

Using ArcGIS to Improve Services to the Medically Underserved

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Primary Care Coalition of Montgomery County



PRIMARY CARE
COALITION OF
MONTGOMERY COUNTY

Overview

Montgomery County landscape & Primary Care Coalition's role

Primary Care Coalition's GIS projects & goals

Maps that

- Depict landscape
- Inform policy decisions
- Support programs

Challenges & next steps

Local Health Landscape: Montgomery County, MD

Wealthy DC suburb of 930,000 residents, large growing immigrant population

- ~112,000 uninsured adults (20% of adult pop.) ~70,000-80,000 of whom are low income; approx 20,000 low income children not eligible for other programs
- No academic health centers or public hospitals; 5 private community hospitals

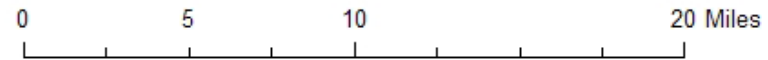
County funds

- Montgomery Cares
 - 12 safety net provider clinic organizations serving low-income, uninsured adults.
 - Multi-cultural, independent clinics with volunteer providers
 - Mix of free care, donations accepted, sliding scale, and federally qualified health centers (FQHC)
- Care for Kids
 - 10 provider organizations providing access to medical, dental, vision, medications for children not eligible for other state and federal programs.

Primary Care Coalition of Montgomery County - Non-Profit (1993):

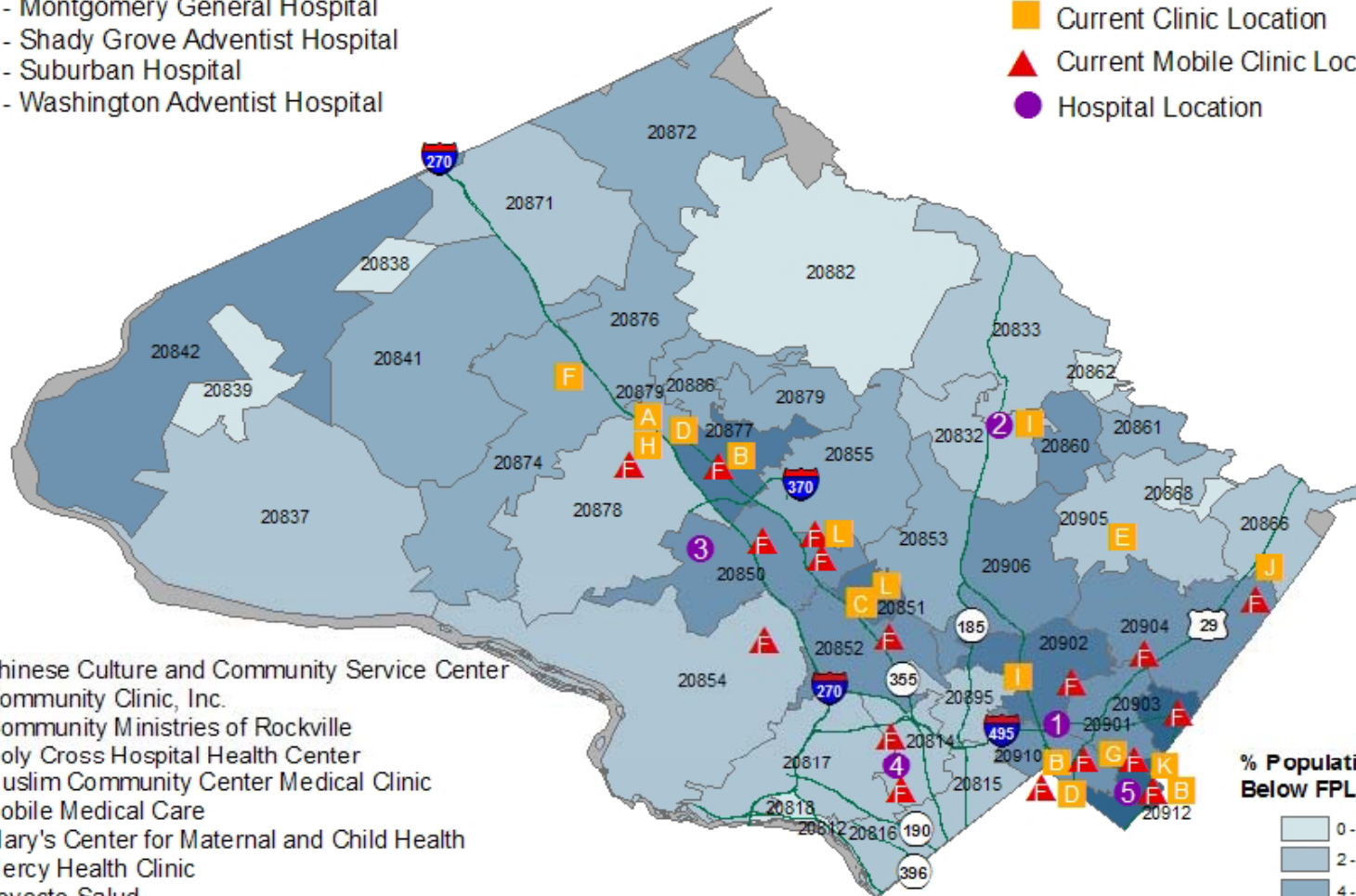
- “Systems Integrator” for safety net providers
- Administrator for Montgomery Cares and Care for Kids.
- Leverages County funding and supports infrastructure and provides technical support in IT, Quality, Research, systems integration, and process improvement

Montgomery County Landscape



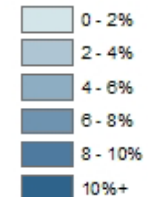
- 1 - Holy Cross Hospital
- 2 - Montgomery General Hospital
- 3 - Shady Grove Adventist Hospital
- 4 - Suburban Hospital
- 5 - Washington Adventist Hospital

- Current Clinic Location
- ▲ Current Mobile Clinic Location
- Hospital Location



- A - Chinese Culture and Community Service Center
- B - Community Clinic, Inc.
- C - Community Ministries of Rockville
- D - Holy Cross Hospital Health Center
- E - Muslim Community Center Medical Clinic
- F - Mobile Medical Care
- G - Mary's Center for Maternal and Child Health
- H - Mercy Health Clinic
- I - Proyecto Salud
- J - The People's Community Wellness Center
- K - Spanish Catholic Center
- L - Under One Roof Medical Clinic

% Population Below FPL by ZIP



Note: Federal Poverty Level by ZIP code data comes from the 2000 U.S. Census

Primary Care Coalition Vision and Mission

PCC Vision: All Montgomery County residents will have the opportunity to live healthy lives. Montgomery County will be the healthiest community in the nation and a model for providing access to high quality and efficient care for all.

