

## **Notes about the Drug Early Warning System (DEWS) Substance Abuse Indicators Project**

### **Substance Abuse Indicators Project**

The DEWS Substance Abuse Indicators project uses data from state and federal agencies to monitor changes in drug trends and identify new and emerging drugs in Maryland. The indicators project includes data on: self-reported substance use among Maryland public school students; substance-related suspensions among Maryland public school students; substance abuse treatment admissions; drug-caused deaths; substance-related traffic crashes; drug-related arrests; and substance-related emergency department visits in the Baltimore metropolitan area. Listed below is a description of each of the indicators and caveats and/or limitations to consider when reviewing the data.

### **Student Substance Use**

#### Description

The Maryland Adolescent Survey (MAS) is a survey conducted by the Maryland State Department of Education (MSDE) to assess the nature and extent of substance use among Maryland public school students, measure how accessible drugs are in and out of school, and analyze use based on such factors as parenting practices and peer acceptance of substance use. The MAS has been conducted every two years since 1973. The survey is administered to 6th, 8th, 10th, and 12th graders in Maryland public schools.

#### Interpreting the data

A number of things should be considered when reviewing the MAS data. First, the survey relies on students to report their substance use, therefore, it is possible that some students may underreport or overreport their substance use, even though the survey is anonymous. Second, students who dropped out of school or who were absent on the day of the survey are omitted from the sample. Third, students attending private schools and certain special schools, such as home and hospital schools and evening schools, are not included in the study. Therefore, the results reflect substance use among students attending regular public schools only. In addition, schools with insufficient enrollment in the sampled grades are also excluded from the study.

The 2002 MAS was administered between December 14, 2002 and January 2003. The 2001 MAS (school years 2000-2001) was administered in the spring semester instead of the traditional fall semester. Therefore, the number of dropouts in the 2001 MAS spring sample may be larger than in previous surveys that were conducted in the fall semester. The students in each grade in the 2001 survey are also four months older than their counterparts in previous surveys.

It should also be noted that the MSDE introduced some new coding procedures in the 2001 MAS. In the surveys administered prior to 1998, the 12-month substance usage question was kept blank if a student did not answer the question even if they answered the 30-day-usage question. In the 2001 and 2002 surveys, the 12-month- and 30-day-usage variables were recoded (when necessary) to make the 30-day and 12-month usage responses correspond. The MSDE reports that as a result of this recoding, 2001 and 2002 MAS 12-month usage levels may be elevated compared to corresponding values in the pre-1998 surveys.

The MAS Report does not provide sampling error estimates; therefore, we are unable to determine whether changes in drug use are statistically significant.

## **Substance-Related Student Suspensions**

### Description

The Maryland State Department of Education's Division of Planning, Results, and Information Management (MSDE PRIM) collects suspension, expulsion, and health-related exclusion data from local school systems on an annual basis. The data presented on this DEWS website are taken from annual reports published by MSDE PRIM entitled "Suspensions, Expulsions, and Health Related Exclusions: Maryland Public Schools."

### Interpreting the data

While suspensions can be indicators of the most serious student misbehavior in schools, MSDE PRIM advises users of the data to consider the following when reviewing the suspensions data. First, suspension and expulsion figures are *indirect* measures of student misbehavior. They represent the response of the school to the behavior. Second, many factors can influence how a particular offense is perceived and dealt with at a particular school. Local norms and community standards may lead to varying thresholds for determining whether a student should be suspended for a certain behavior. Often school administrators will consider a student's record in determining whether or not to suspend a student. In other cases, local policy may require suspensions for a "first offense." Third, the availability of alternatives to suspensions in different schools may result in different rates of suspension. If the school has few other options when a severe offense occurs, then suspension may be a more frequent response. If programs such as "in-school" suspension, after-school detention, conflict resolution classes, "Saturday school" or other options within a continuum are available to the school administration, some misbehaving students will be assigned to these programs instead of being suspended or expelled. Therefore, caution should be used in making cross-county comparisons of this data.

## **Substance Abuse Treatment Admissions**

### Description

The Maryland Alcohol and Drug Abuse Administration (ADAA) monitors trends and patterns of alcohol and other drug abuse through its Substance Abuse Management Information System (SAMIS). All certified public and private drug treatment programs in Maryland are required to report information collected at admissions to and discharges from programs. This database provides valuable information on statewide substance use trends among those individuals in substance abuse treatment programs.

### Interpreting the data

It should be noted that the SAMIS data reflect drug use patterns only of individuals in treatment. It is possible that those drug-abusing individuals not in treatment may exhibit very different drug use patterns. To the extent that waiting lists exist, the number of treatment admissions may be an indicator of treatment capacity rather than demand. ADAA collects waiting list data to provide a basic measure of the unmet demand for treatment in Maryland. Each admission in the SAMIS data does not necessarily represent a unique individual, since some individuals are admitted to treatment more than once in a given period.

