



# Sources of Information Regarding Cancer Disparities in Wisconsin: A Brief Report

**Cancer Health Disparities Initiative**

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For more information about the Cancer Health Disparities Initiative visit:  
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## Sources of Information Regarding Cancer Disparities in Wisconsin

A variety of data resources are available to inform Wisconsin residents and researchers about cancer and related health disparities. These sources include access to data query systems and summary reports provided by state and national agencies. The University of Wisconsin Paul P. Carbone Comprehensive Cancer Center's Cancer Health Disparities Initiative (CHDI) is committed to identifying and reducing unequal cancer burden experienced by populations in Wisconsin and nationally. A key resource in the effort to reduce cancer disparities is a well-informed public and scientific community.

### WISCONSIN CANCER DATA

#### Wisconsin Cancer Reporting System (WCRS) – Incidence and Mortality Summary Reports

Access at: <http://dhs.wisconsin.gov/wcrs/pubs.htm>

The Wisconsin Cancer Reporting System (WCRS) periodically releases summary reports of cancer incidence and mortality. The reports *Wisconsin Cancer Incidence and Mortality* and *Health Counts in Wisconsin: Cancer* are published every two years. WCRS also contributes data to special reports such as the *Wisconsin Minority Health Report*. WCRS reports are based on incidence data collected by WCRS and mortality data collected by the Surveillance, Epidemiology, and End Results (SEER) Program of the National Cancer Institute. Further details about these data sources and access to them are described below.

#### Wisconsin Cancer Reporting System (WCRS) – Cancer Incidence Data

Access at: <http://dhs.wisconsin.gov/wcrs/>

Since 1976, WCRS has collected cancer incidence data on Wisconsin residents as mandated by section 255.04, Wisconsin Statutes, and HFS 124.05(3)(h), Wisconsin Administrative Code. Cancer cases are reported to the Wisconsin Cancer Reporting System (WCRS) by Wisconsin hospitals, clinics, and physician offices. All invasive and noninvasive malignant tumors, except basal and squamous cell carcinomas of the skin and *in situ* cancers of the cervix uteri, are reportable to WCRS. Starting in 1994, WCRS entered into a cooperative agreement with the U.S. Centers for Disease Control and Prevention (CDC) and became part of the National Program of Cancer Registries.

The WCRS collects data on patient demographics (race, ethnicity, age, and county of residence at time of diagnosis), primary tumor site, stage at diagnosis, and tumor morphology. The WCRS also collects information on first course of treatment and follow-up for vital status, but the WCRS has concerns about the quality and completeness of these data. The WCRS does not include data on socioeconomic factors, such as income and educational attainment, which have been shown to be related to disparities in cancer incidence rates.

Direct access to cancer incidence data is restricted to WCRS employees. External researchers may request summary tables from WCRS. Completion of data requests is subject to the approval and time constraints of WCRS employees. In order to protect the anonymity of cancer cases, individual-level data are not available to researchers and WCRS follows strict procedures when releasing data summaries. Summary information for all cancers combined and select leading cancer sites may be available at the county-level. County-level summaries are provided in 5-year periods as further protection against revealing personal information about cases. State-level summaries of cancer incidence data are available by single years.

## Surveillance, Epidemiology, and End Results (SEER) – Cancer Mortality Data

Access at: <http://seer.cancer.gov/index.html>

Wisconsin cancer mortality data can be accessed through the NCI's Surveillance, Epidemiology, and End Results (SEER) program. Mortality data from Wisconsin resident death records are collected by the Vital Records Section, Wisconsin Department of Health Services. These data are reported to National Center for Health Statistics (NCHS) on an ongoing basis. NCHS makes mortality data from all states available for public use through SEER and updates these data annually. Population data used in calculating cancer rates are obtained periodically from the Census Bureau.

SEER makes available the following data regarding cancer deaths: demographics (race, ethnicity, age, and county), primary tumor site, and tumor morphology. SEER mortality data available to the public do not include first course of treatment, stage at diagnosis, or follow-up for vital status. SEER also does not include data on socioeconomic factors that have been shown to be related to disparities in cancer mortality rates.

