APPENDIX A: DAWN MEDICAL EXAMINER REPORT FORM

FORM NUMBER

XXXXXXX

(Sample Form Only)

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

SUBSTANCE ABUSE AND MENTAL HEALTH SERVICES ADMINISTRATION

DRUG ABUSE WARNING NETWORK (DAWN) MEDICAL EXAMINER REPORT

(Sample Form Only)

FORM APPROVED:
OMB NO. 0930-0078
Expires: 3/31/2003

1. PROVIDER NUMBER

2. CROSS REFERENCE *(Facility Use Only)*

3. DATE OF DEATH — Month | Day | Year

INFORMATION ON DECEASED

4. AGE *(Must be 06-97 yrs.)*

5. SEX
1 ☐ Male
2 ☐ Female

6a. ETHNICITY *(mark [x] one response)*
1 ☐ Hispanic or Latino
2 ☐ Not Hispanic or Latino
3 ☐ Unknown

6b. RACE *(mark [x] for all that apply)*
☐ White
☐ Black or African American
☐ American Indian or Alaska Native
☐ Asian
☐ Native Hawaiian or Other Pacific Islander
☐ Unknown

7. DECEDENT'S HOME ZIP CODE
–
(Otherwise mark [X] one response)
1 ☐ Unknown 2 ☐ No Fixed Address

8. CAUSE OF DEATH *(See reverse side)*

A. Was this a **DRUG-INDUCED CASE** (e.g., the drug[s] directly caused the death as documented in County records such as the death certificate and/or autopsy findings)?

1 ☐ Yes ☐ No

B.1 If not drug induced, please select one of the following **DRUG-RELATED CASE** categories:

2 ☐ Drug Abuse in Combination with Physiological Condition

3 ☐ Drug Abuse in Combination with External Physical Event

4 ☐ Drug Abuse-Caused Medical Disorder (Whether abuse is past or present)

B.2 Please mark [X] **confirmed** if the drug-related case in B.1 is based on a documented conclusion in County records (e.g., death certificate states that drug abuse contributed to the death but was not the primary cause):

☐ Confirmed

Please mark [X] **presumed** if the drug-related case in B.1 is based on positive toxicology (e.g., presence of illicit substances or legal drugs exceeding therapeutic levels) **-- OR --** on other documentation of past or present substance abuse that may be related to the cause of the death.

☐ Presumed

9. MANNER OF DEATH
1 ☐ Accidental/Unexpected
2 ☐ Suicide
3 ☐ Homicide
4 ☐ Undetermined
5 ☐ Natural

10. FACTORS SUPPORTING ***DAWN*** CASE DETERMINATION *(Mark [X] for **all** that apply)*
1 ☐ Death Certificate
2 ☐ Toxicological Laboratory Report
3 ☐ Autopsy
4 ☐ Inspection of Scene of Death
5 ☐ External Physical Signs
6 ☐ Statement of Hospital/Family/Friends
7 ☐ Other *(Specify)* _____

DRUG/SUBSTANCE INFORMATION

11. ALCOHOL INVOLVED *(Mark [X] one response)*
1 ☐ Yes (If YES, please note concentration _____) 2 ☐ No

12. LIST EACH DRUG/SUBSTANCE NAME IN ONE OF THE SPACES BELOW

	SAMHSA USE ONLY	
1		
2		
3		
4		
5		
6		

*For each non-alcohol substance listed above, mark [X] **one** response in each data item below.*

13. ROUTE OF ADMINISTRATION

		SUBSTANCES 1	2	3	4	5	6
Oral	01						
Injection	02						
Inhaled	03						
Smoked *(Includes Freebase)*	04						
Sniffed, Snorted	05						
Unknown	06						
Other	07						

14. LAB TEST USED TO IDENTIFY DRUG

DRUG #	FINDINGS *(List test methods, specimen, and findings for each drug listed)*

15. CODED REMARKS
(If case involves an IV drug user with HIV+/AIDS, please write "HIV+" or "AIDS" in the first four spaces below.)

