

Geospatial Tools

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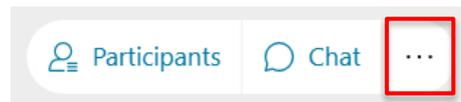
NCI Analytic Tools SEERies

Using WebEx and Webinar Logistics

The screenshot shows the WebEx interface with the following elements:

- A top navigation bar with three colored segments: red, grey, and blue.
- A header area with a red box around the "Chat" dropdown menu.
- A "To:" dropdown menu set to "All Panelists".
- A text input field with the placeholder "Enter chat message here".
- A "Q & A" dropdown menu with a red box around it.
- A "Send" button and a "Send Privately" button.
- A bottom navigation bar with "Participants", "Chat", and a "..." menu icon.

- All lines will be in listen-only mode
- Submit questions at any time using the **Q&A** or **Chat** Panel and select “All Panelists”
- You may need to activate the appropriate box using the floating navigation panel. Found on the bottom of your screen



- During the Live Demo- put your screen layout in “Full Screen” mode for a better viewing experience
- This webinar is being recorded

Geospatial Tools and Resources: State Cancer Profiles and GIS Portal for Cancer Research

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The **State Cancer Profiles** web site provides data, maps, and graphs to help guide and prioritize cancer control activities at the state and local levels. It is a collaboration of the National Cancer Institute and the Centers for Disease Control and Prevention.

STATE CANCER PROFILES
Dynamic views of cancer statistics for prioritizing cancer control efforts across the nation

Quick Profiles for States
Choose a state below to get a report of cancer statistics and other related topics.

Data Topics Across the Cancer Control Continuum
Cancer statistics, charts, and maps by data topic across the cancer control continuum.

- Demographics
- Screening & Risk Factors
- Cancer Knowledge

Age-Adjusted Rates Rates by Cancer Site, All Races (2012-2016)

Age-Adjusted Rates Rates by Cancer Site, All Races (2012-2016)	Pennsylvania Rate	USA Rate	Map	Graph
All Cancer Sites	487.0	468.0		
Breast	34.3	32.1		
Prost & OAS	7.2	6.5		
Colon (Rectal)	133.9	125.2		
Stomach (Esophagus)	34.3	32.1		
Colon (Rectal)	7.4	7.6		

Detailed State Report for Pennsylvania by County

County	Age-Adjusted Rate (All Races) (2012-2016)	Average Annual Cancer Incidence	Number of Deaths (2012-2016)
Adams County	487.0	1,100	1,100
Allegheny County	487.0	1,100	1,100
Armstrong County	487.0	1,100	1,100
Beaver County	487.0	1,100	1,100
Bedford County	487.0	1,100	1,100
Butte County	487.0	1,100	1,100
Cameron County	487.0	1,100	1,100
Clearfield County	487.0	1,100	1,100
Clinton County	487.0	1,100	1,100
Crawford County	487.0	1,100	1,100
Cumberland County	487.0	1,100	1,100
Franklin County	487.0	1,100	1,100
Fulton County	487.0	1,100	1,100
Huntingdon County	487.0	1,100	1,100
Juniata County	487.0	1,100	1,100
Lancaster County	487.0	1,100	1,100
Lebanon County	487.0	1,100	1,100
Lehigh County	487.0	1,100	1,100
Luzerne County	487.0	1,100	1,100
Mechanic County	487.0	1,100	1,100
Merger County	487.0	1,100	1,100
Monroe County	487.0	1,100	1,100
Montgomery County	487.0	1,100	1,100
Nichols County	487.0	1,100	1,100
Northampton County	487.0	1,100	1,100
Northumberland County	487.0	1,100	1,100
Perry County	487.0	1,100	1,100
Pike County	487.0	1,100	1,100
Polk County	487.0	1,100	1,100
Richmond County	487.0	1,100	1,100
Schuylkill County	487.0	1,100	1,100
Snyder County	487.0	1,100	1,100
Somerset County	487.0	1,100	1,100
Union County	487.0	1,100	1,100
Warren County	487.0	1,100	1,100
Washington County	487.0	1,100	1,100
Westmoreland County	487.0	1,100	1,100
York County	487.0	1,100	1,100

NCI GIS Portal is a web-based station for interactive mapping and visualization of cancer related geo-spatial data. The portal combines Geographic Information Science (GIS) principles and tools to harmonize relatively large and multi-dimensional datasets, including population-based cancer statistics and behavioral, environmental, clinical, socioeconomic, and policy data.

