

National GIS Data

A collection of spatial datasets designed to support public health spatial analyses and visualizations.

Table of contents

500 Cities	2
American Community Survey (ACS) 5-year Estimates	3
CMS Approved Facilities - FQHC, RHC, CAH	4
County Health Rankings & Roadmaps	5
County Typology Codes	6
Division for Heart Disease and Stroke Prevention - Heart Disease and Stroke Mortality	7
Federally Qualified Health Center Service Delivery and Look-Alike Sites	8
Grocery Gap Atlas	9
Healthcare Facilities of the Indian Health Service (IHS)	10
Mapping Medicare Disparities	11
Multidimensional Deprivation Index (MDI)	12
Population Level Analysis and Community Estimates (PLACES)	13
Rural-Urban Commuting Area (RUCA)	14
Shortage Areas (HPSAs and MUA/Ps)	15
Small Area Health Insurance Estimate (SAHIE) Program	16
Small Area Income and Poverty Estimates (SAIPE) Program	17
Social Vulnerability Index (SVI)	18
Tribal Census Tract Boundaries	19



500 Cities

Description	The 500 Cities Project provided model derived estimates for chronic disease risk factors, health outcomes, and clinical preventive services use for the 500 largest US cities.
Time Frame	Year; 2016 to 2019
Spatial Scale	City and Census Tract
Format	Tables and Shapefiles
Source	Centers for Disease Control and Prevention (CDC)
Original Repository	All Years (Look for datasets labeled GIS Friendly Format)
Living Atlas	2016 2017 2018 2019

Details

This project reported city- and census tract-level data and used small area estimation methods to obtain 27 chronic disease measures for the 500 largest American cities. Dataset includes estimates for 27 measures ([definitions here](#)):

- Chronic disease-related unhealthy behaviors (5),
- Health outcomes (13), and
- Use of preventive services (9).

These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities. Because the small area model cannot detect effects due to local interventions, users are cautioned against using these estimates for program or policy evaluations.

American Community Survey (ACS) 5-year Estimates

Description	“The American Community Survey (ACS) is an ongoing survey that provides vital information on a yearly basis about our nation and its people. Information from the survey generates data that help determine how more than \$675 billion in federal and state funds are distributed each year.” (U.S Census Bureau)
Time Frame	5 Years; 2009 to 2024
Spatial Scale	Nation, State (including DC and Puerto Rico), Metropolitan Area, Congressional District, County, Place, Census Tract and Block Group
Format	Feature Layers
Source	US Census Bureau
Original Repository	All Years
Living Atlas	Current

Details

The Living Atlas hosts the current ACS 5-year estimates in a series of several features grouped by topic. Each topic is hosted as both [boundaries and centroids](#). Topics may contain single or multiple ACS tables. Layers can be [accessed and used](#) within your GIS workflows, for example, [make a map about your community](#).

If you are looking for historical data, the census.gov website can be difficult to go through. [Census Reporter](#) can make it easier to find and download tables at various spatial scales.

CMS Approved Facilities - FQHC, RHC, CAH

Description	This service provides information on Center of Medicare & Medicaid Services (CMS) approved facilities such as federally qualified health centers (FQHCs), rural health clinics, critical access hospitals and nursing facilities.
Time Frame	Updated on Unknown Basis; Current
Spatial Scale	Point
Format	Feature Service
Source	Health Resources & Services Administration (HRSA)
Original Repository	Current (Additional Information)
Living Atlas	N/A

Details

This is the “[Provider of Service](#)” extract from the Quality Improvement Evaluation System (QIES) database maintained by the Centers for Medicare & Medicaid Services (CMS). These data include provider number, name, and address and characterize the participating institutional provider (including hospitals, skilled nursing facilities, home health agencies, and other types of facilities).

Add to an ArcGIS Project by using “Data from Path” and paste the above URL as the server to use. Export using Feature Class to Feature Class.

