

Drug Use Consequences

Indicator RECOMMENDED	Deaths due to Drug Related Behavior
Justification	Behavioral/Mental disorder deaths directly (100%) attributable to drug use behavior include drug psychoses, drug dependence, nondependent abuse of drugs, and polyneuropathy due to drug use.
Definition	Number of deaths due to drug related behavior per 1,000 population
Numerator	Resident deaths during a calendar year with ICD-9 codes 292, 304, 305.2-305.9, and 357.6 or ICD-10 codes F11.5-F11.9, F12.5-F12.9, F13.5-F13.9, F14.5-F14.9, F15.5-F15.9, F16.5-F16.9, F18.5-F18.9, F19.5-F19.9, F11.2-F11.4, F12.2-F12.4, F13.2-F13.4, F14.2-F14.4, F15.2-F15.4, F16.2-F16.4, F18.2-F18.4, F19.2-F19.4, F55, F11.0-F11.1, F12.0-F12.1, F13.0-F13.1, F14.0-F14.1, F15.0-F15.1, F16.0-F16.1, F18.0-F18.1, F19.0-F19.1 or G62.0 as the underlying cause of death
Denominator	Total resident population for the same calendar year
Data Sources	Death certificate data from vital statistics agencies (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender by Race/Ethnicity
Strengths	Readily available for many years across all states
Limitations	Indicator only includes deaths; drug-related morbidity is not reflected. The stability of this indicator is directly related to the size of the population in which these deaths occur. Therefore, this indicator may be unstable for less populated states and communities that have low numbers of annual deaths, especially when used for demographic subgroups. There also is variability in the procedures used within and across each state to determine cause of death.

Indicator RECOMMENDED	Deaths from All Drug Related Poisonings
Justification	In year 2005, poisoning continued to be the second leading cause of injury related death (after motor vehicle crashes) accounting for a total of 32,691 deaths*. According to DAWN, approximately 56% (816, 696) of all drug related ED visits in year 2005 involved an illicit drug either alone or in combination with another drug type.
Definition	Number of drug related poisoning deaths per 1,000 population
Numerator	Resident deaths during a calendar year with ICD-9 codes E850.0-E850.5, E850.8, E850.9, E851-E858, E935.0-E935.2, E937-E940, E950.0-E950.5, E980.0-E980.4 and E980.9 or ICD-10 codes X40-X44, X46, X60-X64, X66, Y10-Y14, Y16 as the underlying cause of death
Denominator	Total resident population for the same calendar year
Data Sources	Death certificate data from vital statistics agencies (numerator) and population estimates from the U.S. Bureau of the Census (denominator)
Frequency	Annual
Geographic Levels	National, State, and County
Demographic Categories	Age by Gender by Race/Ethnicity
Strengths	Readily available for many years across all states
Limitations	Drug related poisonings often involve multiple drugs which may not be captured in the primary cause of death field. This indicator only includes deaths; drug-related morbidity is not reflected. There also is variability in the procedures used within and across each state to determine cause of death.

* <http://www.cdc.gov/nchs/products/pubs/pubd/hestats/injury99-05/injury99-05.htm>

Indicator <i>Recommended with Reservation</i>	Property Crime Rate
Justification	<p>Drug-related property crimes include burglary, larceny, and motor vehicle theft. These crimes frequently are committed in order to obtain money to purchase drugs. Drug-attribution rates for property crime range from approximately seven percent for motor vehicle theft to 30 percent for burglary and larceny.</p>
Definition	<p>Number of property crimes per 1,000 population</p>
Numerator	<p>Annual number of larcenies, burglaries, and motor vehicle thefts</p>
Denominator	<p>Total resident population for same calendar year</p>
Data Sources	<p>Crimes reported to police from the Uniform Crime Reports (numerator) and population estimates from the U.S. Bureau of the Census (denominator)</p>
Frequency	<p>Annual</p>
Geographic Levels	<p>National, State, and County</p>
Demographic categories	<p>NA</p>
Strengths	<p>Crimes reported to the police are available annually and can be disaggregated to the county and community levels.</p>
Limitations	<p>Reported property crimes are an under report of the total number of actual crimes. No information on the perpetrator is available to determine if they have been using illicit drugs or to disaggregate these data by demographic subgroups. Estimates of the percentage of crimes attributable to illicit drugs are derived primarily from self-reports of incarcerated perpetrators of the crimes. The percentage actually attributable to drug use may vary across geographic units or subpopulations. Although most police departments do report UCR data, there are a few jurisdictions each year for which data are not provided.</p>