After agreeing to SEER data use policies, researchers can run customized data queries using the SEER\*Stat software. In order to protect the anonymity of persons who have died from cancer, individual-level data are not available to researchers. Summary information for all cancers combined and cancer sites are available at the county-level. County-level summaries are provided in 5-year periods as further protection against revealing personal information about cases.

### OTHER SOURCES OF WISCONSIN HEALTH DATA RELATED TO CANCER DISPARITIES

#### CDC's Wide-ranging Online Data for Epidemiologic Research (WONDER)

Access at: <http://wonder.cdc.gov/>

The CDC's Wide-ranging Online Data for Epidemiologic Research (WONDER) system is a query application for the Compressed Mortality File (CMF). The CMF database contains mortality and population counts for all U.S. counties for the years 1979 to 2005. Counts and rates of death can be obtained by underlying cause of death, state, county, age, race, sex, and year.

CDC's WONDER system includes the same mortality data for cancer as contained in the SEER database. Individual-level data are not available. County-, regional-, and state-level data summaries are available for all types of cancer. Cancer deaths are identified by their ICD codes and researchers can request information about individual or groups of cancer sites. Summary information is available by single years or grouped into multiple-year periods. A limitation of WONDER is that it does not include an ethnicity indicator to distinguish Hispanic and non-Hispanic deaths.

The WONDER system has a unique feature not included in SEER: an indicator of urbanization from the National Center for Health Statistics Urban-Rural Classification Scheme for Counties. Each county is classified as one of six categories: Large Central Metro, Large Fringe Metro, Medium Metro, Small Metro, Micropolitan (non-metro), or NonCore (non-metro). Each death is associated with a category based on the county of the person's legal residence at the time of death. The urbanization index is a broad indicator of an individual's exposure to environmental hazards, access to health care, and many other health and socioeconomic factors. This indicator should be considered with caution, however, because it is only assessed at the time of death and does not account for changes in residence over an individual's life or many other potentially confounding factors. Additional socioeconomic indicators and finer geographic identification of cases, such as zip code or census tract, would be useful for epidemiological investigations.



## Wisconsin Interactive Statistics on Health (WISH)

Access at: <http://dhs.wisconsin.gov/wish/>

The Wisconsin Interactive Statistics on Health (WISH) system is an online query tool that allows users to access a variety of health indicators. WISH contains data on births, deaths, population estimates, injuries, behavioral risk factors, and violent death. The system includes data for most indicators for multiple years and geographic areas. WISH data are available at the county-, regional-, and state-level.

WISH data are provided by National Center for Health Statistics and cover similar information as the WONDER system, with some important differences. First, at the time of publication of this report, WISH provides mortality data for one additional year than what is available through WONDER. Second, WISH allows Wisconsin data to be inspected by geographical area (Southern, Southeastern, Northeastern, Western, and Northern) as well as by county. Geographic region and county are important although broad indicators of conditions over the lifecourse. Finer levels of geographical identification, such as zip code or census tract, and other indicators of socioeconomic status would be useful for epidemiological investigations.

## Wisconsin County Health Rankings

Access at: <http://pophealth.wisc.edu/uwphi/pha/wchr.htm>

The UW Population Health Institute publishes the *Wisconsin County Health Rankings* on an annual basis. This report ranks Wisconsin communities on various measures of population health in the form of health determinants and health outcomes. The purpose of the *Rankings* is to contrast measures of population health and their determinants. Intended audiences for the *Rankings* include local health officers, the health policy community, health care executives, legislators, advocacy groups, and the media.

The *Rankings* report uses two factors to determine the level of health outcomes for each county in Wisconsin: the rank of premature death (dying before age 75) and how people assess their own health. The report also analyzes many different factors in four major categories to establish how health outcomes are determined: access to and quality of health care, health behaviors such as smoking and drinking, social and economic factors such as levels of income and education, and the physical environment such as air and water quality.

The county-level indicators included in the *Rankings* report are an extensive source of complementary data for exploring cancer disparities by socioeconomic, educational, employment, health behaviors, environmental and other gradients in Wisconsin. Data are available at the county level and can be combined to create larger geographic aggregations. Although finer levels such as zip code or census tract would be valuable, the range of data sources contained in the county rankings provides a useful tool to researchers seeking to combine multiple sources of data.