

**The Sins of ADAM:
Toward a New National Criminal Justice Drug Use Surveillance System**

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Abstract

The Arrestee Drug Abuse Monitoring (ADAM) Program – formerly the Drug Use Forecasting Program – was established in 1987. In 1998, a refined sampling methodology was introduced, followed by a new survey instrument in 2000. In January 2004, the Federal government issued a Stop Work Order for the ADAM Program, effectively ending its existence. Although ADAM suffered from several major limitations that, ultimately, may have proven too challenging to overcome, drug use research would greatly benefit from a new national criminal justice-based drug use surveillance system. This essay, first, reviews the current state of drug use monitoring systems in the United States. Second, the history of the ADAM Program is examined. The essay concludes by proposing a new, criminal justice-based drug use monitoring system.

Introduction

The Federal government funds several major data collection efforts to measure the prevalence of drug use within the United States. The National Survey on Drug Use and Health (NSDUH) – formerly the National Household Survey on Drug Abuse – generates drug use estimates among household members ages 12 and older in the contiguous United States (Substance Abuse and Mental Health Services Administration (SAMHSA), 2003a). The Drug Abuse Warning Network (DAWN) is an annual national probability study of drug-related problems treated in hospital emergency departments (EDs) and drug-related death data collected from a sample of medical examiners and coroners' offices (SAMHSA, 2003b, c). Monitoring the Future (MTF) began in 1975 as a way to study changes in the drug-using beliefs, attitudes, and behaviors of high school students across the United States. Today, the program surveys approximately 50,000 8th, 10th, and 12th grade students annually (Johnston et al., 2003). Finally, the Arrestee Drug Abuse Monitoring (ADAM) Program, formerly the Drug Use Forecasting (DUF) Program, collected self-report drug use data and urine specimens from samples of arrestees in 42 jurisdictions across the United States (NIJ, 2003).² ADAM was the only drug use monitoring system to collect an objective measure of recent drug use (urine specimens) in addition to the self-report information.

The collection of urine specimens was integral to the ADAM Program. One major problem of self-report drug use surveys is that researchers must rely on respondents to disclose their personal use of illicit drugs. To measure recent drug use and

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to assess the validity of self-reported drug use information, researchers often collect an objective, biological measure of recent drug use, such as urine or oral fluid (OF). The collection of two measures of recent drug use – self-reports and biological specimens – permits an exploration of validity, whereby the more unreliable measure (self-report) can be compared to the criterion measure (biological specimen). Validity studies can determine, therefore, the extent to which arrestees are being truthful about their recent drug-using behaviors.

Previous studies have established that arrestees underreport their recent use of illegal drugs, particularly cocaine (Yacoubian, 2000a; Lu et al., 2000; Hser, 1997; Harrison, 1995; Fendrich and Xu, 1994; Mieczkowski et al., 1991; Wish and Gropper, 1990). Mieczkowski et al. (1991), for example, compared self-reports of cocaine use with urinalysis results from a sample of adult arrestees in Florida. Of the cocaine-positive arrestees, only 24% reported cocaine use in the previous 48 hours (Mieczkowski et al., 1991). Harrison (1995) explored the validity of self-reported drug use with data from 21,991 DUF arrestees interviewed in 1989. For those arrestees who tested positive for marijuana, cocaine, and opiates, only half reported using the drugs within the past three days (Harrison, 1995). Yacoubian (2000a) compared arrestee urinalysis results to self-reported drug use over eight annual intervals for each ADAM site. Temporal correlation estimates between urinalysis results and three-day self-reports were low for both cocaine and opiates across all jurisdictions (Yacoubian, 2000a).

Underreporting of recent drug use has also been identified in other high-risk populations (Morrall et al., 2000; Fendrich et al., 1999; Magura and Kang, 1997; Wish et

al., 1997; Hubbard et al., 1984). Fendrich et al. (1999) used the NHSDA methodology and collected self-report survey data and hair specimens from a high-risk sample of household respondents in Chicago. Results illustrated considerable underreporting of cocaine and heroin use within the past 30 days (Fendrich et al., 1999). Morral et al. (2000) explored the accuracy of self-reported drug use frequency among 701 methadone maintenance clients. Results indicated that use frequencies averaged 34% higher for opiates and 20% higher for cocaine than were self-reported (Morral et al., 2000). Taken collectively, these studies illustrate that the validity of recent drug use data are often low for both criminal and non-criminal populations, making objective measures of recent drug use very valuable to both researchers and practitioners in the criminal justice field.

