OKLAHOMA

STATE TREATMENT NEEDS ASSESSMENT PROGRAM
PHASE II

Contract No. 270-98-7066

FINAL REPORT ON STUDY #2,

Face-to-Face Surveys of Criminal Justice Populations

Submitted to:

CENTER FOR SUBSTANCE ABUSE TREATMENT

Submitted by:

Oklahoma Department of Mental Health and Substance Abuse Services
PO Box 53277
Oklahoma County
Oklahoma City, Oklahoma 73152

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Face-to-Face Surveys of Criminal Justice Populations

EXECUTIVE SUMMARY

E.1 Background

With funding from the federal Center for Substance Abuse Treatment (CSAT), the Oklahoma Department of Mental Health and Substance Abuse Services (DMHSAS) is conducting a family of studies that will supply Oklahoma with information the State needs to plan and provide effective substance abuse service for its citizens in need. The results of the studies will also meet the data reporting requirements of the federal government. The project includes four studies: (1) Surveys of Temporary Assistance for Needy Families (TANF) Recipients; (2) Survey of Criminal Justice Populations (juvenile offenders under supervision of the Office of Juvenile Affairs and the Arrestee Drug Abuse Monitoring (ADAM) Project); (3) Substance Abuse Treatment Utilization by State-funded Clients; and (4) Integration and Analysis of Data from Internal and External Sources. This document is an executive summary of the administration and results of the Face-to-Face Surveys of Criminal Justice Populations.

E.2 Face-to-face Surveys of Juvenile Offenders in the Custody of Office of Juvenile Affairs

E.2.1 Methodology

The Texas Youth Corrections Survey, developed in 1994 to assess substance use and delinquency among youths entering Texas Youth Commission facilities was used for this study. The survey asked detailed questions about use of 11 classes of substances including tobacco, alcohol, inhalants, marijuana, powder cocaine, crack cocaine, uppers (stimulants), downers (tranquilizers, barbiturates and sedatives), heroin, other opiates, and psychedelics. In addition, the survey explored topics such as involvement with local law enforcement and youth authorities, and relationship among drug selling, drug use, and delinquency. The Texas Commission on Alcohol and Drug Abuse (TCADA) provided a Computer-Assisted Personal Interview (CAPI) version of the questionnaire.

For this study, persons 18 years of age or younger who were in the custody of the Office of Juvenile Affairs (OJA), the state juvenile justice agency, and had a security level E or higher, comprised the population of interest. A distinction was made between youth who were in the “supervision” of OJA but not in its physical

custody, and those in OJA custody, meaning they were residing in an OJA facility. Staff-secure facilities for medium to high risk juvenile delinquents comprise security level E. At the high end of the continuum, secure institutions are not only secured by staff but are also physically secure facilities for the highest risk juvenile offenders. The total population meeting these criteria on April 23, 2001 was 792.

E.2.2 Data Collection and Response Rates

Of the 792 juvenile offenders in a security level E or higher, 352 had consent forms signed by guardians or themselves, if 18 years of age. Because contact with guardians typically only occurred monthly, 111 offenders were not in placement by the time the lists were distributed. Of the remaining offenders, 116 guardians refused to sign consent forms and 86 guardians could not be located. There was no information regarding the effort to collect consent forms for the remaining 137.

Of the 352 youths with consent forms, 274 completed an interview. Of the remaining offenders, 57 were released from OJA custody before the scheduled interview, 7 were on a pass while interviewers were at the facility, 7 were housed at such remote facilities where it was not economically feasible to send interviewers, 3 were in the hospital, 2 refused and facility directors advised against interviewing 2 due to medical conditions.

The response rate of 92.9 percent was calculated using only those juveniles with signed consent forms, excluding juveniles who were released from OJA before the interviewers arrived at the facilities.

E.2.3 Definitions of Terms and Measures

E.2.3.1 Tobacco, Alcohol, and Illicit Drug Use

For tobacco, alcohol and illicit drugs, use is defined as any use, regardless of quantity and frequency. Use is measured for lifetime, in the last year, and in the last 30 days.

For this study, tobacco use is limited to cigarettes. The drugs included in the illicit category are: marijuana, inhalants, powdered cocaine, crack cocaine, uppers, downers, heroin, opiates, and psychedelics. Any respondent who answered “yes” to use of an illicit drug was asked in detail about using that drug.

E.2.3.2 Substance Abuse and Dependence

Substance abuse and dependence were calculated using responses to items from the 1994 Texas Youth Corrections Survey. The methods for calculating abuse and dependence are reprinted below from *Substance Use and*

Delinquency Among Youths Entering Texas Youth Commission Facilities:1994 Report (Fredlund, et al., 1995):

The Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R) defines substance dependence as persistent and continued use of a psychoactive substance despite multiple negative and serious consequences associated with use.

The DSM-III-R defines a person who exhibits three or more of these symptoms as having psychoactive substance *dependence*. Substance *abuse* was defined as the presence of one or two of the dependence criteria, and therefore is considered less severe than substance dependence. For a substance abuse diagnosis, these symptoms must have persisted for at least one month and the person must not be diagnosable with psychoactive substance dependence. The questions used in the survey were drawn from the Diagnostic Interview Schedule. These questions were worded to probe for problems that are persistent, recurring and severe.

Persons meeting the criteria for either abuse or dependence are considered to be in need for treatment (STNAP Survey Core Protocol, 2001).

E.2.4 Analysis

Weights were assigned according to the population-to-sample-size ratio in the particular stratum occupied by an observation. Strata were defined by gender (2 levels), race (6 levels) and age (10 levels). The 120 different weights thus assigned ranged from 0 to 17. The median weight was three, the average was five and the standard deviation was four.

E.2.5 Results

E.2.5.1 Prevalence of Tobacco, Alcohol and Other Drug Use

- Nearly all of the youths surveyed (96.8%) had used tobacco during their lifetimes. For past year use, 90.5 percent reported tobacco use while 66.9 percent reported using tobacco in the past 30 days.

- American Indians had the highest tobacco rate of use for lifetime (100%), while Hispanics had the highest rate for the past year (95.7%), and the "other" race rate of 83.3 percent was the highest for the past 30 days.

- Males and females reported similar rates of tobacco use for both lifetime (96.6% vs. 98.8%, respectively) and the past 30 days (66.9% vs. 66.7%, respectively).

- While the ages ranged from 13 to 18 years of age, the 17-year-olds had the highest lifetime use of tobacco (99%), the 16- and 17-year-olds tied for the highest rate of past year use (92%) and the 15-year-olds had the highest past month use (73.2%).

- Over half of the youths surveyed had used alcohol in the past 30 days (57.5%). For lifetime use, youths had a rate of 93.5 percent and for past year use, a rate of 82.9 percent. The rate of alcohol is lower in all three-time periods than those of tobacco and illicit drugs.

- Hispanics demonstrated the highest rate of lifetime alcohol use (100%) and last month use (60.9%), while Whites had the highest rate of use for the past year (85.2%).

- For alcohol use in the last month, 78.4 percent of females reported use compared to 56.2 percent reported by males.

- Seventeen-year olds had the highest rate of alcohol use for all three time periods.

- Every youth surveyed had used an illicit drug in his or her lifetime. Over eight out of ten youths (83.1%) had used an illicit drug in the last year and seventy-one percent had used in the last month.

- African Americans had the highest rate of past year illicit drug use (86.7%). Whites had the highest use rate in the last 30 days (67.3%) while American Indians had the lowest use rate (57.1%).

- Illicit drug use differed by gender in the last year (females, 98.8%; males, 82.2%) and in the last month (females, 78%; males, 62.6%) with females having a higher rate for both time periods.

- While all youths surveyed had used illicit drugs in their lifetimes, the rate decreased slightly for use in the past year: 17-year olds had a rate of 91.5 percent and 13-year olds reported a rate of 83.3 percent. All of the 13-year olds who reported use in the past year also reported use in the past 30 days.

- Opiates are the most widely used drugs for lifetime use (96.4%), closely followed by marijuana (95.7%) and downers (94.4%). Marijuana use was the highest in the last year (78.6%) and in the last month (57.6%).

- Average age of first time use ranges from 1.6 years of age for inhalants to 14.7 years of age for heroin. Minimum age of first use ranged from 1 year of age for marijuana and inhalants to 12 years of age for heroin use.

- Over half of the adolescents (52%) had sold drugs to obtain drugs. More youths reported stealing to pay for drugs (40.3%) than reported using legal income (29%).

E.2.5.2 Need for Treatment of Alcohol and Illicit Drug Use

- Any youths who were determined to be abusing or dependent on alcohol and/or drugs were considered in need of treatment. Of the total weighted sample, 353 (46.6%) were estimated to be in need of treatment for alcohol and 548 (72.3%) were estimated to be in need of treatment for illicit drugs. This results in an overall estimated need of treatment for alcohol and/or drugs of 79 percent.

- Hispanics had the highest rate of treatment need for both alcohol (55.8%) and illicit drugs (79.3%); however, African Americans had the highest rate of combined treatment need at 87.5 percent.

- For female respondents, 89.5 percent were in need of treatment versus 78.3 percent of males.

- Seventeen-year olds had the highest overall need for treatment (84.8%), while 14-year olds had the lowest rate (57.6%).

- When asked about their interest in participating in treatment, a little less than half of the youths found to be abusing substances (42.9%) reported interest, while two-thirds of the substance dependent youths (65.2%) reported interest.

E.2.6 Summary

Tobacco use appears to be a significant problem among the juvenile offenders surveyed. Nearly all of the youths had smoked in their lifetimes and three-fourths had smoked in the last 30 days. Males and females were equally likely to smoke.

Marijuana was the substance most commonly used. While inhalant use is thought to be high among adolescents because of the ease with which they can be obtained, use of inhalants was surprisingly low in all three time periods.

Though age of first use for inhalant use seems low, there are anecdotal stories of public health workers discovering infants with spray paint on their faces after parents had the children inhale the fumes to subdue them. A similar explanation may be true for the average age of first time alcohol use being two years of age.

Illicit drugs had a higher prevalence rate than alcohol and higher rates of abuse and dependence. Of the youths that were alcohol dependent, 88 percent were

also dependent on an illicit drug. That is, for youths with alcohol dependence, the majority have an illicit drug dependence.

Females have higher rates of use for the last year and the last month for tobacco, alcohol and illicit drugs than their male counterparts. Consequently, females had a treatment need 11 percent higher than that of males.

E.3 Arrestee Drug Abuse (ADAM) Project

E.3.1 Methodology

The ADAM Core Questionnaire was used to survey the Tulsa County arrestee population in the ADAM Study. The questionnaire, developed via funding from the National Institute of Justice (NIJ), has OMB clearance and Abt Associates, Inc. Internal Review Board (IRB) approval, and is currently being used in 35 states, including the Oklahoma County ADAM site. Surveys were validated through the use of urinalysis. PharmChem Laboratories, Inc., certified by the U.S. Department of Health and Human Services, screened the urine samples for a minimum of ten drugs: marijuana, cocaine, amphetamines, barbiturates, benzodiazepines, methadone, methaqualone, opiates, phencyclidine (PCP) and propoxyphene. Once the urinalysis results were received from the laboratory, Abt merged the urinalysis results with the interview data received from the site using the common identification number.

The sample size approach chosen by NIJ required each site to have a designated sample size equivalent to the variance that results from sampling proportional to size. In addition, there is a minimum targeted sample for small sites and a maximum targeted sample for large sites. Based on this sample determination methodology, the sample size for Tulsa County was 340 males and 31 females.

The ADAM staff targeted 340 male arrestees to participate in the study over the course of the 14-day period. Of the 340, 188 arrestees met interview eligibility requirements. Of those eligible, 160 agreed to an interview (85.1%), and, of the 160, 155 arrestees provided a urine sample (96.9%). The large disparity between the 340 targeted and the 188 eligible males was attributed to early releases, the intoxicated or violent state of the arrestees, and misinformation concerning eligibility criteria provided by Abt. The misinformation was not rectified until late in the data collection process. ADAM supervisors estimate an additional 82 males would have been eligible under corrected criteria.

E.3.2 Results

E.3.2.1 Prevalence of Drug Use as Indicated by Urinalysis

- Two thirds of Tulsa respondents (66.7%) tested positive for any drug use. This is very close to the rate of 64.2 percent found at the Oklahoma City ADAM site. The most prevalent drug was marijuana (48%), followed by cocaine (20%), amphetamine (16.7%), benzodiazepines (8%) and opiates (2%).

- Respondents who were 36 years of age or older had the highest prevalence rate for any drug use (34%), cocaine use (70%) and amphetamine use (36%), while 21- to 25-year olds had the highest rate of marijuana use (29.2%) and benzodiazepine use (50%). Very few respondents tested positive for opiates and use was equal among the three youngest age groups (33.3%).

- Among the race groups, Blacks had the highest prevalence of use for each drug category. Nearly two thirds of the Black group (62%) tested positive for any drug, compared with 29 percent of the White group.

