

*Multiple Indicator Analysis (MIA) is a method developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Treatment (CSAT) to assist planners and administrators in assessing the nature and extent of substance abuse in selected geographic areas. Using information from multiple secondary data sources, the MIA method can be a cost-effective means of augmenting more costly primary data collection to examine the abuse of alcohol and illicit drugs. This fact sheet provides an overview of the MIA method, the usefulness of the method for different audiences, and the strengths and limitations of this method. Copies of the MIA can be obtained through the National Clearinghouse for Alcohol and Drug Information at 1-800-729-6686 (NCADI publication number BKD418).*

### Background

Multiple Indicator Analysis (MIA) is a method that can be used by planners and administrators to assess the nature and extent of substance abuse in selected geographic areas by using existing multiple data sources. MIA was developed by the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Treatment (CSAT) to address substance abuse-related questions and issues critical to planners, policymakers, and service providers at the state, county, city, and community levels.

As depicted in the graphic below, there are four steps for conducting a MIA:

- Identifying multiple data sources
- Accessing data sources
- Analyzing data
- Reporting results.

As shown in the graphic, there are numerous potential sources of data and data topics that may be accessed for analysis and reporting.

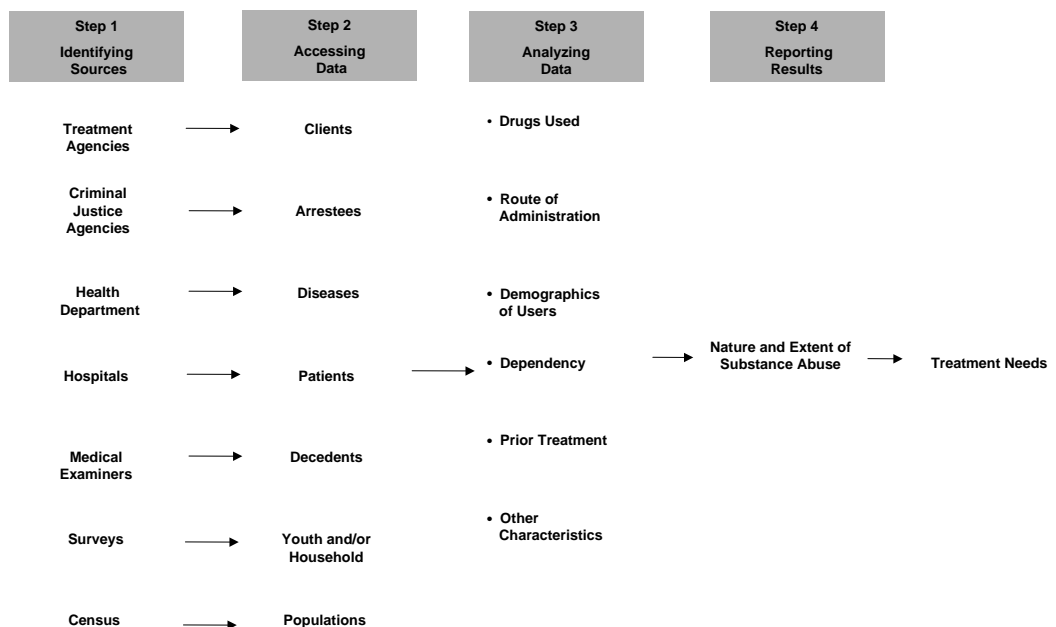
This fact sheet provides an overview of the MIA method, the usefulness of the method for different audiences, and the strengths and limitations of the method. Fact Sheet 108 provides information on identifying substance abuse administrative treatment and arrest and criminal justice sources of data. Subsequent fact sheets will provide more in-depth information on identifying, accessing, and using appropriate secondary data sources.

