

Inventory of North Dakota Cancer-Related Data Sources

Updated September 2024



This inventory was developed in partnership with North Dakota Health and Human Services Comprehensive Cancer Control Program and their external evaluator, Professional Data Analysts as a document to be an assisted document providers and stakeholders to obtain data, in the utilization of implementation of the North Dakota Statewide Strategic Cancer Plan 2025-2035.

This publication is available on North Dakota Health and Human Services Comprehensive Cancer Control Program website at https://www.hhs.nd.gov/health/community/comp-cancer

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Cover image source: Photo by Nong on Unsplash



Do you know of a cancer-related data source that is missing from this data inventory? Send an email to Annette Clark, North Dakota Comprehensive Cancer Control Program Director, PreventChronicDisease@nd.gov, with the name of the data source, a link to the data source's website, and a brief description of why it should be included in the inventory, and it will be considered for inclusion during the next update.

Thank you for your help in ensuring that this data inventory is up to date and includes key data for understanding the burden of cancer in North Dakota.





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About this data inventory

This data inventory was developed to assess the availability and access to cancer-related data that is accurate, relevant, and useful for supporting the work of the North Dakota Cancer Coalition (NDCC), North Dakota Comprehensive Cancer Control Program, and partners across North Dakota.

This data inventory may be used to:

- Serve as a starting place for finding cancer-related data.
- Understand the burden of cancer across North Dakota.
- Support the implementation of evidence-based interventions and policy, system, and environmental changes.
- Inform the planning, development, and implementation of the 2025-2035 North Dakota Cancer Plan [insert link] by NDCC and partners.

This data inventory's contents were collected through a comprehensive review of the websites of organizations involved in data collection and reporting, as well as interviews with key informants that dove deeper into how partners use the data identified in the website and document review.

Data sources are categorized as state or national resources, determined by whether the source is primarily overseen by a state or federal agency. The data sources are then categorized by organization, program or department. For each data source, there is a summary of what topic(s) the source covers, information about the data collection process, key contacts, a website to find more detailed information, and a table with questions or data points that are most relevant to cancer efforts (as feasible and relevant).

Starting on page 12, Each data source that includes cancer-specific data, such as prevalence, incidence, mortality, and/or screening, is identified with a green circle (•). Data sources without this indication do not include cancer-specific data. Still, they are included in the inventory because they contain data on cancer risk factors, quality of life, and/or demographics.

There are multiple **limitations** to this data inventory, including: the data landscape is constantly changing, lack of access to some data sources or data documentation, and small sample sizes leading to data not being available/publicly available.

Acronyms

Acronym	Name
ACS	American Cancer Society
ALA	American Lung Association
ASDS	American Society for Dermatologic Surgery
ATS	Adult Tobacco Survey
BRFSS	Behavioral Risk Factor Surveillance System
CDC	Centers for Disease Control and Prevention
CDI	Chronic Disease Indicator
EPH	Environmental Public Health
HRSA	Health Resources & Services Administration
QHA	Quality Health Associates
ND	North Dakota
ND HHS	North Dakota Health and Human Services
NDIIS	North Dakota Immunization Information System
NDSCR	North Dakota Statewide Cancer Registry
NPCR	National Program of Cancer Registries
NVSS	National Vital Statistics System
SEER	Surveillance, Epidemiology, and End Results
SHIP	State Health Improvement Plan
WEAT	Web Enabled Analysis Tool
YRBSS	Youth Risk Behavior Surveillance Survey
YTS	Youth Tobacco Survey

Highlights of Key Resources

Below is a list of key data-related resources grouped by type – dashboards, mapping tools, and reports. These resources utilize one or more data sources listed in later sections of the report, as indicated by the data sources listed under the resource title. The descriptions offer a brief explanation of what the resources could be used for. The images hyperlink to an associated website where the resource can be found. Acronyms for data sources can be found on page 2.

Dashboards & Analysis Tools

North Dakota Tobacco Surveillance Data

Data sources: BRFSS, ATS, YRBS, and YTS

Summary of tobacco surveillance data from ND HHS including an overview of tobacco use in North Dakota among adults and youth.



North Dakota Immunization Data

Data source: NDIIS

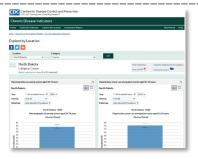
Summary of immunization data that includes human papillomavirus vaccine (HPV) and can be filtered by statewide coverage, county coverage, demographics, doses administered, and exemptions.



Chronic Disease Indicators

Data source: BRFSS, YRBSS

CDI allows exploration of key surveillance indicators of chronic diseases and their risk factors by state, including trends over time and comparison between groups (e.g., race/ethnicity, gender).



BRFSS Prevalence & Trends Data

Data source: BRFSS

Visualization of BRFSS data by state and topic, allowing users to see trends over time and comparisons between groups (e.g., gender, age group, race/ethnicity, education attained, household income).



BRFSS Web Enabled Analysis Tool (WEAT)

Data source: BRFSS

BRFSS WEAT allows custom crosstabulation tables and logistic regression using BRFSS data, across different states and years.



CDC WONDER

Data source: NPCR, SEER, NVSS

CDC WONDER includes incidence and mortality data. To see the data, the user must create a query. Then, the data can be visualized in maps and charts, in addition to being downloadable.



YRBSS Explorer

Data source: YRBS

This dashboard shows YRBSS results by topic area. It allows users to filter results by state, see patterns over time, and see sub-analyses by sex, race, and grade.