Rural-Urban Disparities in Cancer

Evidence shows that rural residents face serious disadvantage related to socioeconomic deprivation and limited access to quality healthcare relative to urban residents.

[View the New Map Story](#)

Spatial Context of Cancer

The spatial context in which people live is an important factor in cancer etiology and outcomes influencing a person's risk of developing cancer, accessibility and quality of preventive and treatment services, and quality of life after surviving cancer.

[Learn More About Spatial Context](#)

Cancer Surveillance Data

Behavioral Risk Factor Data

Environmental Exposure Data

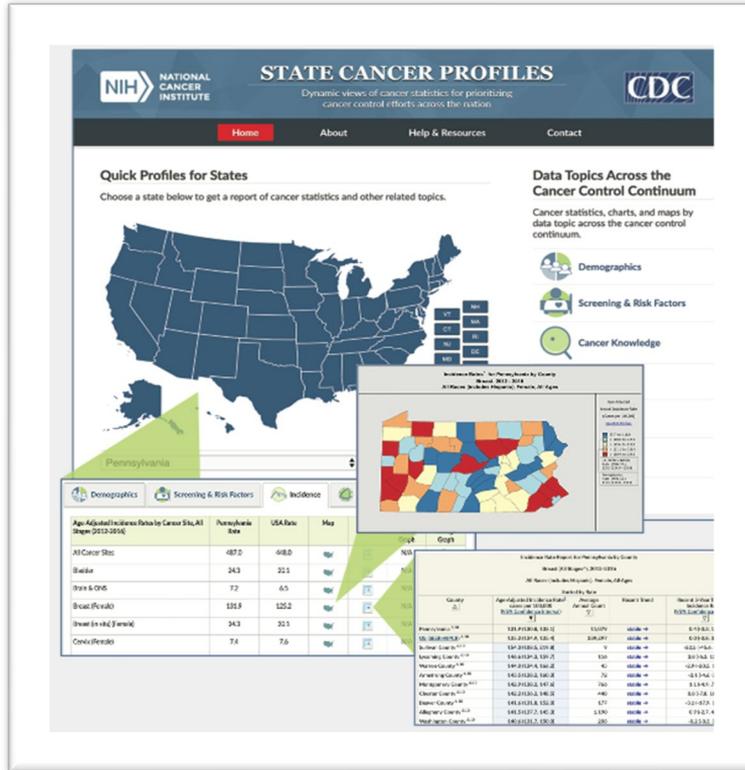
Data on Locations of Medical Services

Built Environment, Food Sources, Obesity, and Energy Balance Data

Data on Populations and Social Determinants

Geospatial Reference Data

State Cancer Profiles



- A collaborative effort between NCI and CDC
- Developed with the idea to provide a geographic profile of cancer burden in the United States and reveal geographic disparities in cancer related statistics

<https://StateCancerProfiles.cancer.gov>

GIS Portal for Cancer Research

The screenshot shows the NIH National Cancer Institute GIS Portal for Cancer Research homepage. At the top, there is a navigation bar with links for Home, GIS at NCI, Geospatial Tools, Geospatial Data, Research Resources, and Funding. A search bar is located in the top right corner. The main content area features a large introductory text block on the left and a featured article titled "Rural-Urban Disparities in Cancer" on the right. Below the introductory text is a horizontal navigation bar with stages: Etiology, Prevention, Detection, Diagnosis, Treatment, and Survivorship. A "Spatial Context of Cancer" section is also visible, along with a list of data categories on the left side of the page.

NIH NATIONAL CANCER INSTITUTE
GIS Portal for Cancer Research

Home GIS at NCI Geospatial Tools Geospatial Data Research Resources Funding

NIH GIS Portal is a web-based station for interactive mapping and visualization of cancer related geo-spatial data. The portal combines Geographic Information Science (GIS) principles and tools to harmonize relatively large and multi-dimensional datasets, including population-based cancer statistics and behavioral, environmental, clinical, socioeconomic, and policy data.

