0	0	0	0	0
MJ	White	13	2	2	1	0	18
	Black	87	27	19	7	2	142
	Hispanic	3	2	1	1	0	7
	Asian	1	0	2	0	0	3
	Other	1	1	0	0	0	2
Negative	White	18	18	12	3	0	51
	Black	80	59	30	9	1	179
	Hispanic	2	2	3	0	0	7
	Asian	0	0	0	0	0	0
	Other	1	1	1	0	0	3
Invalid	White	0	0	0	0	0	0
	Black	7	8	4	1	0	20
	Hispanic	0	1	0	0	0	1
	Asian	1	1	0	1	1	4
	Other	0	0	0	0	0	0
Total		252	142	87	28	5	514

Table Nine. Hair Analysis Outcomes by Race

Table Nine, similar to Table Seven, presents the hair assay outcomes for each drug by 5 race/ethnicity categories: White, Black/African-American, Hispanic, Asian, and a residual category, Other. Of the 249 total drug-positive hair assays, African Americans account for 85.9%, whites for 7.2%, Hispanics for 4.0%, Asians for 2.1%, and Other for 0.8%. The percentage of drug positive for each racial/ethnic group - when gauged against the relative distribution of race/ethnicity in the study group – are such that African Americans are about proportionally represented, whites somewhat underrepresented, Hispanics over represented, and Asians proportionally represented. African Americans were most frequently present in cocaine detections, accounting for 93% of all cocaine detections. However, African Americans also accounted for the largest percentage of negative hair assay outcomes.

Urinalysis

Table Ten presents the outcomes for all the urinalyses performed on the juveniles who were referred to the diversion program.

Urinalysis	Neg	Alc	Coc	Mj	Ops	Amph	Barbs	Benzo	Invalid	Total
1.1	96		3	141	1	4				245
1.2		1	9	1	1	1		3		16
1.3								1		1
2.1	103		2	78						183
2.2			1					1		2
3.1	109			57	1			2		169
3.2			1		2		1	1		5
4.1	111			39	1			2	1	154
4.2		1	1					1		3
5.1	107	3		32	1			1	1	145
5.2			3							3
6.1	104	2		24					1	131
6.2			1							1
7.1	94	2		22		1			1	120
7.2		1								1
8.1	84	1		21	1					107
8.2		2						1		3
9.1	82	2		18						102
9.2		1								1
10.1	74			15				1		90
10.2			1				1			2
11.1	75			8				1		84
11.2		1								1
12.1	62		1	10	1		1		1	76
12.2			1							1
13.1	56			16						72
14.1	47			7						54
14.2		1								1
15.1	39		1	9						49
16.1	32			9						41
17.1	25			7						32
18.1	22			7				1		30
19.1	22			3	1					26
20.1	18			2						20
21.1	14			3						17
21.2			1							1
22.1	12			2						14
23.1	11								1	12
24.1	9									9
25.1	7			1						8
26.1	6			1						7
27.1	5			1						6
28.1	5									5
29.1	4									4
30.1	4									4
Total	1439	18	26	534	10	6	3	16	6	2058

Table Ten. Overall Frequency Outcomes for Urinalyses

There were a total of 2,058 urinalyses performed on the study group. The left column in the table identifies the sequential urine testing identifier. There was a maximum of 30 urine tests. The sequence is numbered in the form *nn.n*, such that the digits to the left of the decimal indicate which number of the sequence, while the number to the right

indicates the number oo specific drug positives associated with that urinalysis. For example, sequence 13.1 indicates the positive outcomes for the 13th urinalysis, and the first drug that was reported as positive for that test. In cases where there are more than one drug positive, a 2 or a 3 is shown to the left to indicate the second (or third) identified positive drug. Only for the first (intake) urinalysis were there clients who had three drugs identified simultaneously in their urine. Total positives are shown for both the columns and rows. Please note the following abbreviations used in the tables: Neg (negative), Alc (alcohol), Coc (cocaine), Her (heroin), MJ (marijuana), Cod (codeine), Mor (morphine), Proc (procaine), Amp (amphetamine), MAMP (methamphetamine), 6-MAM (monacetylmorphine). This table, reflecting the outcome for all the urinalyses performed on the clients in the juvenile diversion program, indicates several interesting findings:

- Of the 2,052 analyzable urine specimens 613 were positive for an illegal drug, approximately 29.9% of all urine specimens. These 613 samples were collected from 216 cases. Thirty-seven cases had no positive urine specimens during their time in the diversion program.

- Consistent with the overall data reported for hair analysis, the most commonly identified drug is marijuana.

- Consistent with the overall data reported for hair analysis, the second-most commonly identified drug is cocaine.

- Consistent with the expectation that hair analysis should be most effective in identifying rapidly excreted drugs, hair assays identified a substantially larger number of cocaine positive specimens compared to other technologies, both in absolute number as well as percent.. For example, about 26% of the urinalyses yielded marijuana (+) results as compared to slightly more than 33% of the hair analyses. However, for cocaine about 1.2% of the urinalyses had a cocaine (+) results, while 14.8% of the hair specimens were cocaine positive. Even in absolute numbers, cocaine was more readily detected by hair assays. Although there were 4 times as many urinalyses performed as compared to hair assays (2.058 vs. 514), there were 76 cocaine positive hair specimens in contrast to 26 cocaine positive urine specimens.

- Urine testing yielded 534 marijuana (+) results, while hair analyses yielded 172 marijuana (+) outcomes. On a percentage comparison, urinalysis had a marijuana (+) rate of 25.9% and hair analysis a rate of 33.5%.

- All other drugs were relatively rare in comparison to marijuana. After cocaine, the next most commonly identified drug in urine (excluding alcohol) was benzodiazepine followed by opiates. Hair analysis does not test for benzodiazepines, and is specific in targeting only heroin and heroin metabolites. Thus any codeine in hair is not reflected in the hair assay results. Urine screening as performed in the program does not distinguish among opiates.

- Barbiturates and amphetamine detection by urinalysis was negligible. These substances are not tested for in hair analysis.

Urinalysis Outcomes by Sex

# of UA's	Cocaine (+)		MJ (+)		Opiates (+)		Amph. (+)		Barb. (+)		Benzo. (+)		Urine (-)	
	Male	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*	*Male*	*Female*
0	186	46	56	31	200	44	204	43	204	46	197	45	64	10
1	17	1	61	7	5	3	2	4	2	1	5	2	22	13
2	2	0	22	3	1						3		10	3
3	0	0	18	3							1		10	5
4	1	0	16	0									8	2
5			8	1									10	1
6			5	0									6	1
7			6	0									7	1
8			4	1									0	2
9			2	0									7	1
10			0	1									6	1
11			2										7	2
12			1										10	1
13			3										7	0
14			0										7	1
15			1										3	1
16			1										4	1
17													1	
18													1	
19													6	
20													3	
21													1	
22													2	
23													0	
24														
25													1	
26													0	
27													2	1
28													1	
Total	206	47	206	47	206	47	206	47	206	47	206	47	206	47

Table Eleven. Urinalysis Outcomes by Sex

Table Eleven reports the outcome of urinalyses specified by gender. The format is similar to the previous table, with the number of urinalyses shown in the left column, and the number of persons presenting that number of positive urinalysis outcomes shown in each table cell. For example, one male had 16 marijuana positive urinalyses and one female had 10 marijuana positive urinalyses. Of the 47 females who were in the study group, 27 had one or more drug positive urine specimens. Like males, the most frequently detected drug was marijuana, but in contrast to males the second most frequently detected drug was amphetamine. For both males and females the single most frequently detected drug by urinalysis is marijuana.

Urinalysis Outcomes by Race

# 0f UA's	Cocaine (+)					MJ (+)					Opiates (+)					Urine (-)				
	White	Black	Hispanic	Asian	Other	White	Black	Hispanic	Asian	Other	White	Black	Hispanic	Asian	Other	White	Black	Hispanic	Asian	Other
0	32	191	5	2	2	18	68	1			31	204	5	2	2	8	63	2		1
1	2	16				9	56	1		2	3	5				2	32		1	
2		2				1	23		1			1				3	9		1	
3						2	18	1								2	13			
4		1				1	15									1	8	1		
5						1	7	1								1	10			
6							5									2	5			
7						2	4									4	4			
8							5										2			
9							2									1	7			
10								1									7			
11							2									1	7			1
12							1									6	5			
13							2										7			
14																1	7			
15							1									1	3			
16							1									1	3	1		
17																	1			
18																	1			
19																	5	1		
20																	3			
21																	1			
22																	2			
25																	1			
27																	3			
28																	1			
Tot	34	210	5	2	2	34	210	5	2	2	34	210	5	2	2	34	210	5	2	2

Table Twelve. Urinalysis Outcomes by Race[1]

Table Twelve reports the outcomes of urinalysis testing by race/ethnicity. Each cell indicates the number of cases and the frequency of urinalysis outcomes for the drugs listed in the column headings. Each Column is further specified by race/ethnicity using the same five-fold category as presented in earlier tables. For example, in reading the results for cocaine outcomes, Table Twelve indicates that there were 191 African Americans who had negative outcomes for all urinalyses, 16 had one cocaine positive urinalysis, and 2 had two cocaine positive urinalyses.

Generally, the urinalysis data confirm the same pattern indicated by the hair analysis. African Americans, who constitute about 83% of the group when characterized by race/ethnicity, are the group with the most drug-positive urine outcomes. However, generally speaking, the racial and ethnic differentials in outcome mirror the relative

[1] Rows 23, 24, and 26 are deleted because they are empty

representation of subgroups in the whole study group. African Americans, for example, account for 85.5% of the 166 marijuana positive urine specimens but constitute about 83% of the sample. Hispanics constitute approximately 2% of the study group, and account for 2.4% of the marijuana positive urine samples. African Americans account for 19 of the 21 cocaine positive urine specimens, approximately 90.5%. Whites account for 2 of the 21 cocaine positive urine specimens (about 9.5%) but account for about 13.4 % of the study group. Thus African-Americans are slightly over represented and whites under represented for cocaine. However, these differences have no statistical significance.

IMS Results

The tables that follow present the overall outcomes from IMS assays.

IMS Particulates

Sample Sequence	Drug Result	Negative	Cocaine	MJ	Heroin	Codeine	Morphine	LSD	Procaine	Total
1	1	111	25	5	1	1	1	2	1	147
	2			2	1			2	2	7
	3			1					1	2
2	1	76	12					2		90
	2		1	1						2
	3									
3	1	57	3	1			1			62
	2		1							1
	3									
4	1	31	3							34
	2									
	3									
5	1	17	3							20
	2						1			1
	3									
6	1	7	1							8
	2									
	3									
7	1	4	1							5
	2									
	3									
8	1	5								5
	2									
	3									
Total		308	50	10	2	1	3	6	4	384

Table Thirteen. Overall Outcomes for IMS Particulate Samples

Table Thirteen represents the outcomes for particulates analysis by IMS. There were 384 particulates analysis performed, with all study subjects being subject to at least one particulate assay, and with some subjects having been tested as many as 8 times. The outcomes of the particulate samples can be summarized as follows:

- The samples were overwhelmingly negative. Out of 384 particulate assays 80% were negative.
- The most frequently occurring positive outcome was for cocaine, and the second most frequently occurring outcome was a marijuana positive outcome.
- There was five times the number of cocaine (+) particulate assays as there were marijuana (+) assays. Forty study subjects accounted for the 50 positive cocaine assays; 32 had a single IMS cocaine positive assay, 6 had two IMS cocaine positive assays, and 2 had three cocaine positive assays.
- There were nine LSD positive assays by IMS particulate analysis. The frequent detection of LSD by IMS is an issue we shall in more depth when we report on the IMS sweat swab results, which also have a high number of LSD positive assay outcomes.

A notable observation is that the IMS particulate marijuana findings are inconsistent with the marijuana findings for both hair assays and urinalysis. The very small number of marijuana detections, and the relative abundance of cocaine detections (in comparison to marijuana) stand in sharp contrast to the results from both the urine and hair analysis data. Table Fourteen lists the number of cases that had a positive assay for both cocaine and marijuana by urinalysis, hair assay, and IMS particulates:

# of Drug (+) Cases	**Urinalysis**		**Hair Assay**		**IMS Particulates**	
	Cocaine	*MJ*	*Cocaine*	*MJ*	*Cocaine*	*MJ*
1	18	68	34	84	32	10
2	2	25	16	30	6	0
3	0	21	2	8	2	0
4	1	16	1	1	0	0
>4	0	36	0	0	0	0
Total	21	166	53	123	40	10

Table Fourteen. Comparison of Urine, Hair and IMS Particulate Drug Positive Cases

While hair assay and IMS particulates for cocaine are similar, the positive cases for marijuana are less than 10% of the value for either hair or urine detection. Urinalysis, for example, detected marijuana in 166 cases, and hair assay in 123 cases. In contrast IMS particulates were marijuana positive in only 10 cases. Also we observe that IMS

particulates for cocaine are more consistent with the findings of the other techniques. For example, there were 40 cases of IMS particulate assays being cocaine positive and 53 cases of cocaine positive hair assays. Thus IMS particulate detection count for cocaine occupies a position about halfway between the number of hair assay detections and the number of cocaine detection by urinalysis. While we expect the comparisons to urine to hair be low for urinalysis detection of cocaine (since cocaine is rapidly excreted), we see that for the slowly excreted marijuana the hair and urine values are in good alignment. Of course, the IMS particulate assay is measuring a quite distinct drug effect, essentially contamination of the body surface and clothing by the drugs. Nevertheless, it is interesting to note that there is not a better relation between the level of use detected by hair and urine testing and IMS testing for marijuana.

IMS Particulates by Sex

Sample Sequence	Drug Result	Negative	Cocaine	MJ	Heroin	Codeine	Morphine	LSD	Procaine	Total
1	Male	98	22	8	2	1	1	2	3	137
	Female	13	3					2	1	19
2	Male	66	11	1				2		80
	Female	10	2							12
3	Male	49	2	1			1			53
	Female	8	1							9
4	Male	24	3							27
	Female	7								7
5	Male	14	3					1		18
	Female	3								3
6	Male	6	1							7
	Female	1								1
7	Male	4	1							5
	Female									
8	Male	4								4
	Female	1								1
Total		309	49	10	2	1	2	7	4	383

Table Fifteen. IMS Particulate Outcomes by Sex

Table Fifteen presents the IMS particulate data specified by sex. This table shows the relatively infrequent appearance of females in any of the drug positive particulate categories. Out of 383 discrete particulate assays, 75 were drug positive. Only 9 of these positive assays were associated with females, 6 for cocaine, 2 for LSD, and 1 for procaine. The remaining 66 cases were males. Thus females accounted for about 12% of the drug positive particulates, and males about 88%. Females account for 13.9% of the drug negative particulate assays (43 of 309 negatives). Females

account for about 18.6% of the overall sample group, so they are under-represented in the table on the basis of their proportion of the sample.

IMS Particulate Outcomes by Race

Table Sixteen presents data for the IMS particulate analyses by race/ethnic group category. The structure of the table is similar to the preceding table, and uses the same race/ethnicity categorizations as used with earlier tables. The cell values represent the number of discrete IMS analyses conducted, and these values are arrayed under each column by drug type (or negative assay outcome) with racial/ethnic categorization reflected in each row.

Sample Sequence	Race	Negative	Cocaine	MJ	Heroin	Codeine	Morphine	LSD	Procaine	Total
1	White	17	1					1		19
	Black	89	23	8	2	1	1	3	3	130
	Hispanic	3	1						1	5
	Asian	1								1
	Other	1								1
2	White	11	1							12
	Black	62	9	1				2		74
	Hispanic	2	1							3
	Asian		1							1
	Other	1	1							2
3	White	8								8
	Black	45	3	1			1			50
	Hispanic	2								2
	Asian	1								1
	Other	1	1							2
4	White	4	1							5
	Black	25	2							27
	Hispanic	1								1
	Asian	1								1
	Other									
5	White	1	1							2
	Black	15	2					1		18
	Hispanic									
	Asian	1								1
	Other									
6	White									
	Black	7	1							8
	Hispanic									
	Asian									
	Other									
7	White									
	Black	4	1							5
	Hispanic									
	Asian									
	Other									
8	White									
	Black	5								5
	Hispanic									
	Asian									
	Other									
Total		308	50	10	2	1	2	7	4	384

Table Sixteen. IMS Particulate Outcomes by Race

The data in Table Sixteen indicate that African Americans account for 65 of the drug positive IMS particulate assays (85.5%), whites account for 5 (6.5%), Hispanics for 3 (3.9%), Asians for 1(1.3%), and "Other" for 2 (2.6%). For IMS particulate negatives (308) there are 252 African Americans who are negative, (81.8%) 41 whites (13.3%), 8 Hispanics (2.6%), 4 Asians (1.3%), and 3 "Other" (1.0%).

IMS Sweat Swab Analysis

Table Seventeen presents the overall findings for IMS analysis of sweat swabs. The routine collection of these samples from juvenile clients is discussed earlier in the report. Sweat samples were collected by swiping either the forehead or the nape of the neck of the client with an alcohol impregnated fiber pad. The pad is then dried, and analyzed by the IMS.

Sample	Drug Result	Negative	Cocaine	MJ	Heroin	6-MAM	Morphine	LSD	MAMP	AMP	PCP	Procaine	Total
1	1	103	1	21	3	1		24	1				154
	2		2	1	1			4		1		1	10
	3						1						1
2	1	65	1	10	1		2	9	1		1	1	91
	2			2									2
	3												
3	1	50		6	1			9				1	67
	2							2					2
	3												
4	1	32		2				8					42
	2							1					1
	3												
5	1	14	2	3	1			2					22
	2			1				2					3
	3												
6	1	7		3	1								11
	2				1								1
	3												
7	1	6											6
	2												
	3												
8	1	2		1	1								4
	2												
	3												
Total		279	6	50	10	1	3	61	2	1	1	3	417

Table Seventeen. Overall Outcomes for IMS Sweat Samples

The data for sweat swab samples is presented in Table Fifteen. The following general observations can be made: While the majority of samples are negative (276), the percentage of negative outcomes is lower than the IMS particulate findings. Approximately 67% of the IMS sweat samples are negative in contrast to more than 80% of the IMS particulate assays. Very surprisingly, the most frequent positive assay outcome for sweat was LSD. This is a surprising finding. There is almost no self-reported LSD use among the client (self-reported drug data will be reported in a later

section). The IMS sweat swabs resulted in 61 LSD identifications. Based on the experience of the staff, it is hard to treat this outcome as a credible detection. The sentiment of the clinical the staff is that it is unlikely that the IMS is accurately identifying LSD.

If LSD is excluded, then the most frequently positive drug is marijuana, which is a finding that conforms to the urine and hair assay results. However, the number of cocaine detections is small compared to hair analysis. There are only 6 cocaine detections by IMS sweat analysis, in contrast to 26 detections by urinalysis ands 76 detections by hair assay. Consistent with both the hair and urine assays, a small amount of opiate positive assays are seen in the IMS sweat data.

IMS Sweat Swab Outcomes by Sex

The following two tables, Eighteen and Nineteen, detail the IMS sweat analysis by gender and race/ethnicity.

Sample	Drug Result	Negative	Cocaine	MJ	Heroin	6-MAM	Morphine	LSD	MAMP	AMP	PCP	Procaine	Total
1	Male	92	2	20	1		1	25	1	1			143
	Female	11	1	2	3	1		3				1	22
2	Male	57	1	8	1		2	7	1		1	1	79
	Female	8		4				2					14
3	Male	43		6	1			10				1	61
	Female	7						1					8
4	Male	26		2				8					36
	Female	6						1					7
5	Male	10	2	2				4					18
	Female	4		2	1								7
6	Male	5		2	1								8
	Female	2		1	1								4
7	Male	5											5
	Female	1											1
	Male	2		1									3
	Female				1								1
Total		279	6	50	10	1	3	61	2	1	1	3	417

Table Eighteen. IMS Sweat Swab Outcomes by Sex

Table Eighteen shows that, while males still dominate the preponderance of assay outcomes, females in some categories approach or equal the frequency of male positives. For example, females account for one-third of the cocaine positive sweat swabs, and one-half of the heroin positive.

IMS Sweat Analysis by Race

Sample	Drug Result	Negative	Cocaine	MJ	Heroin	6-MAM	Morphine	LSD	MAMP	AMP	PCP	Procaine	Total
1	White	18			2			1					21
	Black	80	3	22	2	1	1	26	1	1		1	138
	Hispanic	3						1					4
	Asian	1											1
	Other	1											1
2	White	9		2									11
	Black	52		10	1		2	9	1		1	1	77
	Hispanic	3											3
	Asian		1										1
	Other	1											1
3	White	5						2					7
	Black	41		6	1			9				1	58
	Hispanic	2											2
	Asian	1											1
	Other	1											1
4	White	5		1									6
	Black	27		1				7					35
	Hispanic							1					1
	Asian							1					1
	Other												
5	White	3		2	1								6
	Black	11	2	2				4					19
	Hispanic												
	Asian												
	Other												
6	White	2		1	1								4
	Black	5		2	1								8
	Hispanic												
	Asian												
	Other												
7	White												
	Black	6											6
	Hispanic												
	Asian												
	Other												
8	White												
	Black	2		1	1								4
	Hispanic												
	Asian												
	Other												

Table Nineteen. IMS Sweat Swab Outcomes by Race

Table Nineteen reports on the IMS sweat analyses by race/ethnic category. It follows the established format of previous tables, listing the outcomes for each racial/ethnic category along the left of the table, while specifying the drug type across

the top. The cells contain frequency counts of the number of positive assay outcomes for that sample and racial/ethnic grouping.

When examining the sweat outcomes by race the findings, in terms of relative frequencies, are consistent with outcomes from other assays when specified by race/ethnicity. Of the rather small number of cocaine detections by sweat (6), 5 are African Americans. Likewise, with marijuana, of the 50 sweat detections, 44 are African American. These percentages are roughly consistent with the race/ethnicity percentages of the study group. Whites, for example, had 6 cocaine positive sweat outcomes constituting a 12% cocaine positive rate. Whites constitute about 13.4% of the sample. Generally, the outcomes for both cocaine and marijuana are rate-consistent; that is, the percentages of positives are comparable to the percentages each groups contribute to the race/ethnic characterization of the group as a whole.

