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CONCEPT PAPER ON IMPROVING MEASURES FOR BETTER ESTIMATION OF DRUG ABUSE PREVALENCE AND CONSEQUENCES

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The following ideas have evolved from our work over the past two years on National Institute of Justice sponsored research to improve drug abuse (cocaine) prevalence estimation. We submit these ideas in a quasi-organized manner to facilitate discussion during this two day seminar.

An initial query before we review strategies for improving measures of drug abuse is simply, "Why bother?" From one perspective, the data series currently collected, e.g., the National Household Survey, the annual High School Senior Survey, the Drug Abuse Warning Network, the Drug Use Forecasting System and other, more specific, data sources, may be possibly "good enough for government work." In the hands of an intelligent policy analyst, these data series may provide sufficiently precise information for the development of adequate reactive and proactive policy in the various domains of drug abuse. While it is certainly scientifically interesting to obtain more precise, accurate, and reliable measures of drug abuse, it is not clear that any of these gains would substantially change the way we approach decision-making or the specific content of social policy decisions. On the other hand, if current measures are off by a factor of two or more (as suggested by Wish's projections from DUF data and the recent Biden/Kleiman estimates for weekly cocaine use), then greater urgency may be perceived by the public and the discrepancy between need and response may secure greater resource allocation. In addition, more precise data may promote a better distribution of resources across the various drug abuse domains we wish to affect, e.g., prevention, treatment, and enforcement. Furthermore, more reliable data series should allow better monitoring of drug abuse phenomena to assess the effectiveness of social programs designed to ameliorate these problems.

Having raised these issues, the rest of our paper will deal with three topics: 1) identification of the domains which we wish to measure, 2) suggestions for improving existing data series, and 3) other considerations for improving data series.

Domains of Interest

Three basic types of measures are important in order to comprehensively assess the extent and consequences of drug abuse. We wish to measure the numbers

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of persons involved, the number and nature of episodes of use, and, for interdiction and econometric reasons, the volume of drugs consumed. In the case of numbers of persons, we are further interested, particularly in terms of treatment allocation, in the types of users into which people can be grouped: for example, experimental, incidental, recreational, heavy, or compulsive users. In the case of episodes, we wish to know their frequency, intensity, duration, and, for control reasons, the kinds of circumstances which initiate and terminate episodes. Volume of drugs consumed, if it could be adequately measured, might be the best proxy for an overall index related to drug abuse problems in a given area. Of course the interrelationships between these three types of measures may provide qualifying and conditional circumstances that enhance our understanding of the basic underlying phenomenon of drug consumption. In concept, these three areas of measurement are relatively unambiguous. In practice, measures of suitable quality and comprehensiveness are difficult to obtain. However, better measures are crucial for more accurate description of the true phenomenon occurring in any given population.

Some measures are more ambiguous than others to interpret in the context of prevalence estimation, not only because they are related to an underlying complex phenomenon, but also because they are, in part, affected--sometimes in complex ways--by social response to the phenomenon. Here we refer to the area of consequences of drug use. Such consequences usually fall into health morbidity and mortality categories; possession, trafficking, and property crimes; negligent or inadequate performance in the workplace; or neglect of family and other social responsibilities. These measures are more ambiguous in that, to be fully understood, a context for their interpretation must be specified. Even in the case of mortality attributed to drug abuse, conditions of purity of street drugs and conditions of hygiene concerning their administration are not inherently due to the drugs themselves, but are related partially to the social context in which drugs are used and the high likelihood of death by violence given the illicit market place. Drug-related crime is even more ambiguous than drug use per se in that various legislative bodies can introduce or remove some behaviors as criminal for moral as well as consequence reasons. Possession of marijuana is the most obvious example here.

Improving Existing Data Series

Current data systems have been criticized on several grounds including coverage, consistency, comparability and so on. With limited resources available, complete amelioration of all these data deficiencies is unlikely and probably unnecessary. We think what can be done and should be done is to ensure the comparability of data across sources/time/geographical areas. By comparability we mean that definitions and inclusion criteria should be consistent, at least along some common dimensions, so that extent of overlap between data sources can be estimated. Comprehensiveness in coverage over time, groups, and geographic areas, although desirable, is costly. Alternatively we could have a few less-detailed, large-scale data systems which provide comprehensive coverage and several in-depth small-scale data collection efforts to provide quality data. As long as comparability is maintained among these two levels of data systems, "corrective" measures from the small-scale

data can be used to project to large-scale data. To achieve comparability among all applicable data series, we must establish a common core of questions that, in both a cross-sectional and longitudinal manner, can link these series.