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APPENDIX B: GLOSSARY OF TERMS

This glossary defines terms used by the Drug Abuse Warning Network (DAWN) in data collection activities, analyses, and publications. DAWN collects data and publishes findings separately for emergency departments (EDs) and medical examiner/coroner (ME/C) jurisdictions. As a result, there are a number of terms that are unique to each component of DAWN.

This appendix is divided into 3 sections. The first section contains terms common to both the ED component and the ME/C or mortality data component of DAWN. The second section focuses on terms specific to the DAWN ED system, while the third section focuses on terms specific to the mortality data system.

Definitions of Terms Common to DAWN's ED and Mortality Components

Drug abuse: The nonmedical use of a substance for any of the following reasons: psychic effect, dependence, or suicide attempt/gesture. In DAWN, nonmedical use means:

- The use of prescription drugs in a manner inconsistent with accepted medical practice;
- The use of over-the-counter drugs contrary to approved labeling; or
- The use of any substance (e.g., heroin, marijuana, peyote, glue, aerosols) for psychic effect, dependence, or suicide.

Drug category: A generic grouping of substances reported to DAWN, based on the classification of generic drugs by Multum Information Services. Multum Information Services is a subsidiary of the Cerner Corporation and a developer of clinical drug information systems and a drug knowledge base. More information is available at www.multum.com. The DAWN system has accumulated a vocabulary of thousands of substance names that have been mentioned in incidents of abuse. This vocabulary is updated monthly by the inclusion of new abuse substances and, through receipt of identifying information, the reclassification of drugs. Occasionally, this reclassification may result in a drug being shifted to a different drug grouping. The DAWN drug groupings are periodically reviewed in order to reflect the most recent changes in pharmaceutical classifications and drug legislation. Occasional changes in drug classification should be taken into consideration when comparing drug data from this publication with other DAWN publications. These classifications may involve street names and brand names, which are sometimes used to identify a substance and its generic drug group. Individual drugs comprising the most commonly reported drug categories can be found in Tables 2.3 to 2.7 of *Emergency Department Trends From DAWN.*

Additional clarification is provided for the following drug categories:

- *Alcohol-in-combination* – DAWN does not gather data on alcohol used alone, only alcohol used concomitantly with another abused substance. Therefore, all alcohol mentions are combination mentions.
- *All other substances not tabulated above (NTA)* – This category contains any substance reported to DAWN that could not be classified in other categories and has too few mentions to warrant being reported independently

in DAWN tables. This category also includes certain terms that cannot be assigned reliably to any new category such as: (1) ambiguous, nonspecific terms that could fall into any of several categories (e.g., "AIDS medicine" could be an anti-infective, an anticonvulsant, or any number of other drugs); (2) undocumented, nonspecific terms (e.g., "thought organizer"); and (3) street terms for illicit substances that could not be linked reliably to a particular illicit substance (e.g., "T," "butterflies").