The data included in the FY 2003 updates differ slightly from data previously released by DEWS. The FY 2003 update only includes admissions information on *Primary Clients*. *Primary Clients* are individuals who are in treatment for an alcohol/drug-related problem resulting from their own substance use. Previous data tables also included admissions information on *Non-Primary Clients*. *Non-Primary Adult Clients* are family members or significant others of an active *Primary Client*, who are seeking treatment services due to problems arising from their relationship with the *Primary Client*. *Non-Primary Juvenile Clients* (also called High Risk Adolescents) are minors who are under the care of an active

substance abuser or minors whose experimental use of drugs or alcohol is not severe enough to indicate an active addiction but whose behavior indicates the need for services. The treatment admissions data previously posted on this DEWS website included data on all clients admitted to Maryland substance abuse treatment programs, even if they were non-primary clients. The August 2004 updates from ADAA include information on *Primary Clients* only. Therefore these tables will differ slightly from tables previously posted on the DEWS website.

The definition of substances that ADAA uses to categorize substance of abuse is listed below:

**Non-Rx Methadone:** methadone obtained and used without a legal prescription.

**Other Opiates:** includes codeine, Dilaudid®, morphine, Demerol®, fentanyl, opium, oxycodone, and any other drugs with morphine-like effects.

**Alcohol:** beer, wine, liqueur, and hard liquor.

**Barbiturates:** includes phenobarbital, Seconal®, Nembutal®, etc.

**Other Sedatives or Hypnotics:** includes methaqualone (Quaalude®), chloral hydrate, Placidyl®, Doriden®, etc.

**Hallucinogens:** excludes PCP but includes LSD, DMT, STP, MDA, mescaline, psilocybin, peyote, ecstasy (MDMA), etc.

**Cocaine/Crack:** all forms of cocaine, which are inhaled, smoked, free-based, or injected.

**Marijuana/Hash:** THC and any other cannabis sativa preparation.

**Methamphetamine:** crystal meth, ice, etc.

**Other Amphetamines:** excludes methamphetamine and ecstasy (MDMA) but includes Benzedrine®, Dexedrine®, Preludin®, Ritalin®, and any other amines and related drugs.

**Inhalants:** includes ether, glue, chloroform, nitrous oxide, gasoline, paint thinner, and any other substance breathed in nasally.

**PCP:** phencyclidine

**Other Stimulants:** any other central nervous system stimulants not categorized above, e.g. caffeine, ephedrine, theophylline, etc.

**Benzodiazepines:** includes diazepam, flurazepam, chlordiazepoxide, clorazepate, lorazepam, alprazolam, oxazepam, temazepam, prazepam, triazolam, clonazepam, and halazepam.

**Other Tranquilizers:** includes drugs considered to be in the tranquilizer group that were not mentioned above.

**Over the Counter:** any drug that can be purchased without a prescription including but not limited to, aspirin, cough syrup, and Sominex®.

**“Other” Drug:** alcohol substitutes and non-beverage alcohol (e.g. sterno, mouthwash, vanilla extract, and wine vinegar). This also includes any other drug not falling into one of the other specified categories.

## **Drug-Caused Deaths**

### Description

By law, the Office of the Chief Medical Examiner (OCME) is required to investigate deaths of a violent or suspicious nature. The OCME investigates the following types of cases: homicides, poisonings, suicides, drownings, sudden deaths of apparently healthy individuals, individuals who are dead on arrival to a hospital, and other suspicious or unusual causes. DEWS staff acquire OCME data on drug-caused deaths at regular intervals. These data include deaths due to toxic levels of alcohol, narcotics, cocaine, methadone, and other drugs.

### Interpreting the data

Analyses of drug-caused deaths can identify emerging drug problems. However, drug-caused mortality data represent the “tip of the iceberg” and do not necessarily reflect the magnitude of drug use in a community. Mortality from drug intoxication can reflect many things besides the level of drug use or even drug availability in a given area—including the purity of a particular drug, individual tolerance to the drug, or access to medical care. Other kinds of data are necessary to gauge the level of use, abuse, and morbidity associated with drug involvement. It is also important to point out that this is secondary data, and, therefore, is limited in the amount of information it can provide about the details surrounding the deaths. Lastly, because many trends are based on a small number of cases, percent changes should be interpreted with caution.