PCC Mission: The PCC will lead the development and coordination of a community-based health care system that strives for universal access and elimination of health disparities for all county residents.

Where does the data come from?

CHLCare – open-source electronic health record

- Used by 9 of 12 Montgomery Cares participating clinics
- Developed collaboratively with safety-net clinics to meet their needs
- Shared database with over 500,000 visit records for over 100,000 patients
- Content includes
 - Patient demographics
 - Encounter data, including ICD9 and CPT codes
 - Additional clinical data: labs, allergies, immunizations, medications
 - Patient appointment scheduling
 - Specialty referrals
 - Extensive patient clinical reports and clinic management reports

Care for Kids database

- Data submitted by providers, entered and maintained by PCC staff
- Contains eligibility information, patient demographics, visit information

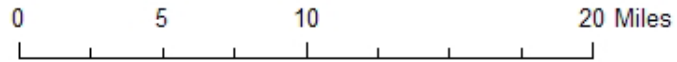
GIS at PCC History & Overview

In June 2008, PCC received a grant from the Consumer Health Foundation to support implementation of GIS software to inform program development.

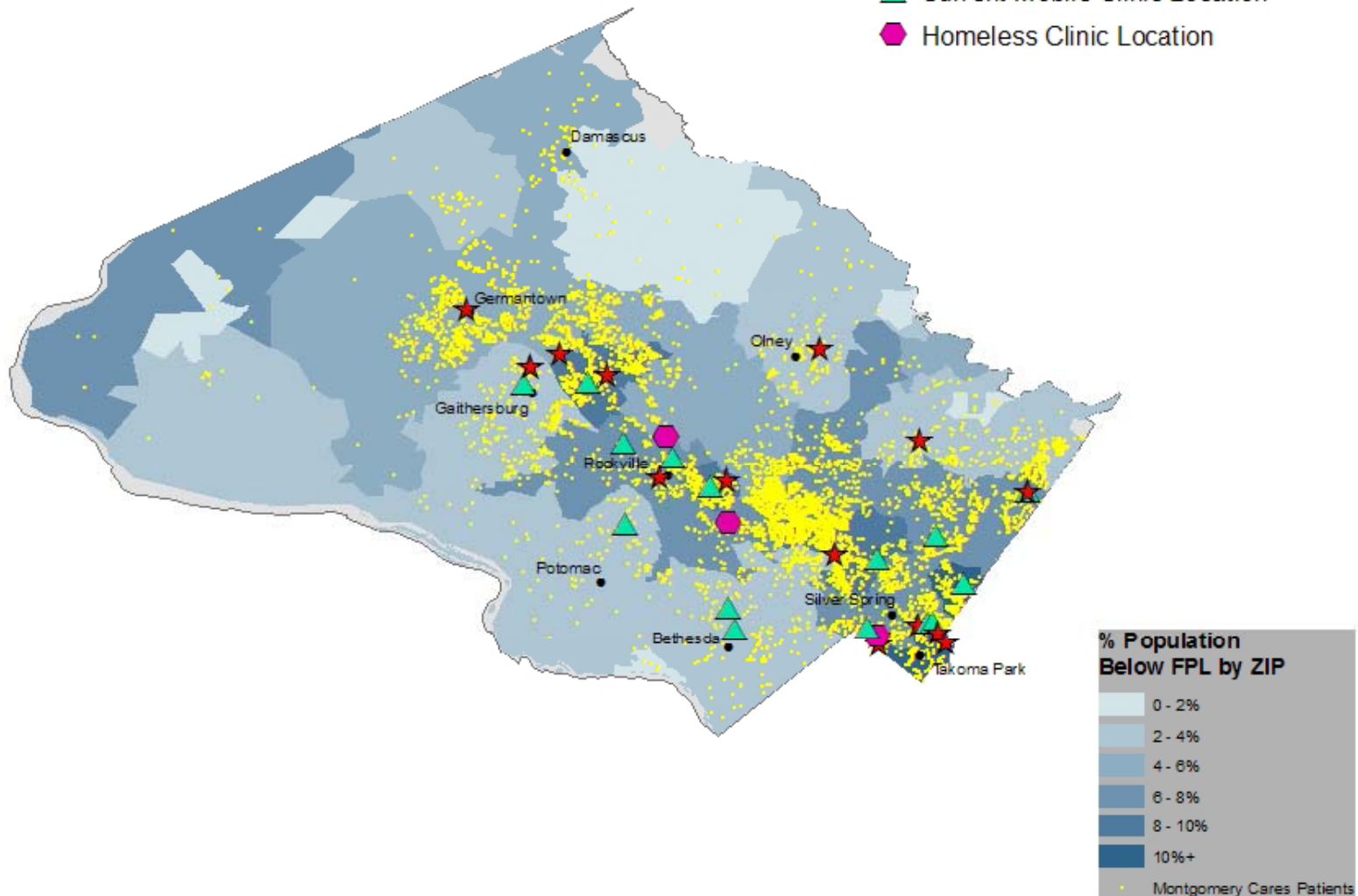
The goals:

- o To visually synthesize county demographic data and residents' use of healthcare services
- o To analyze the above data to gain insight into the unmet needs of the county's uninsured residents
- o To assist in the development of strategic plans to meet those unmet needs
 - o Ideal locations of future clinics
 - o Determining chronic disease burden in Montgomery County
 - o Reducing number of unnecessary emergency department visits