- *Amphetamines* – This class of substances has been extracted from the category of central nervous system (CNS) stimulants because of its importance as a major substance of abuse. For purposes of classification, "amphetamines" (plural) includes a class of compounds derived from or related to the drug amphetamine. Although some "designer" drugs fall into the class of amphetamines, we choose to report some of them individually as major substances of abuse (e.g., methamphetamine). This category does not include other CNS stimulants, such as caffeine or methylphenidate.
- *Combinations not tabulated above (NTA)* – This category includes combinations composed of 2 or more major substances of abuse that are mixed and taken together. For example, "speedball," which usually refers to the combination of heroin and cocaine taken at once, would be classified as a combination NTA, whereas separate mentions of heroin and cocaine would be classified separately in the categories heroin and cocaine. Combinations consisting of a major substance of abuse and another substance are classified in the category of the major substance (e.g., heroin with scopolamine is classified as heroin).
- *Club drugs* – During the 1990s, use of certain illicit drugs was linked to "raves" and dance clubs. These substances are commonly referred to as "club drugs." When used in DAWN, the term club drugs includes Ketamine, flunitrazepam (Rohypnol), gamma-hydroxy butyrate (GHB, or its precursor, gamma butyrolactone [GBL]), and methylenedioxymethamphetamine (MDMA or Ecstasy). Although commonly used in the rave scene, methamphetamine and hallucinogens are classified separately from club drugs in DAWN.
- *Drug unknown* – "Drug unknown" may be recorded when drug abuse was known or suspected to have been involved, but the specific substance could not be determined. This includes 2 types of cases: those in which the drug was reported to DAWN as "unknown" and those in which drugs were reported to DAWN as "polysubstances." For the purposes of DAWN, polysubstance refers to the abuse of more than one substance when the individual substances were not identified by the source record. Because DAWN cases are identified through retrospective medical chart review, there will always be cases in which the drug abuse was known but the particular substance was unknown or unknowable.
- *Heroin and heroin/morphine* – This is the only drug classified differently in the ED and mortality components of DAWN. In the ED publications, heroin is classified as a major substance of abuse, separate from morphine, which is classified as a narcotic analgesic under CNS agents. In the mortality data publications, heroin and morphine are classified together in a single category. When heroin is ingested, it is metabolized to morphine, so that the toxicology testing commonly used in death investigations often does not distinguish between the 2. Therefore, a mention of either substance is recorded as heroin/morphine. A case mentioning both heroin and morphine will be "de-duplicated" and counted as a single heroin/morphine mention.
- *Inhalants* – This category includes anesthetic gases and psychoactive nonpharmaceutical substances for which the documented route of administration was inhaled, sniffed, or snorted. Psychoactive nonpharmaceuticals fall into one of the following 3 categories: (1) volatile solvents-adhesives (model airplane glue, rubber cement, household glue), aerosols (spray paint, hairspray, air freshener, deodorant, fabric protector), solvents and gases (nail polish remover, paint thinner, correction fluid and thinner, toxic markers, pure toluene, cigar lighter fluid, gasoline, carburetor cleaner, octane booster), cleaning agents (dry cleaning fluid, spot remover, degreaser), food products (vegetable cooking spray, dessert topping spray such as whipped cream, whippets), and gases (butane, propane, helium); (2) nitrites-amyl nitrites ("poppers," "snappers") and butyl nitrites ("rush," "locker

room," "bolt," "climax," "video head cleaner"); or (3) chlorofluorohydrocarbons (freons). Anesthetic gases (e.g., nitrous oxide, ether, chloroform) are presumed to have been inhaled.

- *Major Substances of Abuse* – We use this term to refer to the most commonly abused drugs (e.g., alcohol-in-combination and cocaine) and those drugs that are typically referred to as "illicit."
- *Other Substances of Abuse* – We use this term to refer to pharmaceutical agents not included in the Major Substances of Abuse.

Drug mention: This refers to a substance that was recorded ("mentioned") in a DAWN case report. In addition to alcohol-in-combination, up to 4 substances ("mentions") can be reported for each ED episode, and up to 6 substances can be reported for each drug abuse death. Therefore, the total number of drug mentions exceeds the total number of ED visits or deaths. Even when only one drug is mentioned, it should not be assumed that the substance was the sole and direct cause of the episode or death; allowances should be made for reportable drugs not mentioned or other contributory factors. (See also **Single-drug episode/death.**)

Metropolitan area: An area comprising a relatively large core city or cities and the adjacent geographic areas. Conceptually, these areas are integrated economic and social units with a large population nucleus. The current DAWN ED sample, which was redesigned in the 1980s, is based on the definitions of Metropolitan Statistical Areas (MSAs) and Primary Metropolitan Statistical Area (PMSAs) issued by the Office of Management and Budget (OMB) in 1983, with a few exceptions. Metropolitan areas represented in the DAWN mortality data system are consistent with those represented in the DAWN ED system, also with a few exceptions. Users of DAWN should note that the ED component provides estimates for each of the 21 metropolitan areas. However, in the mortality data component, only raw counts are provided, and in many instances less than 100 percent of the MSA is represented in those counts.

Not otherwise specified (NOS): Catch-all category for substances that are not specifically named in the listing. Terms are classified into an NOS category only when assignment to a more specific category is not possible based on information in the source documentation (ED patient charts and death investigation case files).

Not tabulated above (NTA): Designation used when categories are not presented in complete detail; smaller units are combined in the NTA category.