- Youth Online lets you analyze national, state, and local Youth Risk Behavior Surveillance System (YRBSS) data from high school and middle school surveys conducted during 1991 2021 and Global School-based Student Health Survey (GSHS) data from students aged 13-17 conducted during 2003 2015.
- YRBSS Analysis Tool allows for comparing the results of one or more variables with another variable (cross-tabulation)



State Cancer Profiles

Data source: U.S. Census Bureau, American Community Survey, Small Area Health Insurance Estimates, BRFSS, CDC, SEER, NPCR, NVSS

The State Cancer Profiles is an interactive map of demographics, cancer screening and risk factors, incidence, and mortality. It allows comparisons with U.S.A. rates, maps, tables, historical trends graphs, and 5-year rate change graphs.



U.S. Census Tables

Data source: U. S. Census Bureau Decennial Census, American Community Survey

U.S. Census tables show census data from various years, including population by race, ethnicity, education, income, and more.



U.S. Census QuickFacts

Data source: U. S. Census Bureau

It allows for mapping, comparisons, data tables, and more for population, age and sex, race and Hispanic origin, population characteristics, housing, families and living arrangements, computer and internet use, education, health, economy, transportation, income, and poverty, businesses, and geography.



Mapping Tools

United States Cancer Statistics: Data Visualizations

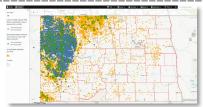
Data source: U.S. Census Bureau Interactive graphics and data interpretations about new cancer cases, cancer deaths, survival, stage, and prevalence by geography, sex, age, race, ethnicity, over time, screening and risk factors, and associated risk factors.



FracTracker Map

Data source: North Dakota Department of Natural Resources, Department of Mineral Resources, National Recourses Conservation Service, Energy Information Administration

An interactive map showing all gas plants, saltwater disposal monthly fracking water disposal volumes, hydraulic fracturing water demand for wells, North Dakota Bureau of Land Management land, oil & gas wells in North Dakota by county.



Oil & Gas Threat Map

Data source: Clean Air Task Force's Fossil Fumes report, U. S. Department of Education, North Dakota Department of Natural Resources Visualizes "threat radius," defined as within ½ mile of active oil and gas wells, compressors, and processors. The map also shows oil and gas facilities, schools and daycares, and air toxics risk.



North Dakota Oil and Gas Division Map Viewer

Data source: ND Department of Mineral Resources

Interactive map of oil-gas fields, rigs, and other relevant data points.



Energy Sites of North Dakota

Data source: Bismarck State College National Energy Center of Excellence, Spotlight on Energy 2021

Static map of energy sites in North Dakota.



U.S. Environmental Protection Agency (EPA) Map of Radon Zones (North Dakota)

Data source: U.S. EPA

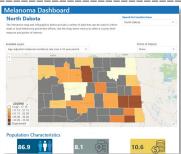
Static map of radon zones in North Dakota by county.



Melanoma Dashboard

Data source: United States Cancer Statistics (USCS), NVSS, Emory University, LegiScan, ASDS, Homeland Infrastructure Foundation-Level Data, ACS, Park Serve

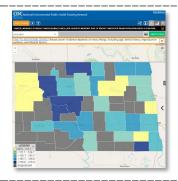
Interactive map of relevant state and local data related to melanoma prevention. The map also allows the addition of points of interest (day care centers, parks, public schools).



Data Explorer (National Environmental Public Health (EPH) Tracking Network)

Data source: EPH Tracking

Visualization of EPH Tracking data by state and county. Allows for subgroup visualizations and side-by-side map comparisons.



Mapping Medicare Disparities

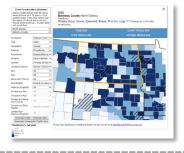
Data sources: U.S. Centers for Medicare & Medicaid Services

Interactive tools with health outcomes measures for disease prevalence, costs, hospitalization, emergency department utilization, readmission rates, mortality, preventable hospitalizations, and preventive services.

CDC/Agency for Toxic Substances and Disease Registry (ATSDR) Social Vulnerability Index (SVI)

Data sources: ACS, Census

Interactive map of social vulnerability index overall, as well as by subcomponents (e.g., socioeconomic status).



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Environmental Justice Index (EJI) Explorer

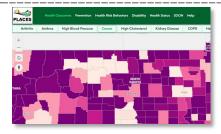
Data sources: U.S. Census Bureau, EPA, CDC Interactive map of environmental justice index by state and county.



PLACES: Local Data for Better Health

Data source: BRFSS

PLACES provides health data for small areas across the country. The comparison report tool allows the comparison of up to three counties or places for all measures and the interactive map produces county-level maps of health data.

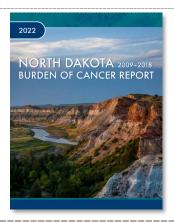


Reports

North Dakota Burden of Cancer Report 2022

Data sources: BRFSS, NDSCR

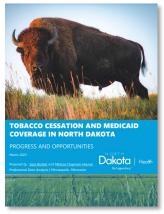
This report is released biannually and describes the incidence, mortality, late-state diagnosis, 5-year survival, and screening rates of seven priority cancers: breast cancer, cervical cancer, colorectal cancer, lung cancer, melanoma, oral cavity and pharynx cancer, and prostate cancer.



Tobacco Cessation and Medicaid Coverage in North Dakota 2021

Data sources: ND HHS Tobacco Surveillance Data, Campaign for Tobacco Free Kids, ND HHS Medicaid, CDC

This report summarizes tobacco cessation and Medicaid coverage in North Dakota. It includes graphs, charts, and maps of tobacco and North Dakota Medicaid data. The report summarizes the implications and next steps.