- Of the Tulsa respondents arrested for a property offense, 78.3 percent tested positive for any drug use, compared to 70.4 percent in Oklahoma City. Of Tulsa respondents with drug offenses, 72.2 percent tested positive for any drug, compared to 78.9 percent in Oklahoma City. Respondents arrested for person (violent) crimes or "other" crimes had similar use rates (58.6 % and 59.1%, respectively) in Tulsa, as well as like rates at the Oklahoma City site (61.4% and 58.2%, respectively).

- Tulsa respondents arrested for property offenses had the highest rate for any drug use (78.3%), marijuana use (56.5%), and cocaine use (30.4%), although not significantly higher than rates of other offense categories. The "other" offense category had the highest rate of amphetamine use.

E.3.2.2 Comparison of Drug Prevalence at Tulsa Site to Oklahoma City Site

- The percentages of Tulsa respondents testing positive for drug use varied by offense category (58.2% to 78.3%) and were close to the Oklahoma City range of 58.2 percent to 78.9 percent.

- A comparison of drugs and drug combinations found the Oklahoma City site higher on each individual drug and drug combination than the Tulsa site. Crack cocaine was the most prevalent drug for both sites (Tulsa, 11.3%; OKC, 12.6%), followed by powder cocaine (Tulsa, 4%; OKC, 9.6%), marijuana and powder cocaine (Tulsa, 3.3%; OKC, 7%), crack cocaine and powder cocaine (Tulsa, 1.3%; OKC, 3.5%), and opiates (including heroin) and powder cocaine (Tulsa, 0%; OKC, 0.8%).

E.3.2.3 Self-Reported Prevalence of Drug Use

- Nearly half of the Tulsa respondents (45.3%) reported using two or more substances in the past 30 days, a much higher rate than that of the Oklahoma City ADAM site (28.9%).

- In Tulsa, the age group of 31- to 35-year olds had the highest reported rate of marijuana use (11.8%) and any two or more drugs (47.1%), while 21- to 25-year olds had the highest rates for powder cocaine (7.1%), crack and powder cocaine (7.1%) and marijuana and powder cocaine (7.1%). There was no reported combination use of opiates and powder cocaine.

- At the Oklahoma City site, the 31- to 35-year olds had the highest prevalence rate of each drug or drug combination, with the exception of marijuana and powder cocaine, for which 15- to 20-year olds had the highest rate of use at 10 percent.

E.3.2.4 Comparison of Self-Reported Drug Use to Urinalysis Results

- The rate of 51.3 percent for self-reported use of marijuana in the last 30 days was close to test results of 48 percent.

- Self-reported use of cocaine was 5.3 percent, compared to a rate of 20 percent revealed by urinalysis testing.

- There was no self-reported use of heroin in the last 48 hours while urine tests showed a rate of 2 percent.

E.4 Summary

As had been previously found at the Oklahoma City ADAM site, two thirds (66.7%) of Tulsa County arrestees tested positive for any drug. Those in the highest age group (36 and over) tested at the highest rate (about 33%) and marijuana was the drug of choice for almost half of those. The differences in drug use by race were pronounced. About 30 percent of whites tested positive for some drug, while the percent of African-Americans was over twice that (62%). Hispanics and the other racial group have much lower percentages of positive tests (3% and 6%, respectively).

Although Tulsa and Oklahoma City had similar overall drug use patterns, there were differences between findings at the two sites. In Tulsa, the percentage of arrestees using multiple drugs was one-third more than the percentage in Oklahoma City (45.33% vs. 28.9%, respectively), but at both sites multiple drug users comprised the largest group. None of the age groups in Oklahoma City had a higher multiple drug use rate than the corresponding age group in Tulsa. At both sites the oldest age group (36 and over) often had the highest percentage of users. In contrast, in Tulsa the youngest group (15-20) and middle group (26-30)

most often used multiple drugs (52.2% and 52.6%, respectively), while in Oklahoma City it was the 31- to 35-year old group (35.9%). All of these site differences must be evaluated in light of the fact that the time periods being compared were not the same. Because more recent data were not yet available from the Oklahoma City site, Tulsa's third quarter 2001 data were compared to Oklahoma City's 1999 Annual Report data.

The differences in tested and self-reported drug use patterns elicits a question about the reliability of self-report drug use data collected in the jail environment. Despite agreeing to a urinalysis prior to participation in the survey, respondents' reported drug use was lower than actual drug use with the exception of marijuana. The much lower self-report rate compared to actual rate for other drugs may reflect a belief among arrestees that cocaine, opiate and amphetamine use results in a stiffer penalty than marijuana use.

Although only one data collection period at the Tulsa site was possible during this pilot study, the relationships established among colleagues and the experience gained from designing the survey site, together with survey results, have established a springboard for future work. Of additional importance, the pilot project has demonstrated the likelihood of differences in regional drug use patterns as well as types of arrestees using drugs. These findings underline the importance of incorporating sub-state data in the planning and evaluation of services.

STUDY #2: FACE-TO-FACE SURVEYS OF CRIMINAL JUSTICE POPULATIONS

1. INTRODUCTION AND BACKGROUND

1.1 Overview of the Oklahoma Studies

The Oklahoma Department of Mental Health and Substance Abuse Services (DMHSAS), the Single State Agency for alcohol and drug abuse services in Oklahoma, has conducted a family of studies that will help meet the data reporting requirements of the federal government, as well as supply Oklahoma with information the State needs to plan and provide effective substance abuse services for its citizens in need. The family of studies has been conducted in two phases of the State Treatment Needs Assessment Program (STNAP) funded by the federal Center for Substance Abuse Treatment. The first phase, completed in 1999, included modules of work that addressed three population groups: an adult household telephone survey; a targeted household telephone survey of American Indians; and a face-to-face survey of the corrections population, including inmates, probationers and parolees. In addition, a social indicator analysis was performed to correlate social, economic, treatment and criminal justice data with survey results. Finally, data from the four studies were integrated and distributed to planners, administrators, other policy makers, and researchers.

This second phase includes modules of work that address two population groups: a telephone and face-to-face survey of Temporary Assistance for Needy Families (TANF) recipients, and a face-to-face survey of two segments of the criminal justice population: juvenile offenders under supervision of the Oklahoma Office of Juvenile Affairs (OJA) and new arrestees at the Tulsa County Jail. In addition, treatment utilization data from DMHSAS-funded clients were studied, along with Phase I treatment data, to evaluate the gap between the need for treatment and treatment utilization. The final module integrates results from the other modules in the second phase, results from the first STNAP and other substance abuse studies to provide planners, administrators, other policy makers and researchers with a comprehensive overview of substance abuse treatment needs and related issues in each county and region of the state.

Goals and Objectives of Oklahoma's Needs Assessment Program. New drug court and community sentencing initiatives, welfare reform and the continuing high rate of incarceration of women in Oklahoma, make the information compiled under the goals and objectives of the Phase II STNAP project especially important for planning programs, evaluating services and assessing system changes.

There were five broad goals for Oklahoma's Phase II application. The first was to develop sound statewide and sub-state estimates of treatment need and

treatment demand among women and men receiving TANF benefits. The objectives for this goal were to (1) conduct a substance abuse needs assessment survey of TANF clients using a federally-approved protocol, (2) summarize results, and (3) share findings with Department of Human Services, Employment Security Commission and other agencies working with TANF clients.

The second broad goal was to develop scientifically-sound statewide and local estimates of treatment need and treatment demand among members of Oklahoma's criminal justice population. The objectives for the second project goal were to use established national protocols to (1) conduct a face-to-face survey of adolescents in custody of the state juvenile justice system, (2) summarize results and share findings with state child-serving agencies for planning, funding and evaluating substance abuse treatment and related services for adolescents, (3) conduct an Arrestee Drug Abuse Monitoring (ADAM) project including face-to-face surveys and urine samples at the Tulsa, Oklahoma, county jail, and (4) compare the ADAM findings with the Oklahoma County Jail ADAM site and national ADAM findings, and (5) share results with treatment planners, local law enforcement, and other agencies working with criminal justice.

The third broad goal of Oklahoma's project was to conduct a treatment utilization study. Data submitted by providers to Oklahoma's central data system were compared to Phase I STNAP data to provide an indicator of the gap between need for treatment and treatment utilization. The objectives for the third project goal were to (1) compare service utilization information from each sub-state region by age, gender and race to the Phase I STNAP Household Survey data to provide an indicator of whether these groups have equal access to care, (2) compare services utilization information by level of care to results from the Phase I STNAP Household Survey data, by level of care, to provide an indicator of whether these groups are receiving appropriate care (3) conduct an analysis of accountability by evaluating performance indicators and (4) share findings with treatment planners, state legislators, and stakeholders.

The fourth broad goal of Oklahoma's project was to create an integrated data repository from Phase I and Phase II needs assessment results, other DMHSAS data, and external data sources. This repository will be used to identify and analyze the gaps between available and needed services for geographic regions, target populations, and levels of care. The objectives for the fourth goal were to (1) integrate Phase I and Phase II needs assessment results, (2) integrate needs assessment results with service utilization information from the DMHSAS client data system, (3) merge those two sources with performance and outcome information from sources compiled under the Department's CSAT-funded Treatment Outcomes and Performance Pilot Studies (TOPPS) project, (4) integrate with other external data sources, such as the State Health Department's Behavioral Risk Factor Surveillance Survey responses and the National Household Survey on Drug Abuse data, and (5) use the results by

region, target population, and level of care to analyze gaps in services; to plan for resource allocation; to comply with statutory requirements for SAPT Block Grant reporting; and to perform policy analysis.

A fifth broad goal of the needs assessment studies was to cooperate with CSAT, the technical assistance contractor, and other states by participating in conferences, interstate projects, reports on methodology, data sharing, and other reporting as directed by CSAT.

1.2 Geography, Regional Subdivisions, and Population

Census 2000 reported a population of about 3.4 million persons including 2.6 million adults 18 years and older in Oklahoma. Oklahoma has 77 counties and 2 major metropolitan areas. DMHSAS has established "Regional Advisory Boards" (RABs) in each sub-state area to provide the Department information about local interests and concerns, and to provide feedback to planners and other administrators. The map in Figure 1 shows the sub-state planning areas.

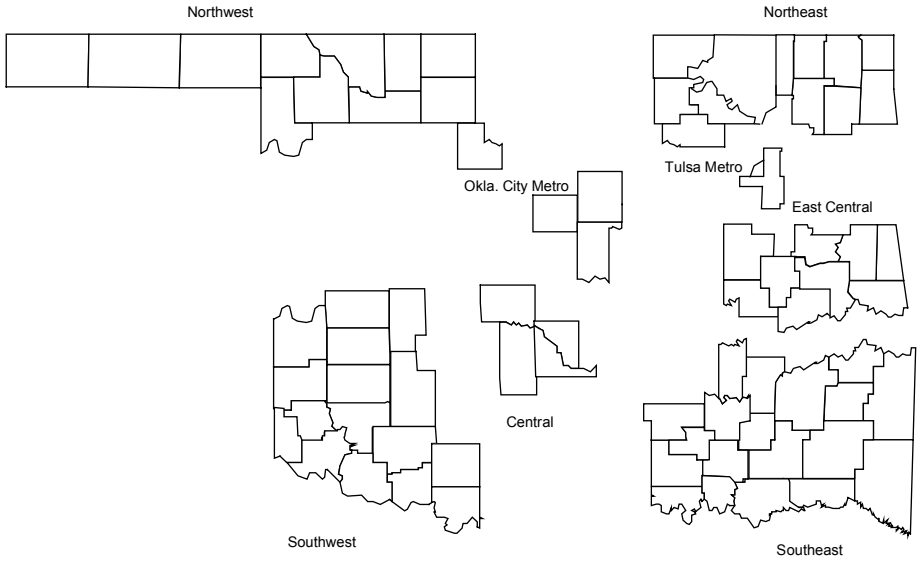

Figure 1. Map Of Regional Advisory Board (RAB) Sub-State Planning Areas

The document is a report on the administration and results of the face-to-face surveys of juvenile offenders in the custody of the Office of Juvenile Affairs and arrestees surveyed through the Arrestee Drug Abuse Monitoring (ADAM) Project. Results of this project will provide the Department of Mental Health and Substance Abuse Services, law enforcement and youth-serving agencies with invaluable information about patterns of use and treatment needs among youthful and adult criminal offenders.

2. Juvenile Offenders Under Supervision of The Oklahoma Office of Juvenile Affairs

2.1 Purpose of the Study

The relationship between substance abuse and criminal behavior is well documented. The Bureau of Justice Statistics reports that "drug users report greater involvement in crime and are more likely than non-users to have criminal records; persons with criminal records are much more likely than ones without criminal records to report being drug users; and crimes rise in number as drug use increases" (1993). The correlation between crime and substance use is particularly relevant in Oklahoma, since Oklahoma has strict drug laws and has been among the top three states for incarceration rate since 1993. Further, Oklahoma has both the largest percentage of female prisoners in the nation and the largest number of women imprisoned. More than half of this total growth was due to drug offenses. Over the last decade, the percentage of drug abuse arrests in Oklahoma has more than doubled (5.8% vs. 13.3%). Nearly one out of 10 (9.4%) of these arrests was of a person under the age of 18 years (Crime in Oklahoma, 1991; Crime in Oklahoma, 2001).

