

Surveillance Research Program

<http://surveillance.cancer.gov>

Overview

The Surveillance Research Program (SRP) is dedicated to providing a quantitative portrait of cancer in diverse regions and populations in the United States. To accomplish this, SRP measures cancer incidence, survival, prevalence, and death rates; analyzes, interprets, and monitors cancer trends; and disseminates population-based information to those interested in cancer prevention and control.

SRP's **Office of the Associate Director (OAD)** oversees program and policy development and budget management. In doing so, the OAD collaborates with other public health organizations to coordinate national cancer surveillance and control activities and to meet the increased demands for cancer data.

The **Surveillance Systems Branch (SSB)** coordinates a national program that measures and reports the cancer burden in the U.S. population and its subgroups, providing estimates of cancer incidence, morbidity, survival, mortality, and other associated indicators. It also directs a quality control program that maintains standards for collecting and reporting cancer data. SSB integrates advances in communications and information technology into program management, operations, and dissemination of surveillance data; develops software that improves programmatic functions such as cancer registry operations and statistical analysis of data and communications; collaborates with organizations that promote the creation and comparability of cancer surveillance information systems; and manages a grant and contract portfolio that includes the Surveillance, Epidemiology, and End Results (SEER) Program (<http://surveillance.cancer.gov/branches/ssb>).

The **Statistical Methodology and Applications Branch (SMAB)** conducts and supports research to provide optimal statistical methods for the collection, analysis, and presentation of measures related to the cancer control, surveillance, and epidemiology programs of NCI. It supports research and applications that evaluate interventions to reduce the cancer burden and provides liaison with cancer research communities to fully utilize these methods and results. It also develops software to disseminate statistical models and methods; provides consultation on the design and analysis of spatial-temporal, genetic, and intervention studies; and supports extramural research through a portfolio of grants and contracts in statistical methodology, spatial-temporal statistics, statistical genetics, and analysis of complex high-dimension biomedical data (<http://surveillance.cancer.gov/branches/smab>).

The **Data Modeling Branch (DMB)** supports research on statistical and mathematical models to understand the impact and comparative effectiveness of cancer control interventions and the impact of economic, health care delivery, and utilization factors on the cancer burden. It also coordinates research to evaluate and improve estimates of cancer progress measures such as survival, prevalence, and quality of life; develops software for integration of statistical models and modeling into data systems; establishes methods and models for utilization of data from multiple studies or sources; disseminates knowledge and understanding of models, methods, and software tools necessary to utilize surveillance data for research purposes and policy evaluation; and supports modeling and statistical methodology research efforts in the extramural community through a portfolio of grants and contracts (<http://surveillance.cancer.gov/branches/dmb>).

The **Data Analysis and Interpretation Branch (DAIB)** provides leadership for the analysis and interpretation of patterns and trends in cancer surveillance data. This includes developing new statistical methods and tools, planning and directing cancer surveillance studies, applying various techniques to the analysis and presentation of cancer statistics, and combining systems to measure progress in reducing the cancer burden (<http://surveillance.cancer.gov/branches/daib>).

Major Initiatives

Surveillance, Epidemiology, and End Results (SEER) Program

<http://seer.cancer.gov>

SEER is a comprehensive, population-based cancer data reporting system that gathers information on cancer incidence, survival, prevalence, and death rates. SEER provides access to many resources, including:

- cancer statistics through interactive tools, including Fast*Stats and State Cancer Profiles (<http://seer.cancer.gov/statistics>).
- public use data files (<http://seer.cancer.gov/data>).
- the SEER-Medicare-linked database (http://health_services.cancer.gov/seermedicare); and
- county attributes (<http://seer.cancer.gov/seerstat/variables/countyattribs>).

SEER also engages in quality-improvement efforts aimed at increasing efficiency, such as the deployment of SEER*DMS, a unified application that helps manage central cancer registry data.