The State of Tobacco Control in North Dakota 2021-2023

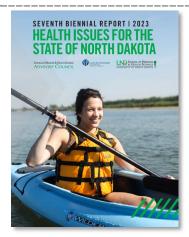
Data sources: ND HHS Tobacco Surveillance data, North Dakota Medicaid, ALA

This report was developed for the North Dakota Legislature, tobacco control partners, and the public to summarize tobacco prevention and control efforts.



Health Issues for the State of North Dakota Biennial Report 2023

Data sources: U.S. Census Bureau. This report is released biennially by the University of North Dakota School of Medicine and Health Sciences Advisory Council, a legislatively mandated group of 15 stakeholders in the North Dakota healthcare enterprise.



North Dakota Fast Facts 2023

Data source: North Dakota Vital Records

This report summarizes vital statistics in North Dakota including resident births, deaths, marriages, and divorces.

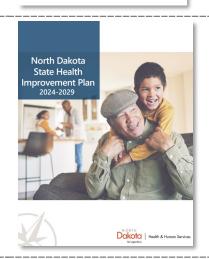


Dakota | Health & He

Data sources: ND HHS Primary Care Office, BRFSS, North
Dakota Nursing Facility Workforce Survey, ND Board of Nursing
licensure data, National Survey on Drug Use and Health, YRBS,
CDC Breastfeeding Report Card

North Dakota State Health Improvement Plan 2024 - 2029

The SHIP provides a framework to "guide and engage system partners to address the identified health priorities specific to the needs in the state and to consider resources available to meet those needs." It includes goals to decrease tobacco use, prevent premature death, decrease obesity rates, reduce alcohol consumption, and increase access to care.



How do you measure up? A Progress Report on State Legislative Activity to Reduce Cancer Incidence and Mortality, 2019

Data sources: ACS

This report outlines specific issues that work towards reducing cancer incidence and death, including access to Medicaid, breast and cervical cancer early detection and treatment, access to colorectal screening, palliative care, cancer pain control, and more.



American Cancer Society Cancer Facts & Figures 2023

Data sources: BRFSS

This report summarizes cancer across the United States. It lists basic cancer facts, highlights specific selected cancers, describes cancer disparities, and discusses select cancer risk factors.



American Cancer Society Colorectal Cancer Facts & Figures 2023-2025

Data sources: BRFSS

This report gives an overview of the colorectal cancer across the United States. It gives background, incidence data, stage at diagnosis data, mortality data, a summary of screening recommendations, and more.



Palliative Care in Your State (North Dakota)

Data sources: Center to Advance Palliative Care; A state-bystate report card on access to palliative care in our nation's hospitals: 2019

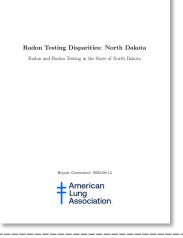
This report describes the need and opportunities for palliative care, hospital palliative care, hospital palliative care by geography, hospital palliative care availability, community palliative care, certified palliative care clinicians, continuous improvement efforts, and state recommendations.



Radon Testing Disparities: North Dakota, ALA

Data sources: EPH Tracking

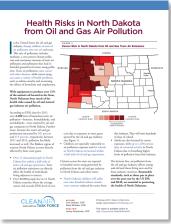
This report summarizes the impact of radon in North Dakota, particularly related to radon testing. It includes quick facts and maps.



Health Risks in North Dakota from Oil and Gas Air Pollution

Data sources: Clean Air Task Force's Fossil Fumes report,
Department of Education, North Dakota Department of Natural
Resources

This report was developed by the Clean Air Taskforce (CATF), and published in 2017, and includes a map of cancer risk in North Dakota from Oil and Gas Toxic Air Emissions by county.



Data Sources

State-level North Dakota Data Sources

North Dakota Health and Human Services

North Dakota Behavioral Risk Factor Surveillance System •

The North Dakota Behavioral Risk Factor Surveillance System (BRFSS), administered annually to adults 18 years and older, gathers state-specific population-based estimates of the prevalence of preventative health practices and risk behaviors. Core variable, calculated variable, module, and state-added question reports are available by year on the ND BRFSS website BRFSS Data Health and Human Services North Dakota. Depending on the year, different modules are included in the survey. Programs within ND HHS advocate to add questions to the BRFSS and support financially the BRFSS program's administration of the question.

Limitations: 1) Sub-state analysis based on geography can be difficult, most often due to small numbers; 2) county-level stratification is not done during sampling. However, data is weighted to ensure data representation of North Dakota adults; and 3) the survey relies on self-report, which may result in bias due to differences in self-report and true values of the same measure.

Key contacts: Matt Schmidt, MPH (Program Director), brfssnd@nd.gov



ho For more information, visit the <u>ND HHS BRFSS website</u>. There is more information on BRFSS nationally on CDC's BRFSS website.

Relevant data

Most questions can be analyzed by gender, native/non-native, age group, education, income

Chronic Health Conditions

- 1. Ever been told you have skin cancer that is not melanoma?
- 2. Ever been told you had melanoma or any other types of cancer?

Caregiver

3. What is the main health problem, long-term illness, or disability that the person you care for has?

Breast/Cervical Cancer Screening

- 4. How long has it been since you had your last mammogram?
- 5. Have you ever had a cervical cancer screening test?
- 6. How long has it been since you had your last cervical cancer screening test?
- 7. At your most recent cervical cancer screening, did you have a pap test?
- 8. At your most recent cervical cancer screening, did you have an HPV test?

Colorectal Cancer Screening

- 9. Have you had a colonoscopy, a sigmoidoscopy, or both?
- 10. How long has it been since your most recent colonoscopy?
- 11. How long has it been since your most recent sigmoidoscopy?