## **Substance-Related Traffic Crashes**

### Description

The substance-related traffic crash data are provided by the Traffic Safety Analysis Division of the Maryland State Highway Administration. Traffic crash data are tracked by the Maryland State Highway Administration (SHA) to determine why specific accident patterns are occurring and how highway safety needs can be addressed. When a traffic crash occurs in Maryland, the appropriate police agency responds to the scene and completes an accident report. This accident report is reviewed by the superior officer, and sent to the Central Records Division of the Maryland State Police (MSP) where it is entered into a database called the Maryland Automated Accident Reporting System (MAARS). The SHA’s Information Systems & Analysis Section of the Traffic Safety & Analysis Division downloads the crash report files and performs a variety of automated checks for data accuracy.

### Interpreting the data

A crash is defined as an event that produces injury and/or property damage, involves a motor vehicle in transport, and occurs on a trafficway or while the vehicle is still in motion after running off the trafficway. Not all vehicle crashes are reported, however. Crashes resulting in a personal injury OR fatality are reported by law enforcement agencies. A fatal crash is defined as a police-reported crash involving a motor vehicle in transport on a trafficway in which at least one person dies within 30 days of the crash. An injury crash is defined as a police-reported crash that involves a motor vehicle in transport on a trafficway in which no one died but at least one person was reported to have: (1) an incapacitating injury; (2) a visible but not incapacitating injury; (3) a possible, not visible injury; or (4) an injury of unknown severity. Crashes that result in property damage typically are only reported if one of the vehicles involved must be towed away, or if a driver committed a serious offense, such as drunk driving.

Alcohol- and drug-related traffic crash data are based on crashes being reported to the police and knowledge of whether or not the crash involved an alcohol- or drug-impaired driver. How this is determined may vary across jurisdictions—some jurisdictions may use breathalyzers while others might use field sobriety tests.

## **Drug-Related Arrests**

### Description

The Maryland Uniform Crime Reporting (UCR) program collects, evaluates, and processes uniform statistical data on crime statewide. The UCR was developed in 1975 through the assistance of the Federal Bureau of Investigation and is maintained by the Maryland State Police. State, county, and municipal law enforcement agencies are required, by law, to submit monthly Uniform Crime Reports on the number of offenses known to have occurred in their locality and the number of arrests made.

Data on arrests for drug law violations are collected according to specific drug categories and whether the arrest was for sales/manufacturing or possession of a specific drug. The Uniform Crime Report (UCR) program separates illicit drugs into four categories: (1) opium or cocaine and their derivatives, (2) marijuana, (3) synthetic narcotics, and (4) other dangerous non-narcotics.

### Interpreting the data

Arrest statistics gathered by the Maryland UCR program do not measure the direct incidence of crime. Only the most serious charge, as determined by the arresting agency, is recorded regardless of the number of charges involved in the arrest. Thus, the actual incidence of crime is underestimated by arrest statistics. In addition, arrest figures are not a measure of the number of different individuals arrested, as one person may be arrested several times during the reporting period. Also, drug-related arrest statistics may not reflect the true magnitude of drug-related crimes being committed in a community; rather, they reflect the level of enforcement concentrated on the problem. Changes in enforcement priorities may show changes in drug-related crimes that may not necessarily have occurred.

## **Substance-Related Emergency Department Visits (DAWN)**

### Description

The Drug Abuse Warning Network (DAWN) is a large-scale, ongoing drug abuse data collection system intended to monitor the number and pattern of drug-related medical emergencies in the country. The hospital emergency department (ED) sample generates estimates of the total number of ED drug abuse episodes in the coterminous United States (48 contiguous states and the District of Columbia) and in 21 metropolitan areas across the country. The Baltimore metropolitan area is included in the ED data collection system.

In each participating facility, a designated DAWN reporter is responsible for collecting data on a weekly basis. The reporter reviews each individual record and records demographic and drug-related information for each case that is considered appropriate for inclusion in the DAWN system. Drug abuse is defined by the Substance Abuse and Mental Health Services Administration (SAMHSA) as “the non-medical use of a substance for psychic effect, dependence, or suicide attempt/gesture where non-medical use means: (1) use of prescription drugs in a manner inconsistent with accepted medical practice; (2) use of over-the-counter drugs contrary to approved labeling; or (3) use of any substance for psychic effect, dependence, or suicide.”

### Interpreting the data

DAWN ED data is only available in Maryland for the Baltimore metropolitan area. Records of ED Drug abuse episodes are based on identification from medical records by DAWN-designated reporters. Because the patient’s drug use is not necessarily determined by a laboratory test, the drug information obtained is highly dependent upon the thoroughness of the attending medical staff and the details written in the patient’s records. In addition, identification of drug abuse episodes and substances of abuse by DAWN reporters may vary from facility to facility.