
APPENDIX A

DAWN MEDICAL EXAMINER CASE FORM

APPENDIX B

GLOSSARY OF TERMS

This glossary defines terms used in data collection activities, analyses, and publications associated with the mortality component of the Drug Abuse Warning Network (DAWN).

Body systems: Refers to neurological, cardiovascular, gastrointestinal, genitourinary, respiratory, musculoskeletal, skin and soft tissue, lymphatic, endocrine, head and neck, abdominal and/or multi-system conditions identified in the chain of events that led to the drug-related death. (See also **Cause of death**.)

Case type: See **Manner of death**.

Cause of death: The chain of events (diseases, injuries, or complications) that caused the death, as recorded on the death certificate. A death can have multiple causes. The immediate cause is listed first and is followed by contributing causes listed sequentially, ending with the underlying cause. Other significant conditions that contributed to the death are listed separately.

Coroner (C): 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: This refers to a substance that was recorded in a DAWN case report. Substances accepted by DAWN include alcohol, illicit drugs, prescription and over-the-counter pharmaceuticals, dietary supplements, and non-pharmaceutical inhalants. Multiple substances ("drugs") can be reported for each DAWN case. Therefore, the total number of drugs exceeds the total number of deaths.

Drug category: A generic grouping of related pharmaceuticals or other substances reported to DAWN, based on the classification of Multum Information Services. Multum Information Services, a subsidiary of the Cerner Corporation, is a developer of clinical drug information systems and a drug knowledge base. More information is available at <http://www.multum.com/>. In general, the Multum categories follow the therapeutic uses for prescription and over-the-counter pharmaceuticals.

Additional clarification is provided for the following drug categories:

- **Alcohol**—DAWN collects data on alcohol when present in combination with other drugs (all ages) and when used alone if the decedent is under age 21.
- **Stimulants**—This category includes amphetamines and methamphetamine. Since some drug screens test for amphetamines only as a class, an amphetamine-positive result could indicate amphetamine or methamphetamine. For this reason, amphetamines and methamphetamine are combined for analysis into the category "stimulants." This category does not include other CNS stimulants, such as caffeine or methylphenidate.

- **Inhalants**—This category includes anesthetic gases and psychoactive non-pharmaceutical substances for which the documented route of administration was inhaled, sniffed, or snorted. Psychoactive non-pharmaceuticals 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.
- **Opiates/opioids**—This category includes opiates (narcotic substances derived from opium) and opioids (semi-synthetic and synthetic substances with similar narcotic properties). The category is subdivided into (1) **“heroin (specified),”** which only includes specific reports of heroin, (2) **methadone**, whether used in the treatment of opiate addiction or pain, and (3) **“all other opiates/opioids,”** which includes nonspecific reports of “opiates” and specific named substances, such as codeine, morphine, fentanyl, hydrocodone, oxycodone, and others.

Drug-related death: Any death related to recent drug use. To be a DAWN case, a drug needs only to be implicated in the death; the drug does not have to have caused the death. Even if only one drug is reported, it should not be assumed that the substance was the sole and direct cause of the death. (See also **Single-drug death**.) Drug-induced deaths are those for which the drug(s) directly caused the death.

Jurisdiction: DAWN uses the term “jurisdiction” to mean the geographic area for which a medical examiner’s or coroner’s office is responsible. In many States, there is a one-to-one correspondence between jurisdictions and counties. In some States, there are multiple jurisdictions within a given county, or there may be multiple counties covered by a “district” that includes one or more medical examiner or coroner offices. Some States are organized as a single statewide jurisdiction.

Understanding jurisdictions is important because this assists readers in interpreting aggregated data. For publication, 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.

Manner of death: A classification used to group similar DAWN cases. Each case is coded into one and only one category, the first that applies from the following hierarchy: suicide, homicide by drugs, adverse reaction to medication, overmedication, accidental ingestion, all other accidental, and could not be determined. The manner of death categories used by DAWN draw from but do not duplicate the manner of death recorded on the death certificate. (See **DAWN Decision Tree**.)

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 an entire State. (See also **Coroner** and **Jurisdiction**.)

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. This DAWN publication utilizes areas re-defined by the Office of Management and Budget (OMB) in 2003, based on population data from the 2000 decennial Census.

Place of death: The location that best describes where the death occurred. The place of death categories on the DAWN data collection form are:

- *Emergency department*—The death occurred in a hospital emergency department.
- *Other health care facility*—The death occurred in a hospital unit other than an emergency department, nursing home, hospice, or any other health care institution in which the decedent was receiving care.
- *Decedent's home*—The death occurred at the decedent's home, apartment, or other dwelling.
- *Other*—The location of death was documented in the source record but does not fit into any of the preceding categories.
- *Not documented*—The location of death was not available in the source record.

Race/ethnicity: Beginning in January 2000, the race and ethnicity categories collected on DAWN cases changed to match a change in the standard protocol issued by the OMB in 1997. The 1997 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 two categories, "Asian" and "Native Hawaiian or Other Pacific Islander"), and elimination of the "Other" category.

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

- *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.
- *Hispanic or Latino*—A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race.
- *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.
- *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.
- *Native Hawaiian or Other Pacific Islander*—A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- *Not documented*—Used when documentation of race is not available from source records.

Single-drug death: A single-drug death is one in which only one drug was reported to DAWN. Because multiple substances may be recorded for each DAWN case (see **Drug**), readers should exercise caution in interpreting the relationship between a given drug and the number of associated deaths. For example, if the source record for a decedent documented marijuana use, this does not mean that marijuana was the only drug involved in the death or that the marijuana caused the death. One should always consider whether and how many other drugs were used in combination. But even then attributing a causal relationship between the death and a particular drug may not be possible. DAWN only captures single-drug deaths involving alcohol if the decedent was younger than age 21.

Toxic effects: Injury, illness, or damage that can be attributed to the ingestion of a drug. (See also **Cause of death**.)

APPENDIX C

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