The most interesting and challenging finding is in the detection rate of LSD by IMS sweat swab. LSD is the most commonly identified drug by IMS sweat assay at 61 detections. Of these 61 detections, 55 were specimens from African American clients, 3 were specimens from white clients, 2 were specimens from Hispanics, and I was a specimen from an Asian client. This is a very high number, in the view of the clinical staff. It is not supported by self-report data, and not consistent with the staff's perception of LSD use in the general juvenile community from which the client population comes. Unfortunately, neither urinalysis or hair analysis as performed in this study was designed to detect LSD, so we cannot turn to these other test matrices to evaluate the credibility of the IMS sweat results for LSD. However, as we shall review in more detail later, the self-reports of drug use gleaned from program invitees and participants make it difficult to sustain a belief that the IMS sweat data for LSD is reliable. The staff and research team's general view is that the instrument is likely to be in error.

Correlations between Different Assays for Specific Drugs: Comparing Hair Assays and Urinalysis Results

The report will now examine the comparative outcomes of the various testing technologies and the compatibility of their outcomes. In doing so the temporal relationship between the testing technologies will be considered. As discussed earlier in the report, the specimen collection dates for these different assays is critical in assessing their relative performance. It is important to bear in mind that the matrix used in the drug assay, as well as the pharmacokinetics of the particular drug under consideration, are both major factors in assessing the detection possibilities for a particular bioassay. In addition to these two factors, there is also variability associated with biological individuality. This individuality can be characterized as having an intrinsic component – aspects of a person's individuated, biological self, and an environmental component. The environmental component includes behaviors and interactions with the environment that have an effect of individual biological performance. For example, the outcome of a urinalysis test for a hypothetical drug X can be influenced by renal clearance capacity, an intrinsic factor that is influenced by age. The amount of fluids a person consumes in the 24 hours prior to specimen collection can influence test

performance by reducing analyte concentration. Additional complications, which must be weighed in examining illicit drug use, are that; the true dosage level is unknown, the potency and purity of the drug and the presence of contaminants is unknown.

Cocaine

There are 21 juvenile clients who had a total of 26 cocaine positive urinalyses at some point during their diversion experience. Table Twenty shows the overall urine assay results from these 21 cases. The urinalysis sequence, the left column, is denoted by *n.n*, The digit to the left of the decimal place indicates the test sequence, and the digit to the right indicates the order of drug detections within a sequence. In order to conserve space sequences with negative values for all drugs are not shown.

Ua Test #	Neg	Alc	Coc	MJ	Ops	Barbs	Benzo	Total
1.1	1		3	17				21
1.2			9	1				10
1.3							1	1
2.1	7		2	9				18
2.2			1					1
3.1	12			6				18
3.2			1		1			2
4.1	10			4				16
4.2			1					1
5.1	11			5				15
5.2			3					3
6.1	8			2				13
6.2			1					1
7.1	6	1		2				11
7.2		1						1
8.1	6	1		1	1			9
8.2		1						1
9.1	7	1		2				9
9.2		1						1
10.1	7			2		1		9
10.2			1					2
11.1	7			1				8
12.1	5		1	1				7
12.2			1					1
13.1	7							7
14.1	5							5
15.1	4		1					5
16.1	2			1				3
17.1	2							2
18.1	1							2
19.1								1
20.1	1							1
21.1				1				1
21.2			1					1
Total	115	6	26	56	2	1	1	207

Table Twenty. Urinalysis Outcomes, by Drug Type, for the 21 Cases With 1 or >1 Cocaine (+) Urinalysis

There were 207 total urine tests among the 21 cases that had one or more cocaine positive urine outcomes, a rate of 12.6% for cocaine. As well, these tests were often positive for a second drug, most typically marijuana.

The next comparison offered shows the general measure of concordance between hair and urinalysis outcomes for cocaine. This is shown in Table Twenty-one, which compares for all cases the dichotomous hair and urine assays outcomes for cocaine. Note the 21 cocaine positive urinalyses constitute the total of the first column.

		Any Cocaine (+) Urinalyses?		
		Yes	*No*	**Total**
Any Hair Assay Cocaine (+)?	*Yes*	8	45	53
	No	13	187	200
	Total	21	232	253

Table Twenty-one. Comparison, All Juveniles, of Dichotomous Hair and Urinalysis Outcomes, Cocaine

Table Twenty-one presents a two-by-two table comparing outcome concordance for cocaine for the 21 cases having one or more cocaine positive urinalyses. The next table, Table Twenty-two, assesses the potential outcomes and the reasons for concordance and non-concordance of the hair analyses and urinalyses for these 21 cases.

Table Twenty-one demonstrates that the concordance, overall, is good for the hair and urine cocaine assays. Approximately 77% of the cases are concordant as either negative on both assays, or positive on both assays. The outcome combination of urinalysis (-)/hair assay (+) is what might be called an "expected outcome", since hair assay have a much longer retrospective time frame for cocaine detection. These cases account for 17% of the outcomes. The remaining 6% (hair assay cocaine negative/urinalysis cocaine positive) are not an "expected outcome", generally, because if cocaine were present in the urine, we would expect to find it in the hair except under rather unusual circumstances. There are 13 such cases in Table Twenty-one.

Table Twenty-two offers a more detailed analysis of these 21 cases. The table shows case identification number, the total number of urinalyses performed for that case, the number of cocaine positive urinalysis, the number of hair assays, and the number of hair assays positive for cocaine. The last column indicates whether or not the hair analysis can be compared *in time frame* to the urinalysis, and when it can be compared whether the outcomes are concordant for cocaine or non-concordant. By concordant we simply mean that the urinalysis and hair analysis both were positive for cocaine within the testing time frame for each respective sample. Bear in mind that this is a highly imperfect comparison, since many factors not controlled for here can influence the concordance of the two assays in addition to the appropriate timing.

Case ID	Total # UAs	Cocaine (+) UAs	# of Hair Assays	Coc (+) Hair	Urine & Hair Comparable Times? Concordant?
59	13	1	2	0	No, hair prior
119	2	1	1	0	No, hair prior
123	2	1	1	0	Yes, non-concordant
130	22	1	3	0	No, hair prior
138	6	1	2	1	Yes, concordant
139	15	1	3	1	Yes, concordant
152	14	1	2	0	Yes, non-concordant
208	7	1	3	0	Yes, non-concordant
221	7	1	2	2	Yes, concordant
222	17	1	5	3	Yes, concordant
238	4	1	2	1	No, hair prior
241	6	1	2	1	Yes, concordant
258	19	1	2	0	Yes, concordant
317	15	1	3	1	Yes, concordant
361	15	1	3	1	Yes, concordant
363	2	1	0	0	No hair data
379	8	4	1	0	Yes, non-concordant
387	8	1	0	0	No hair data
396	14	2	1	0	No, hair prior
410	3	2	0	0	No hair data
417	8	1	1	0	No, hair too late
Total	**207**	**26**	39	8	

Table Twenty-two. Time Frame Comparison of Cocaine (+) Urine and Hair Samples

Close examination of these 21 cases, as detailed in Table Twenty-two, indicates the following:

- Eight had concordant outcomes. These are the 8 cases in the *Yes/Yes* cell of Table Twenty-one.
- Nine cases which are among the 13 non-concordant cannot be compared because of the following reasons:
  - Four of these cases had hair assays only prior to the urinalysis, so they are not comparable
  - Four had no hair assays performed, since they were never ultimately admitted to the program, so no data is available to make a comparison to the urine results.

- 1 case had an extreme time gap between the intake urinalysis and the first hair assay. Thus, these are not comparable since sufficient temporal overlap is lacking.

- Four cases do have sufficient temporal overlaps (i.e., appropriate coincidence of testing dates for comparison), but had non-concordant outcomes. That is, the urinalysis was cocaine positive, but the hair was cocaine negative. These four non-concordant cases (#'s123, 152, 208, and 379) are described in more detail below:

Case 123	Date	Outcome	
I urinalysis	5/19/00	mj (+), coc (+)	1.1 cm length is marginal for this comparison
1 hair assay	6/13/00 (1.1 cm)	Negative	

Case 152	Date	Outcome	
I urinalysis	6/15/00	mj (+), coc (+)	Non-concordant
1 hair assay	6/26/00 (3.9 cm)	Negative	
1 hair assay	11/30/00 (3.0 cm)	negative	Not comparable/temporal

Case 208	Date	Outcome	
I urinalysis	7/24/00	mj (+)	Not comparable/temporal
1 hair assay	9/11/00 (1.0 cm)	negative	
I urinalysis	10/16/00	mj (+)	No comparable hair in time frame
I urinalysis	10/23/00	mj (+)	
I urinalysis	10/31/00	mj (+)	
I urinalysis	2/9/01	mj (+)	Comparable for MJ
1 hair assay	2/9/01	mj (+)	
I urinalysis	5/24/01	mj (+),coc (+)	Comparable for MJ: Not for Cocaine/not sufficient time?
1 hair assay	5/25/01	mj (+)	

Case 379	Date	Outcome	
I urinalysis	8/16/01	mj (+)	Comparable for MJ Not comparable for Cocaine
I urinalysis	8/21/01	mj (+),coc (+)	
1 hair assay	9/4/01 (1.2 cm)	mj (+)	
I urinalysis	9/13/01	mj (+),coc (+)	

Table Twenty-three. Comparability Evaluation of Four Cocaine Cases[2]

In examining the outcomes for these 4 cases, the following conditions should be observed. For Case 123, the length of the specimen is just barely sufficient to be inclusive of the time differential between hair and urine specimens. So this case can be considered a "marginal" finding. Case 152, for the 6/16 and 6/26 dates appears as a

[2] The hair specimen length is shown in centimeters in parentheses

true non-concordant. For case 208 the 5/24 and 5/25 dates may be close in time for the hair to have emerged above the scalp with the drug present. It is generally believed that there is a five-day lag between invasion of the follicular structure by a drug and the emergence of the drug above the epidermis (note: the hair is cut at the level of the skin surface – it is not plucked or pulled). Thus, this outcome can also be considered marginal. Case 379 appears, like case 152, to be a truly non-concordant outcome. Thus of the 13 cases, we have nine which are not comparable, two which are marginal, and two which are temporally appropriate and non-concordant. Another possibility, which we do not have the data to assess, is that in these cases there may have been cocaine present in the hair but in quantities not sufficient to meet the minimum threshold value of 0.5ng/mg of hair.

In any event, this comparison is not a highly precise method of evaluating the concordance of these two assays. There are several very important issues to bear in mind when evaluating the comparability issue as delineated above:

- Length of hair specimen is a crucial variable. If the length is in the 1 cm range one probably has a 3 to 4 week window in general, but there can be substantial variation of the hair growth rate. This can be critical in determining temporal overlap between the time of urine collection and analysis and hair collection and analysis. This is further complicated by the realization that the dates are dates of specimen collection, not date on which the drugs have been consumed.

- Threshold values also play a critical role. The tests are reported at laboratory cut-off or threshold values, which are not the limit of detection of the instrumentation. Thus the analysis for both assays is constrained by the application of this practice. Urinalysis thresholds are NIDA-recommended, and the testing laboratory establishes the hair assay thresholds.

It is also interesting to note that many of these cases that were not concordant on cocaine were concordant for marijuana. Next, therefore, we examine the marijuana hair/urine concordance more closely.

Marijuana

Marijuana was the single most widely detected drug by either hair or urinalysis and the single most frequently reported drug among all the clients referred to the diversion program. There are 166 referrals that had one or more marijuana positive urinalysis. These 166 cases accounted for a total of 534 marijuana positive urine assays. This is because many of the referrals had multiple marijuana positive urine tests. The overall outcomes for marijuana urinalysis (not including the cases which were negative for all tests) are shown in Table Twenty-four. The table summarizes the frequency counts in cases for each sequential assay outcome. For example, the first data column indicates that there were 68 cases that had a single positive marijuana urinalysis; the second data column indicates there were 25 cases that had 2 marijuana

positive outcomes, etc. Thus the last row in the table represents the column heading value multiplied times the number of cases (the second row).

Frequency of MJ (+) Urines	1	2	3	4	5	6	7	8	9	10	11	12	13	15	16	Total
Frequency of Cases	68	25	21	16	9	5	6	5	2	1	2	1	3	1	1	166
Total # of MJ (+) Urines	68	50	63	64	45	30	42	40	18	10	22	12	39	15	16	534

Table Twenty-four. Frequency of Cases and Assays for Juveniles with 1 or >1 Marijuana Positive Outcome

Table Twenty-five, which follows, compares the outcomes for urinalysis and hair analysis using the format followed in making the same comparison for the cocaine assay outcomes. The values in the cells are the number of cases that had one or more positive marijuana assays by urinalysis or hair analysis. Thus the column value in Table Twenty-five corresponds to the 166 cases shown in Table Twenty-four.

		Any Marijuana (+) Urinalyses?		
		Yes	*No*	**Total**
Any Hair Assay Marijuana (+)?	*Yes*	114	9	123
	No	52	78	130
	Total	166	87	253

Table Twenty-five. Comparison, All Juveniles, of Dichotomous Hair and Urinalysis Outcomes, Marijuana

Table Twenty-five presents a comparison of dichotomous urinalysis and hair assays outcomes and assesses the concordance for marijuana hair and urine results. The table indicates that the concordance for marijuana, overall, is comparable to the results obtained for cocaine. Approximately 76% of the cases are concordant as either negative on both assays, or positive on both assays. The outcome combination of urinalysis negative/hair assay positive is, however, the opposite of the cocaine findings. This is not a surprising pattern, since urinalysis has a longer retrospective time frame for marijuana detection than it does for cocaine. Marijuana is readily detected in urine for several weeks in persons who are consistent smokers, and may be detected in the urine of heavy users for two months. As well, cannabinoids are relatively more difficult to detect in hair because the concentration of cannabinoids is hair occurs in much smaller quantities than does cocaine. Generally, it is recognized that cannabinoids concentrate in hair at about a 10^3 smaller order of magnitude than cocaine. Thus the combined effect of enhanced urine detectability and more difficult cannabinoid detection by hair assay is reflected in the frequency counts shown in cells II and III. The cell II cases account for about 3.6% of the outcomes. The remaining cases in cell III account for 20.4% of the outcomes, representing 52 cases

Case ID	Total # UA's	MJ (+) UA's	Total # of Hair Assays	Case ID	Total # UA's	MJ (+) UA's	Total # of Hair Assays
61	6	2	2	292	14	1	3
64	30	3	5	298	28	1	2
69	4	1	2	320	15	2	3
79	1	1	2	344	3	3	3
102	1	1	1	351	1	1	0
103	2	2	1	359	17	1	2
109	2	2	2	363	2	1	0
113	13	3	3	364	1	1	0
114	1	1	1	367	8	4	1
117	13	1	3	369	1	1	0
119	2	1	1	373	12	1	2
121	2	1	1	375	4	4	1
123	2	1	1	387	8	2	0
124	5	3	2	392	6	1	1
132	1	1	0	397	9	1	1
153	1	1	1	398	7	1	1
179	13	1	3	406	1	1	0
200	16	2	4	409	9	1	2
201	14	2	4	416	3	1	1
221	7	2	2	421	1	1	0
225	1	1	0	423	1	1	0
236	30	3	4	428	1	1	0
250	19	1	2	430	1	1	1
259	13	1	3	433	1	1	0
269	8	1	2	437	1	1	0
270	18	1	3	Totals	403	76	82
274	23	1	3				

Table Twenty-six. Examining the 52 Cell III Cases: Urinalyses Marijuana (+) and Hair Assays Marijuana (-)

Table Twenty-six present in some detail the 52 cases from Cell III of Table Twenty-five. These are the cases for which there was a positive urinalysis but a negative hair assay for cannabinoids. The table reports the total number of urinalyses as well as the marijuana positive urine specimens. The number of hair samples per subject is also shown. Diagonally scored cells indicate cases for which there was no hair specimen available for analysis. Of the 52 cases identified in this table, 13 had no hair specimens collected. A more detailed analysis of the outcome patterns for these cases is presented in the following table.

Case ID	# of Assays	Assay Dates		Hair Length/ cm	Comment
61	2	UA Date	9/12/00		
		Hr Date	9/12/00	1.0	
64	5	UA Date	4/20/00		
		Hr Date	5/2/00	3.0	
79	2	UA Date	4/11/00		
		Hr Date	4/17/00	2.0	
102	1	UA Date	3/23/00		
		Hr Date	4/18/00	2.4	
103	1	UA Date	4/10/00		
		Hr Date	4/10/00	3.9	
109	2	UA Date	5/10/00		
		Hr Date	6/8/00	1.0	1
113	3	UA Date	7/11/01		
		Hr Date	7/11/01	2.6	
114	1	UA Date	8/14/00		
		Hr Date	8/14/00	1.0	
117	3	UA Date	3/2/01		
		Hr Date	3/2/01	3.9	
119	1	UA Date	4/17/00		
		Hr Date	4/24/00	2.4	
121	1	UA Date	4/12/00		
		Hr Date	4/18/00	1.0	
124	2	UA Date	4/12/01		
		Hr Date	4/12/01	1.3	
153	1	UA Date	5/17/00		
		Hr Date	5/23/00	3.9	
179	3	UA Date	5/30/01		
		Hr Date	5/30/01	3.4	
200	4	UA Date	3/10/00		
		Hr Date	3/31/00	3.9	
		UA Date	4/5/01		
		Hr Date	4/5/01	3.0	
221	2	UA Date	5/8/01		
		Hr Date	5/8/01	2.2	
259	3	UA Date	6/15/01		
		Hr Date	7/12/01	3.9	
270	3	UA Date	12/28/00		
		Hr Date	1/4/01	6.1	
274	3	UA Date	6/19/01		
		Hr Date	5/23/01	3.9	
292	3	UA Date	2/23/01		
		Hr Date	3/20/01	1.0	
320	3	UA Date	2/12/01		
		Hr Date	2/22/01	1.0	
		UA Date	6/14/01		
		Hr Date	6/13/01	1.0	
359	2	UA Date	5/8/01		
		Hr Date	6/11/01	2.3	
367	1	UA Date	7/25/01		
		Hr Date	7/31/01	3.9	
375	1	UA Date	7/23/01		
		UA Date	8/16/01		
		Hr Date	7/31/01	3.9	
392	1	UA Date	9/19/01		
		Hr Date	9/20/01	3.0	
397	1	UA Date	10/4/01		
		Hr Date	10/6/01	3.9	
398	1	UA Date	10/14/01		
		Hr Date	10/23/01	3.7	
409	2	UA Date	10/18/01		
		UA Date	10/25/01		
		Hr Date	11/4/01	4.3	
416	1	UA Date	11/7/01		
		Hr Date	11/14/01	3.9	
430	1	UA Date	12/11/01		
		Hr Date	12/17/01	3.9	

Comments: 1 = marginal overlap
Cases with no hair (132, 225, 344, 351, 363, 364, 369, 387, 406, 421, 423, 428, 433, 437) are omitted from the table.
Cases with no temporal overlap (Cases 69, 123, 201, 236, 250, 269, 298, 373) are omitted from the table

Table Twenty-seven. Time Frame and Hair Specimen Length Comparisons for Cases with MJ (+) Urinalyses and MJ (-) Hair Assays

Table Twenty-seven provides some detail on the comparative outcome for urine marijuana positive/hair marijuana negative cases. Table Twenty-six presented data on the 52 cases that comprised cell III of Table Twenty-five. As indicated in the embedded comments in Table Twenty-seven, a number of these cases can be excluded from further consideration. Fourteen cases are excluded because they have either no hair sample available or an inadequate quantity of hair for analysis. Eight cases can also be excluded because the temporal occurrence of the tests in relation to the length of the

hair specimen does not provide sufficient overlap for a comparison to be made. Table Twenty-seven contains 30 cases that are eligible for comparison.

Comparability	Cases (by ID)	Total Number
Clear	64, 102, 109, 119, 200, 259, 274, 359, 375, 398, 409, 416	12
Marginal	79, 121, 153, 270, 292,367, 430,	7
Too Close	61, 103, 113, 114, 117, 124, 179, 221, 392, 397	10
Special Cases[3]	320	1

Table Twenty-eight. Evaluating the Comparability of Urine and Hair Assay Outcomes

The potential comparability of the specimens as detailed in Table Twenty-seven can be categorized in three general groups. These groups are shown in Table Twenty-eight. First are those hair specimens that have appropriate length to encompass the time frame when the urine specimen was collected. These are considered cases whose comparability is "clear". A second category is cases that have a "marginal" relationship between specimens. These are characterized as having a combination of a relatively short sample (though not in all cases) in combination with a very close time connection between urine and hair specimen collection dates. Recall that it requires, on average, about 5 days for scalp hair to emerge above the epidermis. The impact of this requirement is that there is a 5-day time period immediately after consuming a drug where the drug may be found in the urine, but is not yet in the hair that is available above the scalp. Therefore, we consider cases that have a window of 4 to six days temporal separation as "marginal". Lastly, there are a number of cases in which the urine and hair specimen is too close to permit comparison. For example, there are a number of cases where the hair and urine specimen were collected on the same day. Those cases in which the hair or urine is separated by 72 hours or less we categorize as "too close".

Combinations of Detection Patterns for Other Drugs

As the earlier presentation of over-all findings indicated, the study group was dominated by marijuana positive outcomes for both hair assay and urinalysis. All other drugs identified by assay were relatively small. For example, there were 534 marijuana positive urine assays, and 172 marijuana positive hair assays. If we look to the next most frequent drug detected by urinalysis excepting cocaine, that is benzodiazepine, which was detected in 16 urine specimens. There were only 10 opiate positive urinalyses out of more than 2,000 urine specimens. Thus we lack the capacity, in any meaningful way, to compare the concordance of these tests for drugs outside the framework of cocaine and marijuana.

[3] Case 320 has 2 hair and 2 urine specimens. One pair is comparable, one pair is not.