Montgomery Cares Patient Population – FY09



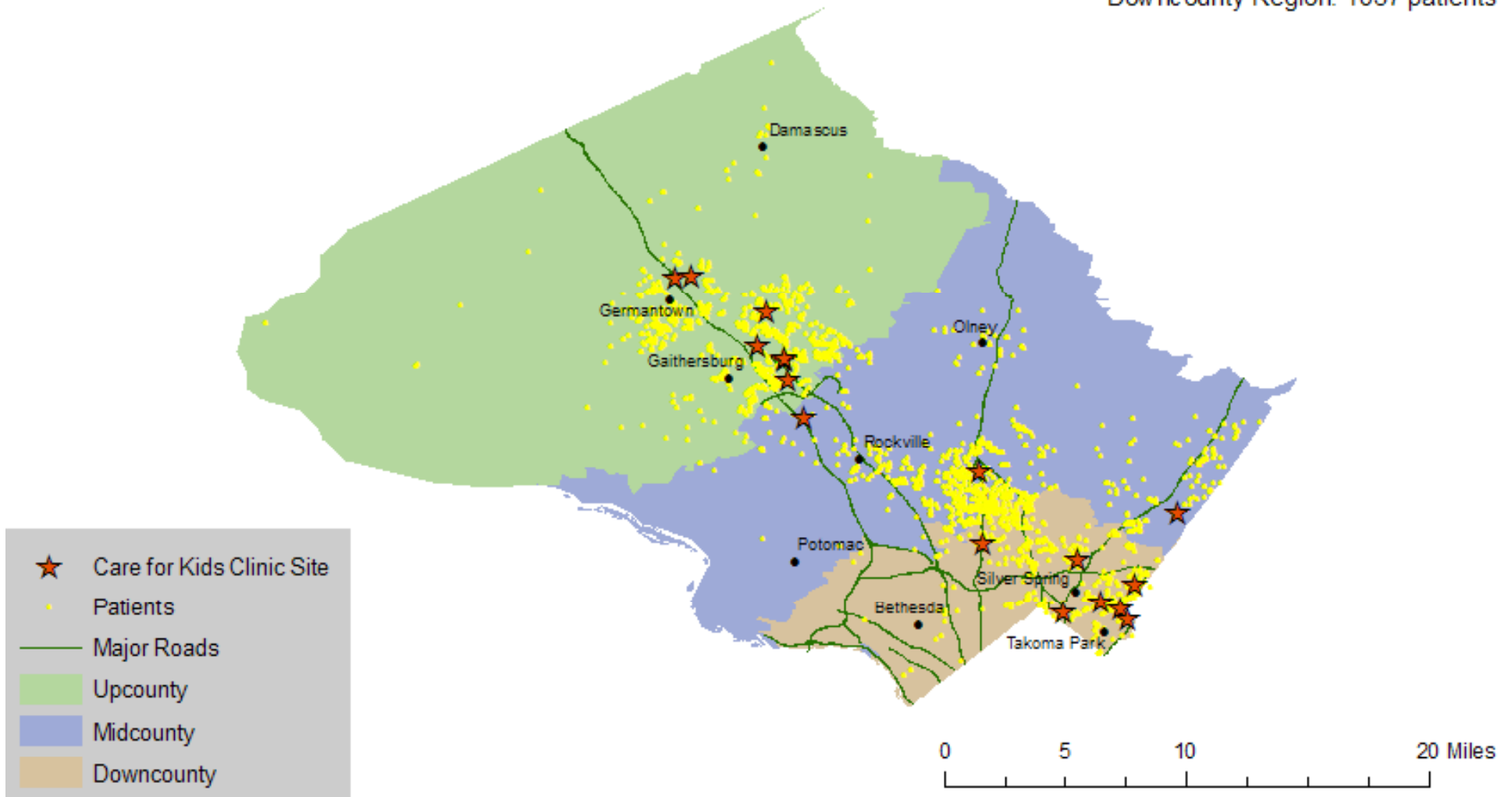
- ★ Current Clinic Location
- ▲ Current Mobile Clinic Location
- ◆ Homeless Clinic Location