Race/ethnicity: Beginning in January 2000, the race and ethnicity categories collected on DAWN case report forms changed to match a change in the standard protocol issued by the OMB in 1997.[1] The new protocol permits separate reporting of race and Hispanic ethnicity; the ability to capture more than one race for an individual; modifications in nomenclature (e.g., "Black" was changed to "Black or African American"); division of certain categories ("Asian or Pacific Islander" was split into 2 categories, "Asian" and "Native Hawaiian or Other Pacific Islander"); and elimination of the "Other" category.

[1] See Office of Management and Budget, *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity,* Federal Register, 62 FR 58782, October 30, 1997.

The race/ethnicity categories on the DAWN data collection forms are as follows:

Race

- *White* – A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.
- *Black or African American* – A person having origins in any of the black racial groups of Africa.
- *American Indian or Alaska Native* – A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- *Asian* – A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- *Native Hawaiian or Other Pacific Islander* – A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- *Unknown* – Used when documentation of race is not available from source records.

Ethnicity

- *Hispanic or Latino* – A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- *Not Hispanic or Latino* – Ethnicity does not meet the definition of Hispanic or Latino.
- *Unknown* – Used when documentation of ethnicity is not available from source records.

Despite the increased detail allowed by the new categories, the actual race/ethnicity data reported to DAWN changed very little because race and ethnicity are often not documented with this level of specificity in patient/decedent records. As a result, we have retained the classification used previously to tabulate DAWN data. The one exception is that we now collapse the less commonly used categories into a category termed "Not tabulated above (NTA)" instead of "Other." Categories used to tabulate race and ethnicity data in the ED publications are:

- *White* – Anyone meeting the definition of white (above). Those who are identified as white and Hispanic are classified as Hispanic.
- *Black* – Anyone meeting the definition of black or African American (above). Those who are identified as black or African American and Hispanic are classified as Hispanic.
- *Hispanic* – Anyone whose ethnicity is Hispanic or Latino (above) is placed in the category Hispanic, regardless of race.
- *Race/ethnicity NTA* – This includes those categories that are too small to report independently including: 2 or more races, American Indian or Alaska Native, Asian, Native Hawaiian or Other Pacific Islander.
- *Unknown* – Race and ethnicity are unknown. Those who are identified only as Hispanic are classified as Hispanic.

In *Mortality Data From DAWN,* race/ethnicity data are tabulated as White, Black, Hispanic, and All others, where "All others" includes other reported races and ethnicities as well as unknown or missing data.

Route of drug administration: DAWN reporters are asked to record the method by which the substance was taken into the drug abuser's body according to the following categories:

- *Oral* – Substance was ingested through the mouth (swallowed).
- *Injection* – Substance entered the body through a vein (intravenously), into the muscle (intramuscularly), or under the skin (subcutaneously).
- *Inhaled* – Gases or fumes of a substance were taken into the body by inhaling through the nose or mouth into the lungs (e.g., inhaling the fumes of glue, aerosols, paints, gasoline).
- *Smoked (includes freebase)* – Substance was consumed by smoking a cigarette, pipe, or similar device.
- *Sniffed/snorted* – Substance, acquired in a powder or crystalline form, was forcefully inhaled through the nose.
- *Other* – This category is used when the route of administration of the substance cannot logically be included as any of the above.

Readers should note that this information is often not documented in patient/decedent files and is therefore missing in DAWN tabulations. Caution should therefore be exercised in interpreting this information.

Single-drug episode/death: A single-drug episode or death is that in which only one drug was involved. Because multiple substances may be recorded for each DAWN case (see **Drug mention)**, readers should exercise caution in interpreting the relationship between a given drug and the number of associated ED visits or deaths. For example, if records for a given patient "mentioned" marijuana, this does not mean that marijuana was the only drug involved in the ED visit or that the marijuana caused the ED visit or death. One should always consider whether and how many other drugs were used in combination, but even then attributing a causal relationship between the visit and a particular drug may not be possible. Additionally, because alcohol is only documented if used in combination with another drug, DAWN cannot provide single-drug episode/death totals for alcohol.