The involvement of adolescents in substance abuse, crime and violent behaviors does not bode well for the future of adult incarceration rates in the state. In State Fiscal Year 2001, DMHSAS began collecting data on youth served in the DMHSAS network who were in custody of the state juvenile justice system. Of the 177 juveniles identified, three-fourths (74.6%) had alcohol or other substance abuse problems. The median age of these adolescents in treatment was 16.

The earlier juveniles begin using substances, the more likely they are to experience dependence and dysfunctional behaviors later on (Grant and Dawson, 1997). A report on the 1996 CASA National Survey of American Attitudes on Substance Abuse found "addiction to drugs and other sorts of substance abuse typically has its roots in adolescence." These findings highlight the importance of quantifying the treatment need among adolescents in juvenile detention to inform state efforts in prevention, crime-reduction, alternative sentencing, and intervention through treatment.

Study #2 will be used to inform policy makers at both the Office of Juvenile Affairs and the Department of Mental Health and Substance Abuse Services of the use and abuse of alcohol and other drugs and the need for treatment among juvenile offenders.

2.2 Survey Methods

The Texas Youth Corrections Survey, developed in 1994 to assess substance use and delinquency among youths entering Texas Youth Commission facilities was used for this study. The survey asked detailed questions about use of 11

classes of substances including tobacco, alcohol, inhalants, marijuana, powder cocaine, crack cocaine, uppers (stimulants), downers (tranquilizers, barbiturates and sedatives), heroin, other opiates, and psychedelics. It explored topics such as involvement with local law enforcement and youth authorities, and relationship among drug selling, drug use, and delinquency. The Texas Commission on Alcohol and Drug Abuse (TCADA) provided a Computer-Assisted Personal Interview (CAPI) version of the questionnaire (see Appendix D). DMHSAS is extremely grateful to TCADA, and in particular, Jane Maxwell, for assistance in this study.

2.3 Research Design

Principle Investigator. The Principle Investigator for the Juvenile Justice Survey Project was Dr. Kelly R. Damphousse, an Associate Professor of Sociology at the University of Oklahoma. His experience has included the overall supervision of the Oklahoma and Tulsa Counties ADAM projects, including budget management, training, acting as a liaison between the national project director at NIJ and the local sites, and coordination with the jails' administration. He has over 10 years experience in research design, large-scale survey projects, longitudinal data collection, and complex data analysis. During that period, he conducted a nationwide survey of police officers, and a statewide survey of incarcerated juvenile delinquents. He also coordinated the "Adaptations to Stress" intergenerational longitudinal study (funded by NIDA).

At the same time, Dr. Damphousse has been actively involved in publishing research studies stemming from these data collection projects. He has published over 30 articles, technical reports, and book chapters and presented over 50 research papers at professional conferences. His areas of research interest include the antecedents and consequences of drug use, the links between drugs and crime, homicide, and domestic terrorism.

Sample Design and Selection. For this study, persons 18 years of age or younger, who were in the custody of the Office of Juvenile Affairs (OJA), the state juvenile justice agency, and had a security level E or higher, comprised the population of interest. The total population meeting these criteria on April 23, 2001 was 792. A distinction was made between youth who were in the "supervision" of OJA but not in its physical custody, and those in OJA custody, meaning they were residing in an OJA facility. Staff-secure facilities for medium to high risk juvenile delinquents comprise security level E. At the high end of the continuum, secure institutions are not only secured by staff but are also physically secure facilities for the highest risk juvenile offenders.

Originally, the study was to focus on use and abuse among four groups, those in: (1) Secure facilities (physically secured); (2) Boot Camp facilities; (3) Wilderness Camp placements; and (4) Staff-Secure facilities (minimum security). The distribution of the sample was to be drawn by facility type and gender. When

making application in 1998, DMHSAS obtained a letter of support from the Director of OJA who subsequently resigned to take a new position. In 2000, DMHSAS again received approval from the Interim Director of the Office of Juvenile Affairs to conduct the survey. However, before the study was implemented, a permanent Director was hired, who would not recognize the previous Director's authorization. DMHSAS had to repeat the approval process, providing the OJA legal counsel with the protocol and IRB approval. While OJA was still enthusiastic about the project, the agency's attorneys requested that parental consent be obtained before surveying juveniles less than 18 years of age. Those juveniles who turned 18 while in custody provided consent for themselves. Obtaining consent was less feasible for non-secured facilities, so only youth from security level E were included in the final design.

The requirement of parental consent significantly changed the proposed sample design and selection. Much time was spent determining how this process could be achieved, given the structure of the program and the short time the offenders were in custody of OJA. Rather than pull a sample size based on facility type and gender, the entire population was used to obtain a convenience sample. From the client information system for OJA, the Juvenile On-Line Tracking System (JOLTS), a listing of every juvenile in out-of-home placement was generated periodically. Juveniles in placements at or above level E were selected for inclusion in a report listing every juvenile, their placement facility name, and the date they were admitted, and the name and location of their assigned caseworker. These reports sorted the listings by OJA district and county office and were provided to OJA's Department of Juvenile Justice Services for distribution to each caseworker. In addition, each field office was provided a letter describing the project and copies of the consent forms, as well as instructions for securing consent signatures (see Appendix D). Each office was asked to secure informed parental or guardian consent for each juvenile under the age of 18 and to return original copies of informed consent forms to OJA's Office of Planning and Research. Case managers typically see guardians on a monthly basis. Each returned informed consent form had been signed or contained a description of the reason why an informed consent could not be obtained. OJA maintained a database of every juvenile listed and the outcome of the effort to obtain informed consent. When signed consent forms were received, a list of juveniles was routed to the OU research staff. Research staff members were also provided the names and locations of juveniles 18 years of age and older who could sign assent forms for themselves (see Appendix D).

Juveniles were grouped by facility and the OU research staff went in pairs to the various facilities. Once the youths were found, they were assured of the confidentiality of their responses (see Appendix D). Further, respondents were told the survey was voluntary and that they could skip any question they did not care to answer, but completeness was encouraged.

2.3.1 Data Collection and Response Rates

Data Collection. The juvenile offender surveying began on June 8, 2001 and ended on August 6, 2001. Interviews were conducted at 18 OJA facilities with a security level E or higher from a total number of 23 possible facilities. Thirteen different interviewers worked on this project, sharing six laptop computers. The laptop computers were programmed with Computer Assisted Personal Interview (CAPI) software. Features of the CAPI software include:

- *Automatic error checking* - response values are checked against the proper valid ranges as the interview progresses; interviewers are immediately prompted if the response value is not within the valid response range;

- *Item non-response* - the CAPI system can require the interviewer to enter a response to each question, thus eliminating the problem of item nonresponse.

Interviewer Training. A 10-hour training was held that provided a general overview of the STNAP Project, a description of the OJA study, and its importance to state treatment planning. During training, interviewers received instruction in the following topics:

- the purpose of the survey
- characteristics of quality interviewing
- use of the CAPI system
- proper pacing of questions
- focusing on the questionnaire as written; limiting explanations
- importance of avoiding bias and probing for clarification when answers are ambiguous
- logistical details regarding facility location and entrance protocol
- the importance of emphasizing that participation is voluntary and responses are confidential

Interviewers were instructed to maintain a neutral tone of voice, but one that elicits interest on the part of the respondent. Interviewers were taught the interviews should not be done rapidly, but at a speed that can be followed with only a modest degree of concentration on the part of the respondent. Interviewers were instructed to limit comments to positive prompts such as 'I see' and 'thank you,' and never to interject their opinions during an interview. Interviewers were reminded they should not discuss responses with anyone external to the research team. In addition, interviewers were trained to deal with problems that typically arise during interviews. Role playing techniques were used in the training and, finally, interviewers were required to complete several

practice interviews on their own and return them to the supervisor for inspection. An interviewer manual was distributed.

Response Rates. Of the 792 juvenile offenders in a security level E or higher, 352 had consent forms signed by guardians or themselves, if 18 years of age. Because contact with guardians typically occurred monthly, 111 offenders were not in placement by the time the lists were distributed. Of the remaining offenders, 116 guardians refused to sign consent forms, 86 guardians could not be located, and there was no information regarding the effort to collect consent forms for the remaining 137.

Of the 352 youths with consent forms, 274 completed an interview. Of the remaining offenders, 57 were released from OJA custody before being interviewed, 7 were on a pass while interviewers were at the facility, 7 were at such remote facilities that it was not economically feasible to send interviewers, 3 were in the hospital, facility directors advised against interviewing 2 of the youths due to medical conditions, and 2 youths refused.

As an incentive to participate in the study, youths were promised a candy bar upon completion of the interview. In addition, a bowl of candy was placed before them during the interview and they were allowed to eat as much as they desired.

The response rate of 92.9 percent was calculated using only those juveniles with signed consent forms, excluding juveniles who were released from OJA before the interviewers were able to arrive at the facilities. See tables 1 and 2 for response rate calculation information.

Table 1

Response Rates For OJA Face-To-Face Surveys	
Interview Status	State
Complete	274
Refusal	2
Unreachable: On pass	7
Unreachable: Remote Facilities	7
Unreachable: Hospitalized	3
Unreachable: Medical Conditions	2
Released from OJA before Interview	57
Total With Consent Forms	352

Table 2

Response Rate Calculation	
Total With Consent Forms	352
Released from OJA	-57
Potential Respondents	295
Completions	274
Response Rate	92.88%

Sample calculations indicate a 95% confidence interval of 45.2 percent to 54.9 percent (a half-length of 4.79%) for the sample size of 274 from the OJA population of 792 (Table 3).

Table 3

Sampling: OJA Study Assuming P (The Prevalence Rate) = 0.50				
Group	Population	Sample	Lower CL	Upper CL
Juveniles in Custody	792	274	45.21%	54.79%

2.3.2 Definitions of Terms and Measures

Tobacco, Alcohol, and Illicit Drug Use. For tobacco, alcohol and illicit drugs, use is defined as any use, regardless of quantity and frequency. Use is measured for lifetime, in the last year, and in the last 30 days.

For this study, tobacco use is limited to cigarettes. The drugs included in the illicit category are: marijuana, inhalants powdered cocaine, crack cocaine, uppers, downers, heroin, opiates, and psychedelics. Any respondent who answered "yes" to use of an illicit drug was asked in detail about using that drug.

Substance Abuse and Dependence. Substance abuse and dependence were calculated using responses to items from the 1994 Texas Youth Corrections Survey. The methods for calculating abuse and dependence are reprinted below from *Substance Use and Delinquency Among Youths Entering Texas Youth Commission Facilities:1994 Report* (Fredlund, et al., 1995):

The Diagnostic and Statistical Manual of Mental Disorders, Third Edition, Revised (DSM-III-R) defines substance dependence as persistent and continued use of a psychoactive substance despite multiple negative and serious consequences associated with use. The nine symptoms of dependence are shown in Table 4.

The DSM-III-R defines a person who exhibits three or more of these symptoms as having psychoactive substance *dependence*. Substance *abuse* was defined as the presence of one or two of the dependence criteria, and therefore is considered less severe than substance dependence. To diagnose substance abuse, these symptoms must have persisted for at least one month and the person must not be diagnosable with psychoactive substance dependence. The actual questions used in the survey were drawn from the Diagnostic Interview Schedule. These questions were worded to probe for problems that are persistent, recurring and severe.

Persons meeting the criteria for either abuse or dependence are considered to be in need for treatment (STNAP Survey Core Protocol, 2001).

Table 4

Rates Of Reporting DSM-III-R Symptoms Among OJA Respondents

	DSM-III-R Symptom	% Reporting Alcohol-Related Symptom	% Reporting Drug-Related Symptom	% Reporting Alcohol- and/or Drug-Related Symptom
1	Loss of Control	31.75	47.08	56.20
	Substance often taken in larger amounts or over a longer period than the person intended.			
2	Craving or Inability to Cut Down	16.06	32.12	37.23
	Persistent desire or one or more unsuccessful efforts to cut down or control substance use.			
3	Increased Time Devoted to Substance Use	23.36	40.51	47.08
	A great deal of time spent in the activities necessary to get the substance, taking the substance, or recovering from its effects.			
4	Reduced Ability to Fulfill Obligations or Hazardous Use	34.67	62.04	67.15
	Frequent intoxication or withdrawal symptoms when expected to fulfill major role obligations at work, school, or home, or when substance use is physically hazardous.			
5	Reduced Social, Economic, or Recreational Activities	25.18	44.16	48.91
	Important social, occupational, or recreational activities given up or reduced because of substance use.			
6	Continued Use After Problem Identification	34.31	57.30	61.68
	Continued substance use despite knowledge of having a persistent or recurrent social, psychological, or physical problem that is caused or exacerbated by the use of the substance.			
7	Increased Tolerance	27.74	48.18	53.28
	Marked tolerance: need for markedly increased amounts of the substance (at least a 50% increase) in order to achieve intoxication or desired effect, or markedly diminished effect with continued use of the same amount.			
8	Withdrawal Symptoms	15.69	25.55	32.12
	Characteristic withdrawal symptoms.			
9	Use to Avoid Withdrawal Symptoms	9.85	18.25	22.99
	Substance often taken to relieve or avoid withdrawal symptoms.			