Comparison of IMS Results with Hair and Urinalysis Outcomes

Cocaine

Of the various assay technologies we have reviewed here, ion mobility spectrometry is the most innovative in its applicati0n in New Orleans. In general, there has been very limited use of IMS in the fashion that we have employed it in the New Orleans Diversion Program. In an earlier section we have presented the overall findings for IMS data for both surface particulates and sweat swab analysis. In this section we review the outcome of the IMS results in comparison to the urine and hair assay outcomes.

Cocaine Assays, All Techniques

There were no cases in which a cocaine positive was registered simultaneously by all detection techniques – urinalysis, hair assay, IMS particulate assay, and IMS sweat assay. However, there were several detections by three of the techniques, and many detections by two. Table Twenty-nine displays the frequency outcomes for the comparisons of these assays for cocaine. The table reports the number of cases in which there were cocaine detections by the number of different assays that registered the detection.

Assays Detecting Cocaine		Frequency	Percent
No Detection, Any Technique	0	167	66.8
Detection, One Technique	1	56	21.7
Detection, Two Techniques	2	23	8.7
Detection, Three Techniques	3	7	2.8
Detection Four Techniques	4	0	0
Total		253	100.0

Table Twenty-nine. Number of Detections by Assay Techniques, Cocaine

As Table Twenty-nine indicates, in about 66% of the cases there were no cocaine detections by any technique. And, as stated earlier, no case had cocaine detected by every technique. For cases that were cocaine positive the most common occurrence was to have cocaine detection by a single technique. The outcomes of the seven cases which had triple detections (detected by urine, hair, or IMS sample in some combination) were as follows: 4 cases were cocaine (+) by hair, urine, and IMS particulates, 2 were hair (+), particulate (+), and sweat (+), 1 is urine (+), particulate (+), and sweat (+). Table Thirty presents the outcomes of the specific combinations of cocaine positives by detection technique.

Number of Techniques Detecting Cocaine		0	1	2	3	Total
IMS Sweat Samples Cocaine (+)	Yes		1	2	3	6
	No	65	33	16	2	116
IMS Particulates Samples Cocaine (+)	Yes		17	16	7	40
	No	73	17	4	0	94
Hair Assays Cocaine (+)	Yes		30	17	6	53
	No	169	25	5	1	200
Urinalysis Cocaine (+)	Yes		7	9	5	21
	No	169	48	13	2	232

Table Thirty. Specific Combinations of Assay Outcomes for Cocaine

The column showing total number of cases indicates that hair assays were the most frequent cocaine detection technique, followed by IMS particulate detection, and then urinalysis detection of cocaine. IMS sweat detection of cocaine was the least likely outcome. This is an interesting finding. The capacity of hair to detect cocaine, given its enhanced "time window", is not surprising. But one would expect somewhat better correlation between the urinalysis outcomes and the IMS sweat outcomes. As we indicated previously, this table also shows that the hair assay outcomes and the IMS particulate results are similar.

The next series of tables considers the same issue, the number of techniques and their relative number of simultaneous detection, but examines the outcomes for marijuana positive cases.

Marijuana Assays, All Techniques

Assays Detecting Marijuana		Frequency	Percent
No Detection, Any Technique	0	67	26.5
Detection, One Technique	1	57	22.5
Detection, Two Techniques	2	103	40.7
Detection, Three Techniques	3	24	9.5
Detection Four Techniques	4	2	0.8
Total		253	100.0

Table Thirty-one. Number of Detections by Assay Techniques, Marijuana

Table Thirty-one reports on the outcome for multi-technique detection for marijuana assays. The data indicates, relative to cocaine, there are considerably more

detections by multiple techniques, including two cases in which every discrete assay type detected cannabinoids. About 26.5% of the cases had no cannabinoid detections by any technique. For cases that were cannabinoid positive the most common occurrence was to have detection by a two techniques. Twenty-four cases that had triple detections (detected by urine, hair, or IMS sample in some combination). Of the 24 cases with three technique detections, all 24 have one or more marijuana positive urinalyses, 23 have a marijuana positive hair assay, 20 have a marijuana positive IMS sweat assay, and 5 have an IMS marijuana positive particulate assay.

Number of Techniques Detecting Marijuana		0	1	2	3	4	Totals
IMS Sweat Samples Marijuana (+)	Yes		10	12	20	2	44
	No	67	47	91	4	0	209
IMS Particulates Samples Marijuana (+)	Yes		1	2	5	2	10
	No	67	56	101	19	0	243
Hair Assays Marijuana (+)	Yes		6	92	23	2	123
	No	67	51	11	1	0	130
Urinalysis Marijuana (+)	Yes		40	100	24	2	166
	No	67	17	3	0	0	87

Table Thirty-two. Specific Combinations of Assay Outcomes for Marijuana

Table Thirty-two presents the specific detection techniques categorized by the number of detections. The table indicates that when relying on a single detection to identify cannabinoids, urinalysis is the modal value at 40 detections. It is interesting to note that the second most common detection for single-detection cases is IMS sweat swabs. If one considers two-detection cases and more-than two detection cases, however, hair analysis becomes the second most common detection modality, and is fairly well matched to the number of urinalysis detections. IMS sweat detections do not continue to track as well, although they do continue to increase as the number of detection events increases.

Contrasting this series of tables is quite interesting. It indicates, for example, that the value of IMS sweat and particulate assays reverses itself for these two substances. IMS particulates make a relatively strong showing in the cocaine pattern analysis, actually outperforming urinalysis at every level of detection, and at higher levels of detection tracking quite closely with hair analysis cocaine detections. IMS sweat detection of cocaine does poorly, having the lowest number of detection values at each level of detection rate. However, this pattern is the opposite when we consider cannabinoids. The rate of IMS particulate detections of cannabinoids is very low, having the smallest value at each level of detection rate. However, IMS sweat swabs are more effective in cannabinoid detection. At the level of a single detection it ranks second to urinalysis, and has a higher rate of detection than hair analysis. It does not keep pace when considering dual-detection cases, where hair dramatically increases. From the

dual-detection level on, hair and urinalysis track together quite closely. At triple detection and four-fold detection all three, hair, urine and IMS sweat, correlate quite well.

How might we account for these interesting results? There are several possibilities on which we can speculate. One is, of course, that there are some aspects of the chemistry of these compounds as they are secreted in sweat that makes them selectively optimized for the IMS in one case, or selectively suppressed in another. We must also bear in mind that these patterns also demonstrate what we have seen in other tables when we look at the performance of hair and urine as test matrices. Because of the rapid excretion of cocaine via urine, and the relatively slower excretion of cannabinoids by urine, we expect hair to perform more effectively with cocaine detection and urine to perform more effectively with cannabinoid detection. Tables Thirty and Thirty-two demonstrate this effect well. But one also sees in these tables as the number of cannabinoid detections increases, the urine and hair technique results come into better alignment, both concordant more than 90% of the time. This may well be due to the fact that those clients who had more frequent detections are more frequent users, and therefore over time have higher concentrations of these materials in their biosystems. For slowly excreted materials (e.g., cannabinoids) sweat is "advantaged" – just as urine would be "advantaged" – and consequently IMS sweat detection does better with cannabinoids relative to cocaine (a rapidly excreted material). An additional feature of cannabinoids is their highly lipophilic character. Since skin swabs will also include sebaceous secretions, which are rich in fats and oils. Hence, they may be especially effective for cannabinoids. Cocaine, which is hydrophilic, would be in this sense "disadvantaged" in comparison.

Self-Reported Drug Use and Assay Outcomes

The use of bioassays in criminal justice applications is based on several beliefs about the benefits of this activity. First, a substantial body of literature indicates that self-reports of drug use are not reliable; especially when they involve criminally detained or convicted persons. Secondly, on an individual case basis, criminal justice personnel typically favor drug testing in many circumstances because it enhances their capability of identifying and responding appropriately to person who are under their supervisory control. Also, many persons involved in treatment, diversion, and release programs believe that drug testing helps motivate them more effectively to cease drug use and aid against relapse. Also, biological assays provide objective criteria to which other kinds of data can be compared in situations such as program evaluations and the efficacy of a particular treatment approach. Lastly, but importantly, public support and judicial support can be more forthcoming when drug testing is used, because it provides an enhanced sense of security to the general public that recalcitrant offenders and drug abusers can be identified and cannot continue to "hide out" in treatment programs. Indeed, in several cases drug testing has even identified persons who are a unique form of malingerer: one who seeks to portray themselves as drug addicted in order to qualify for special programs when they are not, in fact, drug users. The following series of tables (Tables Thirty-three through Thirty-eight) report the outcomes of comparing self-

reported drug use actions for Juvenile Diversion Program participants and the outcome of the various assay results for those participants.

		Program Status		
		Entered	Refused to Enter	**Total**
Intake Interview	*Yes*	112	38	150
	No	38	65	103
	Total	150	103	253

Table Thirty-three. Admission Status and Interview Data

Table Thirty-three is a cross-tabulation that reports the frequencies of eligible juveniles who were referred to the program, whether or not they chose to enter into diversion, and the number who consented to an intake interview. Since referred clients could decide against entry into the program at any stage of diversion, there were a number of persons who refused who went through the intake procedure, but ultimately did not initiate diversion itself. The self-reported drug use data reported here is based on these 150 interviews. However, not all respondents answered all questions completely, so the numbers that appear in the following tables are variable to some degree.

Reasons for Refusal to Enter the Program

There were a variety of reasons offered by parents to caseworkers for deciding not to permit their child to enter diversion. Prominent among the, were the following:

- *Inconvenience.* The travel demands in order for the child tp participate in the programs mandated by their caseworker were such that the parent did not wish to devote the time to managing the transportation of the juvenile. The program did make available to participants travel vouchers for bus transportation in order to encourage participation.

- *Juvenile Records Are Sealed.* Adult diversion is strongly motivated by the desire of the offender to be able to avoid a felony conviction. Parents felt that since the juvenile's record was sealed at 18, there was nothing to gain by program participation

- *Insufficiently Harsh Response.* Some parents felt that the program was not sufficiently punitive, and wanted the child to undergo a more conventional criminal justice experience. The diversion program was too "illness-oriented" and not judgmental enough regarding the "wrong" nature of the conduct.

General Self-Reported Use of Drugs

	Entered		Refused		
Ever Used?	**No**	**Yes**	**No**	**Yes**	**Total**
Alcohol	31	68	5	17	121
Marijuana	16	87	2	19	124
Crack Cocaine	72	2	12	0	86
Powder Cocaine	71	3	12	0	86
Heroin	73	0	10	0	83
PCP	73	0	11	0	84
Inhalants	69	1	13	0	83
Hallucinogens	72	4	12	0	88
Sedatives	70	3	10	2	85
Tranquilizers	69	8	11	1	89
Stimulants	68	3	12	0	83
Analgesics	69	6	11	0	86

Table Thirty-four. Summary of Self-Reported Drug and Alcohol Lifetime Use

Table Thirty-four reports the summary use of drugs and alcohol over the lifetime for referral clients, and specifies the responses for those who entered the program and those who refused. Marijuana was the most frequently self-reported drug, outstripping even alcohol. Alcohol was the second most frequently reported substance used. There was no reported use of either heroin or PCP. All other drugs were in the single-digit range of self-reports.

In the next series of tables we present the self-reported use of marijuana and cocaine and examine the degree to which the drug of reported use, and the extent of the detection of the drug by the various assay technologies used in the study.

Marijuana, Lifetime Use

Table Thirty-five presents the outcomes of self-reported lifetime marijuana use and contrasts the reported use with the number of marijuana detections by urinalysis, hair assay, IMS particulate assay, and IMS sweat assay.

		Any MJ (+) Urines?		Any MJ (+) Hair?		Any IMS Sweat MJ (+)?		Any IMS Particles MJ (+)?	
		Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
Ever Use Marijuana?	No	9	9	5	13	3	15	1	17
	Yes	87	19	73	33	26	80	4	102

Table Thirty-five. Assay Outcome compared to Lifetime Self-Report, Marijuana

Urinalysis and Self-Reported Lifetime Marijuana Use

The outcome for urinalysis and self-reported marijuana use, lifetime, is that there is a direct agreement on 77.4% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to lifetime use of marijuana does not mandate a positive urine). Cell I, in which the individual denied ever using marijuana, but has a marijuana positive urine test constitute 7.2% of the cases.

Hair Analysis and Self-Reported Lifetime Marijuana Use

The outcome for hair analysis and self-reported marijuana use, lifetime, is that there is a direct agreement on 69.3% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to lifetime use of marijuana does not mandate a positive hair assay). Cell I, in which the individual denied ever using marijuana, but has a marijuana positive hair assay constitute 4.0% of the cases. Overall, the findings between urinalysis and hair analysis are in reasonably close alignment.

IMS Sweat Analysis and Self-Reported Lifetime Marijuana Use

The outcome for IMS sweat analysis and self-reported marijuana use, lifetime, is that there is a direct agreement on 33.1% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to lifetime use of marijuana does not mandate a positive IMS sweat assay). Cell I, in which the individual denied ever using marijuana, but has a marijuana positive IMS sweat assay constitutes less than I% of the cases (0.24%).

IMS Particulate Analysis and Self-Reported Lifetime Marijuana Use

The outcome for IMS particulate analysis and self-reported marijuana use, lifetime, is that there is a direct agreement on 16.4% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to lifetime use of marijuana does not mandate a positive IMS particulate assay). Cell I, in which the individual denied ever

using marijuana, but has a marijuana positive IMS particulate assay constitutes less than one tenth of I% of the cases (0.08%).

Overall, the IMS detections have dramatic lower rates of concordance with the outcomes for either hair or urinalysis, which are good approximations of each other. IMS particulate matter is especially lacking, having a value lower than expected by chance assignment to table cells.

Marijuana, 90-day Past Use

Table Thirty-six presents the outcomes of self-reported lifetime marijuana use and contrasts the reported use with the number of marijuana detections by urinalysis, hair assay, IMS particulate assay, and IMS sweat assay.

		Any MJ (+) Urines?		Any MJ (+) Hair?		Any IMS Sweat MJ (+)?		Any IMS Particles MJ (+)?	
		Yes	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*
90-Day Use Marijuana?	No	3	0	2	1	1	2	0	3
	Yes	78	16	66	28	23	71	4	90

Table Thirty-six. Assay Outcome Compared to 90 Day Self-Reports, Marijuana

Urinalysis and Self-Reported Marijuana Use, Past 90 Days

The outcome for urinalysis and self-reported marijuana use, 90-day past use, is that there is a direct agreement on 80.4% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to 90-day past use of marijuana does not mandate a positive urine). Cell I, in which the individual denied using marijuana within the past 90 days, but has a marijuana positive urine test, constitutes 7.2% of the cases.

Hair Analysis and Self-Reported Marijuana Use, Past 90 Days

The outcome for hair analysis and self-reported 90-day past use of marijuana is that there is a direct agreement on 69.1% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to 90-day past use of marijuana does not mandate a positive hair assay). Cell I, in which the individual denied using marijuana in the past 90 days, but has a marijuana positive hair assay constitute 2.1% of the cases. Overall, the findings between urinalysis and hair analysis are in reasonably close alignment, with urinalysis identifying slightly more of those who admitted to past 90-day use.

IMS Sweat Analysis and Self-Reported Marijuana Use, Past 90 Days

The outcome for IMS sweat analysis and self-reported 90-day past use of marijuana is that there is a direct agreement on 25.8% of the cases (cell II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to 90-day past use of marijuana does not mandate a positive IMS sweat assay). Cell I, in which the individual denied using marijuana in the past 90 days, but has a marijuana positive IMS sweat assay constitutes approximately I% of the cases.

IMS Particulate Analysis and Self-Reported Marijuana Use, Past 90 Days

The outcome for IMS particulate analysis and self-reported past 90-day use of marijuana is that there is a direct agreement on 7.2% of the cases (Cells II and III). Cell IV cannot be evaluated because of the time frame differential, but the outcome is not contradictory of the test findings (admission to 90-day past use of marijuana does not mandate a positive IMS particulate assay). There are no cases in Cell I, which is the category for individuals denying use of marijuana in the past 90 days, but having a marijuana positive IMS particulate assay.

Overall, as in the case of lifetime self-reported marijuana use, the IMS detections have notably lower rates of concordance with the outcomes for either hair or urinalysis, which are good approximations of each other for the 90-day time window as well as the lifetime range. IMS particulate and sweat both have very large numbers of cases falling into Cell IV, in which the person admits use within 90 days, but has a negative test result. As noted in the above discussion, this cannot be directly evaluated since the time frame is broad enough to allow for the findings to not logically be impossible. However, based on the findings of both hair and urine for this same group, we strongly suspect that for marijuana IMS particulate assessments are weak. IMS sweat, as the earlier review of the stand-alone sweat revealed does considerably better than IMS particulates. However, it still lacks in comparison to either urinalysis or hair analysis

Cocaine

As we noted in an earlier section, there are very few admissions to cocaine use among this group of juveniles. There are only 8 positive self-reports for cocaine for the study group. Three of the self-reports are admissions to use within the last 90 days, and the remaining 5 reports are admission to lifetime use of cocaine. However, there were 21 individual juvenile clients who had 26 cocaine positive urinalyses, and 53 juvenile clients who had 76 cocaine positive hair assays. Thus, one must conclude that, in general, cocaine use was under-reported by this group. The following tables, Tables Thirty-seven and Thirty-eight, report on the comparisons of self-reported cocaine use and assay outcomes for urine, hair, and both IMS particulates and sweat swabs.

		Any Cocaine Use, Past 90 Days?		Any Cocaine Use, Ever?	
		No	*Yes*	*No*	*Yes*
Any IMS Sweat Cocaine (+)?	*Yes*	0	0	2	0
	No	1	1	54	2
Any IMS Particulate Cocaine (+)?	*Yes*	1	1	16	2
	No	0	1	40	1
Any Hair Assays Cocaine (+)?	*Yes*	0	1	23	1
	No	2	2	60	4
Any Urines Cocaine (+)?	*Yes*	1	1	7	2
	No	1	2	76	3

Table Thirty-seven. Assay Outcomes Compared to Self-Reports, Any Cocaine

Table Thirty-seven reports the general findings for the self-report and assay outcomes for both lifetime self-reported cocaine use as well as past 90-day cocaine use. Based on previously presented data, one would not expect the IMS sweat analysis to perform well under these circumstances, and it does not. IMS sweat swabs failed to detect either of the two clients who admitted to lifetime use, or the client who admitted to past 90-day use. IMS particulates, however, identified all these cases. However, because of the large time frames which each of these questions encompass, it may be that the failure to detect is simply a function of time alone. For example, while hair assay identified a large number of persons who did not admit to cocaine use, it also did not identify several who had admitted to it. Like the IMS testing, however, the time frame of the question is so broad as to make it impossible to determine whether or not the hair assay should have made these detections or not. Table Thirty-eight repeats the comparison, only is specifies whether or not the self reported use is for powder cocaine or for crack cocaine.

		Ever Use Crack Cocaine		Ever Use Powder Cocaine		Use Crack, Past 90 Days		Use Powder, Past 90 Days	
		No	*Yes*	*No*	*Yes*	*No*	*Yes*	*No*	*Yes*
Any Cocaine (+) Urines?	*Yes*	8	1	8	1	0	1	1	0
	No	76	1	75	2	0	0	0	2
Any Cocaine (+) Hair?	*Yes*	23	1	24	0	0	1	0	0
	No	61	1	59	3	0	0	1	2
Any Cocaine (+) IMS Particulates?	*Yes*	17	1	17	1	0	1	1	0
	No	40	0	39	1	0	0	0	1
Any Cocaine (+) IMS Sweat?	*Yes*	2	0	2	0	0	0	0	0
	No	55	0	53	2	0	0	1	1

Table Thirty-eight. Assay Outcomes Compared to Self-Reports, Lifetime and 90-Day Use, Crack and Powder Cocaine

Table Thirty-eight presents the same general data as presented in Table Thirty-seven, only specifying the self-report data for crack cocaine and powder cocaine use, both lifetime and 90-day past use. Since the data from Table Thirty-eight is embedded in Table Thirty-seven, the same evaluation applies to this table as to Table Thirty-seven.

Summary

This document has reported on the implementation of the New Orleans Juvenile Diversion program. It has attempted to explain the need and rationale for such a program. The need for the program has been justified on the degree and quality of juvenile crime, on the implications of drug use in juvenile criminality, and on the broad range of detrimental effects that are associated with juvenile drug use. Furthermore, reference to empirical findings from the ADAM system, as well as other sources indicate that juveniles continue to use drugs in serious numbers, that juveniles generally report ready access to drugs in their communities, and that very substantial numbers of juveniles who enter the juvenile justice system are involved with drugs, and indeed, test positive for drugs when they are subjected to drug assays.

We have also, in this report, created a general philosophical context for the concept of diversion as it is employed in the New Orleans Program. We have identified this philosophy as the "Balanced and Restorative Justice Model". This approach is based on incorporating both the traditional rehabilitative and pro-socialization approaches to the handling of juvenile offenders and also incorporating the public's legitimate concerns with public safety, the rights of victims, and the need to respond to

violations of law. The New Orleans Juvenile Diversion Program, by incorporating both sanctions and incentives as a part of the diversionary experience applies these principles in its approach to juvenile corrections. The report delineates the 10 specific program goals that are the targets of the diversion staff. These range from the reduction and cessation of drug use and extend to providing a more cost-effective process for handling non-violent juvenile drug offenders.

The report then delineates the specific procedures that constitute the diversion process, including the criteria for eligibility and the process of screening offenders, and the list of program eligibility requirements. One specific requirement, submission to a multi-technique drug assay regimen, is a critical part of the program demands on participants, and it is the review of the outcome of these drug assays which constitutes the data of this report. This discussion is followed by a presentation of the intervention and treatment that is provided to the juvenile clients in the program as well as the case management procedures utilized by clinical staff. Findings are then presented on the rates of program participation, demographics, and age distribution.