Definitions of Terms for the DAWN ED Component

Coterminous U.S.: The contiguous 48 States and Washington, DC; excludes Alaska and Hawaii. National estimates from DAWN refer only to the coterminous U.S.

Disposition of ED patient: Suggestions or recommendations made or actions taken by the hospital as they relate to the patient's presenting problem:

- *Treated and released or referred* – The patient was given appropriate ED treatment and was released or, after appropriate ED treatment, the hospital referred the patient to another agency or to a private physician for additional services.
- *Admitted to hospital* – The patient was admitted as an inpatient to a hospital.
- *Left against medical advice* – The patient left the treatment setting without a physician's approval.
- *Died* – The patient expired.

Drug abuse episode: A reported ED visit that involved drug abuse. Episodes involving patients under the age of 6 or over the age of 97 are not reported to the DAWN system. The number of ED patients in DAWN is not synonymous with the number of patients involved. One patient may make repeated visits to an ED or to several EDs, thus producing a number of episodes. It is impossible to determine the number of unique patients involved in the reported ED episodes because no patient identifiers are collected.

Drug concomitance: This term refers to whether a drug abuse episode involved a single drug (one mention) or multiple drugs (multiple mentions).

Drug use motive: DAWN classifies ED drug abuse episodes according to one or more of the following reasons for taking a substance(s):

- *Psychic effects* – A conscious action to use drugs to improve or enhance any physical, emotional, or social situation or condition. Two categories of psychic effect are:
  - Use of drugs for experimentation or to enhance a social situation (e.g., curiosity, peer pressure, "just wanted to know what it felt like," "wanted to have fun," "to get high," "for kicks," "to party"); and
  - Use of drugs to improve or enhance any mental, emotional, or physical state (e.g., depression, anxiety, to relieve headache, reduce pain, stay awake, lose weight, relax, help study, get to sleep). Referred to in DAWN as "other psychic effects."
- *Dependence* – A physiological or psychological condition characterized by a compulsion to take the drug on a continuous or periodic basis in order to experience its effects or to avoid the discomfort of its absence (e.g., had to take, had to have, needed a fix).
- *Suicide attempt or gesture* – Successful or unsuccessful action(s) taken for the purpose of self destruction or to gain attention.
- *Other reason* – Used when the reason for taking the substance cannot be classified into the categories above.

Estimate: A statistical estimate is the value of a parameter (such as the number of drug-related ED episodes) for the universe that is derived by applying sampling weights to data from a sample. DAWN produces representative statistical estimates for 21 metropolitan areas based on data from a sample of EDs in each of the 21 areas. An estimate for the coterminous U.S. is produced by summing estimates for the 21 metropolitan areas and an estimate for the National Panel.

Form in which drug was acquired: The form in which the substance was received by the user/abuser, not the form in which the substance was consumed. Categories are: tablet/capsule/pill, aerosol, liquid, powder/crystal, paper, pieces/chunks, injectable liquid, cigarette, plant material, unknown, and other. Readers should note that this information is often not documented in ED records and is therefore missing in DAWN tabulations. Caution should therefore be exercised in interpreting this information.

Hospital emergency department (ED): Only hospitals that meet eligibility criteria for DAWN are recruited to participate. To be eligible, hospitals must be non-Federal, short-stay, general medical and surgical facilities with EDs that are open 24 hours a day, 7 days a week, and located in the coterminous U.S. Specialty hospitals; hospital units of institutions; long-term care facilities; pediatric hospitals; hospitals operating part-time EDs; hospitals in Alaska and Hawaii; and hospitals operated by the Veterans Health Administration and the Indian Health Service are excluded.

National Panel: This term is used to denote 2 concepts relative to DAWN ED data: (1) The universe of eligible hospitals outside the 21 DAWN metropolitan areas but within the coterminous U.S. and (2) the sample of hospitals in DAWN that were selected from this universe. The National Panel sample is weighted to produce estimates for the National Panel universe. (See also **Metropolitan area.**)

***p*-value:** A measure of the probability (*p*) that the difference between 2 estimates could have occurred by chance, if the estimates being compared were really the same. The larger the *p*-value, the more likely the difference could have occurred by chance. For example, if the difference between 2 DAWN estimates has a *p*-value of 0.01, it means that there is a 1 percent probability that the difference observed could be due to chance alone.

