

## Getting to Know GRASP

The **Geospatial Research, Analysis, and Services Program (GRASP)** is a team of public health and **geospatial science, technology, visualization, and analysis** experts. The GRASP mission is to provide leadership, expertise, and education in the application of **geography, geospatial science, and geographic information systems (GIS)** to public health research and practice.

GRASP fulfills its **mission** through five key objectives:

1. **Research** and **analyze** the geospatial trends and patterns associated with environmental health, infectious and chronic disease, injury, and emergency preparedness and response.
2. **Support** CDC/ATSDR scientists and systems with geospatial expertise, data, consulting, technology, and training.
3. **Collaborate** with scientists and researchers at CDC/ATSDR and among our public health partners to address diverse public health issues.
4. **Foster** a vibrant geospatial community among public health professionals.
5. **Embrace, leverage, and promote** GIS and technology.

Learn more about the [history](#) of GRASP.

## Our Areas of Geospatial Science and GIS Expertise

Expanding in size and skill from a team of 2 in 1990 to more than 80 today, GRASP continues to evolve in depth and breadth of geospatial expertise as demand increases for geospatial science and GIS in public health. GRASP leads the agency in the application of geospatial concepts, methods, and tools across four areas of geospatial expertise:

<b>Science</b>	Technology	Visualization	Analysis
----------------	------------	---------------	----------

**Geospatial epidemiology** explores the relationship between place and health. GRASP investigates the relationship between geographic variations of disease and environmental, demographic, behavioral, socioeconomic, genetic, and infectious risk factors.

GRASP uses **GIS technology** to enhance agency information systems with geospatial mapping, reporting, and geocoding. GRASP is responsible for the development, design, and direction of GIS web applications, GIS desktop applications, and GIS web services that extend geospatial analysis, visualization, and reporting tools to CDC/ATSDR, and the broader public health community.

GRASP scientists apply innovative **visualization** methods to improve the presentation and interpretation of health data. Maps and geospatial resources from GRASP are essential to CDC/ATSDR's efforts to communicate complex results to communities, government partners, academia, and advocacy groups.



GRASP provides **geospatial analyses** and **mapping** to help CDC/ATSDR scientists understand relationships between health and environmental, sociodemographic, and behavioral factors.

## Geospatial Determinants of Health

GRASP works at the intersection of place and health to promote health and prevent disease. Program scientists examine the convergence of geospatial health determinants that vary by place. As part of its work, GRASP has proposed and is shaping a framework, the **Geospatial Determinants of Health** (GDOH), that articulates the various geospatial drivers that influence disease prevalence and promote health.

The purpose of the GDOH is to (1) define the geospatial drivers of health with an emphasis on factors that vary by place, (2) serve as a catalyst to define, promote, and advance the use of place in research and practice across the public health community, and (3) shape the public health curriculum of schools across the United States to advance geospatial analysis, statistics, and technology in the study of public health.

## Our Success in Collaboration, Partnerships, and Education

GRASP works with a wide range of partners across CDC/ATSDR and among members of the broader public health community to advance the application of geospatial science and GIS in public health research and practice. GRASP contributes to the growth of the geospatial community by:

- Creating new and strengthening existing public health partnerships.
- Providing training and education to help scientists explore the connections between geospatial science, GIS, and public health.
- Offering consultation to groups across CDC/ATSDR to support examining and visualizing patterns in time and space.
- Using geospatial science and GIS visualization tools to evaluate public health surveillance, risk factor, environmental, and program effectiveness data.

Learn more about our [partnerships](#).