The drug which is most frequently detected by both urine and hair analysis is marijuana. The hair assay and urinalysis findings in the group are generally consistent with each other. In cases where they are not consistent on first inspection, a more careful analysis of the time and specimen quality has generally shown that there are only a few cases of what we might call "true non-concordance". We believe these results generally affirm what we have experienced (and reported) for the adult Diversion Program; that hair assays and urinalysis used in conjunction with each other are very effective methods for monitoring compliance with the drug abstinence requirements imposed on program participants. Clearly, for drugs rapidly excreted and dissipated from urine, hair is an invaluable source of information. The data in this report indicates that hair assays are especially important in determining the status of drug abuse among persons who are at high risk for the use of cocaine, opiates, and amphetamines. The data also indicate that urinalysis, if consistently used and timed appropriately, does a good job in the detection of marijuana use. We note, however, that hair analysis did a very credible job in identifying marijuana use. In fact, on a percentage basis (the number of positive detections divided by the number of total assays) hair actually slightly outperformed urinalysis. The rate of detection for marijuana detection for urinalysis was 25.9% and the rate for hair analysis was 33.5%.

Performance of IMS is considerable more complicated to interpret. We would begin on a cautionary note that IMS, as it is utilized in this program, is very innovative application, and there is very little literature of other comparable application experiences on which we can assess our own performance. We presented data on both particulate assays (which are derived from vacuuming as describe in the body of the report) and sweat assays (which are derived from skin swabs of clients), and had different outcomes for each specimen type.

In considering the outcome of IMS particulate assays, we had many more cocaine positive outcomes than marijuana positives (by a factor of five-fold). Yet the two

more conventional methods of assay (hair and urine) have the opposite relationship. The three most commonly identified drugs by IMS particulate assay are cocaine (40), marijuana (10), and LSD (6). The IMS particulate detection of cocaine is on the same order of magnitude as hair analysis cocaine detections (53). However, we note that marijuana (the most commonly detected and most commonly self-reported drug) has only 10 detections. In order to compare this outcome to other assay methods we can present these as rates of detection. As we noted before, urinalysis detection rates for marijuana are 25.9% and for hair assays 33.5%. For IMS particulates the rate is 0.2%, about 150 less than either hair or urine analysis.

When we consider IMS sweat swab assays, the picture changes again. The most frequent detection by IMS sweat swab is LSD (61), a detection rate of 14.6%. For marijuana, the second most detected drug by sweat swab, the detection rate is 12%. The detection rate for cocaine is about 1.4%. These outcomes certainly are challenging to interpret. Our general view is that the LSD detections represent some systemic problem in the programming of the instrument, as it does not appear to be a sensible outcome both on its face and based on the staff's clinical experience and general perceptions regarding LSD use in the community.

In examining the consistency of outcomes between different assay techniques, we have found that generally the comparisons between hair analyses and urinalyses to have substantial degrees of concordance. In examining cocaine, we note that the rate of concordance was about 77.1%, about 17% indeterminate, and about 5.4% apparently non-concordant. Closer examination of the apparently non-concordant cases, we are left with 4 cases (0.2%) that do not appear to be explained by either temporal spacing or specimen length. We note that we cannot evaluate the possibility that these specimens may contain the analyte at sub-threshold concentration levels.

In examining marijuana, we find about the same overall level of concordance, 75.9%, as found with cocaine. However, the Cell II/Cell III diagonal is reversed for marijuana in comparison to cocaine. That is, the smallest cell value is Cell III for the cocaine outcome, but it is Cell II for marijuana. Cell III cases account for about 2% of the marijuana cases. Our view is that it reflects what we would call a "dual effect". Namely, hair is a poor collector or accumulator of cannabinoids, while urine is a good one. Thus we find more cases with a marijuana positive urinalysis than have marijuana positive hair assay. There are 52 such cases, but a more detailed analysis shows that 12 are clearly non-concordant, and 7 marginally non-concordant, about 7% of the samples.

In examining the accuracy of self-reported drug use, as admitted by clients at the intake interview, we find that for hair analysis and urinalysis in a substantial number of cases these outcomes are in agreement. Outside of marijuana and alcohol, the clients in the program largely denied involvement with other drugs. After alcohol and marijuana the third most widely reported drug use was tranquilizers. Cocaine ranked fifth if one combined both crack and powder cocaine use. There were no reports of either PCP use or heroin use at all.

The comparison of bioassay outcomes with self reported use of marijuana indicates a high level of concordance between urinalysis and hair analysis outcomes and self-reported marijuana use, lifetime. For urine 77.4% and for hair 69.3% of the cases were concordant on the Cell I/Cell III diagonal for self-reported denials and positive assay outcomes. These figures improve further for urinalysis if one considers only 90 past use, 82.9% for urinalysis and stay about the same for hair assays (69.1%). IMS does comparatively poorly. IMS sweat swab analysis of self-reported 90-day past use for marijuana is about 25.8% concordant and IMS particulates are only 7.2% concordant.

The differences in self-reported cocaine use and cocaine detection by bioassays is a distinctly different picture than marijuana. As noted earlier, self-reports show very little admission of cocaine use. There were only 5 positive responses to questions on cocaine lifetime use. Of these 5 there were 3 positive responses to queries on cocaine use within the last 90 days. However, there were 11 cocaine positive urine specimens, 25 cocaine positive hair specimens, and 20 cocaine positive IMS particulate assays. It appears that cocaine use, unlike marijuana use, is substantially under-reported.

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Appendices

A. Variable Codebook

B. Frequencies, all Variables

C. First Five and Last Five Records

Appendix A. Variable Codebook

List of variables on the working file

Name
Position

ID Case ID
1
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

AGE
2
Measurement Level: Ordinal
Column Width: 3 Alignment: Right
Print Format: F11
Write Format: F11

SEX
3
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F6
Write Format: F6

Value Label

1 male
2 female

RACE
4
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 white
2 black
3 hispanic
4 asian
5 other

DEALER
5
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

CHG1 Charge 1
6
Measurement Level: Scale
Column Width: 11 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 criminal trespass
2.00 disturbing the peace
3.00 misrepresentation during booking
4.00 theft of goods
5.00 simple criminal damage $500 to $50,000
6.00 theft over $500
7.00 theft of goods over $500
8.00 theft of goods $100 to $500
9.00 theft of goods under $100
10.00 possession stolen property over $500
11.00 possession stolen property $100 to $500
12.00 possession stolen property under $100
13.00 access device fraud
14.00 crime against nature - soliciting
15.00 DWI
16.00 underage driving while intoxicated
17.00 driving against traffic
18.00 possession, schedule 1 narcotic
19.00 distribution schedule 1 narcotic
20.00 distribution schedule 1 non-narcotic
21.00 possession schedule 1 non-narcotic
22.00 possession marijuana, first offense
23.00 possession marijuana, second offense
24.00 prohibition acts schedule 2
25.00 distribution schedule 2 dangerous substance
26.00 possession schedule 2 other
27.00 distribution to a student
28.00 distribution of cds* w'in 1000' of school
29.00 curfew for persons under 17; school attendance

CHG2 Charge 2
7

Measurement Level: Scale
Column Width: 5 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	criminal trespass
2.00	disturbing the peace
3.00	misrepresentation during booking
4.00	theft of goods
5.00	simple criminal damage $500 to $50,000
6.00	theft over $500
7.00	theft of goods over $500
8.00	theft of goods $100 to $500
9.00	thef of goods under $100
10.00	possession stolen property over $500
11.00	possession stolen property $100 to $500
12.00	possession stolen property under $100
13.00	access device fraud
14.00	crime against nature - soliciting
15.00	DWI
16.00	underage driving while intoxicated
17.00	driving against traffic
18.00	possession, schedule 1 narcotic
19.00	distribution schedule 1 narcotic
20.00	distribution schedule 1 non-narcotic
21.00	possession schedule 1 non-narcotic
22.00	possession marijuana, first offense
23.00	possession marijuana, second offense
24.00	prohibition acts schedule 2
25.00	distribution schedule 2 dangerous substance
26.00	possession schedule 2 other
27.00	distribution to a student
28.00	distribution of cds* w'in 1000' of school
29.00	curfew for persons under 17; school attendance

HRLOC1
8

Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: A4
Write Format: A4

HRDATE1
9

Measurement Level: Scale
Column Width: 10 Alignment: Right
Print Format: ADATE10
Write Format: ADATE10

HRLENG1
10

Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F5.1
Write Format: F5.1

HRDRG1
11

Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	cocaine
2	heroin
3	mj
4	negative
5	INV-INIT
6	INV-IQ
7	INV-UTC

HRAMT1
12

Measurement Level: Scale
Column Width: 5 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG1A
13

Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	cocaine
2	heroin
3	mj
4	negative
5	INV-INIT
6	INV-IQ
7	INV-UTC

HRAMT1A
14
Measurement Level: Scale
Column Width: 7 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRLOC2
15
Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: A4
Write Format: A4

HRDATE2
16
Measurement Level: Scale
Column Width: 10 Alignment: Right
Print Format: ADATE10
Write Format: ADATE10

HRLENG2
17
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG2
18
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT2
19
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG2A
20
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F7
Write Format: F7

Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT2A
21
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRLOC3
22
Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: A4
Write Format: A4

HRDATE3
23
Measurement Level: Scale
Column Width: 10 Alignment: Right
Print Format: ADATE10
Write Format: ADATE10

HRLENG3
24
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG3
25
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F7
Write Format: F7
Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT3
26
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG3A
27
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F7
Write Format: F7

Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT3A
28
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRLOC4
29
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: A4
Write Format: A4

HRDATE4
30
Measurement Level: Scale
Column Width: 11 Alignment: Right
Print Format: ADATE10
Write Format: ADATE10

HRLENG4
31
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG4
32
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F7
Write Format: F7

Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT4
33
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG4A
34
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F7
Write Format: F7

Value Label

1 cocaine
2 heroin
3 mj
4 negative
5 INV-INIT
6 INV-IQ
7 INV-UTC

HRAMT4B
35
Measurement Level: Scale
Column Width: 7 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRLOC5
36
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: A4
Write Format: A4

HRDATE5
37
Measurement Level: Scale
Column Width: 10 Alignment: Right

Print Format: ADATE10
Write Format: ADATE10

HRLENG5
38
Measurement Level: Scale
Column Width: 6 Alignment: Right
Print Format: F11.1
Write Format: F11.1

HRDRG5
39
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F7
Write Format: F7

Value	Label
1	cocaine
2	heroin
3	mj
4	negative
5	INV-INIT
6	INV-IQ
7	INV-UTC

HRAMT5
40
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UADATE1
41
Measurement Level: Scale
Column Width: 15 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG11
42
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT11
43
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7.2
Write Format: F7.2

UADRG12
44
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT12
45
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UADRG13
46
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT13
47
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME1
48
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE2
49
Measurement Level: Scale
Column Width: 15 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG21
50
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT21
51
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7.2
Write Format: F7.2

UADRG22
52
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT22
53
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME2
54
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE3
55
Measurement Level: Scale
Column Width: 15 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG31
56
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
1	alcohol

2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT31
57
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7.2
Write Format: F7.2

UADRG32
58
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT32
59
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME3
60
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE4
61
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG41
62
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT41
63
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG42
64
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT42
65
Measurement Level: Scale
Column Width: 8 Alignment: Right

Print Format: F8.2
Write Format: F8.2

UATIME4
66

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE5
67

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG51
68

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT51
69

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG52
70

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT52
71

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME5
72

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE6
73

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG61
74

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph

6 barbs
7 benzos
8 INV-CR

UAAMT61
75
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG62
76
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT62
77
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME6
78
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE7
79
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG71
80
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT71
81
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG72
82
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT72
83
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME7
84

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE8
85
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG81
86
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT81
87
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG82
88
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT82
89
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME8
90
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE9
91
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG91
92
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT91
93

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG92
94

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT92
95

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME9
96

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE10
97

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG101
98

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT101
99

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG102
100

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT102
101

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME10
102

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE11
103
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG111
104
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT111
105
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG112
106
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT112
107
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME11
108
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE12
109
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG121
110
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT121
111
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7

Write Format: F7

UADRG122
112

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
1.00	alcohol
2.00	cocaine
3.00	mj
4.00	ops
5.00	amph
6.00	barbs
7.00	benzos
8.00	INV-CR

UAAMT122
113

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME12
114

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE13
115

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG131
116

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT131
117

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME13
118

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE14
119

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG141
120

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs

7 benzos
8 INV-CR

UAAMT141
121
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG142
122
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT142
123
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME14
124
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE15
125
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG151
126
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT151
127
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME15
128
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE16
129
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG161
130
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT161
131
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME16
132
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE17
133
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG171
134
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT171
135
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME17
136
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE18
137
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG181
138
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT181
139
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME18
140

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE19
141

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG191
142

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT191
143

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME19
144

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE20
145

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG201
146

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT201
147

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME20
148

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE21
149

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG211
150
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT211
151
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UADRG212
152
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
1.00 alcohol
2.00 cocaine
3.00 mj
4.00 ops
5.00 amph
6.00 barbs
7.00 benzos
8.00 INV-CR

UAAMT212
153
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UATIME21
154
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE22
155
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG221
156
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT221
157
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME22
158
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE23
159
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG231
160
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT231
161
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME23
162
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE24
163
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG241
164
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT241
165
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME24
166
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE25
167
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG251
168
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7

Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT251
169
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME25
170
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE26
171
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG261
172
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT261
173
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME26
174
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

1 Intake
2 In Rx
3 Follow-up
4 Discharge

UADATE27
175
Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG271
176
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value Label

0 neg
1 alcohol
2 cocaine
3 mj
4 ops
5 amph
6 barbs
7 benzos
8 INV-CR

UAAMT271
177
Measurement Level: Scale
Column Width: 8 Alignment: Right

Print Format: F7
Write Format: F7

UATIME27
178

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE28
179

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG281
180

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT281
181

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME28
182

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE29
183

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG291
184

Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT291
185

Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME29
186

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UADATE30
187

Measurement Level: Scale
Column Width: 14 Alignment: Right
Print Format: DATE11
Write Format: DATE11

UADRG301
188
Measurement Level: Ordinal
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

Value	Label
0	neg
1	alcohol
2	cocaine
3	mj
4	ops
5	amph
6	barbs
7	benzos
8	INV-CR

UAAMT301
189
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F7
Write Format: F7

UATIME30
190
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
1	Intake
2	In Rx
3	Follow-up
4	Discharge

UACOCCNT # of cocaine (+) urines
191
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYUACOC Any cocaine (+) urines?
192
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

HRCOCCNT # cocaine (+) hair assays
193
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYHRCOC Any hair assays cocaine (+)?
194
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

HRMJCNT # mj (+) hair assays
195
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYHRMJ Any hair assay mj (+)?
196
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

UAMJCNT # mj (+) urines
197
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYUAMJ Any mj (+) urines?
198
Measurement Level: Scale

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

PROGSTAT Program Status
199
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	Admitted
2.00	Refused

IMDAPTT1
200
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMSSAM1
201
Measurement Level: Scale
Column Width: 9 Alignment: Right
Print Format: F11
Write Format: F11

Value	Label
2	particulate
7	sweat

IMDGPT11
202
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDGPT12
203
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDGPT13
204
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDATPT2
205
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT21
206
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11

Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT22
207
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT23
208
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATPT3
209
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT31
210
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT32
211
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT33
212
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATPT4
213
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT41
214
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT42
215
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT43
216
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATPT5
217
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT51
218
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT52
219
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT53
220
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATPT6
221
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT61
222
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT62
223
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGPT63
224
Measurement Level: Nominal
Column Width: 7 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATPT7
225
Measurement Level: Scale
Column Width: 11 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT71
226
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2

Write Format: F8.2

Value	Label
.00	neg
2.00	cocaine
3.00	MJ
4.00	heroin
5.00	6-MAM
6.00	codeine
7.00	morphine
8.00	LSD
9.00	methamp
11.00	procaine

IMDGPT72
227
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
2.00	cocaine
3.00	MJ
4.00	heroin
5.00	6-MAM
6.00	codeine
7.00	morphine
8.00	LSD
9.00	methamp
11.00	procaine

IMDGPT73
228
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
2.00	cocaine
3.00	MJ
4.00	heroin
5.00	6-MAM
6.00	codeine
7.00	morphine
8.00	LSD
9.00	methamp
11.00	procaine

IMDATPT8
229
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGPT81
230
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
2.00	cocaine
3.00	MJ
4.00	heroin
5.00	6-MAM
6.00	codeine
7.00	morphine
8.00	LSD
9.00	methamp
11.00	procaine

IMDGPT82
231
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
.00	neg
2.00	cocaine
3.00	MJ
4.00	heroin
5.00	6-MAM
6.00	codeine
7.00	morphine
8.00	LSD
9.00	methamp
11.00	procaine

IMDGPT83
232
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDATSW1
233
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMSSAM2
234
Measurement Level: Scale
Column Width: 7 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

2 particulate
7 sweat

IMDGSW11
235
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW12
236
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine
12 amphet

IMDGSW13
237
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATSW2
238
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW21
239
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM

6 codeine
7 morphine
8 LSD
9 methamp
10 PCP
11 procaine

IMDGSW22
240
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW23
241
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDASWT3
242
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW31
243
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW32
244
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW33
245
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp

11 procaine

IMDATSW4
246
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW41
247
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDGSW42
248
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDGSW43
249
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDA5SW
250
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW51
251
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine
8	LSD
9	methamp
11	procaine

IMDGSW52
252
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value	Label
0	neg
2	cocaine
3	MJ
4	heroin
5	6-MAM
6	codeine
7	morphine

8 LSD
9 methamp
11 procaine

IMDGSW53
253
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATSW6
254
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW61
255
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F11
Write Format: F11

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW62
256
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDGSW63
257
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F8
Write Format: F8

Value Label

0 neg
2 cocaine
3 MJ
4 heroin
5 6-MAM
6 codeine
7 morphine
8 LSD
9 methamp
11 procaine

IMDATSW7
258
Measurement Level: Scale
Column Width: 12 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW71
259
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM

6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDGSW72
260
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDGSW73
261
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDATSW8
262
Measurement Level: Scale
Column Width: 11 Alignment: Right
Print Format: DATE11
Write Format: DATE11

IMDGSW81
263
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDGSW82
264
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

IMDGSW83
265
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 neg
2.00 cocaine
3.00 MJ
4.00 heroin
5.00 6-MAM
6.00 codeine
7.00 morphine
8.00 LSD
9.00 methamp
11.00 procaine

UAOPSCNT # of ops (+) urines
266
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UAAMPCNT # of amphet (+) urines
267
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UAALCCNT # of alcohol (+) urines
268
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UABRBCNT # of barbs (+) urines
269
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UABNZCNT # of benzo (+) urines
270
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UANEGCNT # of (-) urines
271
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

UAINVCNT # of invalid urines
272
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYUAOPS Any ops (+) urines?
273
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

ANYUAAMP Any amph. (+) urines?
274
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

ANYUAALC Any alcohol (+) urines?
275
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

ANYUABRB Any barb. (+) urines?
276
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

ANYUABNZ Any benzo. (+) urines?
277
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value	Label
1.00	yes
2.00	no

ANYUANEG Any drug (-) urines?
278
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

ANYUAINV Any invalid urines?
279
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

UAMISSNG # of missing urines
280
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TOTUACNT Number of Urine test events
281
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

HRHERCNT # heroin (+) hair samples
282
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYHRHER Any heroin (+) hair samples?
283
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

HRNEGCNT # (-) hair samples
284
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYHRNEG Any (-) hair samples?
285
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

HRINVCNT # invalid hair samples
286
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYHRINV Any invalid hair samples?
287
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

HRMSSNG # missing hair samples
288
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

TOTHRCNT # of hair assay results
289
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRTCNT # of IMS Prtcl. Assays
290
Measurement Level: Scale

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRTRSL IMS Prtcl. Assays Results
291
Measurement Level: Scale
Column Width: 15 Alignment: Right
Print Format: F8
Write Format: F8

Value Label

0 negative
1 positive
2 no IMS prtcl. test

IMPRTCOC Any IMS Prtcl. Cocaine (+)?
292
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format. F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

IMPRTCO2 # of IMS Prtcl. Assays Coc (+)
293
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRTMJ # IMS Particulate MJ (+) Assays
294
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRHER # IMS Particulate Her. (+) Assays
295
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRCOD # IMS Particulate Codeine (+)
Assays 296
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRCMOR # IMS Particulate Morphine (+)
Assays 297
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRCLSD # IMS Particulate LSD (+) Assays
298
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMPRPROC # IMS Particulate Procaine (+)
Assays 299
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTCNT # IMS Sweat Assays
300
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTNEG # (-) IMS Sweat Assays
301
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTCOC # Cocaine (+) IMS Sweat Assays
302
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTMJ # MJ (+) IMS Sweat Assays
303
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTHER # Heroin (+) IMS Sweat Assays
304
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTMAM # 6-MAM (+) IMS Sweat Assays
305
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTMOR # Morphine (+) IMS Sweat Assays
306
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTLSD # LSD (+) IMS Sweat Assays
307
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTMA # MAMP (+) IMS Sweat Assays
308
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTPCP # PCP (+) IMS Sweat Assays
309
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTPRO # Procaine (+) IMS Sweat Assays
310
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTAMP # Amphet. (+) IMS Sweat Assays
311
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

E2 Ever Drink Alcohol?
312
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E4 Ever use inhalants?
313
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E4E How many days of inhalant use, past 90 days? 314
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F4
Write Format: F4

E4E1 Largest # of inhalant usage in a single day of past 90 days? 315
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F4
Write Format: F4

E5 Ever use marijuana?
316
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E5E How many days of marijuana use, past 90 days? 317
Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: F5
Write Format: F5

E5E1 Largest # of mj usage in a single day of past 90 days? 318
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F6

Write Format: F6

E6 Ever use PCP?
319
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

Value Label

0 no
1 yes

E6E How many days of PCP use, past 90 days? 320
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E6E1 Largest # of PCP usage in a single day of past 90 days? 321
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F1
Write Format: F1

E7 Ever use hallucinogens?
322
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E7E How many days of halluconogen use, past 90 days? 323
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F4
Write Format: F4