Note: Federal Poverty Level by ZIP code data comes from the 2000 U.S. Census

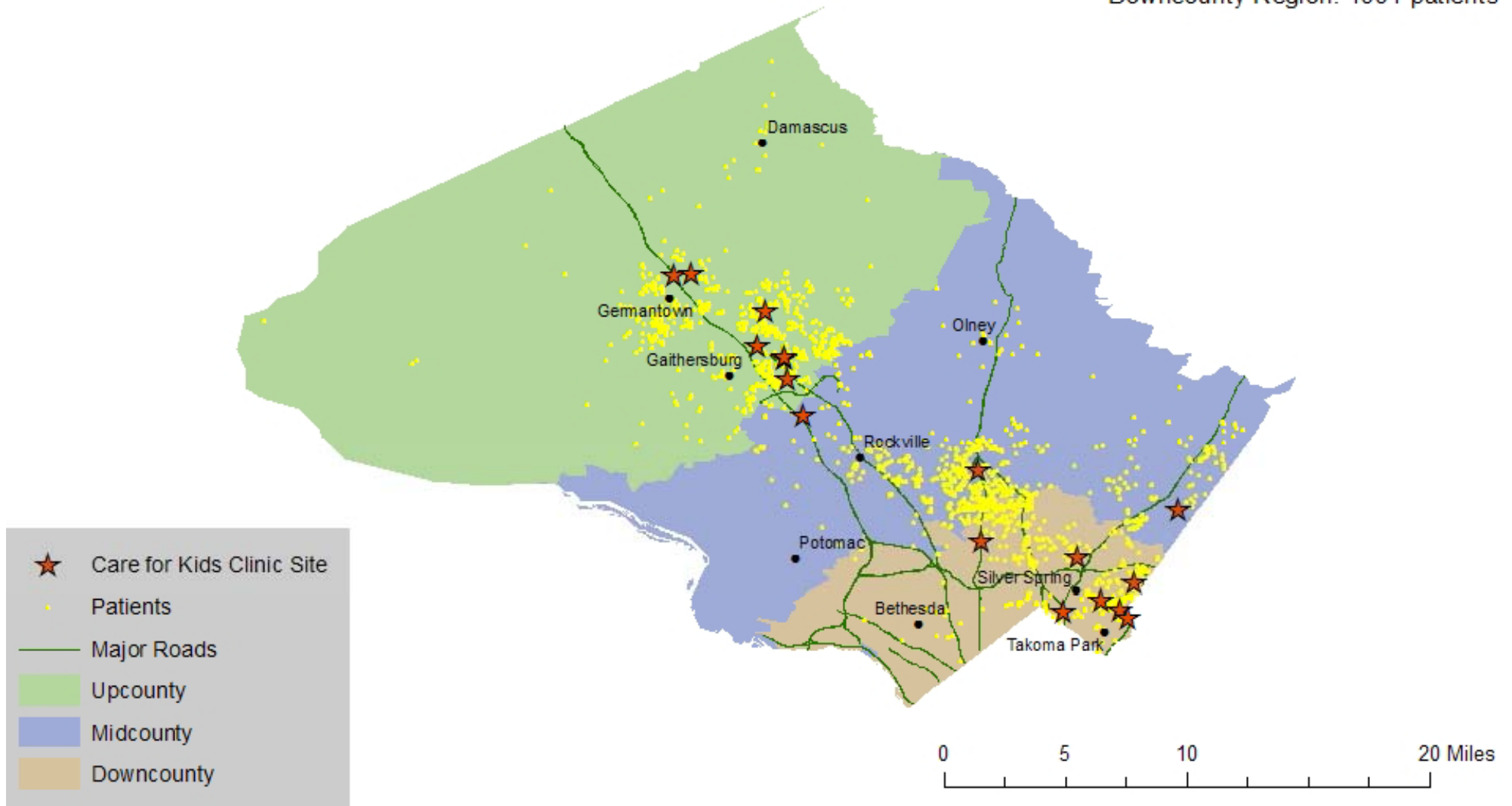
Care for Kids Patient Population – FY08

Upcounty Region: 1520 patients
Midcounty Region: 1216 patients
Downcounty Region: 1037 patients

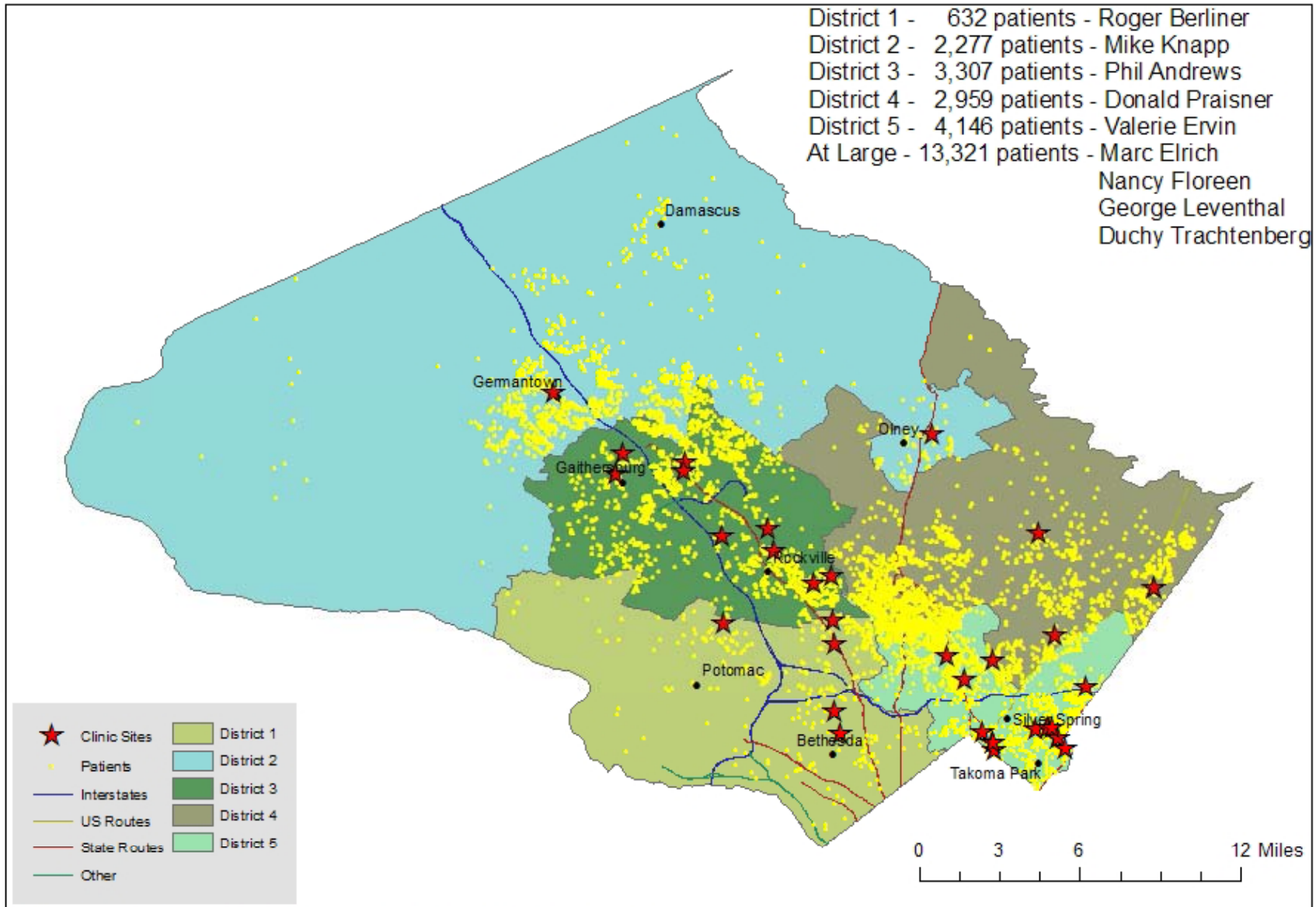


Care for Kids Patient Population – FY09

Upcounty Region: 1370 patients
Midcounty Region: 1118 patients
Downcounty Region: 1001 patients