- 12. How long has it been since your most recent colonoscopy or sigmoidoscopy?
- 13. Have you ever had any other kind of test for colorectal cancer, such as a virtual colonoscopy, CT colonography, blood stool test, fit DNA, or Cologuard test?
- 14. A virtual colonoscopy uses a series of X-rays to take pictures of inside the colon. Have you ever had a virtual colonoscopy?
- 15. When was your most recent CT colonography or virtual colonoscopy?
- 16. One stool test uses a special kit to obtain a small amount of stool at home and returns the kit to the doctor or the lab. Have you ever had this test?
- 17. How long as it been since you had this test?
- 18. Another stool test uses a special kit to obtain an entire bowel movement at home and returns the kit to a lab. Have you ever had this test?
- 19. Was the blood stool or fit (you reported earlier) conducted as part of a Cologuard test?
- 20. How long has it been since you had this test?

Tobacco Use

21. Asks about use of tobacco products – see the online reports

Lung Cancer Screening (added in 2022)

- 22. How old were you when you first started to smoke cigarettes regularly?
- 23. How old were you when you last smoked cigarettes regularly?
- 24. On average, when you smoke/smoked regularly, about how many cigarettes do/did you usually smoke each day?
- 25. The next question is about CT or CAT scans of your chest area. During this test, you lie flat on your back and are moved through an open, donut shaped x-ray machine. Have you ever had a CT or CAT scan of your chest area?
- 26. Were any of the CT or CAT scans of your chest area done mainly to check or screen for lung cancer?
- 27. When did you have your most recent CT or CAT scan of your chest area mainly to check or screen for lung cancer?

Alcohol Consumption

28. Asks about amount/frequency of alcohol consumption – see the online reports

North Dakota Women's Way Program •

Women's Way is the North Dakota Breast and Cervical Cancer Early Detection Program (BCCEDP), funded by the CDC. It is administered through the ND HHS and local public health offices. Women's Way provides access to free breast and cervical cancer screenings and patient navigation services for women living in North Dakota who don't have insurance coverage and are low-income. The Women's Way Data Manager sends a monthly data report to the local coordinating units (LCUs) to monitor state and LCU service projections, priority populations enrollments, and completed screens. These reports are not publicly available.

Key contacts: Paulette DeLeonardo, MHA (Data Manager), pdeleonardo@nd.gov

Professional Formation, visit the ND DHHS Women's Way webpage.

Relevant data

Breast & Cervical Cancer Early Detection Program (BCCEDP) & Patient Navigation Screens

- BCCEDP Screens / Re-screens
- BCCEDP new screens
- 4. BCCEDP re-screens
- 5. Actual Patient Navigation Screens / Re-screens
- 6. Actual Patient Navigation new screens
- 7. Actual American Indian re-screens
- 8. Al Active screened
- Hispanic Active screened
- 10. By county
- 11. BCCEDP enrolled / re-enrolled
- 12. BCCEDP new enrolls
- 13. BCCEDP re-enrolls
- 14. Patient Navigation new enrolls
- 15. Patient Navigation re-enrolls
- 16. By Al and Hispanic
- 17. Number of women who have been enrolled in Program
- 18. Number of women who have been served (any procedure)
- 19. Number of women who have been screened (CBE, mammogram or Pap paid)
- Number of women who have been diagnosed with breast cancer
- 21. Number of women who have been diagnosed with cervical dysplasia & cancer

ScreeND •

Through ScreeND, Quality Health Associates (QHA) partners with primary care clinics in North Dakota to increase colorectal cancer screening rates for rural, frontier, and Native American populations.

Key contacts: Quality Health Associates Contact Us - CRC ScreeND

For more information, visit https://crc.screend.org/.

Relevant data

CRC screening rates among participating clinics

North Dakota Colorectal Cancer Screening Initiative •

The North Dakota Colorectal Cancer Screening Initiative (NDCRCSI) is designed to reduce colorectal cancer morbidity and mortality through early detection. Funded by the ND HHS, this program aims to provide colorectal cancer screening, including limited diagnostic follow-up testing, where appropriate, to age and income-eligible persons in North Dakota.

Key contacts: Nikki Medalen, MS, BSN, RN (Quality Improvement Specialist, QHA)

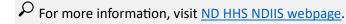
Programmer information, visit the NDCRCSI website.

NDCRCSI Enrolled Sites

North Dakota Immunization Information System

The North Dakota Immunization Information System (NDIIS) is a confidential, population-based, information system that collects and consolidates vaccination data for North Dakota residents. The NDIIS provides an important service to North Dakotans by consolidating vaccination information from multiple providers, generating vaccination reminders, and providing an official certificate of immunization.

Key contacts: Molly Howell, MPH (Immunization Unit Director), vaccine@nd.gov



Relevant data

- Percent of North Dakota teens 13-18 years of age by the last day of the quarter who have received the specified number of doses of the selected vaccine by the end of the quarter.
 - a. By county, sex, race, ethnicity
 - b. By HPV series complete or HPV series start
- 2. HPV-9 doses administered by quarter.
- 3. Exemption reason
- 4. All of the above data are available from approximately 2020-2023

North Dakota Medicaid •

Medicaid is a program that helps pay for medical services for qualifying low-income adults, children, pregnant women, older adults, and people with disabilities. North Dakota Medicaid shares operational monthly outcome data. Of particular interest are the adult healthcare quality measures, which have annual reports from 2020, 2021, and 2022.