While no single data set is capable of providing precise national estimates of casual or heavy drug use, or an accurate demographic breakdown of drug users, the NSDUH, MTF, DAWN, and ADAM systems, taken collectively, provide a comprehensive view of drug use within the United States. Because their populations are distinct, researchers and policymakers are privy to a range of drug use prevalence data. While each monitoring system is hindered by a variety of limitations (Yacoubian, 2000b; Mieczkowski, 1996; Caulkins et al., 1995; Government Accounting Office, 1993), they are capable of providing a valuable snapshot of drug use in the United States. A brief summary of NSDUH, MTF, and DAWN are provided below.

NSDUH

The NSDUH is designed to estimate the prevalence of drug use in the United States among civilian, non-institutionalized residents aged 12 and over. A multi-stage

probability sampling design is utilized (SAMHSA, 2003a). Stage 1 is the selection of counties within the United States. Stage 2 is the selection of blocks within a particular area. The third stage is the selection of listing units within the sub-areas. Stage 4 involves the selection of age domains within sampled listing units. Finally, stage 5 involves interviewing individuals within the sampled age domains.

Respondents are first asked if they have *ever* used drugs in the following classes: alcohol, cocaine, hallucinogens, heroin, inhalants, marijuana, tobacco, and non-medical prescription drugs. If respondents report having used any drugs within these classes, questions are posed about specific drugs of abuse. For example, if respondents report having ever used any hallucinogens, questions are asked for specific types of this class, including mescaline, peyote, and ecstasy. For those drug *classes* respondents report having ever tried, they are asked to indicate age of first use and whether they have used the class within the past 12 months and the past 30 days. Respondents are also asked about criminal history, alcohol and other drug (AOD) treatment history, problems resulting from the use of AOD, need for AOD treatment, and needle sharing. Finally, demographic data, including gender, race, age, marital status, and educational levels, are collected.

While the NHSDA sample is designed to be representative of household members aged 12 and older in the United States, the data have two major limitations (SAMHSA, 2003a). First, the information is based exclusively on self-report. As such, underreporting and overreporting may occur. Second, the data are cross-sectional. An exploration over time for specific individuals is therefore not possible. These caveats

aside, the NHSDA is the only study that regularly produces estimates of drug use among civilian members of the non-institutionalized population of the United States.

MTF

MTF began in 1975 as a way to study the drug-using beliefs, attitudes, and behaviors of high school students across the United States. Today, the program surveys approximately 50,000 grade school and high school students annually (Johnston et al., 2003). Each data collection takes place in approximately 130 public and private high schools, thus providing an accurate cross-section of high school seniors throughout the United States (Johnston et al., 2003).

A multi-stage sampling design is utilized (Johnston et al., 2003). Stage 1 is the selection of a specific geographic area. Stage 2 is the selection of the high school(s) within that particular area. The third stage is the selection of individual students within each high school. During the fall of each academic year, a MTF representative makes initial contact with each sampled school. After securing consent from the high school principal, arrangements are made for administering the survey. Two weeks prior to its scheduled administration, MTF staff members visit the teachers and provide a brief overview of the study. Teachers are then asked to announce the study to their students. MTF staff members follow standardized data collection procedures (Johnston et al., 2003). While parental/guardian permission is not required, youths are informed that their participation is voluntary and confidential. Questionnaires are administered during normal class periods. Most respondents complete the questionnaire within 45 minutes, although additional time is permitted if needed.

In addition to basic demographic information, the questionnaire covers areas on criminal behavior, AOD use, education, health, politics, religion, social change, and social problems (Johnston et al., 2003). Respondents are asked to report whether they have *ever* used alcohol, amphetamines, barbiturates, cigarettes, crack cocaine, ecstasy, heroin, inhalants, lysergic acid diethylamide (LSD), marijuana, powder cocaine, other psychedelic drugs (e.g., phencyclidine (PCP) and mushrooms), and tranquilizers. For those drugs respondents report having *ever* tried, they are asked to indicate whether they have used the drug within the past 12 months and the number of times used within the past 30 days. They are also asked about their perceived ability to reduce or stop using drugs and the personal, familial, and occupational consequences of their drug use.