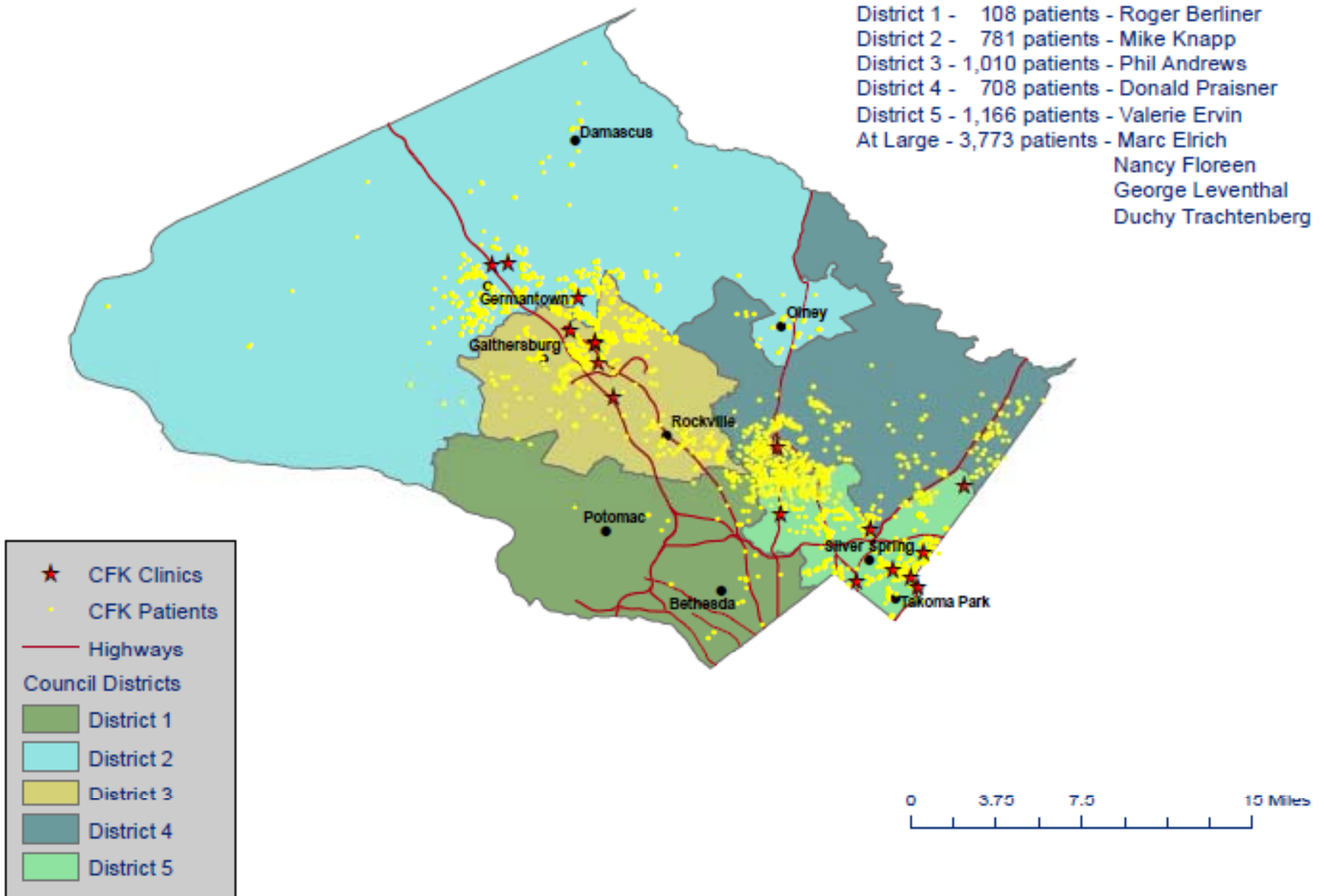


Montgomery Cares Patients by Council District – FY08



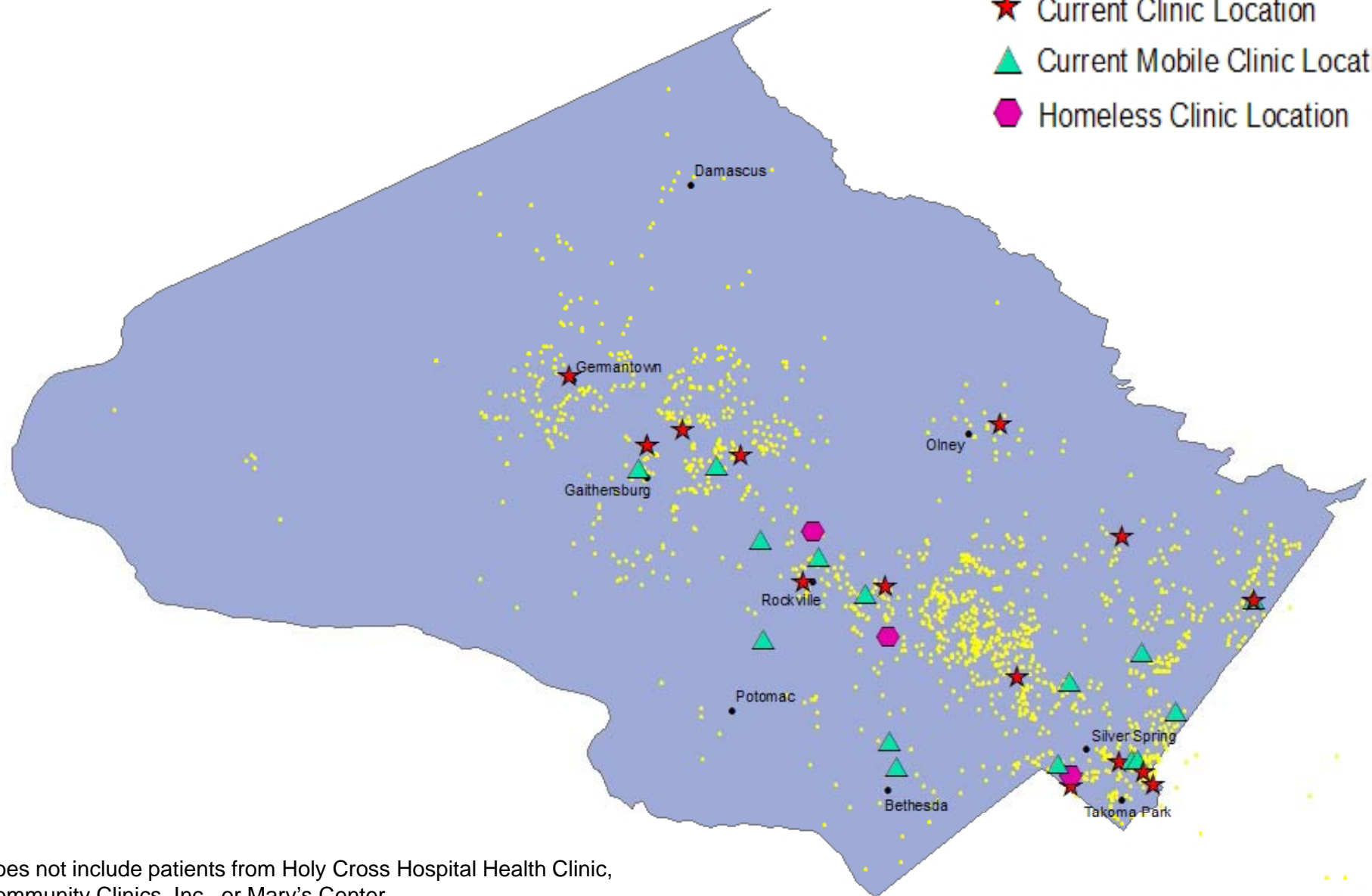
**Does not include data from Holy Cross Hospital Health Clinic or Mary's Center

Care