Population: See **Universe.**

Precision: The extent to which an estimate agrees with its mean value in repeated sampling. The precision of an estimate is measured inversely by its standard error (SE) or relative standard error (RSE). In DAWN publications, estimates with RSEs of 50 percent or higher are regarded as too imprecise to be published. ED table cells where such estimates would have appeared contain the symbol "…" (3 dots). (See also **Relative standard error.**)

Rank: A rank indicates the relative frequency of a measure, such as mentions for a particular drug category. For example, a drug category ranked second indicates that it accounted for the second highest number of mentions among all drug categories. When 2 or more drugs receive equal numbers of mentions, they are assigned the same rank. A difference in rank should be considered only as indicative of a difference in frequency among drugs reported to DAWN, regardless of the size of the difference. Such differences are not necessarily meaningful or statistically significant.

Reason for present ED contact: The reason for the patient's visit to the ED, based on documentation provided in the medical record. Categories are:

- *Overdose/toxic ingestion* – Either intentional or accidental (e.g., effects of suicide attempt, coma). Anyone whose reason for contact is overdose is placed in this category, regardless of other reasons.
- *Unexpected reaction* – The drug's effect was different than anticipated, thus causing concern (e.g., bad trip, panic, hallucinations).
- *Withdrawal* – Symptoms which occur when a patient stops taking a substance upon which he or she is physiologically dependent and suffers physical symptoms, including abdominal pain, cold sweat, hyperactivity, and tremors that require treatment.
- *Chronic effects* – Secondary conditions resulting from habitual use or dependence, including malnutrition, tetanus, blood poisoning, and so forth.
- *Seeking detoxification* – Patients with identified problems with chronic substance abuse who seek admission to a detoxification program and receive treatment from ED staff. This category was added to the data collection form in 1987. Some hospitals require patients to be processed in the ED prior to admission for detoxification. Caution should therefore be exercised in interpretation of this category and the remaining information.
- *Accident/injury* – Injuries resulting from accidents that were caused by or related to drug abuse. This category was added to the data collection form in 1987.
- *Other* – Reasons which cannot be classified into one of the aforementioned categories.

Reason for taking substance: See **Drug use motive.**

Relative standard error (RSE): A measure of an estimate's relative precision. The RSE of an estimate is equal to the estimate's standard error (SE) divided by the estimate itself. For example, an estimate of 2,000 cocaine mentions with an SE of 200 mentions has an RSE of 10 percent. The larger the RSE, the less precise the estimate. Estimates with an RSE of 50 percent or more are not published by DAWN. (See also **Precision** and **Standard error.**)

Sampling: Sampling is the process of selecting a proper subset of elements from the full population so that the subset can be used to make inference to the population as a whole. A probability sample is one in which each element has a known and positive chance (probability) of selection. A simple random sample is one in which each member has the same chance of selection. In DAWN, a sample of hospitals is selected in order to make inference to all hospitals; DAWN uses simple random sampling within strata.

Sampling frame: A list of units from which the ED sample is drawn. All members of the sampling frame have a probability of being selected. A sampling frame is constructed such that there is no duplication and each unit is identifiable. Ideally, the sampling frame and the universe are the same. The sampling frame for the DAWN hospital ED sample is derived from the American Hospital Association (AHA) Annual Survey of Hospitals.

Sampling unit: A member of a sample selected from a sampling frame. For the DAWN sample, the units are hospitals, and data are collected for all drug-related ED episodes at the responding hospitals selected for the sample.

Sampling weights: Numeric coefficients used to derive population estimates from a sample.