While the students sampled are designed to be representative of high school seniors within the 48 contiguous states, there are several ways in which the survey data might fall short of full representativeness (Johnston et al., 2003). First, some schools may decline participation. Second, survey data may not be obtained from all of the students sampled. Both of these limitations could introduce bias to the sample. Third, questions on sensitive issues, such as sexuality and drug use, could lead to distortions and thus reduce validity. Finally, limitations in sample size could place limits on the accuracy of the estimates. These caveats aside, the MTF data are generally considered to be the most reliable source of drug-using behaviors among youth in the United States.

DAWN

Since 1988, ED and mortality data have been collected from a representative sample of hospitals and coroners' offices within the 48 contiguous states, with

oversampling in 21 metropolitan areas (SAMHSA, 2003c, b). Within each hospital, a DAWN reporter is identified. This person is usually a member of the ED or medical records staff and is responsible for reviewing medical charts to identify drug abuse episodes eligible for inclusion. Because DAWN reports rely exclusively on information taken directly from medical charts, the accuracy of the reports is entirely dependent on the completeness of the information provided by the patient (SAMHSA, 2003b).

The reporter submits an episode report to the DAWN system for each substance abuse patient who visits an ED. Five criteria must be met (SAMHSA, 2003b). First, the person must be between six and 97 years old. Second, the patient must have been treated in the hospital ED. Third, the patient's problem must be directly related to substance abuse. Fourth, the problem must involve the use of an illegal drug or the illegal use of a licit drug. Fifth, the patient's reason for ingestion must be related to abuse/dependence, suicide, and/or psychological or physiological effects. Thus, DAWN cases do not include accidental ingestion, the use of a substance with no intent of abuse/dependence, and adverse reactions to over-the-counter (OTC) medication (SAMHSA, 2003b).

Within each drug episode, up to four specific drugs (mentions) can be identified (SAMHSA, 2003b). However, not every mention is, in and of itself, a cause of the medical emergency. Inversely, because only four specific drugs can be identified by the reporter, a drug abuse mention may go unreported. Alcohol use is recorded by the DAWN reporter *only* when ingested with an illicit drug (SAMHSA, 2003b). In addition to the specific information on the drugs ingested, the DAWN reporter collects demographic data (e.g., sex and race) about the patient and information related to the circumstances of the episode (e.g., the date and time of the visit). Data are also collected

on the form of the drugs ingested (e.g., liquid or powder), route of administration (e.g., injection or snorting), and its source (e.g., street buy) (SAMHSA, 2003b).

There are three limitations to the DAWN data (SAMHSA, 2003b). First, DAWN data do not measure prevalence, but health consequences of drug use that are reflected in visits to hospital emergency rooms. Second, the number of ED episodes reported to DAWN is not equivalent to the number of individual patients. That is, the estimates reflect total ED episodes, not the number of patients involved. Third, DAWN data may be affected by varying collection procedures across the United States. As with all surveillance systems, the data are only as good as the reporters collecting them.

ADAM

The National Institute of Justice (NIJ) established the DUF Program in 1987 (NIJ, 2003). In 1997, a decade after its inception, NIJ announced the expansion and reengineering of DUF into ADAM (NIJ, 1998). There were three primary components to the redesign. The first involved program expansion. Throughout the latter half of 1997 and the beginning of 1998, the Program worked to add 12 Western and Midwestern sites – Albuquerque, Anchorage, Des Moines, Laredo, Las Vegas, Minneapolis, Oklahoma City, Sacramento, Salt Lake City, Seattle, Spokane, and Tucson. This expansion increased the number of existing sites from 23 to 35. The second component, discussed in more detail below, involved sampling (NIJ, 1998). The goal of the new sampling strategy was to provide representative samples at the site (county) levels. The third component, discussed in more detail below, was redesigning the data collection instrument to make it more valuable to policymakers and practitioners (NIJ, 1998). The underlying purpose of

these three components was, “to build an infrastructure that ensured standard data collection protocols; an unbiased, probability-based sample of arrestees; and a data management system that generated standardized data for use by the sites” (NIJ, 2003: 177).