- 1. Percentage of women ages 50 to 74 who had a mammogram to screen for breast cancer during the measurement year or the two years prior to the measurement year
- 2. Percentage of women ages 21 to 64 who were screened for cervical cancer using one of the following criteria: (1) women ages 21 to 64 who had cervical cytology performed within the last 3 years; (2) women ages 30 to 64 who had cervical high-risk human papillomavirus (hrHPV) testing performed within the last 5 years; or (3) women ages 30 to 64 who had cervical cytology/high-risk human papillomavirus (hrHPV) co-testing within the last 5 years
- 3. Percentage of beneficiaries ages 50 to 75 who had appropriate screening for colorectal cancer

North Dakota Youth Risk Behavior Surveillance Survey

The YRBSS asks questions about behaviors that contribute to the leading causes of death, disability, and social problems among students. Students in grades 7-8 in middle school (MS) and 9-12 in high school (HS) are surveyed in the spring of odd years.



Note: Schools are randomly sampled from across the state and can also opt to administer the survey. This is common in North Dakota because schools receive reports of their school's results and make comparisons with statewide data.

Key contacts: Matt Schmidt, MPH (Program Director), yrbsnd@nd.gov

For more information, visit https://www.hhs.nd.gov/health/YRBS

Relevant data

Physical Activity

- 1. Percentage of students who were physically active at least 60 minutes per day on 5 or more days (in any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey) (HS, MS)
- 2. Percentage of students who did not participate in at least 60 minutes of physical activity on at least 1 day (HS, MS)
- 3. Percentage of students who were physically active at least 60 minutes per day on all 7 days (HS, MS)

Nutrition

- 4. Percentage of students who did not eat fruit (one or more times during the 7 days before the survey) (HS, MS)
- 5. Percentage of students who did not eat other vegetables (one or more times during the 7 days before the survey) (HS, MS)
- 6. Percentage of students who ate vegetables one or more times per day (HS)
- 7. Percentage of students who ate vegetables two or more times per day (HS)
- Percentage of students who ate vegetables three or more times per day (HS)

Obesity

9. Percentage of students who had obesity (HS)

Tobacco Use

- 10. Percentage of students who currently used smokeless tobacco (chewing tobacco, snuff, dip, snus, or dissolvable tobacco products, not counting any electronic vapor products on at least 1 day during the 30 days before the survey (HS, MS)
- 11. Percentage of students who currently used smokeless tobacco daily (HS)
- 12. Percentage of students who currently smoked cigarettes or cigars or used smokeless tobacco (HS, MS)
- 13. Percentage of students who currently smoked cigarettes or cigars or used smokeless tobacco or electronic vapor products (HS, MS)
- 14. Percentage of students who ever used an electronic vapor product (HS, MS)
- 15. Percentage of students who currently used an electronic vapor product (HS, MS)
- 16. Percentage of students who currently used electronic vapor products frequently (HS, MS)
- 17. Percentage of students who currently used electronic vapor products daily (HS, MS)

Sun Safety

18. Percentage of students who used an indoor tanning device (HS)

North Dakota Youth Tobacco Survey

The Youth Tobacco Survey (YTS) surveys middle and high school youth, measuring tobacco-related beliefs, attitudes, behaviors, and exposure to pro-and anti-tobacco influences. The YTS is administered by the ND HHS Tobacco Prevention and Control Program and is typically administered in the spring of odd years, although due to the COVID-19 pandemic and alignment with the legislative session, the survey was administered in 2022.



Note: To reduce the survey burden on schools, the administration of the YRBSS and YTS is coordinated. For about the last -20 years, the same schools are sampled for both surveys, but the classrooms vary depending on which survey they receive. This way, no student or classroom is asked to respond to both surveys simultaneously.

Key contacts: Clint Boots, MS (Epidemiologist), cboots@nd.gov

Tobacco Surveillance Data | Health and Human Services North Dakota

Relevant data

- Demographic (e.g., age, sex, grade, race, ethnicity, income proxy measures)
- Secondhand smoke exposures
- In-depth questions about the use of tobacco products, tobacco-related beliefs, attitudes, and exposure to proand anti-tobacco influences

North Dakota Adult Tobacco Survey •

The Adult Tobacco Survey (ATS), administered by the ND HHS Tobacco Prevention and Control Program, surveys adults (less than 18 years) on tobacco use, knowledge, attitudes, and tobacco use prevention and control policies. It provides data on long-term, intermediate, and short-term indicators key to a comprehensive tobacco prevention and control program. In North Dakota, ATS is administered biennially in odd years.

Key contacts: Clint Boots, MS (Epidemiologist), cboots@nd.gov

Tobacco Surveillance Data | Health and Human Services North Dakota

- Demographic (e.g., age, sex, race, ethnicity, income proxy measures)
- Ever diagnosed with cancer
- Secondhand smoke exposure
- In-depth questions about the use of tobacco products, tobacco knowledge, attitudes, and prevention and control policies

North Dakota Vital Records •

North Dakota Vital Records collects data annually and produces summary reports on deaths occurring in North Dakota.

Key contact: Stephen Denn (data processing manager), vitalrec@nd.gov



Programmer information, visit https://www.hhs.nd.gov/vital.

Relevant data

Leading causes of death (cancer)

North Dakota Geographic Information Systems (GIS)

North Dakota GIS Hub Data Portal

The GIS Hub data portal allows users to explore data and maps by theme (e.g., health, environment, location) from various data sources.



Programmer information, visit https://gishubdata-ndgov.hub.arcgis.com/.