Indicator <i>Recommended with Reservations</i>	Drug Abuse or Dependence
Justification	Abuse and dependence are clinical terms used to characterize patterns of drug use associated with significant social, psychological, and physical problems for the user and/or others who may be negatively impacted by the user.
Definition	Percent of persons aged 12 and older meeting DSM-IV criteria for drug abuse or dependence
Data Source	National Survey on Drug Use and Health (NSDUH)
Frequency	Annual
Geographic levels	National and State
Demographic Categories	Age
Strengths	NSDUH is the only national source that currently provides statewide prevalence estimates of drug abuse or dependence.
Limitations	Concerns have been raised about the accuracy of assessing clinical conditions through survey methodology. Responses have, however, been shown to be consistent with information obtained from peers, parents, and archival records. State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., different age categories and/or other demographic subgroups) are not available. The estimates are subject to biases due to self-report and non-response (refusal/no answer).

Illicit Drug Consumption

Indicator RECOMMENDED	Current Use of Marijuana by Persons Aged 12 and Older
Justification	The use of marijuana can produce adverse physical, mental, emotional, and behavioral changes, and can be addictive. Adverse health effects include respiratory illnesses, memory impairment, and weakening of the immune system.
Definition	Percent of persons aged 12 and older reporting any use of marijuana within the past 30 days
Data Source	National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (DHHS)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age
Strengths	NSDUH is the only national source that currently provides prevalence of use estimates for both adolescents and adults for every state.
Limitations	<p>This measure does not capture the frequency or amount of marijuana use.</p> <p>State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., different age categories and/or other demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer).</p>

Indicator RECOMMENDED	Current Use of Marijuana by High School Students
Justification	The use of marijuana can produce adverse physical, mental, emotional, and behavioral changes, and can be addictive. Adverse health effects include respiratory illnesses, memory impairment, and weakening of the immune system.
Definition	Percent of students in grades 9 through 12 reporting any use of marijuana within the past 30 days
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.
Limitations	This measure does not capture the frequency or amount of marijuana use. As of 2005, weighted representative samples were available for only 40 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for some demographic subgroups may have relatively low precision (i.e., large confidence intervals).

Indicator RECOMMENDED	Current Use of Illicit Drugs Other Than Marijuana by Persons Aged 12 and Older
Justification	Use of classes of illicit drugs included here has varying degrees of negative physical and psychological effects. Chronic drug use can lead to dependence and serious medical conditions. Both chronic and occasional use can result in serious medical conditions stemming from the drug itself, the method of drug administration, or the use of contaminated equipment.
Definition	Percent of persons aged 12 and older reporting use of any illicit drug other than marijuana, or an abusable product that may be obtained legally, on one or more days within the past 30 days. Other illicit drug categories include cocaine, heroin, and hallucinogens (LSD, PCP, peyote, mescaline, mushrooms, and ecstasy). Abusable legal products include prescription drugs (pain relievers, tranquilizers, stimulants, and sedatives) and inhalants (amyl nitrate, cleaning fluids, gasoline, paint, and glue).
Data Source	National Survey on Drug Use and Health (NSDUH), Substance Abuse and Mental Health Services Administration (SAMHSA), U.S. Department of Health and Human Services (DHHS)
Frequency	Annual
Geographic Levels	National and State
Demographic Categories	Age
Strengths	NSDUH is the only national source that currently provides prevalence of use estimates for both adolescents and adults for every state.
Limitations	The inclusion of multiple categories of substances within a single measure lacks specificity and similar values for this indicator could be obtained through very different patterns of use across the categories. State-level estimates for most states are based on relatively small samples. Although augmented by model-based estimation procedures, estimates for specific age groups have relatively low precision (i.e., large confidence intervals). The estimates are provided directly by SAMHSA and raw data that could be used for alternative calculations (e.g., different age categories and/or other demographic subgroups) are not available. The estimates are subject to bias due to self-report and non-response (refusal/no answer).

