JOHN SNOW, INC.

## GIS @JSI

## Health Center Service Area Analysis

## Unlocking patient origin data for planning, resource allocation, and program evaluation



Since its inception decades ago, the Community Health Center Program (HCP) has worked to identify needs in underserved communities and allocate resources to assist residents in gaining access to care. The program has since grown to over 1,300 organizations, with over 9,000 delivery sites-often with overlapping service areas and target populations.

To assist federal agency staff, existing health centers, and communities in examining the individual and collective impact of the HCP and its participants, JSI has developed a series of integrated analyses and GIS-driven tools to explore service areas relative to local communities, to identify gaps, and to plan for change at a detailed geographic level. In anticipation of the implementation of the Affordable Care Act and its impact on target populations, JSI has expanded these tools to provide key information relative to the impact of coverage changes at the community and program levels. The content we create is made publicly available by HRSA via the UDS Mapper web site.

JSI pioneered the use of UDS patient origin data to address key questions for the HCP and its participating organizations. We bring deep expertise in developing geographic information system (GIS) tools that unlock the value of spatial relationships in available data.

## The UDS Service Area Analysis forms the basis of a variety of analytic capabilities now integrated into the HPC process:

Program-level impact analysis, competition and unmet need:

- Maps highlight areas of health center dominance, market penetration, unmet need, and changes year-to-year
- Patient origin mapping or patient-driven service areas



## Organization-level service area assessment:

- Maps assist in defining the core outlying areas served by individual health centers, allowing that organization's role to be examined separately from others working in the community.


Community/organization planning for growth and grant applications:

- The UDS Mapper is an on-line version of the analysis produced by HRSA under separate contract. It puts the maps and data in the hands of local organizations and community planning efforts, and has been incorporated into the requirements for applying for new agency resources.



## Agency Oversight, Resource Allocation,

 and Grant Application analysis- JSI conducts internal analyses for HRSA to identify nearby or overlapping resources and test the need for proposed resources and the validity of proposed service areas as part of the grant review processes.

Assessing the impact of broad policy change:

- In order to quantify the impact of the Affordable Care Act, JSI suggested changes to the UDS reporting to permit the development of a baseline and ongoing analysis of changes in key coverage categories (uninsured, Medicaid, Medicare, private) resulting from the new coverage options available.
- JSI is using this analysis to show detailed year-toyear change in patient origin, insurance status, and volume relative to changes at the community level.


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John Snow, Inc., is a public health consulting firm working in the US and in more than 70 countries around the world. Continuing the pioneering public health principles developed by Dr. John Snow to halt a cholera epidemic in the 1840's, we use mapping technology to unlock and analyze critical public health information.