for Kids Patients by Council District – FY08



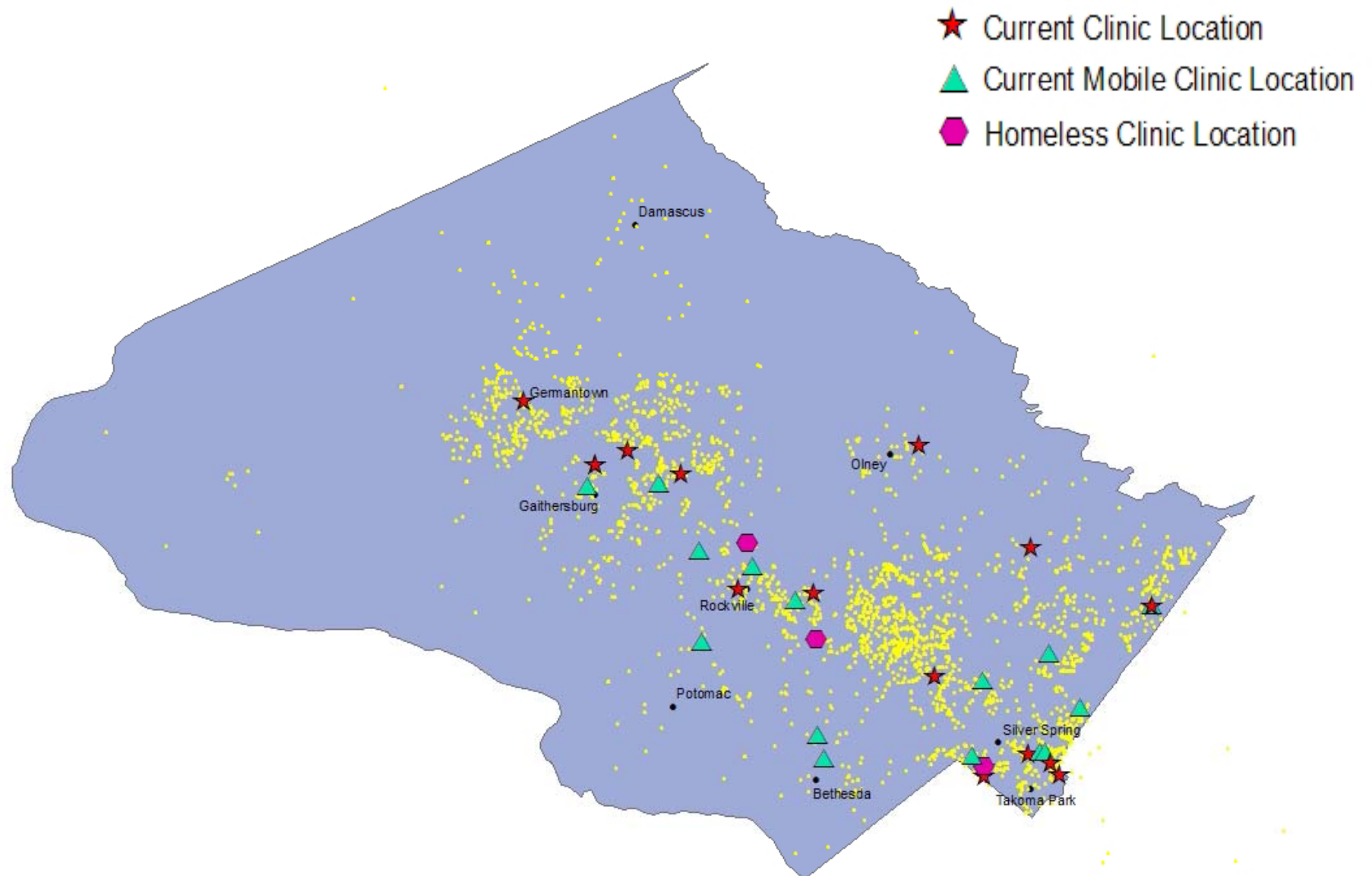
Montgomery Cares Patients with Diabetes

- ★ Current Clinic Location
- ▲ Current Mobile Clinic Location
- ◆ Homeless Clinic Location