County Health Rankings & Roadmaps

Description	Provides information on health outcomes and health factors for all 50 states
Time Frame	Year; 2010 to 2024
Spatial Scale	County
Format	CSV and Shapefiles
Source	Robert Wood Johnson Foundation and the University of Wisconsin Population Health Initiative
Original Repository	2010 to 2023 2024 or 2025
Living Atlas	2018 2019 to 2025

Details

This dataset offers county level estimates of health outcomes and risk factors. Estimates help identify areas requiring improvement and guide the creation and use of effective, focused health interventions. As a result of the difficulty in finding local intervention effects, users should be careful when using these figures to judge programs or policies.

County Typology Codes

Description	The U.S. Department of Agriculture Economic Research Service “County Typology Codes contains a set of Economic Typology codes based on the industrial composition of nonmetropolitan (nonmetro) counties and a set of Demographic Typology Codes based on demographic characteristics of interest to rural policymakers and researchers.”
Time Frame	Year; 1979, 1986, 1989, 2004, 2015, 2025
Spatial Scale	County
Format	CSV and XLXS
Source	U.S. Department of Agriculture (USDA)
Original Repository	All Years
Living Atlas	NA

Details

Economic Typology Code designations include:

- High Farming
- High Mining
- High Manufacturing
- High Government
- Nonspecialized
- Industry Dependence

Demographic Typology Code designations include:

- Low Post-Secondary Education
- Low Employment
- Population Loss
- Housing Stress
- Retirement Destination
- Persistent Poverty



Division for Heart Disease and Stroke Prevention - Heart Disease and Stroke Mortality

Description	Heart Disease and Stoke Mortality
Time Frame	Three year average from 2005-2007 to 2021-2023
Spatial Scale	States, Counties
Format	Tables
Source	Centers for Disease Control and Prevention (CDC) Division for Heart Disease and Stroke Prevention
Original Repository	Interactive Data Atlas
Living Atlas	All Years

Details

Offers Heart Disease and Stroke mortality data obtained from the National Vital Statistics System. Data can be stratified by various demographic groups. The Interactive Atlas of Heart Disease and Stroke offers a way to visualize, export, and generate reports from heart disease and stroke mortality data, as well as data regarding...

- Prevalence
- Risk Factors
- Social, Economic, Environmental variables
- Demographics
- Health Care Delivery and Insurance
- Health Care Costs

Federally Qualified Health Center Service Delivery and Look-Alike Sites

Description	List of federally-funded health centers that provide health services.
Time Frame	Updated Daily; Current
Spatial Scale	Point
Format	CSV with Address and X/Y
Source	Health Resources & Services Administration (HRSA)
Original Repository	<u>Current</u>
Living Atlas	N/A

Details

Health centers are community-based and consumer-run organizations that serve populations with limited access to health care. These include low-income populations, the uninsured, those with limited English proficiency, migratory and seasonal agricultural workers, individuals and families experiencing homelessness, and those living in public housing.

Grocery Gap Atlas

Description	The Grocery Gap Atlas produces food access and market concentration estimates for grocery stores.
Time Frame	Year; 2023
Spatial Scale	Tract
Format	CSV and XLXS
Source	Rural Advancement Foundation International-USA (RAFI-USA) and the Open Spatial Lab at the Data Science Institute at the University of Chicago
Original Repository	<u>2023</u>
Living Atlas	N/A

Details

This dataset offers tract level estimates of food access and market concentration. Food access is using a gravity model with a floating catchment area (FCA) and market concentration is calculated using the Herfindahl-Hirschman Index (HHI).

NOTE: Food access is calculated using euclidian distance. Service areas for grocery stores are calculated using “distance ranges of 5 to 20 minutes driving time with average area traffic, based on reported ranges of how far people are willing to travel in the USDA FoodAPS survey”.