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View the New Map Story

Spatial Context of Cancer
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Learn More About Spatial Context

- ▶ **Cancer Surveillance Data**
- ▶ **Behavioral Risk Factor Data**
- ▶ **Environmental Exposure Data**
- ▶ **Data on Locations of Medical Services**
- ▶ **Built Environment, Food Sources, Obesity, and Energy Balance Data**
- ▶ **Data on Populations and Social Determinants**
- ▶ **Geospatial Reference Data**

- A comprehensive resource of data and interactive tools for visualization of cancer related information

This collage displays several interactive GIS tools and maps available on the portal. It includes a map of the United States with a legend, a map showing NCI-Designated Cancer Centers, a map of the United States with a legend, and a map showing Tobacco Policy Viewer. Each tool is accompanied by a brief description and a button to launch or explore the tool.

NCI Cancer Atlas
An interactive digital atlas that enables users to generate geographic maps of cancer rates, risk factors for cancer, screening statistics, and other geographically based data related to cancer.
Launch the Atlas

NCI-Designated Cancer Centers
This web-based application serves as a visualization tool for the geographically defined catchment areas of NCI-designated Cancer Centers.
View the Tool

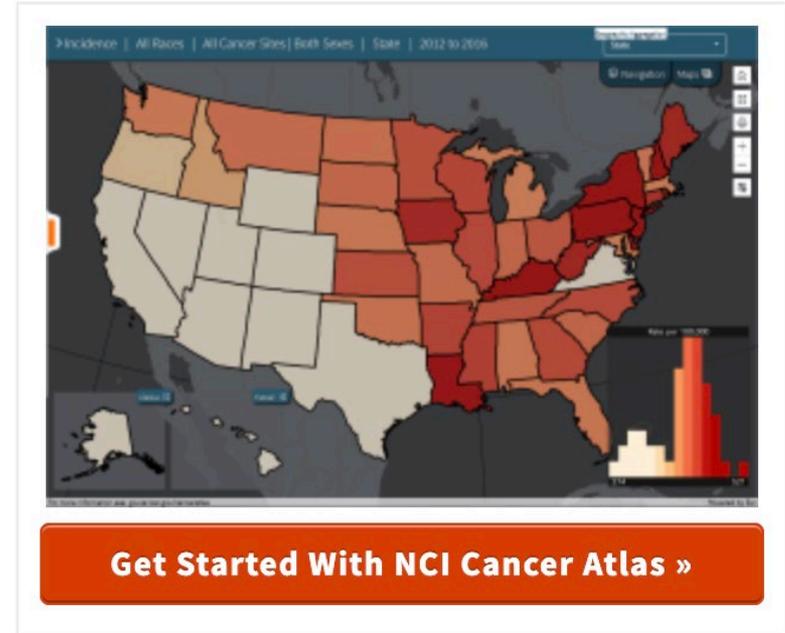
Animated Historical Cancer Atlas
A tool that allows the users to animate smoothed age-adjusted death rates over time and view them at the national or state level.
Launch the Atlas

Tobacco Policy Viewer
An interactive web resource for mapping, query, and download of historical smoke-free policy data in the United States.
Explore the Viewer

<https://gis.cancer.gov>

NCI Cancer Atlas

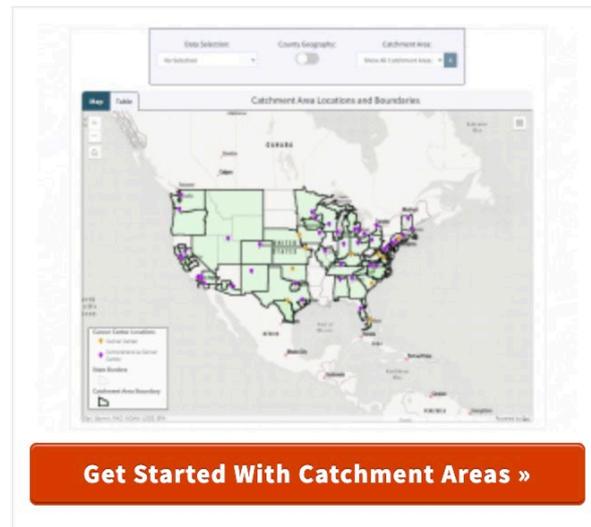
- This application is an interactive digital atlas that enables users to generate geographic maps of cancer rates, risk factors for cancer, screening statistics, and other geographical data related to cancer. The system offers free data download
- <https://gis.cancer.gov/canceratlas/>