### Identifying and Accessing Multiple Data Sources

No single data source contains comprehensive information on populations abusing substances. By accessing and using multiple data sources, it is possible to obtain a better estimate of drug abuse prevalence, incidence, patterns, and trends, than one could obtain through surveys alone. Although general population surveys are excellent sources of information on marijuana and alcohol, they capture only a small number of illicit drug users. The MIA can provide information on illicit drug use not found in general population surveys. Some of the most useful data sets for assessing the nature and extent of substance abuse include:

- Substance abuse administrative treatment data
- Arrest and criminal justice data
- Mortality data
- Morbidity data
- Poison control center data
- Survey data
- Census data.

### Steps for Conducting A Multiple Indicator Analysis



# Multiple Indicator Analysis: A Tool for Estimating Substance Abuse

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Using multiple data sets allows the analyst to gather information on a larger number of persons who abuse substances than can be obtained from one source or from surveys. Another advantage is that using multiple data sources can fill gaps that exist in one or more data sets.

## Analyzing and Reporting Data

Data sources should be examined and analyzed systematically to address questions that are important to planners, policymakers, and treatment providers. Given that many of these individuals may not have time to review complex findings or may not find the results from advanced statistical procedures meaningful, the MIA method focuses on the use of simple quantitative statistics such as frequencies, percentages, and averages. Descriptive statistics can be used to address important questions in a relatively short period of time with minimum resources.

Reporting findings from a MIA should be targeted towards the intended audience. Specific target audiences may include planners, policymakers, and service providers, but may also include the funding source, research community, and the various agencies that provided data for the MIA.

## Usefulness of MIA to Planners, Policymakers, and Service Providers

The MIA method is especially useful for assessing underreported illicit drug abuse, particularly cocaine powder, crack cocaine, heroin, and methamphetamine, as well as prescription abuse. Information on current and past trends among persons who abuse illicit drugs can assist planners, policymakers, and treatment providers in accomplishing the following tasks:

- Determining the nature and extent of the problems among different populations who abuse substances
- Understanding changes in use by geographic area over time as well as the abuse of different drugs over time
- Identifying groups most at risk for health and behavior problems
- Allocating resources more effectively
- Tailoring treatment to more effectively meet the needs and problems of different populations who abuse substances
- Understanding the extent to which the substance-abusing population is encountered in different systems (e.g., health, substance abuse treatment, criminal justice agencies)
- Fleshing out general population surveys.

## Strengths and Limitations of the MIA Method

The key strengths of the MIA methodology are that the method:

- Relies on relatively simple analyses of existing data and therefore conserves resources
- Broadens the net and captures substance abusing populations that are not included in a single data set

- Provides more timely information, compared with the time lag between initiation of a survey and the publication of results.

The following are some of the limitations of the MIA methodology:

- There are variations in the ways that data are collected and reported by different agencies.
- There may be differences across agencies in the data collection reporting period, such as calendar year versus fiscal year.
- There may be variations over time in the number of substance-abusing persons reported by the same type of agency (e.g., the number of persons arrested who abuse a certain drug may vary because of police crackdowns).
- The method will not yield statistically significant findings since only descriptive statistics are used.

Another limitation is that treatment data most frequently available represent only publicly-funded treatment programs. Clients in these facilities are more likely to be of a lower socioeconomic status and to be of an ethnic minority group than clients in private treatment facilities. Therefore, efforts should be made to access data from private treatment facilities to minimize population biases.

Despite the limitations of MIA, the use of multiple data sources can provide a more comprehensive assessment of treatment need and increase understanding of the characteristics of abusers, patterns of abuse, and changes in abuse over time.

## Acknowledgments

This fact sheet was produced by Caliber Associates under the National Evaluation Data Services (NEDS) contract to CSAT/OESAS.

This fact sheet was adapted from a publication entitled *Multiple Indicator Analysis: Using Secondary Data to Analyze Illicit Drug Use*, published in 2001 by SAMHSA/CSAT (DHHS Publication # SMA 01-3539). The authors of this publication include Barbara Sowder, Ph.D., and George Beschner, M.S.W. of the CDM Group, and Jane Maxwell, Ph.D., University of Texas, Austin.

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