E7E1 Largest # of hallucinogen usage in a single day of past 90 d 324
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E8 Ever use crack cocaine?
325
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E8E How many days of crack use, past 90 days? 326
Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: F4
Write Format: F4

E8E1 Largest # of crack usage in a single day of past 90 days? 327
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E9 Ever use powder cocaine?
328
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E9E How many days of powder cocaine use, past 90 days? 329
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E9E1 Largest # of powder cocaine usage in a single day of past 90 330
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E10 Ever use heroin?
331
Measurement Level: Nominal
Column Width: 4 Alignment: Left
Print Format: F4
Write Format: F4

Value Label

0 no
1 yes

E10E How many days of heroin use, past 90 days? 332
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E10E1 Largest # of heroin usage in a single day of past 90 days? 333
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F4
Write Format: F4

E11 Ever use sedatives?
334
Measurement Level: Nominal
Column Width: 5 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E11E How many days of sedative use, past 90 days? 335
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F4
Write Format: F4

E11E1 Largest # of sedative usage in a single day of past 90 days? 336
Measurement Level: Nominal
Column Width: 6 Alignment: Left
Print Format: F4
Write Format: F4

E12 Ever use tranquilizers?
337
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E12E How many days of tranquilizer use, past 90 days? 338
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E12E1 Largest # of tranquilizer usage in a single day of past 90 d 339
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E13 Ever use stimulants?
340
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E13E How many days of stimulant use, past 90 days? 341
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E13E1 Largest # of stimulant usage in a single day of past 90 days 342
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E14 Ever use analgesics?
343
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F5
Write Format: F5

Value Label

0 no
1 yes

E14E How many days of analgesic use, past 90 days? 344

Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E14E1 Largest # of analgesic usage in a single day of past 90 days 345
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F4
Write Format: F4

E23A Your primary substance of use is ... 346
Measurement Level: Nominal
Column Width: 13 Alignment: Left
Print Format: A13
Write Format: A13

E23B In the past 30 days, how many days of primary substance use? 348
Measurement Level: Nominal
Column Width: 8 Alignment: Left
Print Format: F6
Write Format: F6

JNIA_INT Baseline interview 349
Measurement Level: Scale
Column Width: 15 Alignment: Right
Print Format: DATE11
Write Format: DATE11

INTAKINT Intake Interview? 350
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 no
1.00 yes

COC3POS Cocaine (+) by IMS, Ua, and Hair 351
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYIMPMJ Any IMS Prtcl. mj (+)? 352
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

MJ3POS Mj (+) on Hr, Ua, IMS? 353
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWCOCT Number of IMS Coc (+) Sweat Samples 354
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWMJCT Number of IMS MJ (+) Sweat Samples 355
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

ANYSWCOC Any IMS Sweat Coc (+)? 356
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

ANYSWTMJ Any IMS Sweat Samples MJ (+)? 357
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

COC4POS 358
Measurement Level: Scale

Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

MJ4POS
359
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

IMSWTRSL IMS Sweat
360
Measurement Level: Scale
Column Width: 13 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 negative
1.00 positive
2.00 No IMS Sweat Test

ANYMJ90 Any MJ Use, Past 90 Days?
361
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

1.00 yes
2.00 no

ANYCOCEV Ever Use Any Cocaine?
362
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 no
1.00 yes

ANYCOC90 Use Any Cocaine, Past 90 Days?
363
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 no
1.00 yes

ANYCRK90 Any use of crack, past 90 days?
364
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 no
1.00 yes

ANYPWD90 Any powder cocaine use, past 90 days? 365
Measurement Level: Scale
Column Width: 8 Alignment: Right
Print Format: F8.2
Write Format: F8.2

Value Label

.00 no
1.00 yes

Appendix B.

Frequencies, All Variables

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10	1	.4	.4	.4
	11	3	1.2	1.2	1.6
	12	7	2.8	2.8	4.3
	13	11	4.3	4.3	8.7
	14	36	14.2	14.2	22.9
	15	71	28.1	28.1	51.0
	16	121	47.8	47.8	98.8
	17	3	1.2	1.2	100.0
	Total	253	100.0	100.0	

SEX

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	male	206	81.4	81.4	81.4
	female	47	18.6	18.6	100.0
	Total	253	100.0	100.0	

RACE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	white	34	13.4	13.4	13.4
	black	210	83.0	83.0	96.4
	hispanic	5	2.0	2.0	98.4
	asian	2	.8	.8	99.2
	other	2	.8	.8	100.0
	Total	253	100.0	100.0	

DEALER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	18	7.1	12.1	12.1
	no	131	51.8	87.9	100.0
	Total	149	58.9	100.0	
Missing	System	104	41.1		
Total		253	100.0		

Charge 2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	possession stolen property over $500	1	.4	3.8	3.8
	possession stolen property $100 to $500	3	1.2	11.5	15.4
	possession stolen property under $100	1	.4	3.8	19.2
	driving against traffic	2	.8	7.7	26.9
	possession marijuana, first offense	3	1.2	11.5	38.5
	prohibition acts schedule 2	1	.4	3.8	42.3
	possession schedule 2 other	1	.4	3.8	46.2
	distribution to a student	1	.4	3.8	50.0
	curfew for persons under 17; school attendance	13	5.1	50.0	100.0
	Total	26	10.3	100.0	
Missing	System	227	89.7		
Total		253	100.0		

HRLOC1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		25	9.9	9.9	9.9
	Body	12	4.7	4.7	14.6
	head	1	.4	.4	15.0
	Head	215	85.0	85.0	100.0
	Total	253	100.0	100.0	

HRDRG1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	13	5.1	5.7	5.7
	heroin	1	.4	.4	6.1
	mj	105	41.5	46.1	52.2
	negative	101	39.9	44.3	96.5
	INV-INIT	2	.8	.9	97.4
	INV-IQ	3	1.2	1.3	98.7
	INV-UTC	3	1.2	1.3	100.0
	Total	228	90.1	100.0	
Missing	System	25	9.9		
Total		253	100.0		

HRDRG1A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	24	9.5	100.0	100.0
Missing	System	229	90.5		
Total		253	100.0		

HRLOC2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		120	47.4	47.4	47.4
	Body	22	8.7	8.7	56.1
	Head	111	43.9	43.9	100.0
	Total	253	100.0	100.0	

HRDRG2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	10	4.0	7.6	7.6
	mj	32	12.6	24.2	31.8
	negative	80	31.6	60.6	92.4
	INV-INIT	1	.4	.8	93.2
	INV-IQ	7	2.8	5.3	98.5
	INV-UTC	2	.8	1.5	100.0
	Total	132	52.2	100.0	
Missing	System	121	47.8		
Total		253	100.0		

HRDRG2A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	10	4.0	100.0	100.0
Missing	System	243	96.0		
Total		253	100.0		

HRAMT2A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	6.5	1	.4	10.0	10.0
	8.7	1	.4	10.0	20.0
	10.8	1	.4	10.0	30.0
	11.7	1	.4	10.0	40.0
	12.7	1	.4	10.0	50.0
	20.8	1	.4	10.0	60.0
	35.4	1	.4	10.0	70.0
	59.4	1	.4	10.0	80.0
	101.0	1	.4	10.0	90.0
	272.0	1	.4	10.0	100.0
	Total	10	4.0	100.0	
Missing	System	243	96.0		
Total		253	100.0		

HRLOC3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		173	68.4	68.4	68.4
	Body	15	5.9	5.9	74.3
	Head	65	25.7	25.7	100.0
	Total	253	100.0	100.0	

HRDRG3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	6	2.4	7.5	7.5
	mj	24	9.5	30.0	37.5
	negative	46	18.2	57.5	95.0
	INV-IQ	3	1.2	3.8	98.8
	INV-UTC	1	.4	1.3	100.0
	Total	80	31.6	100.0	
Missing	System	173	68.4		
Total		253	100.0		

HRAMT3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.0	1	.4	12.5	12.5
	1.7	1	.4	12.5	25.0
	10.1	1	.4	12.5	37.5
	18.0	2	.8	25.0	62.5
	23.9	1	.4	12.5	75.0
	24.6	1	.4	12.5	87.5
	55.0	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

HRDRG3A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	7	2.8	100.0	100.0
Missing	System	246	97.2		
Total		253	100.0		

HRAMT3A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	10.6	1	.4	12.5	12.5
	10.7	1	.4	12.5	25.0
	10.9	1	.4	12.5	37.5
	13.1	1	.4	12.5	50.0
	38.8	1	.4	12.5	62.5
	62.3	1	.4	12.5	75.0
	135.0	1	.4	12.5	87.5
	447.0	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

HRLOC4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		226	89.3	89.3	89.3
	Body	9	3.6	3.6	92.9
	Head	18	7.1	7.1	100.0
	Total	253	100.0	100.0	

HRDRG4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	3	1.2	11.5	11.5
	mj	9	3.6	34.6	46.2
	negative	12	4.7	46.2	92.3
	INV-IQ	1	.4	3.8	96.2
	INV-UTC	1	.4	3.8	100.0
	Total	26	10.3	100.0	
Missing	System	227	89.7		
Total		253	100.0		

HRAMT4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.1	1	.4	25.0	25.0
	14.2	1	.4	25.0	50.0
	16.6	1	.4	25.0	75.0
	19.9	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

HRDRG4A

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	2	.8	100.0	100.0
Missing	System	251	99.2		
Total		253	100.0		

HRAMT4B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	5.2	1	.4	33.3	33.3
	5.3	1	.4	33.3	66.7
	8.8	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

HRLOC5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		248	98.0	98.0	98.0
	Body	2	.8	.8	98.8
	Head	3	1.2	1.2	100.0
	Total	253	100.0	100.0	

HRDATE5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	12/06/2000	1	.4	20.0	20.0
	03/20/2001	1	.4	20.0	40.0
	07/05/2001	1	.4	20.0	60.0
	07/16/2001	1	.4	20.0	80.0
	08/08/2001	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

HRLENG5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.1	1	.4	25.0	25.0
	1.3	1	.4	25.0	50.0
	3.7	1	.4	25.0	75.0
	3.9	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

HRDRG5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	20.0	20.0
	mj	2	.8	40.0	60.0
	negative	1	.4	20.0	80.0
	INV-UTC	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

HRAMT5

		Frequency	Percent
Missing	System	253	100.0

UADRG11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	96	37.9	39.2	39.2
	cocaine	3	1.2	1.2	40.4
	mj	141	55.7	57.6	98.0
	ops	1	.4	.4	98.4
	amph	4	1.6	1.6	100.0
	Total	245	96.8	100.0	
Missing	System	8	3.2		
Total		253	100.0		

UADRG12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	6.3	6.3
	cocaine	9	3.6	56.3	62.5
	mj	1	.4	6.3	68.8
	ops	1	.4	6.3	75.0
	amph	1	.4	6.3	81.3
	benzos	3	1.2	18.8	100.0
	Total	16	6.3	100.0	
Missing	System	237	93.7		
Total		253	100.0		

UADRG13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	benzos	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	336.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intake	245	96.8	100.0	100.0
Missing	System	8	3.2		
Total		253	100.0		

UADRG21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	103	40.7	56.3	56.3
	cocaine	2	.8	1.1	57.4
	mj	78	30.8	42.6	100.0
	Total	183	72.3	100.0	
Missing	System	70	27.7		
Total		253	100.0		

UADRG22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	50.0	50.0
	benzos	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UAAMT22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1000.00	1	.4	50.0	50.0
	2000.00	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UATIME2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intake	3	1.2	1.6	1.6
	In Rx	169	66.8	92.9	94.5
	Follow-up	5	2.0	2.7	97.3
	Discharge	5	2.0	2.7	100.0
	Total	182	71.9	100.0	
Missing	System	71	28.1		
Total		253	100.0		

UADRG31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	109	43.1	64.5	64.5
	mj	57	22.5	33.7	98.2
	ops	1	.4	.6	98.8
	benzos	2	.8	1.2	100.0
	Total	169	66.8	100.0	
Missing	System	84	33.2		
Total		253	100.0		

UADRG32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	20.0	20.0
	ops	2	.8	40.0	60.0
	barbs	1	.4	20.0	80.0
	benzos	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

UAAMT32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	297.00	1	.4	20.0	20.0
	420.00	1	.4	20.0	40.0
	433.00	1	.4	20.0	60.0
	990.00	1	.4	20.0	80.0
	2000.00	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

UATIME3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intake	1	.4	.6	.6
	In Rx	151	59.7	89.3	89.9
	Follow-up	8	3.2	4.7	94.7
	Discharge	9	3.6	5.3	100.0
	Total	169	66.8	100.0	
Missing	System	84	33.2		
Total		253	100.0		

UADRG41

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	111	43.9	72.1	72.1
	mj	39	15.4	25.3	97.4
	ops	1	.4	.6	98.1
	benzos	2	.8	1.3	99.4
	INV-CR	1	.4	.6	100.0
	Total	154	60.9	100.0	
Missing	System	99	39.1		
Total		253	100.0		

UADRG42

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	33.3	33.3
	cocaine	1	.4	33.3	66.7
	benzos	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UAAMT42

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	59.00	1	.4	33.3	33.3
	252.00	1	.4	33.3	66.7
	2000.00	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UATIME4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Intake	1	.4	.6	.6
	In Rx	142	56.1	92.2	92.9
	Follow-up	6	2.4	3.9	96.8
	Discharge	5	2.0	3.2	100.0
	Total	154	60.9	100.0	
Missing	System	99	39.1		
Total		253	100.0		

UADRG51

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	107	42.3	73.8	73.8
	alcohol	3	1.2	2.1	75.9
	mj	32	12.6	22.1	97.9
	ops	1	.4	.7	98.6
	benzos	1	.4	.7	99.3
	INV-CR	1	.4	.7	100.0
	Total	145	57.3	100.0	
Missing	System	108	42.7		
Total		253	100.0		

UADRG52

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	3	1.2	100.0	100.0
Missing	System	250	98.8		
Total		253	100.0		

UAAMT52

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	334.00	1	.4	33.3	33.3
	351.00	1	.4	33.3	66.7
	2000.00	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UATIME5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	132	52.2	91.0	91.0
	Follow-up	9	3.6	6.2	97.2
	Discharge	4	1.6	2.8	100.0
	Total	145	57.3	100.0	
Missing	System	108	42.7		
Total		253	100.0		

UADRG61

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	104	41.1	79.4	79.4
	alcohol	2	.8	1.5	80.9
	mj	24	9.5	18.3	99.2
	INV-CR	1	.4	.8	100.0
	Total	131	51.8	100.0	
Missing	System	122	48.2		
Total		253	100.0		

UADRG62

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT62

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1895.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	126	49.8	96.2	96.2
	Follow-up	2	.8	1.5	97.7
	Discharge	3	1.2	2.3	100.0
	Total	131	51.8	100.0	
Missing	System	122	48.2		
Total		253	100.0		

UADRG71

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	94	37.2	78.3	78.3
	alcohol	2	.8	1.7	80.0
	mj	22	8.7	18.3	98.3
	amph	1	.4	.8	99.2
	INV-CR	1	.4	.8	100.0
	Total	120	47.4	100.0	
Missing	System	133	52.6		
Total		253	100.0		

UADRG72

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT72

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	40.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	111	43.9	92.5	92.5
	Follow-up	2	.8	1.7	94.2
	Discharge	7	2.8	5.8	100.0
	Total	120	47.4	100.0	
Missing	System	133	52.6		
Total		253	100.0		

UADRG81

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	84	33.2	78.5	78.5
	alcohol	1	.4	.9	79.4
	mj	21	8.3	19.6	99.1
	ops	1	.4	.9	100.0
	Total	107	42.3	100.0	
Missing	System	146	57.7		
Total		253	100.0		

UADRG82

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	2	.8	66.7	66.7
	benzos	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UAAMT82

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	25.00	1	.4	33.3	33.3
	28.00	1	.4	33.3	66.7
	1000.00	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UATIME8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	102	40.3	95.3	95.3
	Follow-up	3	1.2	2.8	98.1
	Discharge	2	.8	1.9	100.0
	Total	107	42.3	100.0	
Missing	System	146	57.7		
Total		253	100.0		

UADRG91

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	82	32.4	80.4	80.4
	alcohol	2	.8	2.0	82.4
	mj	18	7.1	17.6	100.0
	Total	102	40.3	100.0	
Missing	System	151	59.7		
Total		253	100.0		

UADRG92

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT92

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	41.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	97	38.3	95.1	95.1
	Follow-up	1	.4	1.0	96.1
	Discharge	4	1.6	3.9	100.0
	Total	102	40.3	100.0	
Missing	System	151	59.7		
Total		253	100.0		

UADRG101

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	74	29.2	82.2	82.2
	mj	15	5.9	16.7	98.9
	benzos	1	.4	1.1	100.0
	Total	90	35.6	100.0	
Missing	System	163	64.4		
Total		253	100.0		

UADRG102

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	50.0	50.0
	barbs	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UAAMT102

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	516.00	1	.4	50.0	50.0
	1147.00	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UATIME10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	81	32.0	90.0	90.0
	Follow-up	1	.4	1.1	91.1
	Discharge	8	3.2	8.9	100.0
	Total	90	35.6	100.0	
Missing	System	163	64.4		
Total		253	100.0		

UADRG111

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	75	29.6	89.3	89.3
	mj	8	3.2	9.5	98.8
	benzos	1	.4	1.2	100.0
	Total	84	33.2	100.0	
Missing	System	169	66.8		
Total		253	100.0		

UAAMT111

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	138	1	.4	11.1	11.1
	145	1	.4	11.1	22.2
	150	1	.4	11.1	33.3
	163	1	.4	11.1	44.4
	187	1	.4	11.1	55.6
	195	1	.4	11.1	66.7
	200	2	.8	22.2	88.9
	1000	1	.4	11.1	100.0
	Total	9	3.6	100.0	
Missing	System	244	96.4		
Total		253	100.0		

UADRG112

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT112

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	31.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	75	29.6	89.3	89.3
	Follow-up	6	2.4	7.1	96.4
	Discharge	3	1.2	3.6	100.0
	Total	84	33.2	100.0	
Missing	System	169	66.8		
Total		253	100.0		

UADRG121

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	62	24.5	81.6	81.6
	cocaine	1	.4	1.3	82.9
	mj	10	4.0	13.2	96.1
	ops	1	.4	1.3	97.4
	barbs	1	.4	1.3	98.7
	INV-CR	1	.4	1.3	100.0
	Total	76	30.0	100.0	
Missing	System	177	70.0		
Total		253	100.0		

UAAMT121

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	64	1	.4	7.7	7.7
	100	1	.4	7.7	15.4
	136	1	.4	7.7	23.1
	149	1	.4	7.7	30.8
	150	3	1.2	23.1	53.8
	200	3	1.2	23.1	76.9
	395	1	.4	7.7	84.6
	664	1	.4	7.7	92.3
	800	1	.4	7.7	100.0
	Total	13	5.1	100.0	
Missing	System	240	94.9		
Total		253	100.0		

UADRG122

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT122

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2000.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	60	23.7	77.9	77.9
	Follow-up	3	1.2	3.9	81.8
	Discharge	14	5.5	18.2	100.0
	Total	77	30.4	100.0	
Missing	System	176	69.6		
Total		253	100.0		

UADRG131

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	56	22.1	77.8	77.8
	mj	16	6.3	22.2	100.0
	Total	72	28.5	100.0	
Missing	System	181	71.5		
Total		253	100.0		

UATIME13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	52	20.6	72.2	72.2
	Follow-up	15	5.9	20.8	93.1
	Discharge	5	2.0	6.9	100.0
	Total	72	28.5	100.0	
Missing	System	181	71.5		
Total		253	100.0		

UADRG141

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	47	18.6	87.0	87.0
	mj	7	2.8	13.0	100.0
	Total	54	21.3	100.0	
Missing	System	199	78.7		
Total		253	100.0		

UAAMT141

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	68	1	.4	12.5	12.5
	138	1	.4	12.5	25.0
	150	1	.4	12.5	37.5
	188	1	.4	12.5	50.0
	199	1	.4	12.5	62.5
	200	3	1.2	37.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UADRG142

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	alcohol	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT142

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	36.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME14

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	47	18.6	87.0	87.0
	Follow-up	3	1.2	5.6	92.6
	Discharge	4	1.6	7.4	100.0
	Total	54	21.3	100.0	
Missing	System	199	78.7		
Total		253	100.0		

UADRG151

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	39	15.4	79.6	79.6
	cocaine	1	.4	2.0	81.6
	mj	9	3.6	18.4	100.0
	Total	49	19.4	100.0	
Missing	System	204	80.6		
Total		253	100.0		

UAAMT151

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	105	1	.4	10.0	10.0
	125	1	.4	10.0	20.0
	143	1	.4	10.0	30.0
	150	1	.4	10.0	40.0
	192	1	.4	10.0	50.0
	194	1	.4	10.0	60.0
	197	1	.4	10.0	70.0
	199	1	.4	10.0	80.0
	200	1	.4	10.0	90.0
	500	1	.4	10.0	100.0
	Total	10	4.0	100.0	
Missing	System	243	96.0		
Total		253	100.0		

UATIME15

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	41	16.2	83.7	83.7
	Follow-up	3	1.2	6.1	89.8
	Discharge	5	2.0	10.2	100.0
	Total	49	19.4	100.0	
Missing	System	204	80.6		
Total		253	100.0		

UADRG161

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	32	12.6	78.0	78.0
	mj	9	3.6	22.0	100.0
	Total	41	16.2	100.0	
Missing	System	212	83.8		
Total		253	100.0		

UAAMT161

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60	1	.4	11.1	11.1
	78	1	.4	11.1	22.2
	128	1	.4	11.1	33.3
	150	2	.8	22.2	55.6
	187	1	.4	11.1	66.7
	193	1	.4	11.1	77.8
	200	2	.8	22.2	100.0
	Total	9	3.6	100.0	
Missing	System	244	96.4		
Total		253	100.0		

UATIME16

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	30	11.9	73.2	73.2
	Follow-up	4	1.6	9.8	82.9
	Discharge	7	2.8	17.1	100.0
	Total	41	16.2	100.0	
Missing	System	212	83.8		
Total		253	100.0		