2.3.3 Data Processing and Analysis

Weights were assigned according to the population-to-sample-size ratio in the particular stratum occupied by an observation. Strata were defined by gender (2 levels), race (6 levels) and age (10 levels). The 120 different weights thus assigned ranged from zero to 17. The median weight was three, the average was five and the standard deviation was four.

Two datasets were provided to DMHSAS project staff by OU researchers: a SAS table containing responses to all questions and a Microsoft Word document containing responses to the open ended-questions. All data were provided to project staff on a compact disk.

Data Quality. Due to the use of CAPI software, editing was done as responses were entered end so very little data cleaning was required. In addition, staff were given training to ensure data quality.

2.4 Results

Table 5 contains demographic categories of the respondents to the juvenile justice survey. In addition to the number of respondents in each category, the weighted and unweighted proportions are included to demonstrate the similarity of the sample to the population.

Table 5

Demographic Description Of OJA Respondents			
	N	**Unweighted %**	**Weighted %**
Sex			
Male	254	93.04	94.33
Female	19	6.96	5.67
Age			
13	6	2.20	2.11
14	13	4.76	7.64
15	46	16.85	17.65
16	53	19.41	26.22
17	73	26.74	30.83
18	82	30.04	15.55
Race			
White	135	49.45	48.88
Black	52	19.05	27.14
Hispanic	20	7.33	6.46
Asian	2	0.73	0.26
American Indian	50	18.32	17.00
Other	14	5.13	0.26

Demographic Description Of OJA Respondents			
	N	Unweighted %	Weighted %
Race by Sex			
White Male	124	45.42	44.53
White Female	11	4.03	4.35
Black Male	48	17.58	26.88
Black Female	4	1.47	0.26
Hispanic Male	18	6.59	6.46
Hispanic Female*	2	0.73	0.00
Asian Male	2	0.07	0.26
Asian Female	0	0.00	0.00
American Indian Male	48	17.58	15.94
American Indian Female	2	0.73	1.05
Other Male	14	5.13	0.26
Other Female	0	0.00	0.00
Total	273	100.00	100.00

* Two Hispanic females reported in the sample but not in the population.

2.4.1 Prevalence of Tobacco, Alcohol and Other Drug Use

The prevalence tables contain estimates of the number of users, the rate of use in the population, the standard deviations (or standard errors for rates) and confidence intervals around estimates for juveniles in OJA custody by race and sex. The estimates were obtained by weighting each observation according to the population proportion of juveniles in custody of OJA in each of sex-by-race-by-age categories. Each table contains the standard deviation for the population estimates and standard error for the rate estimates, both designated by *"sd"*. The lower and upper limits of the 95% confidence intervals were calculated around the point estimates and are designated as "*lower ci*" and "*upper ci*" respectively.

Estimates of Prevalence of Tobacco, Alcohol and Illicit Drug Use. Tables 6 – 8 contain the estimated numbers and rates of tobacco, alcohol and illicit drug users among juveniles in OJA custody by race. Tables 9 – 11 contain similar information by sex and tables 12 – 14 by age of respondent.

Nearly all of the youths surveyed (96.8%) had used tobacco during their lifetimes. For past year use, 90.5 percent reported tobacco use and 66.9 percent reported using tobacco in the past 30 days.

As shown in Table 6, race did not impact the rate of tobacco use very much. All races reported rates within five percent of total rate, with the exception of the "other" race, which had a rate of 83.3 percent for all three time periods. The lack of variation for this group may be due to the small number of respondents in this category. American Indians had the highest rate of use for lifetime (100%), while Hispanics had the highest rate for the last year (95.7%) and the "other" rate of

83.3 percent was the highest for the last 30 days. African Americans reported the lowest rate of tobacco use for the last month (63.4%).

Table 6

Prevalence Of Tobacco Use Among Juveniles In Custody Of OJA By Race

Race	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
White	357	335	248	96.21%	90.23%	66.87%
*sd	14	16	18	1.62%	2.70%	4.46%
lower ci	329	304	213	93.01%	84.90%	58.05%
upper ci	385	366	283	99.41%	95.57%	75.70%
African American	198	184	131	96.26%	89.12%	63.43%
*sd	25	25	25	2.81%	5.16%	8.46%
lower ci	149	134	80	90.62%	78.76%	46.45%
upper ci	247	234	181	100.00%	99.48%	80.41%
American Indian	129	118	92	100.00%	91.65%	71.52%
*sd	4	7	9	0.00%	3.75%	6.68%
lower ci	120	104	74	100.00%	84.11%	58.11%
upper ci	138	132	110	100.00%	99.20%	84.94%
Other	3	3	3	83.33%	83.33%	83.33%
*sd	1	1	1	12.59%	12.59%	12.59%
lower ci	1	1	1	56.48%	56.48%	56.48%
upper ci	6	6	6	100.00%	100.00%	10.00%
Hispanic	47	47	33	95.69%	95.69%	68.25%
*sd	6	6	7	4.39%	4.39%	12.14%
lower ci	34	34	18	86.50%	86.50%	42.84%
upper ci	59	59	49	100.00%	100.00%	93.67%
Statewide	734	687	508	96.77%	90.49%	66.91%
*sd	31	32	33	1.13%	2.04%	3.42%
lower ci	674	624	442	94.54%	86.48%	60.16%
upper ci	795	750	573	98.99%	94.50%	73.65%

Over half of the youths surveyed had used alcohol in the past 30 days (57.5%). For lifetime use, youths had a rate of 93.5 percent and 82.9 percent in the last year (Table 7). The rate of alcohol is lower in all three time periods than those of tobacco and illicit drugs. This may be because alcohol is harder to obtain for adolescents than other substances.

As shown in Table 7, Hispanics demonstrated the highest rate of lifetime alcohol use (100%) and use in the last month (60.9%); while Whites had the highest use rate for the past year (85.2%). The “other” racial category had the lowest rate of use for all three time periods. While American Indians are often believed to have a high rate of alcoholism, in this study they had the second lowest rate of alcohol use in the last month (50%) and the last year (79.1%).

Table 7

Prevalence Of Alcohol Use Among Juveniles In Custody Of OJA By Race

Race	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
White	349	316	218	94.17%	85.23%	58.77%
*sd	15	16	19	2.02%	3.33%	4.59%
lower ci	320	284	181	90.17%	78.65%	49.69%
upper ci	379	349	255	98.17%	91.81%	67.84%
African American	189	167	124	91.75%	81.05%	60.11%
*sd	25	26	26	4.53%	6.35%	8.59%
lower ci	139	115	72	82.66%	68.30%	42.87%
upper ci	239	219	176	100.00%	93.79%	77.36%
American Indian	119	102	64	91.89%	79.10%	49.90%
*sd	7	9	10	3.97%	5.86%	7.34%
lower ci	105	85	45	83.91%	67.32%	35.14%
upper ci	132	119	84	99.87%	90.87%	64.65%
Other	4	2	0	91.67%	58.33%	8.33%
*sd	1	1	0	8.90%	21.82%	8.90%
lower ci	2	0	0	7.27%	11.82%	0.00%
upper ci	6	4	1	100.00%	100.00%	27.32%
Hispanic	49	41	30	100.00%	84.35%	60.88%
*sd	5	6	7	0.00%	10.71%	12.84%
lower ci	38	29	14	100.00%	61.95%	34.02%
upper ci	60	54	45	100.00%	100.00%	87.75%
Statewide	710	629	436	93.49%	82.85%	57.49%
*sd	31	33	35	1.71%	2.64%	3.57%
lower ci	648	563	368	90.12%	77.65%	50.47%
upper ci	771	694	504	96.85%	88.05%	64.52%

Every youth surveyed had used an illicit drug in his or her lifetime. Over eight out of ten youths (83.1%) had used an illicit drug in the last year and seventy-one percent had used in the last month (Table 8).

African Americans had the highest rate of past year use (86.7%) and the “other” race had the lowest past year rate (66.7%). Whites had the highest rate of use in the last 30 days (67.3%) and American Indians had the lowest rate (57.1%).

Table 8

Prevalence Of Illicit Drug Use Among Juveniles In Custody Of OJA By Race

Race	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
White	371	308	250	100.00%	82.98%	67.28%
*sd	13	16	18	0.00%	3.59%	4.38%
lower ci	346	275	214	100.00%	75.89%	58.62%
upper ci	396	340	286	100.00%	90.08%	75.95%
African American	206	179	124	100.00%	86.69%	60.13%
*sd	24	21	20	0.00%	8.08%	9.24%
lower ci	158	137	83	100.00%	70.46%	41.59%
upper ci	254	221	165	100.00%	100.00%	78.68%
American Indian	129	100	74	100.00%	77.73%	57.08%
*sd	4	9	10	0.00%	5.95%	7.22%
lower ci	120	82	53	100.00%	65.78%	42.56%
upper ci	138	118	94	100.00%	89.68%	71.60%
Other	4	3	2	100.00%	66.67%	58.33%
*sd	1	1	1	0.00%	21.82%	21.82%
lower ci	2	1	0	100.00%	20.15%	11.82%
upper ci	6	5	4	100.00%	100.00%	100.00%
Hispanic	49	41	33	100.00%	84.35%	66.33%
*sd	5	6	7	0.00%	10.71%	12.44%
lower ci	38	29	17	100.00%	61.95%	40.29%
upper ci	60	54	48	100.00%	100.00%	92.36%
Statewide	759	631	482	100.00%	83.10%	63.50%
*sd	30	30	31	0.00%	3.02%	3.62%
lower ci	700	571	422	100.00%	77.15%	56.38%
upper ci	818	690	542	100.00%	89.04%	70.62%

Males and females reported similar rates of tobacco use for both lifetime (96.6% vs. 98.8%, respectively) and the past 30 days (66.9% vs. 66.7%, respectively). Every female who reported lifetime use, also reported use in the past year (98.8%) while ninety percent of males reported past year use (Table 9).

While lifetime alcohol use was similar between males and females (93.2 vs. 98.8%, respectively), the gap widened between the sexes in more recent time periods (Table 10). Females had a past year rate of 97.7 percent compared to the male rate of 82 percent. For alcohol use in the last month, 78.4 percent of females reported use compared to 56.2 percent reported by males.

Table 9

Prevalence Of Tobacco Use Among Juveniles In Custody Of OJA By Sex

	Population Estimates			Rate Estimates		
Sex	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
Male	692	644	479	96.64%	89.99%	66.92%
*sd	30	31	32	1.20%	2.15%	3.51%
lower ci	633	583	415	94.29%	85.75%	59.99%
upper ci	751	705	543	98.99%	94.23%	73.84%
Female	43	43	29	98.84%	98.84%	66.74%
*sd	8	8	8	1.24%	1.24%	15.57%
lower ci	25	25	13	96.23%	96.23%	34.03%
upper ci	60	60	45	100.00%	100.00%	99.45%

Table 10

Prevalence Of Alcohol Use Among Juveniles In Custody Of OJA By Sex

	Population Estimates			Rate Estimates		
Sex	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
Male	667	587	403	93.17%	81.96%	56.24%
*sd	30	32	33	1.81%	2.78%	3.70%
lower ci	607	523	337	89.61%	76.48%	48.96%
upper ci	727	650	468	96.73%	87.44%	63.52%
Female	43	42	34	98.84%	97.67%	78.37%
*sd	8	9	9	1.24%	1.81%	11.16%
lower ci	25	24	14	96.23%	93.87%	54.92%
upper ci	60	60	53	100.00%	100.00%	100.00%

Table 11

Prevalence Of Illicit Drug Use Among Juveniles In Custody Of OJA By Sex

	Population Estimates			Rate Estimates		
Sex	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
Male	716	588	448	100.00%	82.15%	62.63%
*sd	29	29	29	0.00%	3.18%	3.75%
lower ci	659	531	391	100.00%	75.90%	55.25%
upper ci	773	645	506	100.00%	88.41%	70.01%
Female	43	43	34	100.00%	98.84%	77.98%
*sd	8	8	9	0.00%	1.24%	11.59%
lower ci	26	25	14	100.00%	96.23%	53.63%
upper ci	60	60	53	100.00%	100.00%	100.00%

Again, regardless of sex, all youth had used illicit drugs in their lifetimes. However, gender affected the rate of use in the last year (females, 98.8%; males, 82.2%) and the rate of use in the last month (females, 78%; males, 62.6%) with females having a higher rate for both time periods (Table 11).