Healthcare Facilities of the Indian Health Service (IHS)

Description	Point-level representation of the locations of IHS Facilities in the United States
Time Frame	Updated on Unknown Basis; Current
Spatial Scale	Point
Format	Feature Service
Source	Indian Health Service (IHS)
Original Repository	Current
Living Atlas	N/A

Details

The IHS is an agency within the Department of Health and Human Services responsible for providing federal health services to American Indians and Alaska Natives. These services include hospitals, behavioral health facilities, health centers, dental clinics, health stations, Alaska Village Clinics and other services. The IHS is the principal federal health care provider and health advocate for Indian people, and its goal is to raise their health status to the highest possible level. The IHS provides a comprehensive health service delivery system for American Indians and Alaska Natives who are members of 566 federally recognized Tribes across the U.S.

Mapping Medicare Disparities

Description	Health outcomes measures to map Medicare disparities
Time Frame	Updated on Unknown Basis; Current
Spatial Scale	State/Territory, County, Tract (depending on measure)
Format	CSV
Source	Center of Medicare & Medicaid Services
Original Repository	Current (date listed)
Living Atlas	N/A

Details

Composed of multiple tools which display disparities through three views:

- Population - “The MMD interactive tool contains health outcome measures for disease prevalence, costs, hospitalization for 60 specific chronic conditions, emergency department utilization, readmissions rates, mortality, preventable hospitalizations, and preventive services.”
- Hospital - “The MMD interactive map hospital tool identifies area of disparities between hospital quality and cost of care. It allows for a way to compare measures at the hospital, county, state, territory, and national levels”
- Social Determinants of Health - “This addition to the MMD tool identifies areas of disparities by key Social Determinant of Health (SDOH) domains and measures”



Multidimensional Deprivation Index (MDI)

Description	“The Multidimensional Deprivation Index (MDI) is a new research measure intended to complement, not replace, the Official Poverty Measure or Supplemental Poverty Measure. The MDI has six dimensions: standard of living, education, health, economic security, housing quality, and neighborhood quality. This report presents estimates of poverty using the official definition of poverty and estimates of deprivation using the MDI based on information collected primarily in the American Community Survey.”
Time Frame	Mixed; 2010 to 2019; 2017
Spatial Scale	State and County
Format	Shapefile
Source	US Census Bureau
Original Repository	2010 to 2019 2017
Living Atlas	N/A

Details

MDI value is equal to the percent of households in that region that qualify as “deprived.” Can be treated as an exposure value. A composite measure based on six dimensions:

- Neighborhood Quality
- Standard of Living
- Education
- Health
- Economic Security
- Housing Quality

Cannot map by individual dimension.



Population Level Analysis and Community Estimates (PLACES)

Description	The PLACES Project replaces the 500 Cities Project and provides model-based population-level analysis and community estimates for the entire US at several spatial scales
Time Frame	Year; 2019 to 2025
Spatial Scale	Counties, Places, ZCTAs, and Census Tracts
Format	Tables and Shapefiles
Source	Centers for Disease Control and Prevention (CDC)
Original Repository	<u>All Years</u>
Living Atlas	<u>Current</u>

Details

This project reported city- and census tract-level data and used small area estimation methods to obtain 29 chronic disease measures for the United States.

Dataset includes estimates for 29 measures (definitions here):

- Chronic Disease Related Health Outcomes (13)
- Prevention Measures (9)
- Health Risk Behaviors (4)
- Disability (7)
- Health Status (3)

These estimates can be used to identify emerging health problems and to inform development and implementation of effective, targeted public health prevention activities. Because the small area model cannot detect effects due to local interventions, users are cautioned against using these estimates for program or policy evaluations.

Rural-Urban Commuting Area (RUCA)

Description	The rural-urban commuting area (RUCA) codes classify U.S. census tracts using measures of population density, urbanization, and daily commuting. Also approximated at ZIP code level
Time Frame	Year; 1990, 2000, 2010, and 2020
Spatial Scale	County level representation of counties that are defined as PRCDAs/CHSDA
Format	CSV with GEOIDs
Source	US Department of Agriculture Economic Research Service
Original Repository	<u>All Years</u>
Living Atlas	N/A

Details

The classification contains two levels. Whole numbers (1-10) delineate metropolitan, micropolitan, small town, and rural commuting areas based on the size and direction of the primary (largest) commuting flows. These 10 codes are further subdivided based on secondary commuting flows, providing flexibility in combining levels to meet varying definitional needs and preferences.