UADRG171

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	25	9.9	78.1	78.1
	mj	7	2.8	21.9	100.0
	Total	32	12.6	100.0	
Missing	System	221	87.4		
Total		253	100.0		

UAAMT171

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	69	1	.4	12.5	12.5
	93	1	.4	12.5	25.0
	133	1	.4	12.5	37.5
	150	1	.4	12.5	50.0
	190	1	.4	12.5	62.5
	200	3	1.2	37.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UATIME17

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	25	9.9	75.8	75.8
	Follow-up	4	1.6	12.1	87.9
	Discharge	4	1.6	12.1	100.0
	Total	33	13.0	100.0	
Missing	System	220	87.0		
Total		253	100.0		

UADRG181

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	22	8.7	73.3	73.3
	mj	7	2.8	23.3	96.7
	benzos	1	.4	3.3	100.0
	Total	30	11.9	100.0	
Missing	System	223	88.1		
Total		253	100.0		

UAAMT181

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	55	1	.4	12.5	12.5
	71	1	.4	12.5	25.0
	96	1	.4	12.5	37.5
	121	1	.4	12.5	50.0
	198	1	.4	12.5	62.5
	200	2	.8	25.0	87.5
	1000	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UATIME18

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	24	9.5	80.0	80.0
	Follow-up	5	2.0	16.7	96.7
	Discharge	1	.4	3.3	100.0
	Total	30	11.9	100.0	
Missing	System	223	88.1		
Total		253	100.0		

UADRG191

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	22	8.7	84.6	84.6
	mj	3	1.2	11.5	96.2
	ops	1	.4	3.8	100.0
	Total	26	10.3	100.0	
Missing	System	227	89.7		
Total		253	100.0		

UAAMT191

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	51	1	.4	25.0	25.0
	146	1	.4	25.0	50.0
	200	1	.4	25.0	75.0
	572	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

UATIME19

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	21	8.3	80.8	80.8
	Follow-up	2	.8	7.7	88.5
	Discharge	3	1.2	11.5	100.0
	Total	26	10.3	100.0	
Missing	System	227	89.7		
Total		253	100.0		

UADRG201

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	18	7.1	90.0	90.0
	mj	2	.8	10.0	100.0
	Total	20	7.9	100.0	
Missing	System	233	92.1		
Total		253	100.0		

UAAMT201

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	66	1	.4	50.0	50.0
	198	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UATIME20

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	15	5.9	75.0	75.0
	Discharge	5	2.0	25.0	100.0
	Total	20	7.9	100.0	
Missing	System	233	92.1		
Total		253	100.0		

UADRG211

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	14	5.5	82.4	82.4
	mj	3	1.2	17.6	100.0
	Total	17	6.7	100.0	
Missing	System	236	93.3		
Total		253	100.0		

UAAMT211

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	93	1	.4	33.3	33.3
	166	1	.4	33.3	66.7
	200	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

UADRG212

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UAAMT212

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	321.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	13	5.1	76.5	76.5
	Follow-up	3	1.2	17.6	94.1
	Discharge	1	.4	5.9	100.0
	Total	17	6.7	100.0	
Missing	System	236	93.3		
Total		253	100.0		

UADRG221

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	12	4.7	85.7	85.7
	mj	2	.8	14.3	100.0
	Total	14	5.5	100.0	
Missing	System	239	94.5		
Total		253	100.0		

UAAMT221

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	67	1	.4	50.0	50.0
	200	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

UATIME22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	13	5.1	92.9	92.9
	Follow-up	1	.4	7.1	100.0
	Total	14	5.5	100.0	
Missing	System	239	94.5		
Total		253	100.0		

UADRG231

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	11	4.3	91.7	91.7
	INV-CR	1	.4	8.3	100.0
	Total	12	4.7	100.0	
Missing	System	241	95.3		
Total		253	100.0		

UAAMT231

		Frequency	Percent
Missing	System	253	100.0

UATIME23

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	10	4.0	83.3	83.3
	Discharge	2	.8	16.7	100.0
	Total	12	4.7	100.0	
Missing	System	241	95.3		
Total		253	100.0		

UADATE24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	17-JAN-2001	1	.4	11.1	11.1
	29-MAR-2001	1	.4	11.1	22.2
	23-APR-2001	1	.4	11.1	33.3
	15-MAY-2001	1	.4	11.1	44.4
	22-MAY-2001	1	.4	11.1	55.6
	30-MAY-2001	1	.4	11.1	66.7
	19-SEP-2001	1	.4	11.1	77.8
	24-OCT-2001	1	.4	11.1	88.9
	24-NOV-2001	1	.4	11.1	100.0
	Total	9	3.6	100.0	
Missing	System	244	96.4		
Total		253	100.0		

UADRG241

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	9	3.6	100.0	100.0
Missing	System	244	96.4		
Total		253	100.0		

UAAMT241

		Frequency	Percent
Missing	System	253	100.0

UATIME24

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	8	3.2	88.9	88.9
	Discharge	1	.4	11.1	100.0
	Total	9	3.6	100.0	
Missing	System	244	96.4		
Total		253	100.0		

UADATE25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	22-FEB-2001	1	.4	12.5	12.5
	02-APR-2001	1	.4	12.5	25.0
	08-MAY-2001	1	.4	12.5	37.5
	22-MAY-2001	1	.4	12.5	50.0
	04-JUN-2001	1	.4	12.5	62.5
	26-SEP-2001	1	.4	12.5	75.0
	07-NOV-2001	1	.4	12.5	87.5
	06-DEC-2001	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UADRG251

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	7	2.8	87.5	87.5
	mj	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UAAMT251

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	137	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME25

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	7	2.8	87.5	87.5
	Discharge	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

UADATE26

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	23-APR-2001	1	.4	14.3	14.3
	29-MAY-2001	2	.8	28.6	42.9
	11-JUN-2001	1	.4	14.3	57.1
	26-JUN-2001	1	.4	14.3	71.4
	01-OCT-2001	1	.4	14.3	85.7
	11-DEC-2001	1	.4	14.3	100.0
	Total	7	2.8	100.0	
Missing	System	246	97.2		
Total		253	100.0		

UADRG261

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	6	2.4	85.7	85.7
	mj	1	.4	14.3	100.0
	Total	7	2.8	100.0	
Missing	System	246	97.2		
Total		253	100.0		

UAAMT261

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	200	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME26

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	5	2.0	71.4	71.4
	Follow-up	1	.4	14.3	85.7
	Discharge	1	.4	14.3	100.0
	Total	7	2.8	100.0	
Missing	System	246	97.2		
Total		253	100.0		

UADATE27

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13-JUN-2001	2	.8	33.3	33.3
	19-JUN-2001	1	.4	16.7	50.0
	05-OCT-2001	1	.4	16.7	66.7
	06-NOV-2001	1	.4	16.7	83.3
	18-DEC-2001	1	.4	16.7	100.0
	Total	6	2.4	100.0	
Missing	System	247	97.6		
Total		253	100.0		

UADRG271

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	5	2.0	83.3	83.3
	mj	1	.4	16.7	100.0
	Total	6	2.4	100.0	
Missing	System	247	97.6		
Total		253	100.0		

UAAMT271

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	200	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

UATIME27

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	5	2.0	83.3	83.3
	Follow-up	1	.4	16.7	100.0
	Total	6	2.4	100.0	
Missing	System	247	97.6		
Total		253	100.0		

UADATE28

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19-JUN-2001	2	.8	40.0	40.0
	26-JUN-2001	1	.4	20.0	60.0
	10-OCT-2001	1	.4	20.0	80.0
	26-DEC-2001	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

UADRG281

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	5	2.0	100.0	100.0
Missing	System	248	98.0		
Total		253	100.0		

UAAMT281

		Frequency	Percent
Missing	System	253	100.0

UATIME28

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	5	2.0	100.0	100.0
Missing	System	248	98.0		
Total		253	100.0		

UADATE29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	05-JUN-2001	1	.4	25.0	25.0
	27-JUN-2001	1	.4	25.0	50.0
	20-JUL-2001	1	.4	25.0	75.0
	17-OCT-2001	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

UADRG291

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	4	1.6	100.0	100.0
Missing	System	249	98.4		
Total		253	100.0		

UAAMT291

		Frequency	Percent
Missing	System	253	100.0

UATIME29

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	4	1.6	100.0	100.0
Missing	System	249	98.4		
Total		253	100.0		

UADATE30

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	19-JUN-2001	1	.4	25.0	25.0
	06-JUL-2001	1	.4	25.0	50.0
	27-JUL-2001	1	.4	25.0	75.0
	24-OCT-2001	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

UADRG301

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	4	1.6	100.0	100.0
Missing	System	249	98.4		
Total		253	100.0		

UAAMT301

		Frequency	Percent
Missing	System	253	100.0

UATIME30

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	In Rx	4	1.6	100.0	100.0
Missing	System	249	98.4		
Total		253	100.0		

# of cocaine (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	232	91.7	91.7	91.7
	1.00	18	7.1	7.1	98.8
	2.00	2	.8	.8	99.6
	4.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any cocaine (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	21	8.3	8.3	8.3
	no	232	91.7	91.7	100.0
	Total	253	100.0	100.0	

 # cocaine (+) hair assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	200	79.1	79.1	79.1
	1.00	34	13.4	13.4	92.5
	2.00	16	6.3	6.3	98.8
	3.00	2	.8	.8	99.6
	4.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any hair assays cocaine (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	53	20.9	20.9	20.9
	no	200	79.1	79.1	100.0
	Total	253	100.0	100.0	

 # mj (+) hair assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	130	51.4	51.4	51.4
	1.00	84	33.2	33.2	84.6
	2.00	30	11.9	11.9	96.4
	3.00	8	3.2	3.2	99.6
	4.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any hair assay mj (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	123	48.6	48.6	48.6
	no	130	51.4	51.4	100.0
	Total	253	100.0	100.0	

Any mj (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	166	65.6	65.6	65.6
	no	87	34.4	34.4	100.0
	Total	253	100.0	100.0	

Program Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Admitted	150	59.3	59.3	59.3
	Refused	103	40.7	40.7	100.0
	Total	253	100.0	100.0	

IMSSAM1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	particulate	147	58.1	100.0	100.0
Missing	System	106	41.9		
Total		253	100.0		

IMDGPT11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	111	43.9	75.5	75.5
	cocaine	25	9.9	17.0	92.5
	MJ	5	2.0	3.4	95.9
	heroin	1	.4	.7	96.6
	codeine	1	.4	.7	97.3
	morphine	1	.4	.7	98.0
	LSD	2	.8	1.4	99.3
	procaine	1	.4	.7	100.0
	Total	147	58.1	100.0	
Missing	System	106	41.9		
Total		253	100.0		

IMDGPT12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MJ	2	.8	28.6	28.6
	heroin	1	.4	14.3	42.9
	LSD	2	.8	28.6	71.4
	procaine	2	.8	28.6	100.0
	Total	7	2.8	100.0	
Missing	System	246	97.2		
Total		253	100.0		

IMDGPT13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MJ	1	.4	50.0	50.0
	procaine	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

IMDGPT21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	76	30.0	84.4	84.4
	cocaine	12	4.7	13.3	97.8
	LSD	2	.8	2.2	100.0
	Total	90	35.6	100.0	
Missing	System	163	64.4		
Total		253	100.0		

IMDGPT22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	50.0	50.0
	MJ	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

IMDGPT23

		Frequency	Percent
Missing	System	253	100.0

IMDGPT31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	57	22.5	91.9	91.9
	cocaine	3	1.2	4.8	96.8
	MJ	1	.4	1.6	98.4
	morphine	1	.4	1.6	100.0
	Total	62	24.5	100.0	
Missing	System	191	75.5		
Total		253	100.0		

IMDGPT32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

IMDGPT33

		Frequency	Percent
Missing	System	253	100.0

IMDGPT41

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	31	12.3	91.2	91.2
	cocaine	3	1.2	8.8	100.0
	Total	34	13.4	100.0	
Missing	System	219	86.6		
Total		253	100.0		

IMDGPT42

		Frequency	Percent
Missing	System	253	100.0

IMDGPT43

		Frequency	Percent
Missing	System	253	100.0

IMDGPT51

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	16	6.3	84.2	84.2
	cocaine	3	1.2	15.8	100.0
	Total	19	7.5	100.0	
Missing	System	234	92.5		
Total		253	100.0		

IMDGPT52

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	1	.4	50.0	50.0
	LSD	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

IMDGPT53

		Frequency	Percent
Missing	System	253	100.0

IMDATPT6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.	80	31.6	90.9	90.9
	10-OCT-2000	1	.4	1.1	92.0
	23-NOV-2000	1	.4	1.1	93.2
	09-MAR-2001	1	.4	1.1	94.3
	17-APR-2001	1	.4	1.1	95.5
	09-JUL-2001	1	.4	1.1	96.6
	02-AUG-2001	1	.4	1.1	97.7
	17-AUG-2001	1	.4	1.1	98.9
	13-SEP-2001	1	.4	1.1	100.0
	Total	88	34.8	100.0	
Missing	System	165	65.2		
Total		253	100.0		

IMDGPT61

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	7	2.8	87.5	87.5
	cocaine	1	.4	12.5	100.0
	Total	8	3.2	100.0	
Missing	System	245	96.8		
Total		253	100.0		

IMDGPT62

		Frequency	Percent
Missing	System	253	100.0

IMDGPT63

		Frequency	Percent
Missing	System	253	100.0

IMDATPT7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	09-MAR-2001	1	.4	16.7	16.7
	23-APR-2001	1	.4	16.7	33.3
	26-JUN-2001	1	.4	16.7	50.0
	07-AUG-2001	1	.4	16.7	66.7
	28-AUG-2001	1	.4	16.7	83.3
	20-SEP-2001	1	.4	16.7	100.0
	Total	6	2.4	100.0	
Missing	System	247	97.6		
Total		253	100.0		

IMDGPT71

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	4	1.6	80.0	80.0
	cocaine	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

IMDGPT72

		Frequency	Percent
Missing	System	253	100.0

IMDGPT73

		Frequency	Percent
Missing	System	253	100.0

IMDATPT8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	09-APR-2001	1	.4	20.0	20.0
	25-JUL-2001	1	.4	20.0	40.0
	10-AUG-2001	1	.4	20.0	60.0
	04-SEP-2001	1	.4	20.0	80.0
	27-SEP-2001	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

IMDGPT81

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	5	2.0	100.0	100.0
Missing	System	248	98.0		
Total		253	100.0		

IMDGPT82

		Frequency	Percent
Missing	System	253	100.0

IMDGPT83

		Frequency	Percent
Missing	System	253	100.0

IMSSAM2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	sweat	154	60.9	100.0	100.0
Missing	System	99	39.1		
Total		253	100.0		

IMDGSW11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	103	40.7	66.9	66.9
	cocaine	1	.4	.6	67.5
	MJ	21	8.3	13.6	81.2
	heroin	3	1.2	1.9	83.1
	6-MAM	1	.4	.6	83.8
	LSD	24	9.5	15.6	99.4
	methamp	1	.4	.6	100.0
	Total	154	60.9	100.0	
Missing	System	99	39.1		
Total		253	100.0		

IMDGSW12

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	cocaine	2	.8	20.0	20.0
	MJ	1	.4	10.0	30.0
	heroin	1	.4	10.0	40.0
	LSD	4	1.6	40.0	80.0
	procaine	1	.4	10.0	90.0
	amphet	1	.4	10.0	100.0
	Total	10	4.0	100.0	
Missing	System	243	96.0		
Total		253	100.0		

IMDGSW13

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	morphine	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

IMDGSW21

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	65	25.7	71.4	71.4
	cocaine	1	.4	1.1	72.5
	MJ	10	4.0	11.0	83.5
	heroin	1	.4	1.1	84.6
	morphine	2	.8	2.2	86.8
	LSD	9	3.6	9.9	96.7
	methamp	1	.4	1.1	97.8
	PCP	1	.4	1.1	98.9
	procaine	1	.4	1.1	100.0
	Total	91	36.0	100.0	
Missing	System	162	64.0		
Total		253	100.0		

IMDGSW22

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MJ	2	.8	100.0	100.0
Missing	System	251	99.2		
Total		253	100.0		

IMDGSW23

		Frequency	Percent
Missing	System	253	100.0

IMDGSW31

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	49	19.4	74.2	74.2
	MJ	6	2.4	9.1	83.3
	heroin	1	.4	1.5	84.8
	LSD	9	3.6	13.6	98.5
	procaine	1	.4	1.5	100.0
	Total	66	26.1	100.0	
Missing	System	187	73.9		
Total		253	100.0		

IMDGSW32

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	1	.4	33.3	33.3
	LSD	2	.8	66.7	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

IMDGSW33

		Frequency	Percent
Missing	System	253	100.0

IMDGSW41

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	32	12.6	76.2	76.2
	MJ	2	.8	4.8	81.0
	LSD	8	3.2	19.0	100.0
	Total	42	16.6	100.0	
Missing	System	211	83.4		
Total		253	100.0		

IMDGSW42

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	LSD	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

IMDGSW43

		Frequency	Percent
Missing	System	253	100.0

IMDGSW51

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	14	5.5	63.6	63.6
	cocaine	2	.8	9.1	72.7
	MJ	3	1.2	13.6	86.4
	heroin	1	.4	4.5	90.9
	LSD	2	.8	9.1	100.0
	Total	22	8.7	100.0	
Missing	System	231	91.3		
Total		253	100.0		

IMDGSW52

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	1	.4	25.0	25.0
	MJ	1	.4	25.0	50.0
	LSD	2	.8	50.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

IMDGSW53

		Frequency	Percent
Missing	System	253	100.0

IMDGSW61

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	7	2.8	63.6	63.6
	MJ	3	1.2	27.3	90.9
	heroin	1	.4	9.1	100.0
	Total	11	4.3	100.0	
Missing	System	242	95.7		
Total		253	100.0		

IMDGSW62

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	heroin	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

IMDGSW63

		Frequency	Percent
Missing	System	253	100.0

IMDATSW7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	09-MAR-2001	1	.4	16.7	16.7
	23-APR-2001	1	.4	16.7	33.3
	26-JUN-2001	1	.4	16.7	50.0
	07-AUG-2001	1	.4	16.7	66.7
	21-AUG-2001	1	.4	16.7	83.3
	20-SEP-2001	1	.4	16.7	100.0
	Total	6	2.4	100.0	
Missing	System	247	97.6		
Total		253	100.0		

IMDGSW71

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	6	2.4	100.0	100.0
Missing	System	247	97.6		
Total		253	100.0		

IMDGSW72

		Frequency	Percent
Missing	System	253	100.0

IMDGSW73

		Frequency	Percent
Missing	System	253	100.0

IMDATSW8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	09-APR-2001	1	.4	25.0	25.0
	10-AUG-2001	1	.4	25.0	50.0
	28-AUG-2001	1	.4	25.0	75.0
	27-SEP-2001	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

IMDGSW81

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	neg	2	.8	50.0	50.0
	MJ	1	.4	25.0	75.0
	heroin	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

IMDGSW82

		Frequency	Percent
Missing	System	253	100.0

IMDGSW83

		Frequency	Percent
Missing	System	253	100.0

# of ops (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	244	96.4	96.4	96.4
	1.00	8	3.2	3.2	99.6
	2.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

# of amphet (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	247	97.6	97.6	97.6
	1.00	6	2.4	2.4	100.0
	Total	253	100.0	100.0	

# of alcohol (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	238	94.1	94.1	94.1
	1.00	13	5.1	5.1	99.2
	2.00	2	.8	.8	100.0
	Total	253	100.0	100.0	

# of barbs (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	250	98.8	98.8	98.8
	1.00	3	1.2	1.2	100.0
	Total	253	100.0	100.0	

# of benzo (+) urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	242	95.7	95.7	95.7
	1.00	7	2.8	2.8	98.4
	2.00	3	1.2	1.2	99.6
	3.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

# of invalid urines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	249	98.4	98.4	98.4
	1.00	2	.8	.8	99.2
	2.00	2	.8	.8	100.0
	Total	253	100.0	100.0	

Any ops (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	9	3.6	3.6	3.6
	no	244	96.4	96.4	100.0
	Total	253	100.0	100.0	

Any amph. (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	6	2.4	2.4	2.4
	no	247	97.6	97.6	100.0
	Total	253	100.0	100.0	

Any alcohol (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	15	5.9	5.9	5.9
	no	238	94.1	94.1	100.0
	Total	253	100.0	100.0	

Any barb. (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	3	1.2	1.2	1.2
	no	250	98.8	98.8	100.0
	Total	253	100.0	100.0	

Any benzo. (+) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	11	4.3	4.3	4.3
	no	242	95.7	95.7	100.0
	Total	253	100.0	100.0	

Any drug (-) urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	179	70.8	70.8	70.8
	no	74	29.2	29.2	100.0
	Total	253	100.0	100.0	

Any invalid urines?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	4	1.6	1.6	1.6
	no	249	98.4	98.4	100.0
	Total	253	100.0	100.0	

 # heroin (+) hair samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	252	99.6	99.6	99.6
	1.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any heroin (+) hair samples?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1	.4	.4	.4
	no	252	99.6	99.6	100.0
	Total	253	100.0	100.0	

 # (-) hair samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	117	46.2	46.2	46.2
	1.00	73	28.9	28.9	75.1
	2.00	29	11.5	11.5	86.6
	3.00	28	11.1	11.1	97.6
	4.00	5	2.0	2.0	99.6
	5.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any (-) hair samples?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	136	53.8	53.8	53.8
	no	117	46.2	46.2	100.0
	Total	253	100.0	100.0	

 # invalid hair samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	234	92.5	92.5	92.5
	1.00	14	5.5	5.5	98.0
	2.00	4	1.6	1.6	99.6
	3.00	1	.4	.4	100.0
	Total	253	100.0	100.0	

Any invalid hair samples?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	19	7.5	7.5	7.5
	no	234	92.5	92.5	100.0
	Total	253	100.0	100.0	