Mapping NCI-Designated Cancer Centers Catchment Areas

- This web-based application visualizes locations and geographic extent of 63 catchment areas of the 71 NCI-designated Cancer Centers, as of May 2021, their demographic characteristics and cancer mortality information.
- Result of collaborative effort published recently in CEBP.

<https://gis.cancer.gov/ncicatchment/>



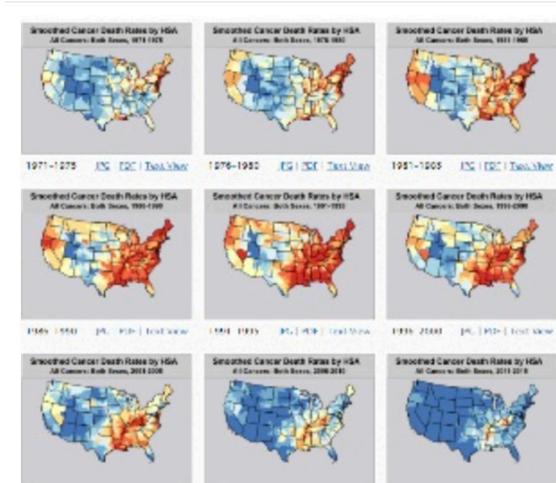
A National Map of NCI-Designated Cancer Center Catchment Areas on the 50th Anniversary of the Cancer Centers Program

Peter F DelNero # 1 2, Ian D Buller # 1 3, Rena R Jones 3, Zaria Tatalovich 4, Robin C Vanderpool 5, Henry P Ciolino 6, Robert T Croyle 7

Animated Historical Cancer Atlas

- The Animated Historical Cancer Atlas is a tool that allows the users to animate smoothed age-adjusted death rates over time and view them at the national or state level

<https://gis.cancer.gov/atlas/>



[Get Started With the Atlas »](#)

Tobacco Policy Viewer

- Interactive web resource for mapping, query, and download of historical smoke-free policy data in the United States.
- It visualizes and provides data related to:
 - When and which cities, counties and states have adopted the smoke free policies
 - Types of indoor areas that are smoke-free
 - Length of time since the smoke-free policy came into effect
 - Percent of population protected by the smoke-free policies

<https://gis.cancer.gov/tobaccopoly/>



A geo-view Into Historical Patterns of Smoke-free Policy Coverage in the US
Zaria Tatalovich., David G. Stinchcomb, Jeremy A. Lyman, Yvonne Hunt, James E. Cucinelli

Cancer Map Stories

- Cancer Map Stories are narratives that combine cancer statistics, maps of cancer rates, and other relevant information to support understanding of geographic disparities in cancer.
- The narrative is based on the recent research contributions to the topic and expert knowledge of NCI experts and other partner organizations

<https://gis.cancer.gov/mapstory/>

Cancer Map Stories

This section provides links to map stories developed by the National Cancer Institute (NCI) that discuss a cancer topic using a map-based explanation.



Rural-Urban Disparities in Cancer

Evidence shows that rural residents face serious disadvantage related to socioeconomic deprivation and limited access to quality healthcare relative to urban residents.

[Explore this Map Story](#)



Tobacco Use & Lung Cancer

Tobacco use poses a considerable public health burden in the United States. In fact, it is the leading cause of preventable illness and death in this country.

[Explore this Map Story](#)



Colorectal Cancer in Young Adults

Excluding skin cancers, colorectal cancer is the third most common cancer diagnosed in both men and women in the United States.

[Explore this Map Story](#)

Live Demonstration

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