ADAM had six primary goals: identifying the levels of drug use among arrestees; tracking changing drug-use patterns; determining what drugs are being used in specific jurisdictions; alerting local officials to trends in drug use and the availability of new drugs; providing data to help understand the drug-crime connection; and serving as a research platform upon which a wide variety of drug-related initiatives can be based (Decker et al., 1997; Wish, 1995; NIJ, 1996, 1993, 1992). While these objectives were all reasonable in theory, some may have ultimately proven too difficult to achieve. As with any surveillance system of such magnitude, certain objectives are more easily achieved and sustained than others.

ADAM’s first objective was to identify the levels of drug use among arrestees (NIJ, 1993, 1992). ADAM data, through both self-report data and urinalysis, were able to identify levels of drug use among arrestees. Unlike MTF and NSDUH, however, ADAM findings were not representative of the national arrestee population. At best, the findings were generalizable to the jurisdictions in which the data were collected. Many ADAM sites (e.g., Denver) were comprised of single facilities that were central booking operations for an entire county (NIJ, 1999a). Others (e.g., Birmingham) collected data in only several of many county booking facilities, some (e.g., Cleveland) excluded certain booking facilities because of low volume, while others interviewed only felony (e.g., Chicago) or male (e.g., Sacramento) arrestees (NIJ, 2003). The exclusion of certain

booking facilities, which may have precluded interviews with certain types of offenders (e.g., females and misdemeanants), limited the generalizability of many samples. Furthermore, a fundamental problem with ADAM was that it did not sample *all* arrestees, but rather those booked arrestees who remain in custody long enough to be sampled. While the sampling changes attempted to address this issue, it was more prudent to assert that ADAM identified levels of drug use among those *booked and unreleased arrestees selected for inclusion in the study*.

ADAM's second objective was to track changing drug-use patterns (NIJ, 1993). It is reasonable to believe that ADAM could have provided information on changing patterns of drug use *among arrestee populations*. NIJ (1998: 3) reported, for example, that "between 1991 and 1994, positive rates for methamphetamine among adult arrestees rose steadily in eight sites (San Diego, Phoenix, San Jose, Portland, Los Angeles, Omaha, Dallas, and Denver), reaching as high as 44% in San Diego in 1994" Between 1994 and 1996, methamphetamine-positive rates in San Diego declined from 44% to 30%, in Phoenix from 25% to 12%, and in Portland from 18% to 12% (NIJ, 1998). These findings helped confirm the suspicion that methamphetamine use increased across the Western portion of the United States during the first half of the 1990s, then began to decrease during the decade's latter stages. The extent to which one has confidence in ADAM's ability to provide trend data is, of course, based on whether generalizable cross-sectional data were obtained. If externally valid data were obtained during each data collection quarter (and year), then one's confidence in ADAM's temporal findings should increase proportionally.

ADAM's third objective was to determine what drugs are being used in specific jurisdictions (NIJ, 1993, 1992). This objective assumed that arrestee populations and *all* other non-ADAM populations using illegal drugs chose similar substances for ingestion. While there may be a finite number of illegal drugs, it is conceivable that a particular illegal substance can be used in a jurisdiction even if it is never identified through an arrestee population. Data collection efforts in any one facility were typically no more than 14 days every calendar quarter. Thus, data were usually collected in each facility for a maximum of 56 days each calendar year. It is reasonable to suspect that a specific substance could have been used jurisdictionally, but not detected during the relatively short 56-day annual data collection window. Furthermore, if we concede that all illegal drugs were accounted for by virtue of their detection in a jurisdiction's arrestee population, measuring the *magnitude* of a particular drug's representation within a jurisdiction was problematic. That is, ADAM may indeed have allowed us to conclude that a certain number of, or all, drugs are present within a particular jurisdiction, but the scope of that drug's jurisdictional presence may have been beyond ADAM's domain.

ADAM's fourth objective was to alert local officials to trends in drug use and the availability of new drugs (NIJ, 1993). ADAM was capable of alerting local officials to trends in drug use *among arrestee populations*. Trends among arrestees, however, may not necessarily be indicative of drug use trends within society as a whole. More importantly, however, the revised sampling methodology may have rendered trend analyses meaningless. That is, while the Program has existed since 1987, the new sampling protocol may have diminished the value of all data collected before its implementation.