Table 12

Prevalence Of Tobacco Use Among Juveniles In Custody Of OJA By Age

Age of Respondent	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
13	13	13	8	83.33%	83.33%	51.04%
*sd	3	3	4	16.67%	16.67%	22.39%
lower ci	6	6	0	40.47%	40.47%	0.00%
upper ci	20	20	18	100.00%	100.00%	100.00%
14	58	51	35	100.00%	87.59%	61.03%
*sd	14	16	17	0.00%	9.96%	17.60%
lower ci	27	17	0	100.00%	65.89%	22.68%
upper ci	89	85	72	100.00%	100.00%	99.39%
15	129	119	98	96.11%	88.66%	73.24%
*sd	15	16	15	2.61%	4.54%	8.42%
lower ci	98	86	68	90.85%	79.50%	56.29%
upper ci	159	151	128	100.00%	97.81%	90.20%
16	190	183	119	95.36%	92.03%	59.83%
*sd	9	11	15	3.29%	3.98%	7.37%
lower ci	171	161	89	88.76%	84.05%	45.03%
upper ci	209	205	149	100.00%	100.00%	74.62%
17	232	215	162	98.96%	92.06%	69.04%
*sd	13	13	17	0.92%	4.06%	5.97%
lower ci	205	189	128	97.12%	83.98%	57.14%
upper ci	258	242	195	100.00%	100.00%	80.95%
18	113	105	85	95.77%	89.24%	72.45%
*sd	4	5	7	2.22%	3.53%	5.16%
lower ci	105	95	72	91.34%	82.22%	62.18%
upper ci	121	116	99	100.00%	96.26%	82.72%
Statewide	734	687	508	96.77%	90.49%	66.91%
*sd	31	32	33	1.13%	2.04%	3.42%
lower ci	674	624	442	94.54%	86.48%	60.16%
upper ci	795	750	573	98.99%	94.50%	73.65%

Unlike the general population, tobacco use did not increase incrementally with age among the youths surveyed (Table 12). While the ages ranged from 13 to

18 years of age, the 17-year olds had the highest lifetime use of tobacco (99%), the 16- and 17-year olds tied for the highest rate of past year use (92%) and the 15 years olds had the highest past month use (73.2%).

Table 13

Prevalence Of Alcohol Use Among Juveniles In Custody Of OJA By Age

Age of Respondent	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
13	13	10	3	83.33%	64.58%	15.63%
*sd	3	3	3	16.67%	21.73%	15.83%
lower ci	6	2	0	40.47%	8.73%	0.00%
upper ci	20	19	9	100.00%	100.00%	56.30%
14	56	41	23	96.55%	70.00%	39.66%
*sd	15	16	17	3.73%	15.64%	21.01%
lower ci	24	5	0	88.43%	35.92%	0.00%
upper ci	88	76	59	100.00%	100.00%	85.42%
15	124	116	77	92.30%	86.67%	57.33%
*sd	16	16	16	3.75%	4.95%	9.00%
lower ci	92	83	45	84.74%	76.71%	39.20%
upper ci	155	149	108	99.86%	96.63%	75.46%
16	169	153	106	85.04%	76.92%	53.35%
*sd	12	14	16	5.43%	6.17%	7.43%
lower ci	145	124	74	74.15%	64.54%	38.44%
upper ci	194	182	139	95.94%	89.30%	68.25%
17	234	213	168	100.00%	91.20%	71.67%
*sd	13	14	16	0.00%	4.17%	5.85%
lower ci	209	186	135	100.00%	82.90%	60.00%
upper ci	259	240	200	100.00%	99.51%	83.34%
18	113	95	60	96.03%	80.76%	51.01%
*sd	4	6	7	2.07%	4.53%	5.89%
lower ci	105	83	46	91.91%	71.74%	39.30%
upper ci	122	108	75	100.00%	89.78%	62.73%
Statewide	710	629	436	93.49%	82.85%	57.49%
*sd	31	33	35	1.71%	2.64%	3.57%
lower ci	648	563	368	90.12%	77.65%	50.47%
upper ci	771	694	504	96.85%	88.05%	64.52%

Table 13 reveals that 17-year olds had the highest rate of alcohol use for all three time periods. The high rate of use among this age group is most evident when comparing use in the last 30 days among 17-year olds to that of the total rate (71.7% vs. 57.5%, respectively). As would be expected, 13-year olds had the

lowest rate of use for all three time periods: lifetime, 83.3 percent; last year, 64.6 percent; and last month, 15.6 percent.

Table 14

Prevalence Of Illicit Drug Use Among Juveniles In Custody Of OJA By Age

Age of Respondent	Population Estimates			Rate Estimates		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
13	16	13	13	100.00%	83.33%	83.33%
sd	0	3	3	0.00%	16.67%	16.67%
lower ci	15	6	6	100.00%	40.47%	40.47%
upper ci	17	20	20	100.00%	100.00%	100.00%
14	58	16	9	100.00%	28.28%	15.86%
sd	14	7	6	0.00%	14.65%	10.76%
lower ci	27	1	0	100.00%	0.00%	0.00%
upper ci	89	31	21	100.00%	60.21%	39.32%
15	134	113	82	100.00%	84.68%	61.39%
sd	15	16	15	0.00%	5.31%	8.87%
lower ci	105	80	51	100.00%	73.98%	43.52%
upper ci	163	147	113	100.00%	95.37%	79.26%
16	199	172	125	100.00%	86.67%	62.78%
sd	8	13	16	0.00%	4.57%	7.14%
lower ci	183	146	93	100.00%	77.51%	48.44%
upper ci	215	199	157	100.00%	95.84%	77.11%
17	234	214	178	100.00%	91.51%	75.90%
sd	13	14	16	0.00%	3.71%	5.64%
lower ci	209	186	146	100.00%	84.11%	64.66%
upper ci	259	243	209	100.00%	98.90%	87.15%
18	118	101	75	100.00%	85.53%	63.23%
sd	3	6	7	0.00%	4.01%	5.65%
lower ci	112	89	60	100.00%	77.55%	51.99%
upper ci	124	112	89	100.00%	93.50%	74.48%
Statewide	759	631	482	100.00%	83.10%	63.50%
sd	30	30	31	0.00%	3.02%	3.62%
lower ci	700	571	422	100.00%	77.15%	56.38%
upper ci	818	690	542	100.00%	89.04%	70.62%

While all youths surveyed had used illicit drugs in their lifetimes (Table 14), the rate only decreased slightly for use in the past year; with 17- year olds had a rate of 91.5 percent and 13-years olds reported a rate of 83.3 percent. All of the 13-year olds who reported use in the past year, also reported use in the past 30

days. This was the highest rate of use in the last month and 20 percentage points above the total rate.

Table 15 shows that opiates are the most widely used drugs for lifetime use (96.4%), closely followed by marijuana (95.7%) and downers (94.4%). Rates of use decreased significantly in more recent time periods, with the exception of marijuana use in the last year (78.6%, compared to total rate of 36%) and marijuana use in the last month (57.6%, compared to total rate of 18.8%).

Table 15

Prevalence Of Illicit Drug Use By Type Of Drug

Drug Type	Population Estimates			Rate Estimates (%)		
	Lifetime	Last Year	Last Month	Lifetime	Last Year	Last Month
Marijuana	726	597	437	95.71	78.63	57.55
Inhalant	212	88	23	27.88	11.63	3.03
Powder Cocaine	588	189	65	77.49	24.87	8.50
Crack Cocaine	608	37	6	80.05	4.87	0.82
Uppers	689	239	137	90.81	31.44	18.05
Downers	716	278	136	94.36	36.57	17.94
Heroin	691	37	17	91.03	4.84	2.20
Opiates	731	169	94	96.37	22.29	12.37
Psychedelics	687	273	142	90.51	35.99	18.77

Note: Respondent may choose multiple drugs.

Average age of first time use ranges from 1.6 years of age for inhalants to 14.7 years of age for heroin (Table 16). The next youngest average age of first use

Table 16

Age Of First Use Among Juveniles In Custody Of OJA By Drug Types

	Average Age	Minimum Age	Maximum Age
Tobacco and Alcohol			
Tobacco	9.77	5	16
Alcohol	11.18	2	17
Illicit Drugs			
Marijuana	11.01	1	17
Inhalants	1.64	1	9
Powder Cocaine	13.89	6	18
Crack Cocaine	14.22	10	17
Uppers	13.60	6	17
Downers	13.67	6	18
Heroin	14.75	12	17
Opiates	14.07	9	17
Psychedelics	13.87	7	17

was tobacco at 9.7 years of age. Minimum age of first use ranged from 1 year of age for marijuana and inhalants to 12 years of age for heroin use.

When the youths were asked about the methods used to obtain drugs, nearly three-quarters (72%) reported that they had received free drugs (Table 17). Over half of the adolescents (52%) had sold drugs to obtain drugs, and nearly half (49%) had borrowed money to purchase drugs. More youths reported stealing to pay for drugs (40.3%) than reported using legal income (29%). For the 2.3 percent of youths that had traded sex for drugs, half were males and half were females.

Table 17

Method Of Paying For Drugs Used		
Method	Weighted Frequency	Percent
Legal Income	220	29.02
Sold Drugs	396	52.24
Traded Sex	18	2.32
Borrowed Money	376	49.49
Free Drugs	547	72.05
Stole	306	40.25
Other	105	13.77

Note: May have used more than one method to obtain drugs.

2.4.2 Abuse and Dependence Among Juvenile Offenders.

As stated above, reporting one or two of the DSM-III-R symptoms is indicative of substance abuse. Three or more symptoms indicate substance dependence, and are considered more severe than abuse. Figure 2 shows that over two-thirds (65%) of the youth reported three or more DSM-III-R symptoms for alcohol and/or illicit drugs, indicating substance dependence. Twelve percent reported one or two DSM-III-R symptoms for alcohol and/or drugs, signifying substance abuse. Only 23 percent of the youths had no apparent DSM-III-R symptoms related to alcohol or illicit drug use.

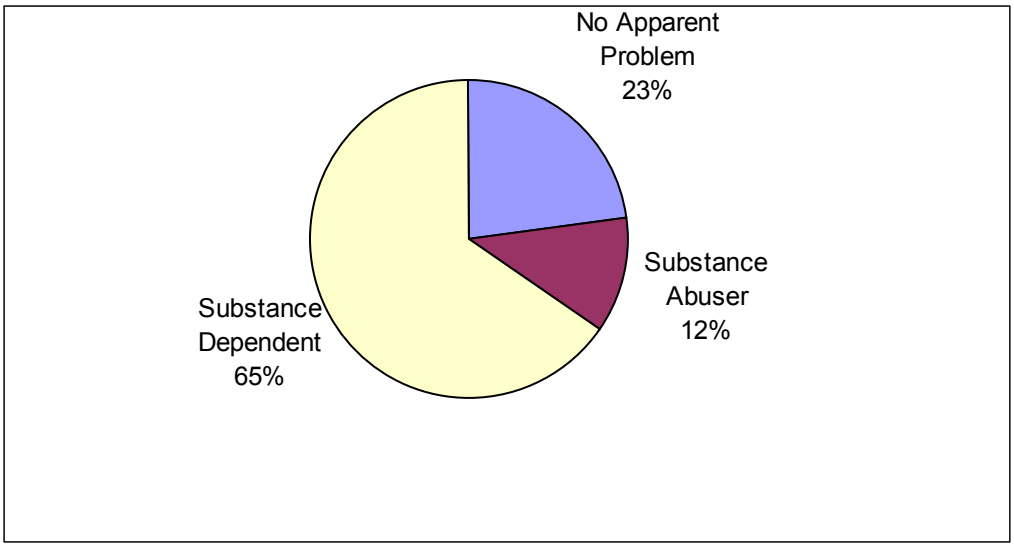

Figure 2: Substance Abuse and Dependence

Over half (54%) of the youths showed no apparent problem with alcohol, while nine percent were found to be alcohol abusers and thirty-seven percent were alcohol dependent (Figure 3).