Relevant data

- ND hospitals
- **Emergency Medical Services Boundary**
- Basic Care facilities
- Public health units
- Long-term care facilities
- K-12 schools
- Higher education schools

North Dakota Department of Mineral Resources

The Department of Mineral Resources (DMR) regulates the drilling and production of oil and natural gas in North Dakota, conducts geological surveying, and maintains a paleontology department.

Contact: oilandgasinfo@nd.gov



Programmer information, visit https://www.dmr.nd.gov/dmr/

- Current active drilling rigs
- Geographical location of oil & gas wells
- Oil production barrels/day
- Gas production and capture MCF/day
- Gas capture (%)
- Number of permits (drilling and seismic)

Rig count

University of North Dakota (UND)

North Dakota Statewide Cancer Registry •

North Dakota Statewide Cancer Registry (NDSCR), located within UND School of Medicine and Health Sciences collects, processes, and reports comprehensive, timely, and accurate data on every North Dakotan diagnosed with cancer.

Limitations: Given the rural nature of North Dakota, there are often small numbers, particularly when doing sub-analyses and require combining data across years.

Contacts: Yun (Lucy) Zheng, MD, (UND Associate Professor), (yun.zheng@und.edu), Cristina Oancea, PhD, MS, (UND Associate Professor), (Cristina.oancea@und.edu)



For more information, visit the NDSCR website.

Relevant data

- Sites of the tumor
- Stage at diagnosis
- Cell type of the cancer
- First course of treatment
- All malignant cancers except selected skin cancers (except basal cell and squamous cell)
- Incidence (by county, sex)
- Mortality (by county, sex)

When a person is diagnosed with more than one type of cancer, this information is collected for each separate tumor.

North Dakota State University (NDSU)

North Dakota Compass

"North Dakota Compass is a social indicators project that measures progress in the state, its eight regions, 53 counties, four Native American reservations, and larger cities. Compass tracks trends in topic areas such as children and youth, economy, health, housing, and workforce (with more currently being developed)."

Contact: Mihaela Cernusca, (Project Director), (Mihaela.cernusca@ndsu.edu)



Pror more information, visit https://www.ndcompass.org/about/the-data.php.

- Aging (disability, median income, volunteerism)
- Children & Youth (population trends, connection to adults, youth use of alcohol, youth sexual activity)

- Civic Engagement (voter turnout, volunteerism)
- Demographics (population, age, race, disability)
- Disparities (age, gender, income, Native American reservation area, race)
- Early Childhood (low birth weight, preschool enrollment, children with working parents)
- Economy (economic output [GDP], jobs, median income, poverty)
- Education (3rd grade reading/ELA/literacy scores, 8th grade math scores, high school graduation)
- Environment (air quality, access to healthy food)
- Health (diabetes, obesity, health care coverage, mental health)
- Housing (cost-burdened households, homeownership rate)
- Workforce (postsecondary degree completion, educational attainment, proportion of adults working)

North Dakota Health Information Network (NDHIN)

(NDHIN) is a secure, medical record-sharing network for providers and patients. It is a secure online network for electronic health information exchange, a robust patient data set, and an increasing number of connections among hospitals, providers, and other related entities. NDHIN also supports a Healthcare Directives Registry.

Key contacts: Sarah J. Miller, NDHIN Outreach Manager (sarmiller@nd.gov) What's New? | NDHIN | North Dakota Health Information Network

National Data Sources

Centers for Disease Control and Prevention (CDC)

United States Cancer Statistics •

United States Cancer Statistics (USCS) public-use databases include cancer incidence and population data for all 50 states. It includes statistics from the CDC's National Program of Cancer Registries, the National Cancer Institute's Surveillance, Epidemiology, and End Results Program, and the CDC's National Center for Health Statistics.



For more information, visit https://www.cdc.gov/cancer/uscs/index.htm.

Relevant data

- Rate of new cancer cases
- Number of new cancer cases
- Rate of cancer deaths
- Number of cancer deaths

National Program of Cancer Registries •

The National Program of Cancer Registries (NPCR) funds state and territorial cancer registries to collect cancer data to measure progress, drive action, prevent cancers, and improve treatment for all people.



Professional Formation, visit https://www.cdc.gov/cancer/npcr/index.htm.

Environmental Justice Index •

Agency for Toxic Substances and Disease Registry

The Environmental Justice Index (EJI) uses data from the U.S. Census Bureau, the U.S. Environmental Protection Agency, the U.S. Mine Safety and Health Administration, and the U.S. Centers for Disease Control and Prevention to rank the cumulative impacts of environmental burden on health for every census tract. Census tracts are subdivisions of counties for which the Census collects statistical data. The EJI ranks each tract on 36 environmental, social, and health factors and groups them into three overarching modules and ten domains.



For more information, visit https://www.atsdr.cdc.gov/placeandhealth/eji/index.html.

Relevant data

- EJI Rank
- Environmental Burden Rank
- Social Vulnerability Rank
- Air pollution (ozone, PM2.5, diesel particulate matter, air toxics cancer risk)
- Potentially hazardous & toxic sites (national priority list sites, toxic release inventory sites, treatment, storage, and disposal sites, risk management plan sites, coal mines, lead mines)
- Built environment (lack of recreational parks, housing built pre-1980, lack of walkability)
- Transportation infrastructure (high-volume roads, railways, airports)
- Water pollution (impaired surface water)
- Minority status
- Socioeconomic status (poverty, no high school diploma, unemployment, housing tenure, housing burdened, lower-income households, lack of health insurance, lack of internet access)
- Household characteristics (Age 65+, Age 17 and younger, civilian with a disability, speaks English "Less than Well")
- Housing type (group quarters, mobile homes)
- High pre-existing chronic disease prevalence sum (asthma, cancer, blood pressure, diabetes, poor mental health)

Social Vulnerability Index

Agency for Toxic Substances and Disease Registry

The CDC/ATSDR Social Vulnerability Index (CDC/ATSDR SVI) uses 16 U.S. Census Bureau variables to help local officials identify communities that may need support before, during, or after disasters.