Indicator RECOMMENDED	Current Use of Cocaine by High School Students
Justification	Cocaine use can result in serious negative health consequences and is highly addictive. Physical symptoms may include chest pain, nausea, blurred vision, fever, muscle spasms, convulsions, and coma. Death from a cocaine overdose can occur from convulsions, heart failure, or the depression of vital brain centers controlling respiration.
Definition	Percent of students in grades 9 through 12 reporting any use of cocaine within the past 30 days
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	<p>A cocaine-specific measure provides more useful information for purposes of prevention planning and monitoring than a single global measure of illicit drug use. YRBSS estimates are typically based on larger samples than the National Survey of Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.</p>
Limitations	<p>Prevalence rates for current use of cocaine among high school students are relatively low and may be unstable due to small numbers of users. As of 2005, weighted representative samples were available for only 40 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer).</p>

Indicator RECOMMENDED	Current Use of Inhalants by High School Students
Justification	Both immediate and long-term negative health consequences are known to occur from the use of inhalants. Long-term consequences of chronic exposure to inhalants has been associated with brain and other organ damage, neurocognitive impairment, congenital defects in children of abusers, and compromised immune system response. Even a single prolonged exposure by otherwise healthy individuals has been known to cause death as a result of cardiac arrhythmia, asphyxiation, or suffocation.
Definition	Percent of students in grades 9 through 12 reporting that they sniffed glue, breathed the contents of aerosol cans, or inhaled paints or sprays, to get high within the past 30 days
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	<p>An inhalant-specific measure provides more useful information for purposes of prevention planning and monitoring than a single global measure of illicit drug use. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.</p>
Limitations	<p>Prevalence rates for current use of inhalants among high school students are relatively low and may be unstable due to small numbers of users. As of 2005, weighted representative samples were available for only 40 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer).</p>

Indicator RECOMMENDED	Percent of High School Students Reporting Any Use of Specific Classes of Illicit Drugs in Their Lifetime
Justification	<p>Use of classes of illicit drugs included here has varying degrees of negative physical and psychological effects. Chronic drug use can lead to dependence and serious medical conditions. Both chronic and occasional use can result in serious medical conditions stemming from the drug itself, the method of drug administration, or the use of contaminated equipment.</p>
Definition	<p>Percent of students in grades 9 through 12 reporting using:</p> <ul style="list-style-type: none"> • cocaine • inhalants • steroids • methamphetamine • ecstasy (MDMA) • heroin • any drugs via injection <p>one or more times during the lifetime (each category assessed separately)</p>
Data Source	<p>Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)</p>
Frequency	<p>Biennial</p>
Geographic Levels	<p>State</p>
Demographic Categories	<p>Grade Level, Gender, and Race/Ethnicity</p>
Strengths	<p>Prevalence rates of lifetime use are higher and more stable than for current use. Due to the rarity of their use and the potentially serious consequences of use among adolescents, lifetime use measures for adolescents are appropriate for these substances. The YRBSS is the only national source that currently provides state-level prevalence estimates on lifetime use of specific categories of illicit drugs and among high school student. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.</p>
Limitations	<p>Lifetime users include persons who have used substances only once or on rare occasions, and may not reflect current risk. As of 2005, weighted representative samples were available for only 40 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for some demographic subgroups may have relatively low precision (i.e., large confidence intervals).</p>

Indicator RECOMMENDED	Early Initiation of Marijuana Use
Justification	Initiation of marijuana use at young ages, especially in pre-adolescence, has been linked to more intense and problematic levels of use of marijuana and other substances in adolescence and adulthood.
Definition	Percent of students in grades 9 through 12 reporting first use of marijuana before age 13
Data Source	Youth Risk Behavior Surveillance System (YRBSS), Centers for Disease Control and Prevention (CDC)
Frequency	Biennial
Geographic Levels	National and State
Demographic Categories	Grade Level, Gender, and Race/Ethnicity
Strengths	<p>This measure can be defined for all respondents, unlike average age of first use, which can only be defined for users. YRBSS estimates are typically based on larger samples than the National Survey on Drug Use and Health, and can be further broken down by grade level, gender, and race/ethnicity. Some states also collect YRBSS data for individual communities or school districts, which can be compared with their state-level data.</p>
Limitations	<p>A cut-point of 13 years may not be sensitive to changes in average age of first use across the age continuum. As of 2005, weighted representative samples were available for only 40 states. Not all states participate, and some participating states do not provide representative samples. YRBSS is a school-based survey, so students who have dropped out of school are not represented. It is also subject to bias due to self-report, non-coverage (refusal by selected schools to participate), and non-response (refusal/no answer). Estimates for some demographic subgroups may have relatively low precision (i.e., large confidence intervals).</p>