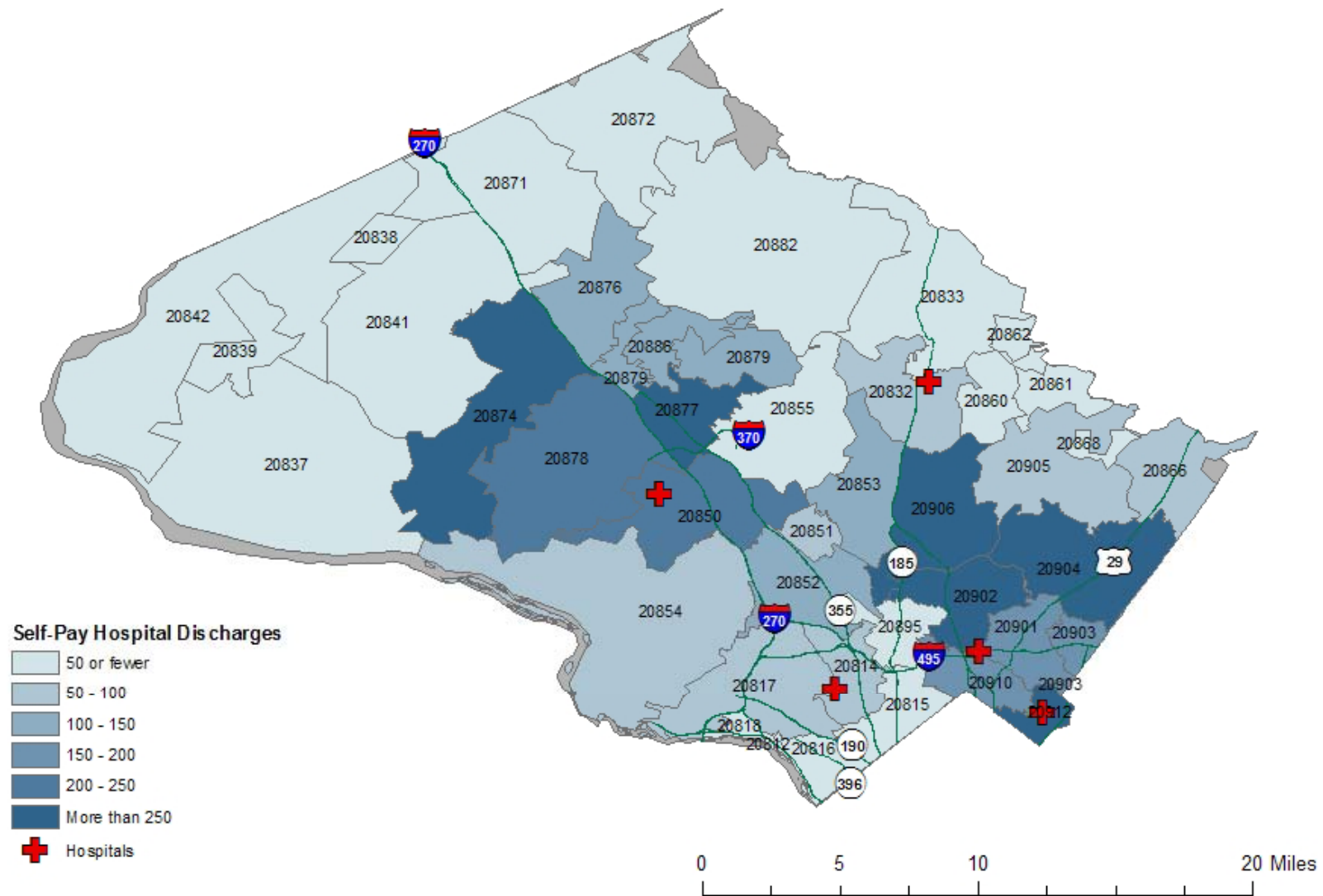
Does not include patients from Holy Cross Hospital Health Clinic, Community Clinics, Inc., or Mary's Center

Montgomery Cares Patients with Hypertension



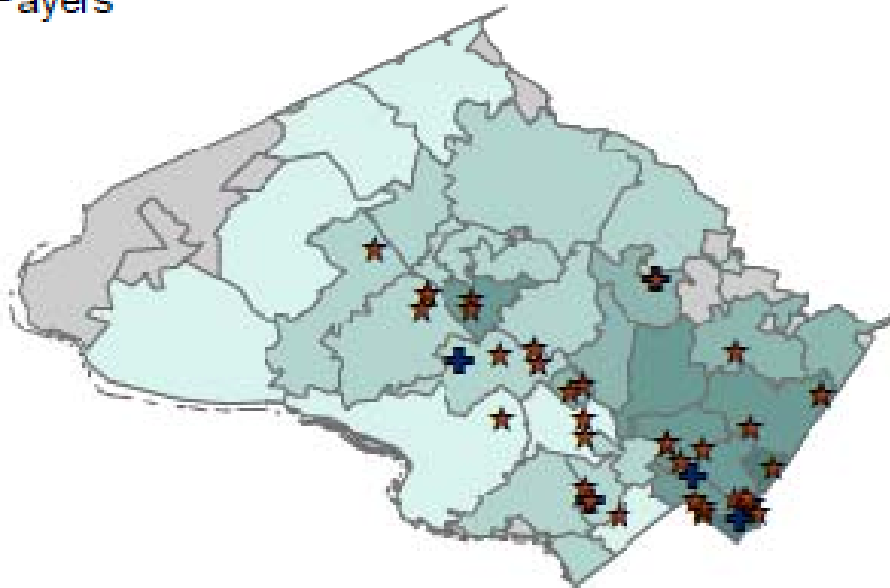
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Self-Pay Hospital Discharges