For more information, visit https://www.atsdr.cdc.gov/placeandhealth/svi/index.html.

Relevant data

Socioeconomic status

- Household characteristics
- Racial & ethnic minority status
- Housing type/transportation

National Vital Statistics System (NVSS) •

National Center for Health Statistics

The NVSS provides the most complete data on births and deaths in the United States.



Programmer information, visit https://www.cdc.gov/nchs/nvss/index.htm.

Relevant data

- Cancer Incidence (By year, state, metropolitan area, age group, race, ethnicity, sex, childhood cancers and cancer site classification)
- Cancer Mortality (By year, state, metropolitan area, age group, race, ethnicity, sex, and cancer site classifications. See below for more information on mortality rate comparisons)
- Cancer Mortality Incidence Rate Ratios (By year, state, metropolitan area, race, ethnicity, sex, and cancer site classifications. See below for more information on mortality rate comparisons)
- National Program of Cancer Registries 5-Year Relative Survival (By race, sex, age group and cancer site classifications)

National Environmental Public Health Tracking Program (EPH Tracking or Tracking Program)

At the local, state, and national levels, the Tracking Program uses a network of people and information systems to deliver a core set of health, exposure, and hazards data, information summaries, and tools to enable analysis, visualization and reporting of insights drawn from data.



Programmer information, visit https://www.cdc.gov/nceh/tracking/index.html.

Relevant data

Radon (tests from labs), by county

- Number of buildings tested, by year
- Total number of buildings tests for a range of years
- Percent of building tested for a range of years
- Number of pre-mitigation radon tests by radon level
- Number of post-mitigation radon tests by radon level
- Percent of pre-mitigation radon tests by radon level
- Percent of post-mitigation radon tests by radon level
- Mean pre-mitigation radon level in tested buildings
- Median pre-mitigation radon level in tested buildings
- Maximum pre-mitigation radon level in test buildings

Alcohol Use

- Crude Prevalence of Binge Drinking among Adults >=18 Years of Age
- Age-adjusted Prevalence of Binge Drinking among Adults >=18 Years of Age

Overweight & Obesity

- Crude Prevalence of Obesity among Adults >=18 Years of Age
- Age-adjusted Prevalence of Obesity among Adults >=18 Years of Age
- Crude Prevalence of No Leisure-time Physical Activity among Adults >=18 Years of Age
- Age-adjusted Prevalence of No Leisure-time Physical Activity among Adults >=18 Years of Age

Smoking

- Crude Prevalence of Current Smoking among Adults >=18 years of Age
- Age-adjusted Prevalence of Current Smoking among Adults >=18 years of Age

Sunlight & Ultraviolet (UV)

- Historical Exposure
 - o UV
- Annual average daily Dose of UV Irradiance (J/m2)
- Monthly Average Daily Dose of UV Irradiance (J/m2)
- Annual Average UV Irradiance at Noon (mW/m2)
- Monthly Average UV Irradiance at Noon (mW/m2)
- Sunlight
 - Annual Average Sunlight Exposure Measured by Solar Irradiance (kJ/m2)
 - Monthly average sunlight exposure measured by solar Irradiance (kJ/m2)
- Vulnerability & Preparedness
 - Indoor tanning restrictions for minors
 - Laws allowing students to carry and self-apply sunscreen in schools

National Health and Nutrition Examination Survey (NHANES)

The NHANES is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations.

 ${\cal P}$ For more information, visit the <u>NHANES webpage</u>.

Health Resources & Services Administration (HRSA)

Health Center Program Uniform Data System (UDS) Data •

Each calendar year, HRSA Health Center Program awardees and look-alikes are required to report a core set of information, including data on patient characteristics, services provided, clinical processes and health outcomes, patients' use of services, staffing, costs, and revenues as part of a standardized reporting system known as the UDS.

Professional Formation For

- Patient population characteristics (age, race/ethnicity, language, income status, insurance status, special populations)
- Services
- Clinical data

- Cervical cancer screening
- Number of cervical cancer screening patients
- Breast cancer screening
- Number of female patients aged 51 through 73 who had a mammogram to screen for breast cancer
- Colorectal cancer screening
- Number of patients screened for colorectal cancer
- Cost Data

American Cancer Society (ACS)

Cancer Statistics Center •

The Cancer Statistics Center compiles and publishes secondhand surveillance data.



Programmer information, visit https://cancerstatisticscenter.cancer.org/states/north-dakota.

Relevant data

- Estimated number of new cancer cases that will occur in the United States in the current year
- Estimated number of new cancer deaths that will occur in the United States in the current year
- Cancer incidence
- Cancer mortality
- Cancer survival

The data available on the Cancer Statistics Center website is a collection of statistics from a variety of sources, including: the National Cancer Institute, North American Association of Central Cancer Registries (NAACCR), National Center for Health Statistics (NCHS), Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute, Behavioral Risk Factor Surveillance System (BRFSS), and Centers for Disease Control and Prevention.

National Cancer Institute (NCI)

Surveillance, Epidemiology, and End Results Program •

The Surveillance, Epidemiology, and End Results Program (SEER) collects and publishes cancer incidence and survival data from population-based cancer registries covering approximately 48% of the U.S. population. Published every spring. Does not collect North Dakota data.