An underlying assumption of ADAM was that deviant populations experiment with new drugs before members of non-criminal populations. It was assumed, therefore, that if a new drug emerged on the streets, it would take root in a criminal population before diffusing to the general population (Wish, 1997; DuPont and Wish, 1992). The extent to which one accepts this presumption is the degree to which ADAM can alert local officials to the availability of new drugs. It is also plausible, however, that members of a non-criminal population can use a new drug initially, particularly with designer drugs such as ecstasy. It is certainly within the realm of possibility, therefore, that a drug's detection within the criminal population will occur *after* its emergence within the general population, if at all.

ADAM's fifth objective is to help understand the drug-crime connection (NIJ, 1996; Wish, 1995). Given that the program is one whose subjects are under criminal justice supervision, this goal is a rational one. The extent to which a drug/crime nexus can be ascertained, however, is a complicated assignment. While a majority of national arrestees traditionally test positive for at least one illegal substance (NIJ, 2003), the relationship between drug use and crime commission remains a nebulous one.

The final ADAM objective is to serve as a research platform upon which drug-related initiatives can be initiated (Decker et al., 1997). In 1998, NIJ built several new components into ADAM: Local Coordinating Councils (LCCs), Outreach, and the International ADAM (I-ADAM) Program. The LCCs, for example, were designed “. . . to assist in integrating ADAM data into local planning and policymaking contexts (NIJ, 1999a: 11).” The LCCs allow sites to work with local policymakers to identify those drug-related issues most pressing within their jurisdictions. Outreach was a

supplementary data collection effort directed at special arrestee populations (NIJ, 2001). Sites were encouraged to collect data within, for example, Native American or suburban communities, populations often missed within the traditional ADAM framework. Finally, I-ADAM was the first international drug use monitoring system (NIJ, 1999c). To date, eight countries (Australia, Chile, England, Malaysia, The Netherlands, Scotland, South Africa, and Wales) were collecting I-ADAM data (NIJ, 2004).

The ultimate objectives of ADAM remained fairly consistent during the past 15 years. To make ADAM more scientifically defensible, however, two major methodological changes were made in the late 1990s: sampling and instrumentation. They are each explored below.

Sampling

Every calendar quarter, research personnel obtained voluntary and confidential interviews and urine specimens from a sample of arrestees who have been in custody for no more than 48 hours (NIJ, 1999a, 1997). Through the 2nd quarter of 1998, several methodological requirements influenced the ADAM protocol. First, all sites operated according to a charge priority system, where non-drug felons, drug felons, non-drug misdemeanants, and drug misdemeanants were prioritized hierarchically (NIJ, 1997; Wish, 1995). That is, the program emphasized non-drug serious offenders. Second, the number of drug offenders surveyed during a data collection period could not exceed 20% of the total sample (NIJ, 1999b; GAO, 1993). This prevented the oversampling of drug offenders, who, presumably, would report more frequent drug use than their non-drug-offending counterparts. Third, all arrestees were eligible to be interviewed except for

those whose primary charges involved vagrancy, loitering, or traffic offenses (NIJ, 1999b, 1997). These arrestees were excluded from the sample *a priori*. Since the 3rd quarter of 1998, however, all arrestees, regardless of charge, became eligible for inclusion (NIJ, 1999b).

Two significant methodological changes were implemented in 1999 (NIJ, 1999b, 1998). The first and most important change was related to sampling. Data collection after the 2nd quarter of 1999 was standardized across the ADAM sites. This process involved, first, defining the “catchment areas,” or geographical regions within which arrestees were drawn, consistently across sites, and second, implementing probability-based sampling plans (NIJ, 1999b). ADAM’s catchment areas were counties, and the probability-based sampling plans allowed the attachment of confidence intervals to estimates derived from ADAM data (NIJ, 2003). To allow for probability-based sampling plans, ADAM determined the probability of an adult, male arrestee being selected for the sample (NIJ, 2003). This was accomplished by splitting the 24-hour day into two periods: “flow” and “stock” (NIJ, 2003). The flow period covered arrestees booked during the eight-hour shift in which ADAM data were actually collected. Stock arrestees were those processed in the 16-hour period during which ADAM data were not collected. Using systematic sampling procedures, interviewers sampled from both the flow and stock, resulting in an arrestee sample that represented each 24-hour shift within the data collection period (NIJ, 2003).