 # missing hair samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3.00	3	1.2	1.2	1.2
	4.00	10	4.0	4.0	5.1
	5.00	21	8.3	8.3	13.4
	6.00	58	22.9	22.9	36.4
	7.00	52	20.6	20.6	56.9
	8.00	84	33.2	33.2	90.1
	9.00	25	9.9	9.9	100.0
	Total	253	100.0	100.0	

# of hair assay results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	25	9.9	9.9	9.9
	1.00	84	33.2	33.2	43.1
	2.00	52	20.6	20.6	63.6
	3.00	58	22.9	22.9	86.6
	4.00	21	8.3	8.3	94.9
	5.00	10	4.0	4.0	98.8
	6.00	3	1.2	1.2	100.0
	Total	253	100.0	100.0	

# of IMS Prtcl. Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	53	20.9	36.1	36.1
	2.00	30	11.9	20.4	56.5
	3.00	27	10.7	18.4	74.8
	4.00	15	5.9	10.2	85.0
	5.00	12	4.7	8.2	93.2
	6.00	4	1.6	2.7	95.9
	7.00	2	.8	1.4	97.3
	8.00	4	1.6	2.7	100.0
	Total	147	58.1	100.0	
Missing	System	106	41.9		
Total		253	100.0		

IMS Prtcl. Assays Results

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	negative	94	37.2	37.2	37.2
	positive	53	20.9	20.9	58.1
	no IMS prtcl. test	106	41.9	41.9	100.0
	Total	253	100.0	100.0	

Any IMS Prtcl. Cocaine (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	40	15.8	29.9	29.9
	no	94	37.2	70.1	100.0
	Total	134	53.0	100.0	
Missing	System	119	47.0		
Total		253	100.0		

# of IMS Prtcl. Assays Coc (+)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	32	12.6	80.0	80.0
	2.00	6	2.4	15.0	95.0
	3.00	2	.8	5.0	100.0
	Total	40	15.8	100.0	
Missing	System	213	84.2		
Total		253	100.0		

 # IMS Particulate MJ (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	11	4.3	52.4	52.4
	1.00	10	4.0	47.6	100.0
	Total	21	8.3	100.0	
Missing	System	232	91.7		
Total		253	100.0		

 # IMS Particulate Her. (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	12	4.7	85.7	85.7
	1.00	2	.8	14.3	100.0
	Total	14	5.5	100.0	
Missing	System	239	94.5		
Total		253	100.0		

 # IMS Particulate Codeine (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	12	4.7	92.3	92.3
	1.00	1	.4	7.7	100.0
	Total	13	5.1	100.0	
Missing	System	240	94.9		
Total		253	100.0		

 # IMS Particulate Morphine (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	11	4.3	84.6	84.6
	1.00	2	.8	15.4	100.0
	Total	13	5.1	100.0	
Missing	System	240	94.9		
Total		253	100.0		

 # IMS Particulate LSD (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	12	4.7	70.6	70.6
	1.00	5	2.0	29.4	100.0
	Total	17	6.7	100.0	
Missing	System	236	93.3		
Total		253	100.0		

 # IMS Particulate Procaine (+) Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	11	4.3	73.3	73.3
	1.00	4	1.6	26.7	100.0
	Total	15	5.9	100.0	
Missing	System	238	94.1		
Total		253	100.0		

 # IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	58	22.9	37.7	37.7
	2.00	26	10.3	16.9	54.5
	3.00	28	11.1	18.2	72.7
	4.00	17	6.7	11.0	83.8
	5.00	10	4.0	6.5	90.3
	6.00	5	2.0	3.2	93.5
	7.00	5	2.0	3.2	96.8
	8.00	5	2.0	3.2	100.0
	Total	154	60.9	100.0	
Missing	System	99	39.1		
Total		253	100.0		

 # (-) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	46	18.2	38.7	38.7
	2.00	28	11.1	23.5	62.2
	3.00	25	9.9	21.0	83.2
	4.00	10	4.0	8.4	91.6
	5.00	7	2.8	5.9	97.5
	6.00	1	.4	.8	98.3
	7.00	2	.8	1.7	100.0
	Total	119	47.0	100.0	
Missing	System	134	53.0		
Total		253	100.0		

 # Cocaine (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	6	2.4	100.0	100.0
Missing	System	247	97.6		
Total		253	100.0		

 # MJ (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	39	15.4	88.6	88.6
	2.00	4	1.6	9.1	97.7
	3.00	1	.4	2.3	100.0
	Total	44	17.4	100.0	
Missing	System	209	82.6		
Total		253	100.0		

 # Heroin (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	8	3.2	88.9	88.9
	2.00	1	.4	11.1	100.0
	Total	9	3.6	100.0	
Missing	System	244	96.4		
Total		253	100.0		

 # 6-MAM (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

 # Morphine (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	1.2	100.0	100.0
Missing	System	250	98.8		
Total		253	100.0		

 # LSD (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	41	16.2	82.0	82.0
	2.00	7	2.8	14.0	96.0
	3.00	2	.8	4.0	100.0
	Total	50	19.8	100.0	
Missing	System	203	80.2		
Total		253	100.0		

 # MAMP (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	2	.8	100.0	100.0
Missing	System	251	99.2		
Total		253	100.0		

 # PCP (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

 # Procaine (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	3	1.2	100.0	100.0
Missing	System	250	98.8		
Total		253	100.0		

 # Amphet. (+) IMS Sweat Assays

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1.00	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Ever Drink Alcohol?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	36	14.2	29.8	29.8
	yes	85	33.6	70.2	100.0
	Total	121	47.8	100.0	
Missing	System	132	52.2		
Total		253	100.0		

Ever use inhalants?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	82	32.4	98.8	98.8
	yes	1	.4	1.2	100.0
	Total	83	32.8	100.0	
Missing	System	170	67.2		
Total		253	100.0		

How many days of inhalant use, past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Largest # of inhalant usage in a single day of past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Ever use marijuana?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	18	7.1	14.5	14.5
	yes	106	41.9	85.5	100.0
	Total	124	49.0	100.0	
Missing	System	129	51.0		
Total		253	100.0		

Ever use PCP?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	84	33.2	100.0	100.0
Missing	System	169	66.8		
Total		253	100.0		

How many days of PCP use, past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Largest # of PCP usage in a single day of past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Ever use hallucinogens?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	84	33.2	95.5	95.5
	yes	4	1.6	4.5	100.0
	Total	88	34.8	100.0	
Missing	System	165	65.2		
Total		253	100.0		

How many days of halluconogen use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1.2	60.0	60.0
	1	1	.4	20.0	80.0
	2	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

Largest # of hallucinogen usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.4	50.0	50.0
	1	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

Ever use crack cocaine?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	84	33.2	97.7	97.7
	yes	2	.8	2.3	100.0
	Total	86	34.0	100.0	
Missing	System	167	66.0		
Total		253	100.0		

How many days of crack use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Largest # of crack usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Ever use powder cocaine?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	83	32.8	96.5	96.5
	yes	3	1.2	3.5	100.0
	Total	86	34.0	100.0	
Missing	System	167	66.0		
Total		253	100.0		

How many days of powder cocaine use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.4	33.3	33.3
	1	2	.8	66.7	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

Largest # of powder cocaine usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	1	.4	50.0	50.0
	4	1	.4	50.0	100.0
	Total	2	.8	100.0	
Missing	System	251	99.2		
Total		253	100.0		

Ever use heroin?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	83	32.8	100.0	100.0
Missing	System	170	67.2		
Total		253	100.0		

How many days of heroin use, past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Largest # of heroin usage in a single day of past 90 days?

		Frequency	Percent
Missing	System	253	100.0

Ever use sedatives?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	80	31.6	94.1	94.1
	yes	5	2.0	5.9	100.0
	Total	85	33.6	100.0	
Missing	System	168	66.4		
Total		253	100.0		

How many days of sedative use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	.8	50.0	50.0
	3	1	.4	25.0	75.0
	6	1	.4	25.0	100.0
	Total	4	1.6	100.0	
Missing	System	249	98.4		
Total		253	100.0		

Largest # of sedative usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2	.8	66.7	66.7
	2	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

Ever use tranquilizers?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	80	31.6	89.9	89.9
	yes	9	3.6	10.1	100.0
	Total	89	35.2	100.0	
Missing	System	164	64.8		
Total		253	100.0		

How many days of tranquilizer use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	4	1.6	57.1	57.1
	1	1	.4	14.3	71.4
	2	1	.4	14.3	85.7
	6	1	.4	14.3	100.0
	Total	7	2.8	100.0	
Missing	System	246	97.2		
Total		253	100.0		

Largest # of tranquilizer usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	3	1.2	60.0	60.0
	1	1	.4	20.0	80.0
	2	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

Ever use stimulants?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	80	31.6	96.4	96.4
	yes	3	1.2	3.6	100.0
	Total	83	32.8	100.0	
Missing	System	170	67.2		
Total		253	100.0		

How many days of stimulant use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	4	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Largest # of stimulant usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	2	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Ever use analgesics?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	80	31.6	93.0	93.0
	yes	6	2.4	7.0	100.0
	Total	86	34.0	100.0	
Missing	System	167	66.0		
Total		253	100.0		

How many days of analgesic use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	.8	40.0	40.0
	1	2	.8	40.0	80.0
	2	1	.4	20.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

Largest # of analgesic usage in a single day of past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	.4	33.3	33.3
	1	1	.4	33.3	66.7
	2	1	.4	33.3	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

Your primary substance of use is ...

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		119	47.0	47.0	47.0
	99	1	.4	.4	47.4
	Alcohol	19	7.5	7.5	54.9
	Marijuana	100	39.5	39.5	94.5
	No Other Drug	11	4.3	4.3	98.8
	PCP	2	.8	.8	99.6
	Tranquilizers	1	.4	.4	100.0
	Total	253	100.0	100.0	

Intake Interview?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	103	40.7	40.7	40.7
	yes	150	59.3	59.3	100.0
	Total	253	100.0	100.0	

Cocaine (+) by IMS, Ua, and Hair

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	170	67.2	67.2	67.2
	1.00	56	22.1	22.1	89.3
	2.00	23	9.1	9.1	98.4
	3.00	4	1.6	1.6	100.0
	Total	253	100.0	100.0	

Any IMS Prtcl. mj (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	10	4.0	4.0	4.0
	no	243	96.0	96.0	100.0
	Total	253	100.0	100.0	

Mj (+) on Hr, Ua, IMS?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	77	30.4	30.4	30.4
	1.00	59	23.3	23.3	53.8
	2.00	111	43.9	43.9	97.6
	3.00	6	2.4	2.4	100.0
	Total	253	100.0	100.0	

Number of IMS Coc (+) Sweat Samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	247	97.6	97.6	97.6
	1.00	6	2.4	2.4	100.0
	Total	253	100.0	100.0	

Number of IMS MJ (+) Sweat Samples

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	209	82.6	82.6	82.6
	1.00	44	17.4	17.4	100.0
	Total	253	100.0	100.0	

Any IMS Sweat Coc (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	6	2.4	4.9	4.9
	no	116	45.8	95.1	100.0
	Total	122	48.2	100.0	
Missing	System	131	51.8		
Total		253	100.0		

Any IMS Sweat Samples MJ (+)?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	44	17.4	17.4	17.4
	no	209	82.6	82.6	100.0
	Total	253	100.0	100.0	

COC4POS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	169	66.8	66.8	66.8
	1.00	55	21.7	21.7	88.5
	2.00	22	8.7	8.7	97.2
	3.00	7	2.8	2.8	100.0
	Total	253	100.0	100.0	

MJ4POS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	67	26.5	26.5	26.5
	1.00	57	22.5	22.5	49.0
	2.00	103	40.7	40.7	89.7
	3.00	24	9.5	9.5	99.2
	4.00	2	.8	.8	100.0
	Total	253	100.0	100.0	

IMS Sweat

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	negative	68	26.9	26.9	26.9
	positive	51	20.2	20.2	47.0
	No IMS Sweat Test	134	53.0	53.0	100.0
	Total	253	100.0	100.0	

Any MJ Use, Past 90 Days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	94	37.2	96.9	96.9
	no	3	1.2	3.1	100.0
	Total	97	38.3	100.0	
Missing	System	156	61.7		
Total		253	100.0		

Ever Use Any Cocaine?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	83	32.8	94.3	94.3
	yes	5	2.0	5.7	100.0
	Total	88	34.8	100.0	
Missing	System	165	65.2		
Total		253	100.0		

Use Any Cocaine, Past 90 Days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	2	.8	40.0	40.0
	yes	3	1.2	60.0	100.0
	Total	5	2.0	100.0	
Missing	System	248	98.0		
Total		253	100.0		

Any use of crack, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	yes	1	.4	100.0	100.0
Missing	System	252	99.6		
Total		253	100.0		

Any powder cocaine use, past 90 days?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	no	1	.4	33.3	33.3
	yes	2	.8	66.7	100.0
	Total	3	1.2	100.0	
Missing	System	250	98.8		
Total		253	100.0		

Appendix C.

First Five Records, Last Five Records

First Five and Last Five Records

LINE 1: ID AGE SEX RACE DEALER CHG1 CHG2 HRLOC1

LINE 2: HRDATE1 HRLENG1 HRDRG1 HRAMT1 HRDRG1A HRAMT1A HRLOC2

LINE 3: HRDATE2 HRLENG2 HRDRG2 HRAMT2 HRDRG2A HRAMT2A HRLOC3

LINE 4: HRDATE3 HRLENG3 HRDRG3 HRAMT3 HRDRG3A HRAMT3A HRLOC4

LINE 5: HRDATE4 HRLENG4 HRDRG4 HRAMT4 HRDRG4A HRAMT4B HRLOC5

LINE 6: HRDATE5 HRLENG5 HRDRG5 HRAMT5 UADATE1 UADRG11 UAAMT11

LINE 7: UADRG12 UAAMT12 UADRG13 UAAMT13 UATIME1 UADATE2 UADRG21

LINE 8: UAAMT21 UADRG22 UAAMT22 UATIME2 UADATE3 UADRG31 UAAMT31

LINE 9: UADRG32 UAAMT32 UATIME3 UADATE4 UADRG41 UAAMT41 UADRG42

LINE 10: UAAMT42 UATIME4 UADATE5 UADRG51 UAAMT51 UADRG52 UAAMT52

LINE 11: UATIME5 UADATE6 UADRG61 UAAMT61 UADRG62 UAAMT62 UATIME6

LINE 12: UADATE7 UADRG71 UAAMT71 UADRG72 UAAMT72 UATIME7 UADATE8

LINE 13: UADRG81 UAAMT81 UADRG82 UAAMT82 UATIME8 UADATE9 UADRG91 UAAMT91

LINE 14: UADRG92 UAAMT92 UATIME9 UADATE10 UADRG101 UAAMT101 UADRG102

LINE 15: UAAMT102 UATIME10 UADATE11 UADRG111 UAAMT111 UADRG112 UAAMT112

LINE 16: UATIME11 UADATE12 UADRG121 UAAMT121 UADRG122 UAAMT122 UATIME12

LINE 17: UADATE13 UADRG131 UAAMT131 UATIME13 UADATE14 UADRG141 UAAMT141

LINE 18: UADRG142 UAAMT142 UATIME14 UADATE15 UADRG151 UAAMT151 UATIME15

LINE 19: UADATE16 UADRG161 UAAMT161 UATIME16 UADATE17 UADRG171 UAAMT171

LINE 20: UATIME17 UADATE18 UADRG181 UAAMT181 UATIME18 UADATE19 UADRG191

LINE 21: UAAMT191 UATIME19 UADATE20 UADRG201 UAAMT201 UATIME20 UADATE21

LINE 22: UADRG211 UAAMT211 UADRG212 UAAMT212 UATIME21 UADATE22 UADRG221
UAAMT221

LINE 23: UATIME22 UADATE23 UADRG231 UAAMT231 UATIME23 UADATE24 UADRG241

LINE 24: UAAMT241 UATIME24 UADATE25 UADRG251 UAAMT251 UATIME25 UADATE26

LINE 25: UADRG261 UAAMT261 UATIME26 UADATE27 UADRG271 UAAMT271 UATIME27

LINE 26: UADATE28 UADRG281 UAAMT281 UATIME28 UADATE29 UADRG291 UAAMT291

LINE 27: UATIME29 UADATE30 UADRG301 UAAMT301 UATIME30 UACOCCNT ANYUACOC

LINE 28: HRCOCCNT ANYHRCOC HRMJCNT ANYHRMJ UAMJCNT ANYUAMJ PROGSTAT

LINE 29: IMDAPTT1 IMSSAM1 IMDGPT11 IMDGPT12 IMDGPT13 IMDATPT2

LINE 30: IMDGPT21 IMDGPT22 IMDGPT23 IMDATPT3 IMDGPT31 IMDGPT32

LINE 31: IMDGPT33 IMDATPT4 IMDGPT41 IMDGPT42 IMDGPT43 IMDATPT5

LINE 32: IMDGPT51 IMDGPT52 IMDGPT53 IMDATPT6 IMDGPT61 IMDGPT62

LINE 33: IMDGPT63 IMDATPT7 IMDGPT71 IMDGPT72 IMDGPT73 IMDATPT8 IMDGPT81

LINE 34: IMDGPT82 IMDGPT83 IMDATSW1 IMSSAM2 IMDGSW11 IMDGSW12

LINE 35: IMDGSW13 IMDATSW2 IMDGSW21 IMDGSW22 IMDGSW23 IMDASWT3

LINE 36: IMDGSW31 IMDGSW32 IMDGSW33 IMDATSW4 IMDGSW41 IMDGSW42

LINE 37: IMDGSW43 IMDA5SW IMDGSW51 IMDGSW52 IMDGSW53 IMDATSW6

LINE 38: IMDGSW61 IMDGSW62 IMDGSW63 IMDATSW7 IMDGSW71 IMDGSW72 IMDGSW73

LINE 39: IMDATSW8 IMDGSW81 IMDGSW82 IMDGSW83 UAOPSCNT UAAMPCNT UAALCCNT

LINE 40: UABRBCNT UABNZCNT UANEGCNT UAINVCNT ANYUAOPS ANYUAAMP ANYUAALC

LINE 41: ANYUABRB ANYUABNZ ANYUANEG ANYUAINV UAMISSNG TOTUACNT HRHERCNT

LINE 42: ANYHRHER HRNEGCNT ANYHRNEG HRINVCNT ANYHRINV HRMSSNG TOTHRCNT

LINE 43: IMPRTCNT IMPRTRSL IMPRTCOC IMPRTCO2 IMPRTMJ IMPRHER IMPRCOD

LINE 44: IMPRCMOR IMPRCLSD IMPRPROC IMSWTCNT IMSWTNEG IMSWTCOC IMSWTMJ

LINE 45: IMSWTHER IMSWTMAM IMSWTMOR IMSWTLSD IMSWTMA IMSWTPCP IMSWTPRO

LINE 46: IMSWTAMP E2 E4 E4E E4E1 E5 E5E E5E1 E6 E6E E6E1 E7

LINE 47: E7E E7E1 E8 E8E E8E1 E9 E9E E9E1 E10 E10E E10E1 E11 E11E

LINE 48: E11E1 E12 E12E E12E1 E13 E13E E13E1 E14 E14E E14E1 E23A

LINE 49: E23B JNIA_INT INTAKINT COC3POS ANYIMPMJ MJ3POS IMSWCOCT

LINE 50: IMSWMJCT ANYSWCOC ANYSWTMJ COC4POS MJ4POS IMSWTRSL ANYMJ90
LINE 51: ANYCOCEV ANYCOC90 ANYCRK90 ANYPWD90

FIRST FIVE RECORDS

Record One

ID:	29	15	1	2	2.00	22.00	. Head
HRDATE1:	07/19/2000	1.9	4	.	.	.	Head
HRDATE2:	12/18/2000	3.2	4	.	.	.	Head
HRDATE3:	06/06/2001	2.0	4	.	.	.	
HRDATE4:	.	.	.	.	.	.	

HRDATE5: . . . . 12-JUL-2000 0 .
UADRG12: 1 16-AUG-2000 0
UAAMT21: . . . 2 22-AUG-2000 0 .
UADRG32: . . 2 12-SEP-2000 0 . .
UAAMT42: . 2 14-SEP-2000 0 . . .
UATIME5: 2 27-SEP-2000 0 . . . 2
UADATE7: 05-OCT-2000 0 . . . 2 11-OCT-2000
UADRG81: 0 . . . 2 08-NOV-2000 0 .
UADRG92: . . 2 15-NOV-2000 0 . .
UAAMT102: . 2 23-NOV-2000 0 . . .
UATIME11: 2 18-DEC-2000 0 . . . 4
UADATE13: 06-JUN-2001 0 . 3 . . .
UADRG142: . . . . . .
UADATE16: . . . . . .
UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .
UATIME29: 00 2.00
HRCOCCNT: .00 2.00 .00 2.00 .00 2.00 1.00
IMDAPTT1: 01-AUG-2000 2 0 . . 25-OCT-2000
IMDGPT21: 0 . . . . .
IMDGPT33: . . . . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . 01-AUG-2000 7 4 .
IMDGSW13: . 25-OCT-2000 8 . . 18-DEC-2000
IMDGSW31: . 0 . . . .
IMDGSW43: . . . . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . . .00 .00 .00
UABRBCNT: .00 .00 13.00 .00 2.00 2.00 2.00
ANYUABRB: 2.00 2.00 1.00 2.00 31.00 13.00 .00
ANYHRHER: 2.00 3.00 1.00 .00 2.00 6.00 3.00
IMPRTCNT: 2.00 0 2.00 . . . .
IMPRCMOR: . . . 3.00 1.00 . .
IMSWTHER: 1.00 . . 1.00 . . .
IMSWTAMP: . 0 0 . . 1 1 1 0 . . 0
E7E: . . 0 . . 0 . . 0 . . 0 .
E11E1: . 0 . . 0 . . 0 . . Marijuana
E23B: 1 17-JUL-2000 1.00 .00 2.00 .00 .00
IMSWMJCT: .00 2.00 2.00 .00 .00 1.00 1.00
ANYCOCEV: .00 . . .