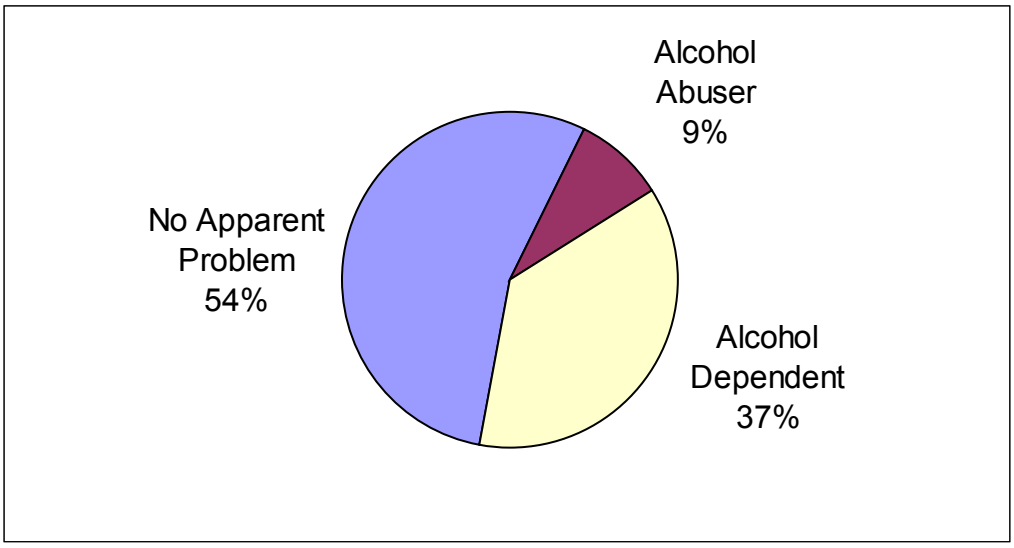

Figure 3: Alcohol Abuse and Dependence

When examining illicit drug use, 62 percent of the youths met the criteria for dependence and 12 percent were classified as illicit drug abusers (Figure 4). Only about one out of four (27%) of the youths in OJA custody were not abusing or dependent on an illicit drug.

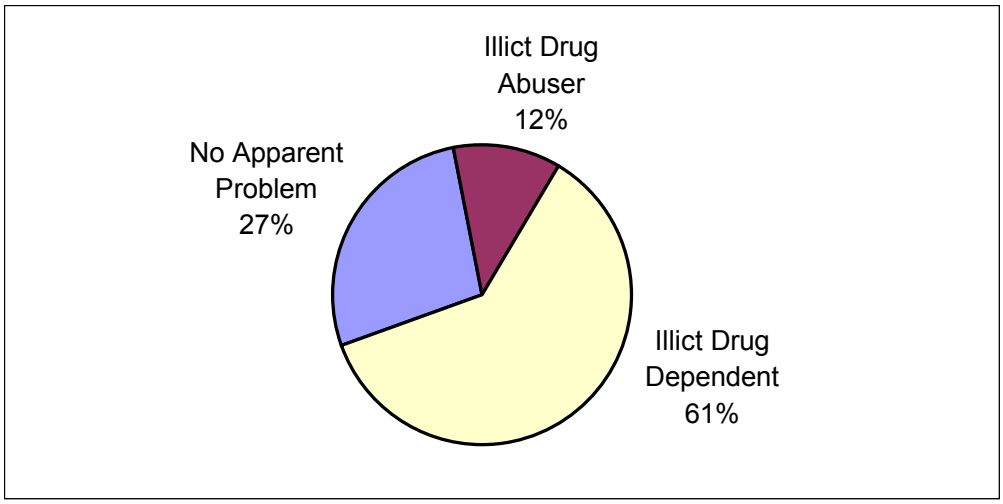

Figure 4: Illicit Drug Abuse and Dependence

When asked what the most problematic drug was for the youths, the overwhelming choice for both youths abusing and dependent on substances was marijuana (abusers, 74.2%; dependent, 59.1%). While a small percent of youths reported they did not know or refused to report which drug was most problematic for them, none of the respondents stated that there was not a problem (Table 18).

Table 18

Most Problematic Drug As Identified By OJA Respondents Classified As Drug Abusers Or Drug Dependent

Most Problematic Drug	Percent of Drug Abusers	Percent of Drug Dependent Respondents
Marijuana	74.21	59.08
Inhalants	0.00	1.98
Powder Cocaine	1.64	5.08
Crack Cocaine	0.00	0.00
Uppers	7.69	14.79
Downers	0.00	5.42
Heroin	1.64	0.83
Opiates	0.00	2.67
Psychedelics	4.24	8.82
Other	7.38	0.69
Don't Know/Refused	3.20	0.64
Not a Problem	0.00	0.00

2.4.3 Need for Treatment of Alcohol and Illicit Drug Use

Need for treatment is defined as having one or more of the nine DSM-III-R symptoms for alcohol and/or drugs. In other words, any youths who were determined to be abusing or dependent on alcohol and/or drugs are considered in need of treatment. Of the total weighted sample, 353 (46.6%) were found to be in need of treatment for alcohol and 548 (72.3%) were found to be in need of treatment for illicit drugs. This results in an overall need of treatment for alcohol and/or drugs of 79 percent.

Table 19 shows that Hispanics had the highest rate of treatment need for both alcohol (55.8%) and illicit drugs (79.3%); however, African Americans have the highest rate of combined treatment need at 87.5 percent. The "Other" category had the lowest need for alcohol treatment (8.3%), the lowest need for illicit drug treatment (58.3%) and the lowest need for combined treatment (58.3%). White and Hispanic rates were very similar to the total rate (78.2% and 79.3%, respectively), while American Indians were lower (68%).

Table 19

Need For Treatment Among Juveniles In OJA Custody By Race

Race	Population	In Need of Treatment for Alcohol		In Need of Treatment for Illicit Drugs		In Need of Treatment for Alcohol and/or Drugs	
		Population Estimates	Rate	Population Estimates	Rate	Population Estimates	Rate
White	371	162	43.73%	260	69.99%	290	78.16%
*sd		17	4.59%	17	4.38%	17	3.89%
lower ci		128	34.65%	226	61.33%	256	70.46%
upper ci		196	52.81%	294	78.64%	324	85.86%
African American/Black	206	99	48.12%	161	78.38%	180	87.46%
*sd		25	9.16%	22	8.52%	25	5.29%
lower ci		49	29.72%	118	61.28%	129	76.83%
upper ci		150	66.52%	205	95.48%	231	98.08%
American Indian	129	64	49.90%	86	66.36%	88	67.91%
*sd		10	7.34%	9	6.93%	9	6.87%
lower ci		45	35.14%	67	52.43%	69	54.11%
upper ci		84	64.65%	105	80.28%	106	81.71%
Other	4	0	8.33%	2	58.33%	2	58.33%
*sd		0	8.90%	1	21.82%	1	21.82%
lower ci		0	0.00%	0	11.82%	0	11.82%
upper ci		1	27.32%	4	100.00%	4	100.00%

Need For Treatment Among Juveniles In OJA Custody By Race							
Race	Population	In Need of Treatment for Alcohol		In Need of Treatment for Illicit Drugs		In Need of Treatment for Alcohol and/or Drugs	
		Population Estimates	Rate	Population Estimates	Rate	Population Estimates	Rate
Hispanic	49	27	55.78%	39	79.25%	39	79.25%
*sd		8	13.10%	6	11.38%	6	11.38%
lower ci		12	28.37%	26	55.44%	26	55.44%
upper ci		43	83.20%	52	100.00%	52	100.00%
All Reported Races	759	353	46.56%	548	72.18%	599	78.91%
*sd		33	3.68%	31	3.41%	34	2.81%
lower ci		288	39.33%	486	65.48%	532	73.38%
upper ci		419	53.80%	609	78.89%	666	84.44%

Table 20 demonstrates the sex-related differences in need of treatment – 89.5 percent of females versus 78.3 percent of males. Another difference was in the type of drug for which treatment was needed. For males, nearly three-fourths (72.5%) needed treatment for illicit drugs and 46 percent needed treatment for alcohol. For females, the distinction was not as great, 67 percent needed treatment for illicit drugs and 51.7 percent needed alcohol treatment.

Table 20

Need For Treatment Among Juveniles In OJA Custody By Sex							
Race	Population	In Need of Treatment for Alcohol		In Need of Treatment for Illicit Drugs		In Need of Treatment for Alcohol and/or Drugs	
		Population Estimates	Rate	Population Estimates	Rate	Population Estimates	Rate
Male	716	331	46.25%	519	72.49%	560	78.27%
*sd		32	3.79%	30	3.49%	33	2.93%
lower ci		268	38.79%	459	65.62%	495	72.51%
upper ci		395	53.71%	579	79.36%	626	84.03%
Female	43	22	51.71%	29	67.05%	39	89.53%
*sd		8	15.73%	7	15.79%	9	9.20%
lower ci		5	18.65%	13	33.87%	20	70.20%
upper ci		39	84.76%	44	100.00%	57	100.00%
Total	759	353	46.56%	548	72.18%	599	78.91%
*sd		33	3.68%	31	3.41%	34	2.81%
lower ci		288	39.33%	486	65.48%	532	73.38%
upper ci		419	53.80%	609	78.89%	666	84.44%

When looking at the age breakdown of the sample, the rate of treatment need ranged from 57.6 percent to 84.8 percent (Table 21). Seventeen-year olds had the highest overall need for treatment (84.8%), while fourteen-year olds had the lowest rate (57.6%).

Table 21

Need For Treatment Among Juveniles In OJA Custody By Age

Age	Population	In Need of Treatment for Alcohol		In Need of Treatment for Illicit Drugs		In Need of Treatment for Alcohol and/or Drugs	
		Population Estimates	Rate	Population Estimates	Rate	Population Estimates	Rate
13	16	3	15.63%	11	66.67%	11	66.67%
*sd		3	15.83%	3	21.10%	3	21.10%
lower ci		0	0.00%	2	12.42%	2	12.42%
upper ci		9	56.30%	19	100.00%	19	100.00%
14	58	23	39.66%	14	24.83%	33	57.59%
*sd		17	21.01%	7	13.97%	17	18.16%
lower ci		0	0.00%	0	0.00%	0	18.01%
upper ci		59	85.42%	30	55.26%	70	97.16%
15	134	64	48.06%	96	71.34%	101	75.15%
*sd		16	9.27%	18	7.15%	17	6.67%
lower ci		32	29.39%	60	56.95%	66	61.71%
upper ci		96	66.73%	131	85.74%	136	88.60%
16	199	60	30.29%	145	72.76%	159	80.02%
*sd		14	6.88%	15	6.57%	14	5.66%
lower ci		32	16.48%	115	59.58%	131	68.66%
upper ci		88	44.10%	174	85.94%	188	91.38%
17	234	150	64.11%	189	80.82%	199	84.83%
*sd		16	6.25%	16	5.18%	15	4.84%
lower ci		117	51.64%	158	70.50%	169	75.18%
upper ci		183	76.58%	220	91.15%	228	94.48%
18	118	53	45.09%	93	79.06%	96	81.69%
*sd		7	5.87%	6	4.82%	6	4.59%
lower ci		39	33.41%	81	69.48%	85	72.56%
upper ci		67	56.76%	106	88.64%	108	90.82%
Total	759	353	46.56%	548	72.18%	599	78.91%
*sd		33	3.68%	31	3.41%	34	2.81%
lower ci		288	39.33%	486	65.48%	532	73.38%
upper ci		419	53.80%	609	78.89%	666	84.44%

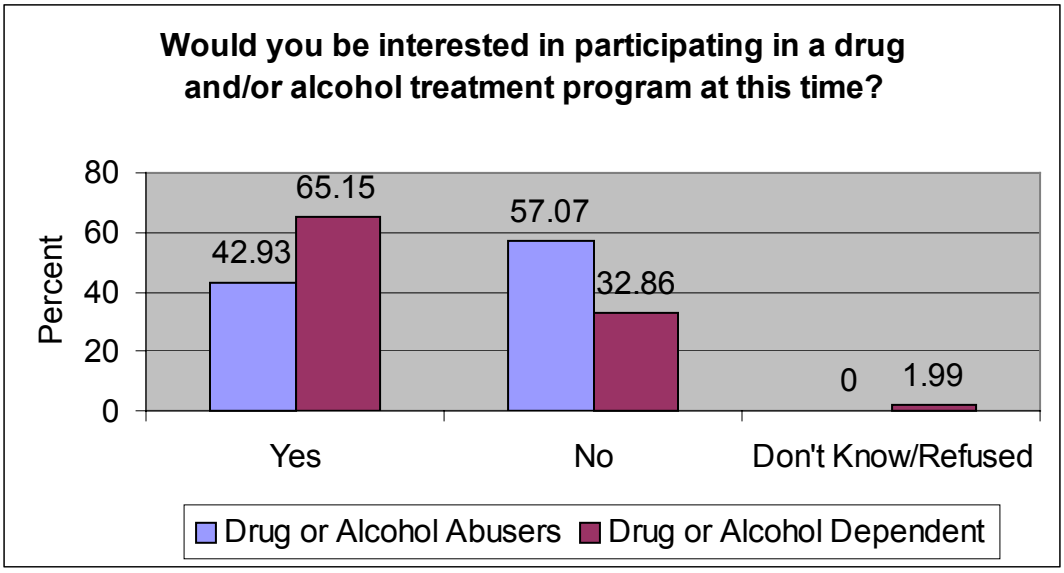

Figure 5: Interest In Treatment

When asked about their interest in participating in treatment, a little less than half of the youths found to be abusing substances (42.9%) reported that they would be interested, while two-thirds of the substance dependent youths (65.2%) reported an interest (Figure 5).