The second change related to data weighting (NIJ, 1999b). Each collected case represented a sample of similar respondents (e.g., by race or booking charge) that were not interviewed (NIJ, 1999b). If a certain category of offender was represented out of

proportion to the actual occurrence in the arrestee population, weighting could correct the disproportionality. This process attempted to ensure that certain types of offenders were not overrepresented in the ADAM sample relative to the entire jurisdictional arrestee population (NIJ, 1998). While this weighting process was designed to assist with data quantification, it could not substitute for the real world problem that exists when data are collected from certain arrestees who spend more time in the facilities than others. If indigent or serious offenders spend more time in the booking facilities than other non-serious or financially stable offenders, the ADAM sample may not have been representative even if it is adjusted by weights for variables like age, race, and charge.

Instrumentation

Through the end of 1999, the type of data collected by ADAM was relatively limited. Arrestees were first asked several demographic questions, including education level, marital and employment status, and income level. Participants were then asked to report whether they had *ever* used a number of specific drugs. For those drugs the arrestees reported having *ever* tried, they were asked to indicate age of first use, whether they had used the drug within the past 12 months, the number of times used within the past 30 days, and whether they had used the drug within the past three days. Participants who admitted to drug use were also asked whether or not they considered themselves drug-dependent, and whether they were under the influence or in need of drugs at the time of arrest. Several questions also focused on treatment – whether the person had ever received treatment, was currently in a treatment program, or perceived a need for treatment.

In 2000, a new data collection instrument was fielded. The five primary sections of this instrument were: face sheet, demographics, calendar, abuse and dependence, and market and use. *Face sheets* were completed on all selected arrestees with information collected solely from official records. These data included arrest and booking dates, arrest location, date of birth, gender, primary criminal charges, race, and residence zip code. If respondents consented to the interview, *demographic* data – ethnicity, citizenship, education, employment, health insurance, marital status, and living arrangements – were collected via self-report. In the *calendar* section, arrestees first identified a number of significant events (e.g., holidays and birthdays) that occurred during the past year. These anchors were intended to assist respondents with the recall of 12-month criminal activity, drug-use episodes, and treatment experiences. The *dependence and abuse* section clinically diagnosed AOD abuse and dependence. The Substance Use Disorders Diagnostic Schedule (SUDDS) contained six items, asked separately for alcohol and drugs. Finally, the *market and use* section inquired about transactions for five drugs: marijuana, crack and powder cocaine, heroin, and methamphetamine. Topics included the type of transaction (cash vs. non-cash), location of purchase, quantity purchased, amount paid, and market availability.

In addition to the survey, a urine sample was obtained to measure recent drug use and to validate self-report data. The Enzyme Multiplied Immunoassay Test screens for 10 drugs: opiates, marijuana, metabolite (crack and powder) cocaine, phencyclidine, methadone, benzodiazepines (e.g., Valium), methaqualone (Quaaludes), propoxyphene (Darvon), barbiturates (e.g., Phenobarbital) and amphetamine (NIJ, 1999a). All positive results for amphetamine were analyzed by gas chromatography to eliminate any OTC

medications. As mentioned previously, ADAM was the only drug use monitoring system to collect an objective measure of recent drug use.

Discussion

A review of the ADAM Program reveals practical and empirical characteristics that ultimately may have proven too challenging to overcome. The Program began in 1987 with a relatively modest survey of personal drug use and the collection of urine specimens in 23 sites across the United States. The Program expanded to 35 sites in 1996. In 1998, the management of the Program was assumed by a private research corporation,³ the point at which, perhaps not coincidentally, ADAM operations began to regress. While the next several years were characterized by methodological improvements (e.g., sampling and instrumentation), anecdotal reports from various site staff indicated a variety of problems, including ineffective project management, apathetic analyses and reporting, methodological uncertainties, and poor communication. Not surprisingly, program expansion never materialized to the level ADAM had intended (70 sites) While these problems were likely not felt or experienced by all existing sites, they may have ultimately contributed, in some degree, to ADAM's collapse.