Shortage Areas (HPSAs and MUA/Ps)

Description	Facility, population, and geographic boundaries for Health Professional Shortage Areas (HPSAs) and Medically Underserved Areas/Populations (MUA/Ps).
Time Frame	Updated Daily; Current
Spatial Scale	Mixed (Point, Tract, County Subdivision, County)
Format	Shapefile and Feature Service
Source	Health Resources & Services Administration
Original Repository	<u>Current</u>
Living Atlas	N/A

Details

HRSA's Bureau of Health Workforce (BHW) develops shortage designation criteria and uses them to decide whether or not a geographic area or population group is a Health Professional Shortage Area (HPSA), Medically Underserved Area (MUA), or Medically Underserved Population (MUP). For HPSAs, scores range from 1 to 25 for primary care and mental health, 1 to 26 for dental health. The higher the score, the greater the priority. HPSAs may have shortages of primary medical care, dental, or mental health providers; may be urban or rural areas; population groups; or medical or other public facilities.

Small Area Health Insurance Estimate (SAHIE) Program

Description	Offers estimates of health insurance coverage in countries and states throughout the United States. It aids in the identification of locations with large uninsured populations, as well as policy-making and resource allocation.
Time Frame	Mixed; 2000, 2001, 2005 to 2007, 2008 to 2023
Spatial Scale	State and County
Format	CSV and Shapefile
Source	U.S. Census Bureau
Original Repository	All Years
Living Atlas	N/A

Details

SAHIE estimates are available for several demographic groups. These estimates aid in identifying regions with a significant number of individuals without health insurance coverage.



Small Area Income and Poverty Estimates (SAIPE) Program

Description	Offers yearly estimates of income and poverty information for every school district, county and state in the United States.
Time Frame	Year; 1989 to 2023
Spatial Scale	State, County, and School District
Format	Tables
Source	U.S. Census Bureau
Original Repository	All Years
Living Atlas	N/A

Details

This research presents yearly estimates of income and poverty data, encompassing:

- Total number of people in poverty
- Number of children under age 18 in poverty
- Number of related children ages 5 to 17 in families in poverty
- Median household income

Produced for every school district, county, and state, these figures help pinpoint locations with high poverty rates, which in turn informs policy choices and the creation of targeted solutions.

Social Vulnerability Index (SVI)

Description	The Social Vulnerability Index uses 15 U.S. census variables to help local officials identify communities that may need support before, during, or after disasters.
Time Frame	Year; 2000, 2010, 2014, 2016, 2018, 2020, 2022
Spatial Scale	County and Census Tract
Format	CSV and Geodatabase
Source	Centers for Disease Control and Prevention (CDC)
Original Repository	All Years
Living Atlas	2018 2020 2022

Details

Ranking by social vulnerability. Can look at rank within a state or within the entire US. A composite measure based on four dimensions:

- Housing Type and Transportation
- Household Composition and Disability
- Socioeconomic Status
- Minority Status and Language

Can also map by individual dimension.



Tribal Census Tract Boundaries

Description	Polygons representing individual tribal census tracts throughout the United States
Years	Year; 2007 to 2025
Spatial Scale	Tribal Tract
Format	Shapefile
Source	US Census Bureau
Original Repository	All Years
Living Atlas	N/A

Details:

Tribal census tracts are small statistical subdivisions of a reservation and off-reservation trust land. Their primary purpose is the same as census tracts: the presentation of statistical data. However, rather than nesting within a county, tribal census tracts nest within a single federally recognized American Indian area, providing coverage across all federally recognized American Indian reservations and off-reservation trust lands. Tribal census tracts have population criteria identical to county-based census tracts.

If you would like attributes associated with these Tribal Census Tract Boundaries, you can visit <https://data2.nhgis.org/main>. Select **Geographic levels -> Native American/Alaskan/Hawaiian -> Tribal Census Tracts**. You can then select years, topics, and datasets to filter ACS Tables