Record Two

ID:	57	16	1	5	.	22.00	. Head
HRDATE1:	02/15/2000	1.0	3	.	.	.	Head
HRDATE2:	12/11/2000	3.9	3	.	.	.	
HRDATE3:	.	.	.	.	.	.	
HRDATE4:	.	.	.	.	.	.	
HRDATE5:	.	.	.	.	08-FEB-2000	3	79.00
UADRG12:	.	.	.	.	1	.	.
UAAMT21:	.	.	.	.	.	.	.
UADRG32:	.	.	.	.	.	.	.
UAAMT42:	.	.	.	.	.	.	.
UATIME5:	.	.	.	.	.	.	.
UADATE7:	.	.	.	.	.	.	.
UADRG81:	.	.	.	.	.	.	.
UADRG92:	.	.	.	.	.	.	.
UAAMT102:	.	.	.	.	.	.	.
UATIME11:	.	.	.	.	.	.	.
UADATE13:	.	.	.	.	.	.	.
UADRG142:	.	.	.	.	.	.	.
UADATE16:	.	.	.	.	.	.	.
UATIME17:	.	.	.	.	.	.	.
UAAMT191:	.	.	.	.	.	.	.
UADRG211:	.	.	.	.	.	.	.
UATIME22:	.	.	.	.	.	.	.
UAAMT241:	.	.	.	.	.	.	
UADRG261:	.	.	.	.	.	.	.
UADATE28:	.	.	.	.	.	.	.
UATIME29:	.	.	.	.	.	.00	2.00
HRCOCCNT:	.00	2.00	2.00	1.00	1.00	1.00	1.00
IMDAPTT1:	.	.	.	.	.	.	
IMDGPT21:	.	.	.	.	.	.	
IMDGPT33:	.	.	.	.	.	.	
IMDGPT51:	.	.	.	.	.	.	
IMDGPT63:	.	.	.	.	.	.	.
IMDGPT82:	.	.	.	.	.	.	
IMDGSW13:	.	.	.	.	.	.	
IMDGSW31:	.	.	.	.	.	.	
IMDGSW43:	.	.	.	.	.	.	
IMDGSW61:	.	.	.	.	.	.	.
IMDATSW8:	.	.	.	.	.00	.00	.00
UABRBCNT:	.00	.00	.00	.00	2.00	2.00	2.00
ANYUABRB:	2.00	2.00	2.00	2.00	43.00	1.00	.00
ANYHRHER:	2.00	.00	2.00	.00	2.00	7.00	2.00

IMPRTCNT: . 2 . . . . .
IMPRCMOR: . . . . . .
IMSWTHER: . . . . . .
IMSWTAMP: . 0 0 . . 1 5 1 0 . . 0
E7E: . . 0 . . 0 . . 0 . . 0 .
E11E1: . 0 . . 0 . . 0 . . Marijuana
E23B: . 08-FEB-2000 1.00 .00 2.00 2.00 .00
IMSWMJCT: .00 . 2.00 .00 2.00 2.00 1.00
ANYCOCEV: .00 . . .

Record 3

ID: 58 15 2 2 2.00 18.00 . Head
HRDATE1: 06/15/2000 3.9 3 . . . Head
HRDATE2: 02/22/2001 3.9 3 . . . Head
HRDATE3: 06/26/1901 3.9 3 . . . Body
HRDATE4: 10/04/1901 6.0 3 . . .
HRDATE5: 12-JUN-2000 3 128.00
UADRG12: 1 12-JUL-2000 3
UAAMT21: 143.00 . . 2 18-JUL-2000 3 146.00
UADRG32: . . 2 01-AUG-2000 3 60 .
UAAMT42: . 2 07-AUG-2000 3 107 . .
UATIME5: 2 14-AUG-2000 1 36 . . 2
UADATE7: 22-AUG-2000 0 . . . 2 29-AUG-2000
UADRG81: 0 . . . 2 05-SEP-2000 3 102
UADRG92: . . 2 13-SEP-2000 0 . .
UAAMT102: . 2 15-SEP-2000 0 . . .
UATIME11: 2 21-SEP-2000 0 . . . 2
UADATE13: 28-SEP-2000 0 . 2 04-OCT-2000 0 .
UADRG142: . . 2 12-OCT-2000 0 . 2
UADATE16: 23-OCT-2000 0 . 2 02-NOV-2000 0 .
UATIME17: 2 08-NOV-2000 0 . 2 17-NOV-2000 0
UAAMT191: . 2 20-NOV-2000 0 . 2 01-DEC-2000
UADRG211: 0 . . . 2 12-DEC-2000 0 .
UATIME22: 2 19-DEC-2000 8 . 2 17-JAN-2001 0
UAAMT241: . 2 22-FEB-2001 3 137 4 26-JUN-2001
UADRG261: 3 200 3 . . . .
UADATE28: . . . . . .
UATIME29: 00 2.00
HRCOCCNT: .00 2.00 4.00 1.00 8.00 1.00 1.00
IMDAPTT1: 27-JUL-2000 2 0 . . 30-AUG-2000
IMDGPT21: 0 . . 06-NOV-2000 0 .
IMDGPT33: . 22-FEB-2001 0 . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . 15-JUN-2000 7 5 4
IMDGSW13: . 27-JUL-2000 8 . . 30-AUG-2000

IMDGSW31: 0 . . 06-NOV-2000 0 .
IMDGSW43: . 22-FEB-2001 0 . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . . .00 .00 1.00
UABRBCNT: .00 .00 16.00 1.00 2.00 2.00 1.00
ANYUABRB: 2.00 2.00 1.00 1.00 18.00 26.00 .00
ANYHRHER: 2.00 .00 2.00 .00 2.00 5.00 4.00
IMPRTCNT: 4.00 0 2.00 . . . .
IMPRCMOR: . . . 6.00 3.00 . .
IMSWTHER: 1.00 1.00 . 1.00 . . .
IMSWTAMP: . 0 0 . . 1 . . 0 . . 0
E7E: . . 0 . . 0 . . 0 . . 0 .
E11E1: . 0 . . 0 . . 0 . . Marijuana
E23B: . 15-JUN-2000 1.00 .00 2.00 2.00 .00
IMSWMJCT: .00 2.00 2.00 .00 2.00 1.00 .
ANYCOCEV: .00 . . .

Record 4

ID: 59 16 2 2 2.00 22.00 . Head
HRDATE1: 02/21/2000 3.9 3 . . . Head
HRDATE2: 07/24/2000 3.9 4 . . .
HRDATE3: . . . . . .
HRDATE4: . . . . . .
HRDATE5: 21-FEB-2000 0 83.00
UADRG12: 1 16-MAR-2000 0
UAAMT21: . . . 2 29-MAR-2000 0 .
UADRG32: . . 2 12-APR-2000 0 . .
UAAMT42: . 2 26-APR-2000 0 . . .
UATIME5: 2 18-MAY-2000 0 . . . 2
UADATE7: 31-MAY-2000 0 . . . 2 14-JUN-2000
UADRG81: 0 . . . 2 28-JUN-2000 1 49
UADRG92: . . 2 05-JUL-2000 0 . .
UAAMT102: . 2 24-JUL-2000 0 . . .
UATIME11: 2 02-AUG-2000 2 395 . . 2
UADATE13: 09-AUG-2000 0 . 4 . . .
UADRG142: . . . . . .
UADATE16: . . . . . .
UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .
UATIME29: 1.00 1.00

HRCOCCNT: .00 2.00 1.00 1.00 .00 2.00 1.00
IMDAPTT1: 24-JUL-2000 2 2 . . .
IMDGPT21: . . . 26-SEP-2000 0 .
IMDGPT33: . . . . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . 24-JUL-2000 7 0 .
IMDGSW13: . 05-SEP-2000 3 3 . .
IMDGSW31: . . . . . .
IMDGSW43: . . . . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . . .00 .00 1.00
UABRBCNT: .00 .00 11.00 .00 2.00 2.00 1.00
ANYUABRB: 2.00 2.00 1.00 2.00 31.00 13.00 .00
ANYHRHER: 2.00 1.00 1.00 .00 2.00 7.00 2.00
IMPRTCNT: 2.00 1 1.00 1.00 . . .
IMPRCMOR: . . . 3.00 1.00 . 2.00
IMSWTHER: . . . . . .
IMSWTAMP: . 0 0 . . 1 . . 0 . . 0
E7E: . . 0 . . 0 . . 0 . . 0 .
E11E1: . 0 . . 0 . . 0 . .
E23B: . 09-FEB-2000 1.00 2.00 2.00 1.00 .00
IMSWMJCT: 1.00 2.00 1.00 2.00 2.00 1.00 .
ANYCOCEV: .00 . . .

Record Five

ID: 60 16 1 2 2.00 22.00 . Head
HRDATE1: 07/25/2000 1.0 4 . . . Head
HRDATE2: 12/14/2000 1.3 4 . . . Body
HRDATE3: 07/12/2001 1.6 3 . . .
HRDATE4: . . . . . .
HRDATE5: 22-JUN-2000 3 141.00
UADRG12: 1 20-JUL-2000 0
UAAMT21: . . . 2 17-AUG-2000 0 .
UADRG32: . . 2 24-AUG-2000 0 . .
UAAMT42: . 2 12-SEP-2000 0 . . .
UATIME5: 2 19-SEP-2000 0 . . . 2
UADATE7: 03-OCT-2000 0 . . . 2 19-OCT-2000
UADRG81: 0 . . . 2 02-NOV-2000 0 .
UADRG92: . . 2 16-NOV-2000 0 . .
UAAMT102: . 2 05-DEC-2000 0 . . .
UATIME11: 2 14-DEC-2000 0 . . . 4
UADATE13: 10-JUL-2001 3 185 3 . . .
UADRG142: . . . . . .
UADATE16: . . . . . .

UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .
UATIME29: 00 2.00
HRCOCCNT: .00 2.00 1.00 1.00 2.00 1.00 1.00
IMDAPTT1: 05-SEP-2000 2 3 . . 26-SEP-2000
IMDGPT21: 0 . . 10-OCT-2000 0 .
IMDGPT33: . 07-NOV-2000 0 . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . 05-SEP-2000 7 3 .
IMDGSW13: . 26-SEP-2000 0 . . 10-OCT-2000
IMDGSW31: 0 . . 07-NOV-2000 8 .
IMDGSW43: . . . . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . .00 .00 .00
UABRBCNT: .00 .00 11.00 .00 2.00 2.00 2.00
ANYUABRB: 2.00 2.00 1.00 2.00 31.00 13.00 .00
ANYHRHER: 2.00 2.00 1.00 .00 2.00 6.00 3.00
IMPRTCNT: 4.00 1 . . 1.00 . .
IMPRCMOR: . . . 4.00 2.00 . 1.00
IMSWTHER: . . . 1.00 . . .
IMSWTAMP: . 1 0 . . 1 1 1 0 . . 0
E7E: . . 0 . . 0 . . 0 . . 0 .
E11E1: . 0 . . 0 . . 0 . . Marijuana
E23B: 1 27-JUN-2000 1.00 .00 1.00 3.00 .00
IMSWMJCT: 1.00 2.00 1.00 .00 4.00 1.00 1.00
ANYCOCEV: .00 . . .

LAST FIVE RECORDS

Record 249

ID: 433 14 1 1 . 22.00 .
HRDATE1: . . . . . .
HRDATE2: . . . . . .
HRDATE3: . . . . . .
HRDATE4: . . . . . .
HRDATE5: 21-DEC-2001 3 174.00
UADRG12: . . . . 1 . .
UAAMT21: . . . . . .

UADRG32: . . . . . .
UAAMT42: . . . . . .
UATIME5: . . . . . .
UADATE7: . . . . . .
UADRG81: . . . . . .
UADRG92: . . . . . .
UAAMT102: . . . . . .
UATIME11: . . . . . .
UADATE13: . . . . . .
UADRG142: . . . . . .
UADATE16: . . . . . .
UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .
UATIME29: 00 2.00
HRCOCCNT: .00 2.00 .00 2.00 1.00 1.00 2.00
IMDAPTT1: . . . . . .
IMDGPT21: . . . . . .
IMDGPT33: . . . . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . . . . .
IMDGSW13: . . . . . .
IMDGSW31: . . . . . .
IMDGSW43: . . . . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . . .00 .00 .00
UABRBCNT: .00 .00 .00 .00 2.00 2.00 2.00
ANYUABRB: 2.00 2.00 2.00 2.00 43.00 1.00 .00
ANYHRHER: 2.00 .00 2.00 00 2.00 9.00 .00
IMPRTCNT: . 2 . . . . .
IMPRCMOR: . . . . . .
IMSWTHER: . . . . . .
IMSWTAMP: . . . . . .
E7E: . . . . . .
E11E1: . . . . . .
E23B: . . .00 .00 2.00 1.00 .00
IMSWMJCT: .00 . 2.00 .00 1.00 2.00 .
ANYCOCEV: . . . .

Record 250

ID:	434	12	1	2	.	22.00	.	
HRDATE1:	.	.	.	.	.	.		
HRDATE2:	.	.	.	.	.	.		
HRDATE3:	.	.	.	.	.	.		
HRDATE4:	.	.	.	.	.	.		
HRDATE5:	.	.	.	.	21-DEC-2991	0	.	
UADRG12:	.	.	.	.	1	.	.	
UAAMT21:	.	.	.	.	.	.	.	
UADRG32:	.	.	.	.	.	.	.	
UAAMT42:	.	.	.	.	.	.	.	
UATIME5:	.	.	.	.	.	.	.	
UADATE7:	.	.	.	.	.	.	.	
UADRG81:	.	.	.	.	.	.	.	.
UADRG92:	.	.	.	.	.	.	.	
UAAMT102:	.	.	.	.	.	.	.	
UATIME11:	.	.	.	.	.	.	.	
UADATE13:	.	.	.	.	.	.	.	
UADRG142:	.	.	.	.	.	.	.	
UADATE16:	.	.	.	.	.	.	.	
UATIME17:	.	.	.	.	.	.	.	
UAAMT191:	.	.	.	.	.	.	.	
UADRG211:	.	.	.	.	.	.	.	.
UATIME22:	.	.	.	.	.	.	.	
UAAMT241:	.	.	.	.	.	.	.	
UADRG261:	.	.	.	.	.	.	.	
UADATE28:	.	.	.	.	.	.	.	
UATIME29:	.	.	.	.	.	.00	2.00	
HRCOCCNT:	.00	2.00	.00	2.00	.00	2.00	2.00	
IMDAPTT1:	.	.	.	.	.	.		
IMDGPT21:	.	.	.	.	.	.		
IMDGPT33:	.	.	.	.	.	.		
IMDGPT51:	.	.	.	.	.	.		
IMDGPT63:	.	.	.	.	.	.	.	
IMDGPT82:	.	.	.	.	.	.		
IMDGSW13:	.	.	.	.	.	.		
IMDGSW31:	.	.	.	.	.	.		
IMDGSW43:	.	.	.	.	.	.		
IMDGSW61:	.	.	.	.	.	.	.	
IMDATSW8:	.	.	.	.	.	.00	.00	.00
UABRBCNT:	.00	.00	1.00	.00	2.00	2.00	2.00	
ANYUABRB:	2.00	2.00	1.00	2.00	43.00	1.00	.00	
ANYHRHER:	2.00	.00	2.00	.00	2.00	9.00	.00	
IMPRTCNT:	.	2	.	.	.	.	.	
IMPRCMOR:	.	.	.	.	.	.	.	

IMSWTHER: . . . . . .
IMSWTAMP: . . . . . .
E7E: . . . . . .
E11E1: . . . . . .
E23B: . . .00 .00 2.00 .00 .00
IMSWMJCT: .00 . 2.00 .00 .00 2.00 .
ANYCOCEV: .

Record 251

ID: 435 13 1 2 . 20.00 .
HRDATE1: . . . . . .
HRDATE2: . . . . . .
HRDATE3: . . . . . .
HRDATE4: . . . . . .
HRDATE5: . . . . 21-DEC-2001 0 .
UADRG12: . . . . 1 . .
UAAMT21: . . . . . .
UADRG32: . . . . . .
UAAMT42: . . . . . .
UATIME5: . . . . . .
UADATE7: . . . . . .
UADRG81: . . . . . .
UADRG92: . . . . . .
UAAMT102: . . . . . .
UATIME11: . . . . . .
UADATE13: . . . . . .
UADRG142: . . . . . .
UADATE16: . . . . . .
UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .
UATIME29: 00 2.00
HRCOCCNT: .00 2.00 .00 2.00 .00 2.00 2.00
IMDAPTT1: . . . . . .
IMDGPT21: . . . . . .
IMDGPT33: . . . . . .
IMDGPT51: . . . . . .
IMDGPT63: . . . . . .
IMDGPT82: . . . . . .
IMDGSW13: . . . . . .

IMDGSW31: . . . . .
IMDGSW43: . . . . . .
IMDGSW61: . . . . . .
IMDATSW8: . . . . .00 .00 .00
UABRBCNT: .00 .00 1.00 .00 2.00 2.00 2.00
ANYUABRB: 2.00 2.00 1.00 2.00 43.00 1.00 .00
ANYHRHER: 2.00 .00 2.00 .00 2.00 9.00 .00
IMPRTCNT: . 2 . . . . .
IMPRCMOR: . . . . . .
IMSWTHER: . . . . . .
IMSWTAMP: . . . . . .
E7E: . . . . . .
E11E1: . . . . . .
E23B: . . .00 .00 2.00 .00 .00
IMSWMJCT: .00 . 2.00 .00 .00 2.00 .
ANYCOCEV: . . . .

Record 252

ID: 436 13 1 2 . 20.00 .
HRDATE1: . . . . . .
HRDATE2: . . . . . .
HRDATE3: . . . . . .
HRDATE4: . . . . . .
HRDATE5: 21-DEC-2001 4 68.00
UADRG12: . . . . 1 . .
UAAMT21: . . . . . .
UADRG32: . . . . . .
UAAMT42: . . . . . .
UATIME5: . . . . . .
UADATE7: . . . . . .
UADRG81: . . . . . .
UADRG92: . . . . . .
UAAMT102: . . . . . .
UATIME11: . . . . . .
UADATE13: . . . . . .
UADRG142: . . . . . .
UADATE16: . . . . . .
UATIME17: . . . . . .
UAAMT191: . . . . . .
UADRG211: . . . . . .
UATIME22: . . . . . .
UAAMT241: . . . . . .
UADRG261: . . . . . .
UADATE28: . . . . . .

UATIME29:	.	.	.	.	.00	2.00	
HRCOCCNT:	.00	2.00	.00	2.00	.00	2.00	2.00
IMDAPTT1:	.	.	.	.	.	.	
IMDGPT21:	.	.	.	.	.	.	
IMDGPT33:	.	.	.	.	.	.	
IMDGPT51:	.	.	.	.	.	.	
IMDGPT63:	.	.	.	.	.	.	.
IMDGPT82:	.	.	.	.	.	.	
IMDGSW13:	.	.	.	.	.	.	
IMDGSW31:	.	.	.	.	.	.	
IMDGSW43:	.	.	.	.	.	.	
IMDGSW61:	.	.	.	.	.	.	.
IMDATSW8:	.	.	.	.	1.00	.00	.00
UABRBCNT:	.00	.00	.00	.00	1.00	2.00	2.00
ANYUABRB:	2.00	2.00	2.00	2.00	43.00	1.00	.00
ANYHRHER:	2.00	.00	2.00	.00	2.00	9.00	.00
IMPRTCNT:	.	2	.	.	.	.	.
IMPRCMOR:	.	.	.	.	.	.	.
IMSWTHER:	.	.	.	.	.	.	.
IMSWTAMP:	.	.	.	.	.	.	. . . .
E7E:	.	.	.	.	.	.	. . . . .
E11E1:	.	.	.	.	.	.	. . . . .
E23B:	.	.	.00	.00	2.00	.00	.00
IMSWMJCT:	.00	.	2.00	.00	.00	2.00	.
ANYCOCEV:	.	.	.	.			

Record 253

ID:	437	15	1	2	.	23.00	.
HRDATE1:	.	.	.	.	.	.	
HRDATE2:	.	.	.	.	.	.	
HRDATE3:	.	.	.	.	.	.	
HRDATE4:	.	.	.	.	.	.	
HRDATE5:	.	.	.	.	28-DEC-2001	3	200.00
UADRG12:	.	.	.	.	1	.	.
UAAMT21:	.	.	.	.	.	.	.
UADRG32:	.	.	.	.	.	.	.
UAAMT42:	.	.	.	.	.	.	.
UATIME5:	.	.	.	.	.	.	.
UADATE7:	.	.	.	.	.	.	.
UADRG81:	.	.	.	.	.	.	.
UADRG92:	.	.	.	.	.	.	.
UAAMT102:	.	.	.	.	.	.	.
UATIME11:	.	.	.	.	.	.	.
UADATE13:	.	.	.	.	.	.	.

UADRG142:							
UADATE16:							
UATIME17:							
UAAMT191:							
UADRG211:							
UATIME22:							
UAAMT241:							
UADRG261:							
UADATE28:							
UATIME29:					.00	2.00	
HRCOCCNT:	.00	2.00	.00	2.00	1.00	1.00	2.00
IMDAPTT1:							
IMDGPT21:							
IMDGPT33:							
IMDGPT51:							
IMDGPT63:							
IMDGPT82:							
IMDGSW13:							
IMDGSW31:							
IMDGSW43:							
IMDGSW61:							
IMDATSW8:				.00	.00	.00	
UABRBCNT:	.00	.00	.00	.00	2.00	2.00	2.00
ANYUABRB:	2.00	2.00	2.00	2.00	43.00	1.00	.00
ANYHRHER:	2.00	.00	2.00	.00	2.00	9.00	.00
IMPRTCNT:		2					
IMPRCMOR:							
IMSWTHER:							
IMSWTAMP:							
E7E:							
E11E1:							
E23B:			.00	.00	2.00	1.00	.00
IMSWMJCT:	.00		2.00	.00	1.00	2.00	
ANYCOCEV:							