

GIS for Public Health and Social Services Organizations

Enhancing Programs & Services with GIS

By helping to streamline the process of gathering, overlaying, analyzing, and communicating geographical information, **Geographic Information Systems** (GIS) has been widely praised for its capacities to not only make maps, but to reveal patterns and trends, explore potential outcomes, and plan for the future.

GIS enables public health and social services organizations to bring together the essential layers of information—demographic, site-based services, transportation networks, etc.—necessary for assessing, delivering, and integrating services and programs.

The technology has the capacity to aid public health professionals, researchers, and policy makers better understand the geographic relationships that affect health outcomes, public health risks, disease transmission, access to health care, and other public health concerns.

Health GIS Applications

A growing number of public health organizations have begun to use GIS to help them more efficiently and effectively:

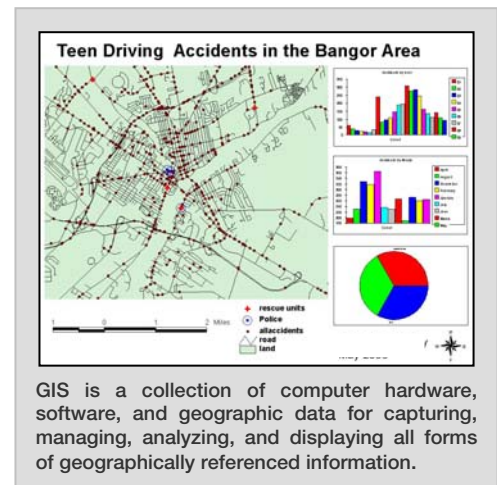
- Target key constituencies, especially high-need, underserved populations
- Identify community health problems and monitor health status
- Assess gaps and barriers to services and care
- Locate new services and examine opportunities for integrated care
- Evaluate threat preparedness and enhance incident planning
- Persuade decision-makers and profile accomplishments

Sample GIS Projects

The Center for Community GIS offers a wide range of digital mapping services for public health and social services organizations. Examples of staff and intern projects include:

- What is the distribution of fuel assistance and home winterization recipients and where are the highest density clusters?
- Where do youth perceive opportunities for improving safe walking and biking routes to school?
- Where should new juvenile drug treatment centers be located based on high rates of crime and a current lack of services?
- How can regional transportation linkages and mobile care solutions be improved to enable elders to remain longer in their homes?
- In what areas do political or administrative boundaries complicate health care delivery because clients have to travel farther for services?
- To what extent can community resources, like family farms and trails, be promoted regionally to emphasize health and wellness?

The **Center for Community GIS** is a program of the non-profit organization, Quebec-Labrador Foundation, dedicated to the broad use and participatory application of GIS amongst public interest groups.



GIS is a collection of computer hardware, software, and geographic data for capturing, managing, analyzing, and displaying all forms of geographically referenced information.