It is particularly important for smaller-scale data collection efforts to: 1) improve the sampling frames for "at risk" populations, 2) wherever possible, move from aggregate levels of data collection (such as the current UCR system) to incident-based reporting and provide a link from episodes to persons by utilizing a unique personal identifier that allows such linkage while maintaining requisite confidentiality, and 3) wherever possible, corroborate self-report or observer report instances of drug involvement with more objective measures involving collateral reports from records or informants or urine, hair, or other tests. While such objective assessments may not be practical in a continuing data series, sufficiently frequent small-scale studies should be conducted so that "corrective", or weighted, measures can be calculated.

For all existing data series, emphasis on data quality assurance is essential. Technical and training assistance to those individuals gathering and collating the raw data would help ensure comparability of selection criteria, eliminate coding and omission errors, as well as minimizing internal inconsistencies. Furthermore, careful training and monitoring of data gatherers to identify and specify the "drug relatedness" of the phenomenon they are enumerating would further assure data quality in existing series. As a final consideration, lengthy lag times between the collection of data and dissemination of the derived findings reduce their utility in developing policy. Reducing such lags should receive proper attention.

Other Considerations for Improving Data Series

We believe the highest priority for any new data series are those that would enhance or augment existing drug abuse indicators. In this respect, the proposed nationwide minimum data set to be used for drug treatment admissions and discharges extends admission data collected and reported by some states to be more nationally representative. The same prescription for improving existing data series applies to this forthcoming minimum data set.

The most telling omissions in population coverage are already well-recognized: the failure of the National Household Survey to assess drug use in institutional and transient populations; the omission of high school dropouts from the annual High School Senior Survey; and the non-representative nature of the hospitals and medical examiners reporting to DAWN (although I understand that NIDA has revised its sampling procedure to provide for greater generalization of DAWN findings). Given these known omissions, studies of uncovered populations should be instituted. In this respect, the Drug Use Forecasting study of arrestees not only covers a previously unstudied sample, but also provides objective corroboration of self-report information. The Bureau of Justice Statistics' occasional inmate surveys also provide information on a relatively understudied population, but without corroboration of self-report.

Some studies of other institutionalized, transient, and homeless populations have been conducted on a limited basis and more thorough, rigorous, and frequent studies should be instituted. Furthermore, studies of high school dropouts at various grade levels should be instituted on a more regular basis to complement data obtained in existing series. However, special surveys of selected subpopulations might be a temporary measure until a more comprehensive system could be established. In general, it would not be wise to evolve too many separate data series and thus independently institutionalize "special populations" studies. We would rather see the sampling scope of existing series enlarged so as to be representative and the process of sampling set up to take into consideration changing demographics and the necessity of sampling difficult-to-sample sub-populations.

Probably the most ambiguous measurement domain concerning drug abuse is that of volume of drugs consumed. Estimates have been made of imported tonnage of cocaine and both imported and domestically produced marijuana and other drugs. Most of these studies are "expert opinion," based upon law enforcement seizures, both at the border and domestically. Some international estimation is made by examining production in source countries. If volume of drugs is an important indicator, better methodologies should be designed and implemented to obtain more accurate consumption figures.

Priorities in Enhancing and Augmenting Drug Abuse Indicator Systems

We believe the highest priority should be given to previously uncovered populations. To this extent, the 1990 NIDA National Household Survey intends to over sample major cities and aggressively seek out institutionalized and homeless populations to better assess levels of drug use within these groups. If adequately implemented, these techniques will provide better local area estimates of drug abuse conditions. On the other hand, extrapolation from sampled regions to other regions, no matter how similar, will be questionable, given the wide regional variation in drug use indicators. An assessment of drug use levels in dropout populations is also a major priority.

The recent suggestions to more frequently conduct existing surveys are of less importance than carefully constructed and reasonably spaced surveys. From a drug abuse monitoring perspective, there is little reason to conduct annual high school surveys. A single survey conducted every two years should adequately allow assessment of drug abuse trends in this population. The past National Household Surveys of approximately every two years are sufficiently frequent; the recently mandated increase to annual National Household Surveys is we believe wrong thinking and unnecessary. Unless additional side studies are added to each annual National Household Survey that will answer some of the priorities presented above, and which are rotated from year to year to provide cost-effective coverage, simply increasing the frequency of the national survey would provide no better data than currently obtained and would drain resources from other, more valuable survey research.