Source of substance: The immediate source of the substance that the patient abused is coded as follows:

- *Patient's own legal prescription* – This is coded only when the abuser was legally prescribed the drug of abuse. If one patient obtains a drug by legal prescription and sells it to another who abuses it, the source to the abuser is marked "street buy." If the patient for whom the prescription was issued gives the drug to another patient who abuses it, the source to the abuse is "other unauthorized procurement."
- *Street buy* – The drug abuser purchased a drug and/or prescription from a source other than legitimate channels.
- Other unauthorized procurement – The drug was acquired in a manner not consistent with accepted medical care but was not bought on the street. This category includes drugs purchased using forged prescriptions, stolen, or received as a gift.
- *Other* – Used when the source of the substance cannot logically be included as any of the above. This category includes all over-the-counter medications.
- *Unknown* – Reported when information on source was unavailable.

  Readers should note that this information is often not documented in ED records and is therefore missing in DAWN tabulations. Caution should therefore be exercised in interpreting this information.

Standard error (SE): A measure of the sampling variability or precision of an estimate. The SE of an estimate is expressed in the same units as the estimate itself. For example, an estimate of 10,000 cocaine mentions with an SE of 500 indicates that the SE is 500 mentions.

Strata (plural), stratum (singular): Subgroups of a population within which separate ED samples are drawn. Stratification is used to increase the precision of estimates for a given sample size, or, conversely, to reduce the sample size required to achieve the desired level of precision. The DAWN ED sample is stratified into 21 metropolitan area cells plus an additional cell for the National Panel. Then, within these cells strata are defined according to the annual number of ED visits, whether the hospital is located inside or outside the central city of the metropolitan area, and by the presence or absence of an organized outpatient department, alcohol/chemical dependence inpatient unit, or both. The strata are as follows:

Stratum	Annual ED visits	Location within metropolitan area	Outpatient department or alcohol/chemical dependence inpatient unit
In the 21 DAWN metropolitan areas:			
0	>80,000	Not applicable	Not applicable
1	<80,000	Central city	Both
2	<80,000	Central city	One only
3	<80,000	Central city	Neither
4	<80,000	Outside Central city	Both
5	<80,000	Outside Central city	One only
6	<80,000	Outside Central city	Neither
In the National Panel:			
0	>80,000	Not applicable	Not applicable
7	<80,000	Not applicable	Both
8	<80,000	Not applicable	One only
9	<80,000	Not applicable	Neither

Note: Stratum "0" is defined for each of the 21 metropolitan areas and the National Panel cells. See *Drug Abuse Warning Network Sample Design and Estimation Procedures: Technical Report,* November 1997.

Statistically significant: A difference between 2 estimates is said to be statistically significant if the value of the statistic used to test the difference is larger or smaller than would be expected by chance alone. For DAWN ED estimates, a difference is considered statistically significant if the *p*-value is less than 0.05. (See also ***p*-value.**)

Universe: The entire set of units for which generalizations are drawn. The universe for the DAWN ED sample is all non-Federal, short-stay, general medical and surgical hospitals in the coterminous U.S. with EDs open 24 hours a day, 7 days a week. (See also **Coterminous U.S.**).

Definitions of Terms for the DAWN Mortality Component

Cause of death: Cases are reportable to DAWN if the death investigation concludes that the death was either directly or indirectly caused by drug abuse. If a death was directly caused by drug abuse (e.g., a drug overdose), DAWN refers to the death as **drug-induced.** If drug abuse was a contributing factor in the death, but not the immediate or sole cause, then DAWN refers to the death as **drug-related.** It is important to note that DAWN data include both types of deaths. It is also important to note that a drug-induced death may involve more than a single drug. (See **Single-drug episode.**)

Certified death: Any case accepted and reviewed by a medical examiner or coroner, who uses information from the death investigation to complete the death certificate.

Consistent panel: DAWN does not impute missing data for jurisdictions that have not reported for all or part of a given year. Therefore, tables and charts showing trends in deaths over time are based on a consistent panel of reporting jurisdictions. A **consistent panel** includes those jurisdictions that have reported data for at least 10 months of each year reflected in the trend table/chart. The reason for a consistent panel is to ensure that apparent changes over time are not a result of gaps in reporting. Because participating jurisdictions may change from year to year, consistent panels used in published reports will also change from year to year. This means that trends published in one annual publication are not necessarily comparable to trends published in subsequent annual publications.