There is unquestionably a need for a drug use monitoring system that targets members of a criminal justice population. Given the nexus between illicit drug use and involvement in criminal behavior, surveillance systems that are directed at only high school students or household respondents, while valuable, miss members of the population at greatest risk for illicit drug use. Without an ADAM-like system, the ability

³ Abt Associates, Inc., held the ADAM management contract through 2002, at which time it was awarded to the National Opinion Research Center.

of policymakers to track the proliferation of methamphetamine use in the Western United States, for example, diminishes significantly. Methamphetamine use is virtually non-existent among high school students and household respondents, but secondary analyses of 2001 ADAM data indicated urinalysis positive rates of more than 30% in six ADAM sites (Des Moines, Honolulu, Phoenix, Sacramento, San Diego, and San Jose) (Yacoubian and Peters, under review). This high prevalence, independent of other findings, evidences the need for a criminal justice-based drug use surveillance system.

A new criminal justice drug use surveillance system should have the following characteristics. First, the program should serve more than just arrestees. While entrance to the criminal justice system is a critical point for data collection, a monitoring system that also includes probationers, parolees, and prisoners would be extremely valuable. Current drug use data for members of these populations are fragmented, and national estimates are non-existent.

Second, the program should revisit the issue of juvenile data collection. Through 2001, juvenile ADAM data were collected in eight sites (NIJ, 2001). In 2002, however, the juvenile collections were discontinued. Given the high prevalence of marijuana use among juvenile arrestees (CESAR 2002; NIJ, 2001), tracking levels of drug use among juvenile criminal justice populations would seem to be worthwhile.

Third, the program should be representative of the national population it serves. It is reasonable to design and implement a surveillance system comparable to MTF or the NSDUH. Rather than having a site- or county-based program, the universe would be the national population. Just as high school students are sampled from and surveyed within schools, arrestees, for example, could be sampled and surveyed within booking facilities.

Third, self-report data need not be collected. While more information increases analytical capabilities, of principal concern to policymakers and researchers should be the accurate and efficient measurement of illicit drug use. It would not be unreasonable, for example, to only collect urine specimens, or some other objective measure of illicit drug use. Moreover, while urinalysis is generally recognized as the criterion measure for detecting recent drug use, a variety of alternative drug testing technologies have been developed within the past few years. One of these innovations – OF testing – may offer an acceptable alternative to urinalysis because the detection period for both is approximately 48 hours (Cone, 1993). Moreover, studies (Yacoubian and Wish, 2004; Wish and Yacoubian, 2002; Yacoubian et al., 2001; Niedbala et al., 2001) have shown high concordance between urinalysis and OF analysis for a panel of illicit drugs.

Fourth, the objective drug use measures need not be collected by research staff. Because the procedures for obtaining urine or OF specimens are not complicated, the collections, like with DAWN, could be entrusted to professionals working in the facility in which the data were collected. Moreover, facility staff would have ready access to official data, from which demographic information (e.g., gender, race, age, and primary charge) could be extracted. While issues of response rates (i.e., gaining respondent confidence) and informed consent would necessarily have to be addressed before entrusting a criminal justice professional with obtaining research data from an individual under criminal justice supervision, minimizing programmatic infrastructure can only be beneficial.

Fifth, the management of the Program should be entrusted to a company who can publish accurate and timely findings. While annualized site reports have been

disseminated by NIJ, the last ADAM annual report was published with *only* 2000 data (NIJ, 2003). A primary advantage of MTF and NSDUH is the judicious manner in which the results are disseminated. Any new criminal justice-based surveillance system should disseminate the findings as expeditiously as possible.

There are, undoubtedly, other ways to pursue a new, national criminal justice-based surveillance system. As with most research endeavors, of paramount consideration is price. Redesigning ADAM to include multiple populations would of course lead to an increase in cost. By eliminating time-consuming surveys and reducing the management infrastructure, however, data collection expenses would diminish considerably. While it is considerably easier to recognize the problem than it is to suggest viable solutions, most practitioners and researchers would agree that salvaging *a* criminal justice-based drug use surveillance is critical to Federal drug control policy.

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