

Surveillance, Epidemiology, and End Results (SEER) Program

(Used for Indicators H4 and H5)

Brief description of the data set	The Surveillance, Epidemiology, and End Results (SEER) program is an authoritative source of information on cancer incidence and mortality in the United States. SEER collects and publishes cancer data from a set of 17 population-based regional cancer registries located throughout the country.
Who provides the data set?	National Cancer Institute.
How are the data gathered?	Data on all diagnosed cancer cases in the geographical area for a cancer registry are compiled each year and submitted to SEER. Mortality data for all causes of death in the entire US are collected by the National Center for Health Statistics. Population data are provided by the Census Bureau.
What documentation is available describing data collection procedures?	See http://seer.cancer.gov/index.html for detailed description of SEER organization and data collection practices.
What types of data relevant for children’s environmental health indicators are available from this database?	Relevant data include cancer incidence and mortality (including cancer type, tumor site, tumor morphology, and stage at diagnosis, first course of treatment, and follow-up for vital status), demographic information, and state and county.
What is the spatial representation of the database (national or other)?	The most recent SEER database for cancer incidence has 18 population-based cancer registries in 14 states and covers 28% of the U.S. population. A subset of the current SEER includes 13 population-based cancer registries in 10 states and covers 14% of the U.S. population. The registries include: the Alaska Native, Atlanta, Connecticut, Detroit, Hawaii, Iowa, Los Angeles, New Mexico, Rural Georgia, San Francisco-Oakland, San Jose-Monterey, Seattle-Puget Sound, and Utah tumor registries. These data are taken to represent cancer incidence for the entire United States. See below for further discussion. The SEER database also includes national mortality data for all causes of death from the National Vital Statistics System.
Are raw data (individual measurements or survey responses) available?	Yes.
How are database files obtained?	http://seer.cancer.gov/data/access.html includes various methods of accessing SEER data. Raw data for each person can be obtained. For ACE, annual summary cancer incidence and mortality rate data were obtained using SEER*Stat software available from the same website.
Are there any known data quality or data analysis concerns?	The population covered by SEER is comparable to the general U.S. population with regard to measures of poverty and education. The SEER population tends to be somewhat more urban and has a higher proportion of foreign-born persons than the general U.S. population. Cancer mortality data for North Dakota and South Carolina have significant percentages of persons with unknown ethnicity.
What documentation is available describing quality assurance procedures?	http://seer.cancer.gov/qi/index.html provides information on SEER quality improvement.
For what years are data available?	Data are available from the original 9 SEER registries from 1973–present, but over time the coverage of SEER has increased to cover more individuals and geographic regions. See below for further discussion.

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What is the frequency of data collection?	Annually.
What is the frequency of data release?	Annually.
Are the data comparable across time and space?	<p>The national coverage has increased over time from 9 to 18 cancer registries. Time comparisons should be between the same set of registries. Thus, long-term trend comparisons use SEER 9 (the original 9 registries) beginning with 1973 and cover the smallest percentage (9.5% in 2000) of the U.S. population. The full set of registries (SEER 18) has the broadest coverage (28%), but provides data only from the year 2000 forward. SEER 13 covers 14% of the population and provides data from 1992 forward. Population coverage varies by state.</p> <p>Over time the cancer classifications used by SEER have changed. As scientific knowledge has improved, some cancers that were once more generally classified are now given a more exact definition. However, with each annual update SEER updates the current and previous years' data to reflect the latest classification scheme. The one exception would be for conditions that are now classified as malignant cancers but were not previously and were therefore not registered by the SEER cancer registries for earlier years. This applies only to a limited number of rare tumor types, so it is not expected to contribute to changes in cancer incidence over time.</p>
Can the data be stratified by race/ethnicity, income, and location (region, state, county or other geographic unit)?	<p>The data can be stratified by race and ethnicity, as well as median county income. Incidence data within the given SEER registry can be geographically stratified by state and county. Mortality data can be geographically stratified by state and county.</p>