Coroner: Death investigation jurisdictions typically use either a medical examiner system or a coroner system. Unlike medical examiners, coroners need not be physicians; usually the only prerequisite for serving as a coroner is that the individual be more than 18 years of age and a resident of the county or district to be served. Coroners are typically elected rather than appointed. They may have jurisdiction over counties or districts within states. (See also **Jurisdiction** and **Medical examiner.**)

Drug combinations: Published tables from the DAWN mortality data refer to "drug combinations" rather than "drug concomitance" (the term used in the ED component). This term refers to multiple drug mentions for a single death, and tables show particular combinations of substances reported for deaths. Readers should note that DAWN cannot differentiate between drugs actually used in combination (simultaneously) and drugs used sequentially.

Drug-induced death: A death directly resulting from drug abuse or other substance abuse, such as drug overdoses or the interactive effects of drug combinations. When more than one drug is mentioned, it cannot be determined which or whether one drug was the sole and direct cause of the episode or death.

Drug-related death: A death in which the abuse of a drug is a contributing factor, but is not the sole cause of death. Such cases include drug abuse that exacerbates a pre-existing physiological condition; drug abuse in combination with an external physical event (e.g., a fall or automobile accident); or a medical disorder that was itself caused by drug abuse (e.g., hepatitis contracted through injection drug use). Drug-related deaths are classified into 2 types, confirmed and presumed. The drug-relatedness is "confirmed" if documentation in the decedent's file substantiates that conclusion. The drug-relatedness is "presumed" if the investigation suggests drug involvement, but the medical examiner/coroner has insufficient evidence to list drug abuse as a

contributing cause on the death certificate. Both confirmed and presumed deaths are included in the published mortality data tables.

Jurisdiction: DAWN uses the term "jurisdiction" to mean the geographic area for which a medical examiner/coroner's office is responsible. In many states, there is a 1:1 correspondence between jurisdictions and counties. In some states, there are multiple medical examiner/coroner offices within a given county, or there may be multiple counties covered by a "district" that includes one or more medical examiners/coroners. A few states are organized as a single statewide jurisdiction.

Understanding jurisdictions is important because this assists readers in interpreting aggregated data. Published DAWN mortality data are aggregated into metropolitan areas, which often comprise multiple jurisdictions. In some states, there are different death investigation procedures for different jurisdictions (most notably, some jurisdictions have medical examiner systems, while others have coroner systems). There are nearly always some differences in death investigation procedures across states (and notably, some metropolitan areas include jurisdictions in multiple states). Readers should be mindful of these variations when interpreting or comparing data.

Information on death investigation practices and an updated list of jurisdictions throughout the U.S. and Canada are available from the Centers for Disease Control and Prevention, Epidemiological Program Office at http://www.cdc.gov/epo/dphsi/mecisp/death_investigation.htm.

Manner of death: This variable is used to describe how the decedent died. It is applicable to both drug-induced and drug-related deaths. On the DAWN data collection form, manner of death is coded into the following categories:

- *Accidental/Unexpected* – Although the drug abuse was deliberate, the resulting death was unintended.
- *Suicide* – Death in which there is evidence that the decedent deliberately used drugs to bring about his or her demise.
- *Homicide* – Death in which the decedent's life was taken by another individual by means of drugs. These cases, which do not involve the intentional abuse of drugs by the decedent, are not currently included in published tabulations of DAWN mortality data.
- *Natural* – Death was due to natural causes such as a medical disorder or disease process, if drug abuse caused or worsened the decedent's condition.
- *Undetermined* – The manner of death cannot be determined from all available evidence.

In *Mortality Data From DAWN,* manner of death is collapsed into 3 categories: suicide, accidental/unexpected, and "all others." The "all others" category includes cases for which manner of death was recorded as natural, unknown, or undetermined, and cases for which the manner of death was missing.

Medical Examiner (ME): Death investigation jurisdictions typically use either a medical examiner system or a coroner system. Most medical examiners are licensed physicians or forensic pathologists, and are generally appointed (rather than elected). They may have jurisdiction over a county, district, or entire state. (See also **Coroner** and **Jurisdiction.**)