2.5 Summary

Tobacco use appears to be a significant problem among the juvenile offenders surveyed. Nearly all of the youths had smoked in their lifetimes and three-fourths had smoked in the last 30 days. Males and females were just as likely to smoke, and tobacco use did not follow a logical age pattern.

Marijuana was the substance most commonly used. While inhalant use is thought to be high among adolescents because of the ease in which they can be obtained, surprisingly, use of inhalants was low in all three time periods.

The age of first for inhalant use seems incredible at first; however; there are anecdotal stories of public health workers going into homes and finding infants with spray paint on their faces, after parents had the children inhale the fumes to subdue them. The same explanation may be true for the average age of first time alcohol use being two years of age.

Illicit drugs had a higher prevalence rate than alcohol and higher rates of abuse and dependence. It is interesting to note, that of the youths that were alcohol dependent, 88 percent were also dependent on an illicit drug. That is, for youths with alcohol dependence, the majority will also have an illicit drug dependence.

Perhaps one of the most significant findings of this study was that females have higher rates of use for the last year and the last month for tobacco, alcohol and

illicit drugs than their male counterparts. Consequently, females had a treatment need 11 percent higher than that of males. While females comprise a small part of the juvenile offender population (5.7%), their higher use of substances must not be overlooked.

With the exception of tobacco use in the past 30 days, 18-year olds reported lower use than 17-year olds for each time period and substance. This may be an indication that drug use begins to decrease at a certain age but much more data are needed before a determination can be made.

2.6 References:

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3. Arrestee Drug Abuse Monitoring (ADAM) Project

3.1 Purpose of the Study

This section is a report on the administration and results of the Arrestee Drug Abuse Monitoring (ADAM) pilot project at the Tulsa County Jail in Tulsa, Oklahoma. The ADAM Project is important in three ways. First, as stated above, Oklahoma has one of the highest incarceration rates in the nation, due in large part to an increase in drug-related arrests. Findings from the 1998 Oklahoma STNAP Phase I Corrections Study revealed an estimated 44.3 percent of inmates who had been in prison for less than 18 months were in need of treatment, while 19.6 percent of inmates incarcerated for 18 months or more were determined to need treatment. These data provide information about current drug use of inmates; but not about drug use at the time of arrest, and therefore, information relating to drug use at the time of the crime. The goal of DMHSAS is to identify populations at risk and meet their required treatment needs before they become involved in the criminal justice system.

Second, a particular issue with all of the studies completed in Phase I and the TANF and OJA studies in Phase II is that the data are self-reported and respondents are not always forthcoming about drug and alcohol use. For instance, respondents were more willing to admit drug use in the distance past than in the recent past. One way to insure the validity of the surveys is to test for drug use with blood, hair or urine samples. The ADAM project uses urinalysis to confirm or refute reported drug use and allows for a determination of the confidence level of self-reported information.

Third, the ADAM project will provide information about the arrestee population in the northeast quadrant of the state and permit comparisons with arrestees in the other major population center (Oklahoma County) where an ADAM project is already operating with funding from the National Institute of Justice (NIJ). Tulsa County is the second largest urban area of the state with a population of 393,049. With the combination of the Oklahoma City and Tulsa sites, a significant portion of the state's criminal justice population has now been sampled for data collection (41% of Oklahoma's drug-related Uniform Crime Report offenses were reported in these two counties in 1999). One particular area of interest is the increase in methamphetamine use. Tulsa has been ranked as one of the top 10 areas of the nation in the number of methamphetamine laboratory seizures by police (KOTV, 1999). Since this group has the potential for receiving the most expensive treatment, i.e., treatment while incarcerated, or for being diverted to less expensive drugs courts, DUI schools or other alternatives, it is important to know as much as possible about their patterns of drug use, criminal activity and treatment. Although time and resources only permitted a one-time data collection, the benefit from relationships developed among jail staff and the research team, knowledge gained about drug use patterns and experience with

the testing process itself made this effort and its results invaluable to state and local stakeholders.

3.2 Survey Methods

The ADAM Core Questionnaire was used to survey the Tulsa County arrestee population in the ADAM Study (see Appendix E). The ADAM Core Questionnaire, which has OMB clearance and Abt Associates, Inc., Internal Review Board (IRB) approval, is currently being used in 35 states, including the Oklahoma County ADAM site, funded through NIJ.

3.3 Research Design

Abt Associates, Inc., the national contractor for NIJ was responsible for the data compilation and reporting of the ADAM findings. The urine specimens were shipped to a centralized laboratory, PharmChem Laboratories, Inc., certified by the U.S. Department of Health and Human Services.

Sample Design and Selection. The sample size approach chosen by National Institute of Justice (NIJ) required each site to have a designated sample size that is equivalent to the variance that results from sampling proportional to size. In addition, there is a minimum targeted sample for small sites and a maximum targeted sample for large sites. Based on this sample determination methodology, the sample size for Tulsa County was 340 males and 31 females.

Data collection began at 3 PM each day and concluded at 11 PM for a two-week period from July 21 through August 3, 2001. At the beginning of each day of data collection, the jail staff prepared a list of people who had been booked into the County Jail from 11:00 PM the previous evening to 2:59 PM on the current day. This group of arrestees is called the “stock” population. The Site Coordinator then randomly selected five males and 3 females from this list to be interviewed. The remaining respondents were randomly selected from the people who were booked into the jail from 3:00 PM to 10:59 PM that day (these are called the “flow” arrestees). An “Arrest and Booking” form (A&B Form) was obtained for each person selected into the sample. The A&B Form contained all of the pertinent data necessary to fill out the face sheet of the survey.

3.3.1 Data Collection and Response Rates

Survey Collection. The data were collected by members of the graduate program in the Department of Sociology at the University of Oklahoma in cooperation with the David L. Moss Criminal Justice Center (CCA) and the staff at the Tulsa County Jail. The interview staff was composed of five interviewers from the Oklahoma City ADAM project (many of whom had been working on the project since 1998). The project required administering a short standardized

interview and collecting a urine sample from recently arrested men and women in Tulsa County.

Two interviewers and one supervisor worked each shift. On occasion, another supervisor was also in attendance to oversee the operation. For example, the Site Director spent one day on site and a supervisor from Abt spent two days on site. One interviewer was assigned to interview male flow inmates and one interviewer was assigned to female flow arrestees and the stock arrestees. When the Site Coordinator selected an arrestee for an interview, she wrote the person's name and cell number on a Post-It Note. Then, the Site Coordinator initiated a "face sheet" on the arrestee. This face sheet contains information about the arrestee (race, sex, age, charge, etc.).

The Post-It Note was then given to a security officer who brought the inmate to the interviewers. Unfortunately, the facility was not able to provide a female security officer every day, so data were not collected from females on a regular basis. When the arrestee arrived at the interview site, the Post-It Note was given to the Site Coordinator, who destroyed it. The interviewer then read a detailed informed consent form to the respondent. If the arrestee agreed to participate, the interview started immediately.

After the interview, the arrestee was given a plastic bottle and asked to provide a urine sample. After a useable sample was provided, the arrestee was given a chocolate bar and returned to his/her cell. A barcode sticker was attached to the urine bottle, the face sheet, and the survey so that they could be matched later.

The completed survey was then edited by the Site Coordinator to assure no errors had been made. Then the Site Coordinator stacked the survey, the face sheet, and the A&B Form together and the process began again. Every few days, an associate Site Coordinator returned to the stack of face sheets and interviews. He completed each face sheet using the A&B Forms and completed another edit of the survey. This person was used because he is experienced with doing the same procedure at the Oklahoma County ADAM site and it is important that the coding of the charges on the face sheet is done correctly and consistently. In addition, the Site Coordinator does not have time to fill out all of the information of the face sheet. Finally, the process allowed for an additional edit point to identify and correct as many errors as possible.

Because of the sensitive nature of the data that are collected, the ADAM staff went to great lengths to protect the confidentiality of the participants. Once the face sheet was completed, his/her name was permanently removed from the survey. A unique non-personal identifier was assigned to each survey and urine sample so that data could be matched at a later time.

Urine Collection. In addition to guaranteeing space for ADAM staff to complete the interviews, the site director worked with jail administration to ensure

interviewers had access to a lavatory or toilet so that urine samples could be collected.

Within two days of data collection, the urine samples were shipped to a centralized laboratory, PharmChem Laboratories, Inc., certified by the U.S. Department of Health and Human Services, where they were screened for a minimum of 10 drugs (marijuana, cocaine, amphetamines, barbiturates, benzodiazepines, methadone, methaqualone, opiates, phencyclidine (PCP) and propoxyphene). If amphetamines were detected, further testing was to be done to determine the presence of methamphetamine; however, PharmChem failed to follow through on the testing. Table 22 lists the drugs and their corresponding cutoff levels and detection periods.

Once the urinalysis results were received from the laboratory, Abt merged the urinalysis results with the interview data received from the site using the common identification number.

Table 22

Drugs With Their Corresponding Cutoff Levels And Detection Periods

Drug	Cutoff	Detection Period
Cocaine	300 ng/ml	2-3 days
Marijuana	50 ng/ml	Infrequent user: 7 days; Chronic use: up to 30 days
Methamphetamine	300 ng/ml	2-4 days
Opiates	300 ng/ml	2-3 days
PCP	25 ng/ml	3-8 days
Amphetamines	1000 ng/ml	2-4 days
Barbiturates	300 ng/ml	3 days
Benzodiazepines	300 ng/ml	Up to 2 weeks
Methadone	300 ng/ml	2-4 days
Methaqualone	300 ng/ml	Up to 10 days
Propozyphene	300 ng/ml	3-7 days

3.3.2 Response Rates

Refusal rates for the Tulsa ADAM project were consistent with the Oklahoma City ADAM project. The ADAM staff initiated 340 male face sheets over the course of the 14-day period. This represented the number of people selected into the sample. There were 188 arrestees that were eligible for an interview. The disparity between the 340 and the 188 includes arrestees that were released before staff members were able to conduct the interview and arrestees that were too intoxicated or violent to interview. It also included a large number of individuals that were determined to be ineligible because of some contradictory information sent to the site by Abt concerning the new eligibility criteria. Unfortunately, this error was not clarified until late in the data collection period. The ADAM supervisors estimate that closer to 270 males would have been eligible for interview under the current (and correct) eligibility criteria. Of the 188

eligible male arrestees, 160 agreed to an interview (an agreement rate of 85.1%). Of those 160 who agreed to an interview, 155 provided a urine sample (96.9%). This number is slightly below our goal of 168 males, but the eligibility problem hampered our efforts to make quota each day. Clarification of the eligibility criteria and adjustment of the sampling procedures by the national contractor should solve this problem in subsequent data collection efforts.

The Tulsa County Jail only provided female security staff on seven days. The eligibility criteria problem also hampered the sample size for these days as well. The ADAM staff initiated 31 female face sheets over the course of the 14-day period. There were only 20 arrestees that were eligible for an interview. The ADAM supervisors estimate that closer to 180 females would have been eligible for interview under the current (and correct) eligibility criteria. Of the 20 eligible female arrestees, only 11 agreed to an interview (an agreement rate of 55%). This is far below what has been experienced in the Oklahoma City ADAM project. It is not clear why the females in this project were so different from the males in their willingness to participate. Special efforts to encourage female participation should be made in subsequent data collection efforts. Of those 11 who agreed to an interview, all 11 provided a urine sample (100%). This number is far below the goal of 82 females, but the eligibility criteria problem and the lack of female security officers cut the data collection time in half. The correctional facility has assured the ADAM staff that more female officers will be available in the future. Clarification of the eligibility criteria and adjustment of the sampling procedures by the national contractor should also solve this problem in subsequent data collection efforts.

3.4 Data Processing and Analysis

Survey data for the ADAM study were collected by graduate students trained by Abt Associates Inc (Abt). Training teams, using materials tailored to ADAM, visited the site for intensive training of all staff. “Train the trainer” methods and materials were also provided to allow on-site coordinators to conduct quarterly enhancement training.

Surveys went through three steps to ensure they were complete. First, the interviewer double checked the survey instruments for any missing fields. Next, the site coordinator inspected the instrument. The instruments were then shipped to Abt, where the survey was validated and the data were entered.

3.5 Results

As stated above, due to a lack of females guards and incorrect eligibility criteria, only 11 females were surveyed. Because of the small number, inferences cannot be made about females arrestees. While the females’ demographics are listed in Table 23, only results from the male analyses will be reported.

Of the 150 males who agreed to be interviewed and submitted a urine sample, the largest age group was the 36 years old or older group (42%). A third of the sample was 25 years old or less (15 - 20-year olds, 15.3%; 21 - 25-year olds, 18.7%), while a quarter of the sample was between the ages of 26 and 35 (26 - 30-year olds, 12.7%; 31 - 35-year olds, 11.3%).

The majority of respondents were Black (57.3%), compared to a rate of 6.9 percent in the general adult population. Whites make up 79.2 percent of the adult general population but only 28.7 percent of the respondents. Hispanics were 5.3 percent of the sample and 4.3 percent of the adult general population, while "Other" were 8.7 percent of the sample and 2.0 percent of the adult general population.

