

Using Large Scale Emergency Claims Data and Geospatial Analysis to Identify Local Patterns of Disease

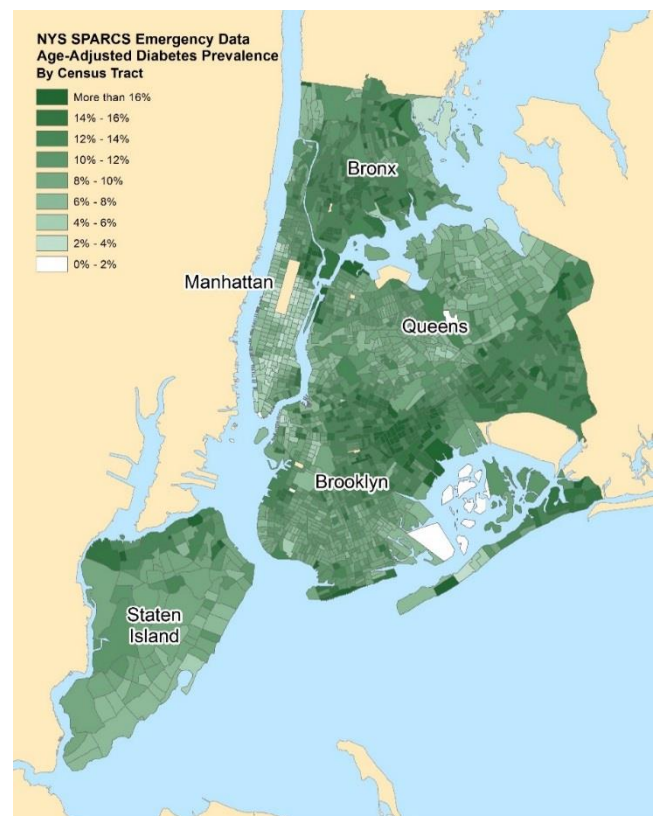
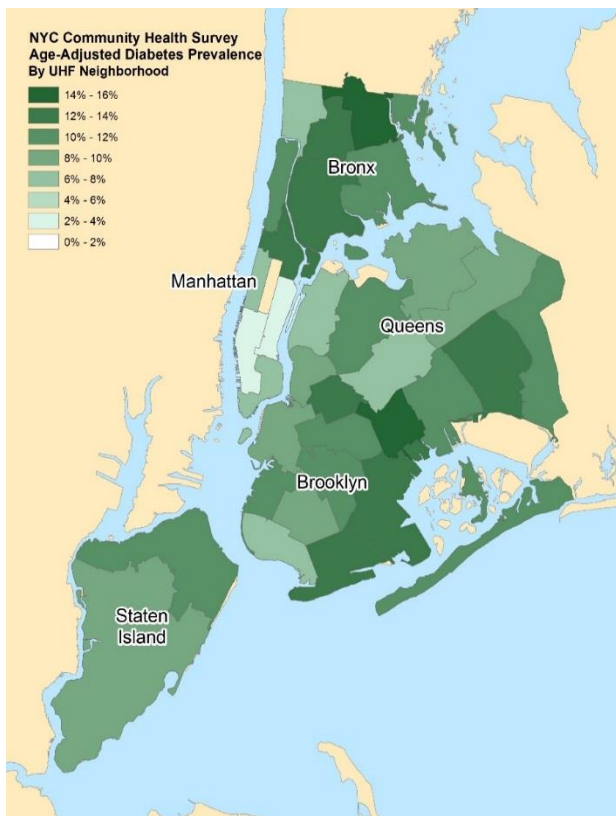
The Problem: Traditional methods of health surveillance are limited by small sample sizes and lack the geographic resolution to identify local patterns of disease prevalence.

A Solution: To leverage existing large scale data sources and geospatial analysis to identify the local prevalence of chronic disease like diabetes, hypertension, and asthma.

Emergency Department Surveillance

A novel geographic approach that uses emergency claims data to identify local hot spots of disease burden with higher geographic resolution than previously available.

Lee DC, Long JA, Wall SP, Carr BG, Satchell SN, Braithwaite RS, Elbel B. Determining Chronic Disease Prevalence in Local Populations Using Emergency Department Surveillance. Am J Public Health. 2015 Sep;105(9): e67-74.



Sullivan County, New York

- Rural county located in the Catskill Mountains of southern New York State
- Has been ranked 61 out of 62 New York counties by the County Health Rankings
- Health outcomes are second to last in New York State (second only to the Bronx)
- Also has the highest rates of premature death in the entire state of New York

Sullivan County Public Health Services

- Its mission is to prevent illness and disease, and to protect and promote public health for the residents of Sullivan County
- Relatively small group of civil servants who are dedicated to improving health in Sullivan County despite having a limited budget for its various programs
- Its programs include administration of the county's home health agency, coordinating long term home health care, running a child safety seat program, addressing the needs of physically handicapped children, running an early intervention program for children, and running the county's Women, Infants and Children Program (WIC)

New York State Health Foundation Special Projects Grant

Enhancing Rural Health Surveillance in New York State by Using Geospatial Analysis to Identify Local Hotspots of Disease

Goals: To validate the use of emergency department surveillance in rural settings by comparing disease prevalence estimates to those obtained through a health survey that will be deployed county wide. To support the Sullivan County Public Health Service by providing capacity for geospatial analysis to identify areas with high health needs.

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