SEER investigators participate in Rapid Response Surveillance Studies, which address emerging issues in cancer prevention and control, surveillance methods, and registry operations, as well as patterns of care.

Cancer Intervention and Surveillance Modeling Network (CISNET)

<http://cisnet.cancer.gov>

CISNET is a consortium of investigators who use modeling to analyze the impact of cancer control

interventions on population trends in incidence and mortality, project future trends, and determine optimal cancer control strategies. It is comprised of five cancer site working groups: breast, prostate, colorectal, lung, and esophageal. CISNET models translate evidence from randomized trials and epidemiologic studies to the population health setting, accounting for actual usage in less-controlled settings.

Methods and Software for Population-Based Cancer Statistics and Research

<http://surveillance.cancer.gov/software/methods.html>

SRP supports the research community by maintaining and developing statistical methods and software tools to calculate incidence, survival, prevalence, mortality, and spatial statistics. Examples include SEER*Stat, Joinpoint, HD*Calc, and delay adjustment.

Geographic Information Systems (GIS)

<http://gis.cancer.gov>

SRP supports research to investigate geographic patterns and determinants of cancer in the United States, manage spatial data from various sources, and validate and analyze those data. SRP and its collaborative partners developed the State Cancer Profiles Web site (<http://statecancerprofiles.cancer.gov>), which provides a comprehensive system of interactive maps and graphs detailing cancer trends at the national, state, and county levels.

Health Disparities Research

<http://surveillance.cancer.gov/disparities>

SRP examines population-based health and disease outcomes associated with economic, social, cultural, psychological, behavioral, and biological factors. Diverse methods of measuring disparities have been applied to cancer-related data (<http://seer.cancer.gov/publications/disparities>). SEER data have been linked to area-based socioeconomic data from the Census and individual socioeconomic data from the National Longitudinal Mortality Study (NLMS) to enable analyses of both neighborhood and individual-level determinants of cancer outcomes. The Health Disparities Calculator (<http://seer.cancer.gov/hdcalc>) is software designed to use population-based health data to calculate up to eight disparity measurements.

Partnerships and Collaborations

SRP collaborates with other public health entities, including the Centers for Disease Control and Prevention, North American Association of Central Cancer Registries, American Cancer Society, American College of Surgeons Commission on Cancer, Indian Health Service, National Cancer Registrars Association, Centers for Medicare and Medicaid Services, Native American Research Network, and American Society of Clinical Oncology. SRP also is a founding member of the National Coordinating Council for Cancer Surveillance. Collaborative projects have supported cancer registries, developed a national framework for cancer surveillance, and evaluated the status of cancer in the United States. SRP also collaborates with cancer research facilities in other countries to review and coordinate registry activities, apply statistical models, and help train foreign scientists in data collection and reporting procedures.

SRP Publications

Reports on Cancer:

<http://www-surveillance.cancer.gov/publications>

Statistical Reports and Monographs:

<http://seer.cancer.gov/publications>

SEER Bibliography:

<http://seer.cancer.gov/pubsearch>

Methodology and Modeling Technical Reports:

<http://surveillance.cancer.gov/reports>

CISNET Publications:

<http://cisnet.cancer.gov/publications>

Funding Opportunities

Researchers can explore many areas of statistical research and collaborative opportunities in the Division of Cancer Control and Population Sciences (DCCPS) and in the broader NCI community. Learn more at:

<http://statfund.cancer.gov>

<http://cancercontrol.cancer.gov/funding.html>

<http://gis.cancer.gov/funding>

Active SRP grants can be viewed at:

<http://cancercontrol.cancer.gov/grants/query.asp?program=SRP>

Employment and Training Opportunities

Job, fellowship, and sabbatical positions in cancer surveillance research:

<http://surveillance.cancer.gov/jobs>

Training and Career Development Opportunities:

<http://cancer.gov/researchandfunding/training>

Contact Information

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