Three fourths of the respondents (74%) had some college and 19.3 percent had some high school. Only 6.7 percent had a 9th grade education or less.

The majority of the respondents lived in a house or apartment (88.7%), while 6 percent live in public housing and 2 percent had no fixed residence.

Nearly three quarters of the respondents were employed (72%) or had a job but were on leave (0.7%). The rest of the sample was unemployed (18.7%), disabled (4%) or had other arrangements (4.7%).

Table 23

Tulsa County Adam Site Demographics Third Quarter – 2001		
Unweighted Demographics		
Arrestee Demographic	Sex of Booked Arrestees	
	Male	Female
Sample Size	150	11
Age of Booked Arrestees (%)		
15-20	15.33	18.18
21-25	18.67	9.09
26-30	12.67	9.09
31-35	11.33	27.27
36+	42.00	36.36
Race of Booked Arrestees (%)		
Black	57.33	81.82
White	28.67	18.18
Hispanic	5.33	0.00
Other	8.67	0.00
Highest Grade Completed Among Booked Arrestees (%)		
7th to 9th Grade	6.67	0.00
10th to 12th Grade	19.33	18.18
Above 12th Grade	74.00	72.73

Tulsa County Adam Site Demographics Third Quarter – 2001 Unweighted Demographics		
Arrestee Demographic	Sex of Booked Arrestees	
	Male	Female
Current Housing Arrangement Among Booked Arrestees (%)		
Public Housing	6.00	9.09
House or Apartment	88.67	72.73
Shelter	2.67	0.00
No Fixed Residence	2.00	18.18
Other	0.67	0.00
Current Work Status Among Booked Arrestees (%)		
Full/Part-Time Employment	72.00	54.55
Unemployed	18.67	18.18
Have a job but out on leave	0.67	9.09
Disabled	4.00	9.09
Other	4.66	9.09

3.5.1 Prevalence of Drug Use as Indicated by Urinalysis

Table 24 reveals that two thirds of Tulsa respondents (66.7%) tested positive for any drug use. This is very close to the rate of 64.2 percent found at the Oklahoma City ADAM site. The most prevalent drug was marijuana (48%), followed by cocaine (20%), amphetamine (16.7%), benzodiazepines (8%) and opiates (2%).

Respondents who were 36 years of age or older had the highest prevalence rate for any drug use (34%), cocaine use (70%) and amphetamine use (36%), while 21- to 25-year olds had the highest rate of marijuana use (29.2%) and benzodiazepine use (50%). Very few respondents tested positive for opiates and use was equal among the three youngest age groups (33.3%).

Table 24

Tulsa County Adam Site Third Quarter – 2001 Percent Positive For Drugs Among Males By Age							
Drugs	N	Percent Positive	Age of Booked Arrestees (%)				
			15-20	21-25	26-30	31-35	36+
Any Drug	100	66.67	18.00	22.00	14.00	12.00	34.00
Marijuana	72	48.00	22.22	29.17	16.67	9.72	22.22
Cocaine	30	20.00	6.67	6.67	10.00	6.67	70.00
Opiates	3	2.00	33.33	33.33	33.33	0.00	0.00
Benzodiazepines	12	8.00	16.67	50.00	8.33	0.00	25.00
Amphetamine	25	16.67	12.00	20.00	16.00	16.00	36.00

Among the race groups, Blacks had the highest prevalence of use for each drug category. Nearly two-thirds of the Black group (62%) tested positive for any drug, compared with 29 percent of the White group (Table 25). Hispanics and those in the "Other" group had very low numbers of positive drug tests for any drug (3% and 6%, respectively).

Table 25

Tulsa County Adam Site
Third Quarter – 2001
Percent Positive For Drugs Among For Males By Race

Drugs	N	Percent Positive	Race of Booked Arrestees (%)			
			Black	White	Hispanic	Other
Any Drug	100	66.67	62.00	29.00	3.00	6.00
Marijuana	72	48.00	56.94	30.56	5.56	6.94
Cocaine	30	20.00	53.33	43.33	0.00	3.33
Opiates	3	2.00	100.00	0.00	0.00	0.00
Benzodiazepines	12	8.00	91.67	8.33	0.00	0.00
Amphetamine	25	16.67	88.00	0.00	8.00	4.00

3.5.2 Comparison of Drug Prevalence at Tulsa Site to Oklahoma City Site

The percentages of Tulsa respondents testing positive for drug use varied by offense category (58.2% to 78.3%) but were close to the Oklahoma City range of 58.2 percent to 78.9 percent (Table 26). Of the Tulsa respondents arrested for a property offense, 78.3 percent tested positive for any drug use, compared to 70.4 percent in Oklahoma City. Of Tulsa respondents with drug offenses, 72.2 percent tested positive for any drug, compared to 78.9 percent in Oklahoma City. Respondents arrested for person (violent) crimes or "other" crimes had similar use rates (58.6 % and 59.1%, respectively) in Tulsa, as well as like rates at the Oklahoma City site (61.4% and 58.2%, respectively).

Tulsa respondents arrested for property offenses had the highest rate of any drug use (78.3%), marijuana use (56.5%), and cocaine use (30.4%), although not significantly higher than rates of other offense categories. The "other" offense category had the highest rate of amphetamine use.

Table 26

Percent Positive For Drugs
By Offense Category
By Adam Site

Tulsa	Person Offense	Drug Offense	Property Offense	Other Offense
Any Drug	58.6	72.2	78.3	59.1
Marijuana	48.3	51.9	56.5	38.6
Cocaine	10.3	16.7	30.4	25.0
Amphetamine	0.0	22.2	13.0	22.7

Oklahoma City				
Any Drug	61.4	78.9	70.4	58.2
Marijuana	51.5	57.4	49.7	44.0
Cocaine	17.5	35.0	26.5	23.3
Methamphetamine	9.4	13.5	9.5	7.0

3.5.3 Self-Reported Prevalence of Drug Use

Table 27 shows that nearly half of the Tulsa respondents (45.3%) reported using two or more substances in the past 30 days, which is much higher than the rate found at the Oklahoma City ADAM site (28.9%). However, when comparing drugs and drug combinations uniformly detailed in ADAM reports, the Oklahoma City site was higher on each individual drug and drug combination than the Tulsa site. Crack cocaine was the most prevalent drug in this analysis for both sites (Tulsa, 11.3%; OKC, 12.6%), followed by powder cocaine (Tulsa, 4%; OKC, 9.6%), marijuana and powder cocaine (Tulsa, 3.3%; OKC, 7%), crack cocaine and powder cocaine (Tulsa, 1.3%; OKC, 3.5%), and opiates (including heroin) and powder cocaine (Tulsa, 0%; OKC, 0.8%).

Table 27

Self Report Of Last 30 Day Drug Use Among Males						
Drugs	Percent Positive	Age of Booked Arrestees (%)				
		15-20	21-25	26-30	31-35	36+
TULSA COUNTY ADAM SITE						
Crack Cocaine	11.33	4.35	7.14	5.26	11.76	17.46
Powder Cocaine	4.00	0.00	7.14	0.00	5.88	4.76
Marijuana & Powder Cocaine	3.33	0.00	7.14	0.00	0.00	4.76
Crack & Powder Cocaine	1.33	0.00	7.14	0.00	0.00	0.00
Opiates & Powder Cocaine	0.00	0.00	0.00	0.00	0.00	0.00
Any Two or More	45.33	52.17	35.71	52.63	47.06	44.44
OKLAHOMA COUNTY ADAM SITE						
Crack Cocaine	12.6	3.0	7.1	6.2	20.3	18.8
Powder Cocaine	9.6	10.0	8.2	9.3	10.1	10.3
Crack & Powder Cocaine	3.5	2.3	4.1	3.1	5.3	3.1
Marijuana & Powder Cocaine	7.0	10.0	7.2	4.7	7.6	6.3
Opiates & Powder Cocaine	0.8	0.0	0.5	0.0	1.5	1.4
Any Two or More	28.9	31.5	31.1	24.0	35.9	26.0

In Tulsa, the age group of 31- to 35-year olds had the highest reported rate of marijuana use (11.8%, Table 27) and any two or more drugs (47.1%), while 21- to 25-year olds had the highest rates for powder cocaine (7.1%), crack and powder cocaine (7.1%) and marijuana and powder cocaine (7.1%). There was no reported combination use of opiates and powder cocaine. At the Oklahoma City site, the 31- to 35-year olds had the highest prevalence rate of each drug or drug combination, with the exception of marijuana and powder cocaine, for which 15- to 20-year olds had the highest rate of use at 10 percent (Table 27).

3.5.4. Comparison of Self-Reported Drug Use to Urinalysis Results

Table 28 compares the validity of self reports to urinalysis results. The rate of 51.3 percent for reported use of marijuana in the last 30 days was close to test results of 48 percent. However, the other two drugs compared differed significantly. Self-reported use of cocaine was 5.3 percent compared to a rate of 20 percent from urinalysis results. There was no reported use of heroin in the last 48 hours while urine tests showed a rate of 2 percent. Due to the contractor failing to conduct tests for methamphetamine in the Tulsa study, comparison on this drug could not be made at this point.

Table 28

Tulsa County Adam Site
Third Quarter – 2001
Comparison Between Tested And Reported Drug Use Among Males

Drug Tested	N	Percent	Reported Drug Use in Past 48 Hours	N	Percent
Marijuana	72	48.00	Marijuana*	77	51.33
Powder Cocaine	30	20.00	Powder Cocaine	8	5.33
Opiates	3	2.00	Opiates	0	0.00
Amphetamine	25	16.67	Methamphetamine	8	5.33

*Because marijuana use can be detected through urinalysis for 30 days, reported use of marijuana in the last 30 days was compared for this drug.

3.6 Summary

As had been found previously at the Oklahoma City ADAM site, a large proportion of Tulsa arrestees were found to have used drugs recently enough to be detected by urinalysis. Two thirds of the male Tulsa County arrestees (66.7%) that were tested by urinalysis to determine their drug use were found to be positive for some drug. Those in the highest age group (36 and over) had the highest rate (about one third). Marijuana was the drug of choice for almost half of those tested. The differences in drug use by race were extreme. About 30 percent of whites tested positive for some drug, but the percent of African-Americans was over twice that high (62%). On the other hand, Hispanics and the "Other" group has much lower percentages of positive tests (3% and 6%, respectively).

Although Tulsa and Oklahoma City had similar overall drug use patterns, there were differences between the findings at the two sites. In Oklahoma City, people charged with drug offenses had the highest use rate in every drug category. However, in Tulsa, the property offenders had the highest rates which, coincidentally, were about the same as the drug offense rates in Oklahoma City.

Not only were there differences in terms of offenses most associated with drug use, but also in regard to patterns of use. In Tulsa, the percentage of arrestees using multiple drugs was a third more than the rate in Oklahoma City (45.33% vs. 28.9%, respectively), but at both sites multiple drug users comprised the largest group. None of the age groups in Oklahoma City had a higher multiple drug use rate than the corresponding age group in Tulsa. At both sites the oldest age group (36 and over) often had the highest percentage of users. In contrast, for Tulsa it was the youngest group (15-20) and the middle group (26-30) that most often used multiple drugs (52.2% and 52.6%, respectively), while in Oklahoma City it was the 31-35-year old group (35.9%). All of these site differences must be evaluated in light of the fact that the time periods being compared were not the same. Because more recent data were not yet available from the Oklahoma City site, Tulsa's third quarter 2001 data were compared to Oklahoma City's 1999 Annual Report data.

The comparison of tested and reported drug use patterns raises a question about the reliability of self-report drug use data collected in the jail environment. Despite agreeing to a urinalysis prior to answering the drug use survey, respondents consistently reported lower use on all drugs except marijuana. It is interesting to note that a higher percentage of arrestees reported marijuana use than could be detected by urinalysis. This may be because responses survey questions about marijuana use in the last 30 days were compared to the urinalysis findings. Though urinalysis is supposed to be sensitive enough to detect use over this period of time, a threshold might not have been reached or arrestees may have been mistaken about the length of time that had passed since using. The much lower rates of reporting compared to testing for other drugs may reflect a belief among arrestees that use of cocaine, opiates and amphetamines that use of these drugs carries a stiffer penalty than marijuana use.

Although only one data collection period at the Tulsa site was possible during this pilot study, the relationships established, the experience gained from arranging the survey site, and the results of the survey and urinalysis testing have established a foundation on which future work can be done. The pilot project has also demonstrated there are likely regional differences in drug use patterns and the types of arrestees using drugs. These findings underline the importance of having sub-state data available for planning and evaluating services.

3.7 References

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APPENDIX A: OJA SURVEY QUESTIONNAIRE

APPENDIX B: OJA LETTERS AND ASSENT FORMS

APPENDIX C: ADAM SURVEY QUESTIONNAIRE