Pror more information, visit https://seer.cancer.gov/about/factsheets/SEER_Overview.pdf.

Relevant data

These registries routinely collect data on patient demographics, primary tumor site, tumor morphology and stage at diagnosis, first course of treatment, and follow-up for vital status (survival). These data are collected on every cancer case reported from 22 U.S. geographic areas.

National Childhood Cancer Registry •

The National Childhood Cancer Registry (NCCR) is envisioned as a connected data infrastructure to enable the sharing of childhood cancer data from multiple and heterogeneous data sources. Incorporating available data on genomic and tumor characterization, residential history, social

determinants of health and measures of financial distress, longitudinal treatments including oral agents, and longitudinal outcomes data including recurrence and subsequent cancers can enhance the core infrastructure of registry data on pediatric patients.



Pror more information, visit https://nccrexplorer.ccdi.cancer.gov/data-products.html.

Relevant data

Data from central cancer registries participating in the NCCR are available at an aggregated level through this website's interactive web application, NCCR*Explorer.

Provides:

- A publicly available, open-access web application.
- Comprehensive and frequently requested incidence and survival statistics based on the International Classification of Childhood Cancer.
- Age groupings specific for children, adolescents, and young adults ages 0-39.
- Access to precalculated graphs and tables to visualize rates, trends, rates by age, and relative survival by sex, race/ethnicity, age, and cancer site and subtypes.
- Direct comparison of cancer sites.

They collect data from a set of ~25 registries around the U.S., but there is not one in ND.

American Lung Association

The American Lung Association (ALA) is the leading organization working to save lives by improving lung health and preventing lung disease through education, advocacy, and research. They share multiple resources with data related to cancer.

State of Lung Cancer •

ALA creates annual reports for each state on lung cancer indicators and explores the lung cancer burden among racial and ethnic groups at the national and state levels.



For more information, visit https://www.lung.org/research/state-of-lung-cancer.

Relevant data

Lung cancer rates

- New cases
- 5-year survival
- Stage at diagnosis

Lung cancer treatment

- Surgical
- Lack of treatment

Screening

- Among high-risk patients
- Coverage under Medicaid

Prevention

Tobacco use rates

- Radon
- Air pollution

Racial and ethnic disparities

- Black
- Latino
- Asian & Pacific Islander
- Indigenous peoples

State of the Air

ALA creates annual report cards for each state on the state of the air.



 \wp For more information, visit https://www.lung.org/research/sota/city-rankings/states/north-dakota.

Relevant data

- High ozone days (by county)
- Particle population (by county)
- Populations at risk (by county)

America's Health Rankings •

Explore national- and state-level data for hundreds of health, environmental, and socioeconomic measures, including background information about each measure. Use features on this page to find measures, view subpopulations, trends, and rankings, and download and share content.



Pror more information, visit America's Health Rankings North Dakota webpage.

Relevant data

Compare state scores on measures of health behaviors, clinical care, health outcomes, physical environment, and social & economic factors

- Colorectal cancer screening rate
- HPV vaccination
- Smoking rate
- E-cigarette use
- Cancer rate (any type, excluding skin cancer)

United States Department of Agriculture

Atlas of Rural and Small-Town America

The Atlas of Rural and Small-Town America provides statistics by broad categories of socioeconomic factors.

For more information, visit https://www.ers.usda.gov/data-products/atlas-of-rural-and-small-town- america/go-to-the-atlas/.

Relevant data

- People
- Jobs
- County classifications
- Income
- Veterans

Environmental Protection Agency (EPA)

The (EPA) has information about air, water, enforcement, cleanups, toxic releases, pesticides, and grants.

Professional Formation, visit https://www.epa.gov/nd or information-north-dakota.

Center to Advance Palliative Care (CAPC) Icahn School of Medicine at Mount Sinai

The (CAPC) provides essential tools, training, technical assistance, and connection for all clinicians caring for people with a serious illness. CAPC creates reports for palliative care by state.



Pror more information, visit https://reportcard.capc.org/state/north-dakota/.

Relevant data

- Percentage of hospitals with a palliative care program by geographic type (urban, suburban, rural)
- Availability of hospital palliative care in North Dakota (map)
- Palliative care-certified physicians, advanced practice registered nurses, and registered nurses in North Dakota

Medicaid & Medicare

The Centers for Medicare & Medicaid Services developed the Medicaid and Children's Health Insurance Program Scorecard to improve transparency and accountability.

Professional Formation, visit https://www.medicaid.gov/state-overviews/scorecard/welcome.

United States Census Bureau

Decennial Census

"The U.S. Census Bureau counts every resident in the United States. It is mandated by Article I, Section 2 of the Constitution and takes place every 10 years."

"The Census Bureau's Population Estimates Program (PEP) produces estimates of the population for the United States, its states, counties, cities, and towns, as well as for the Commonwealth of Puerto Rico and its (municipalities). Demographic components of population change (births, deaths, and migration) are produced at the national, state, and county levels of geography. Additionally, housing unit estimates are produced for the nation, states, and counties.

PEP annually utilizes current data on births, deaths, and migration to calculate population change since the most recent decennial census and produces a time series of estimates of population, demographic components of change, and housing units. The annual time series of estimates begins with the most recent decennial census data and extends to the vintage year."



For more information, visit https://www.census.gov/.

Relevant data

Population estimates

American Community Survey

The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about the nation and its people. It is the premier source for detailed population and housing information.



For more information, visit https://www.census.gov/programs-surveys/acs.

- Housing
- Age
- Education
- Health insurance coverage
- Income
- Industry, occupation, class