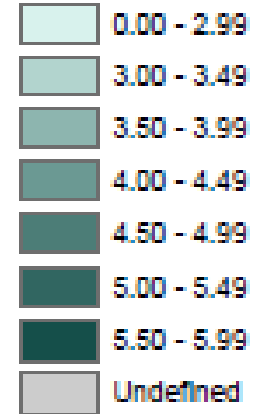


Relative Rate of Avoidable ED Visits

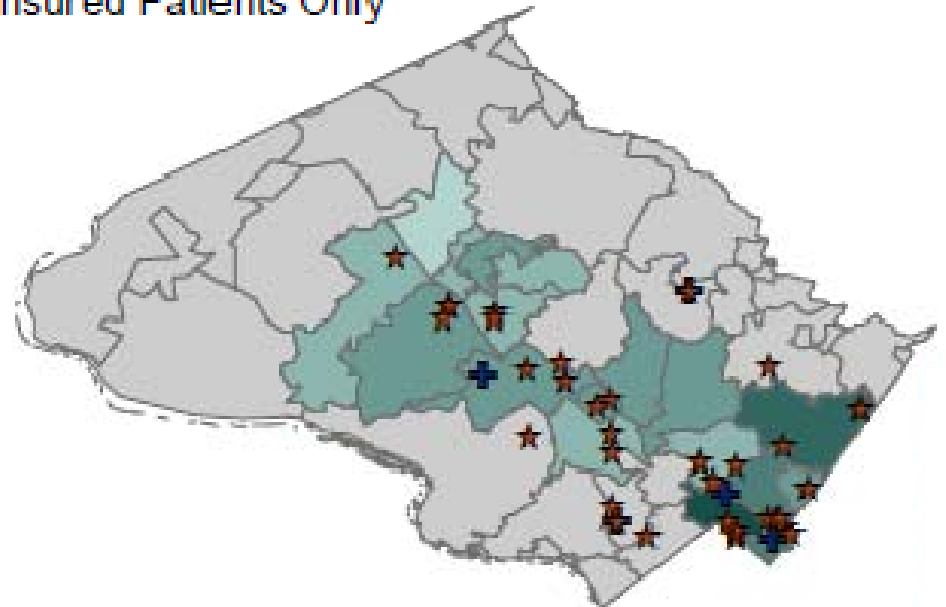
All Payers



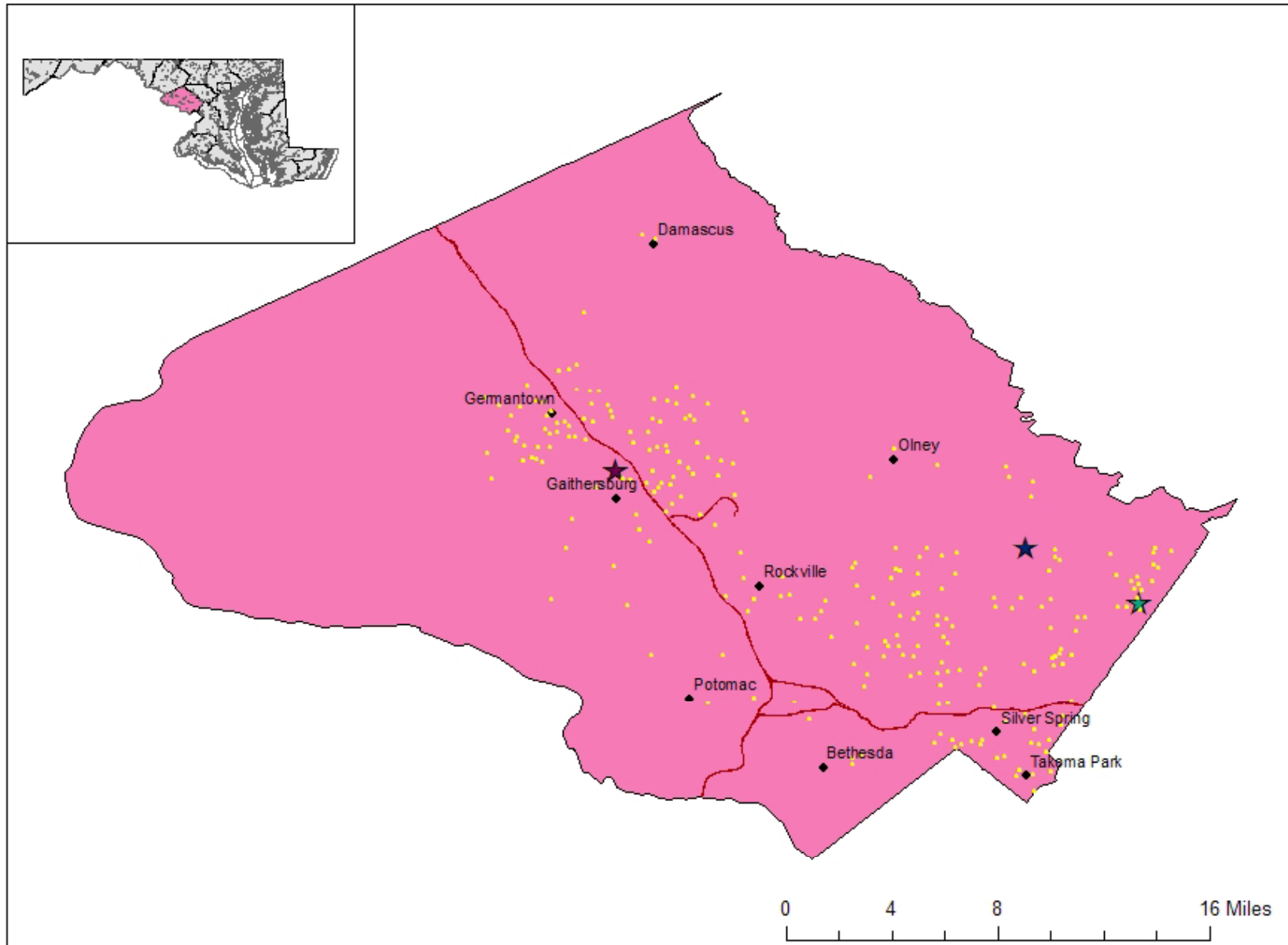
Relative Rate



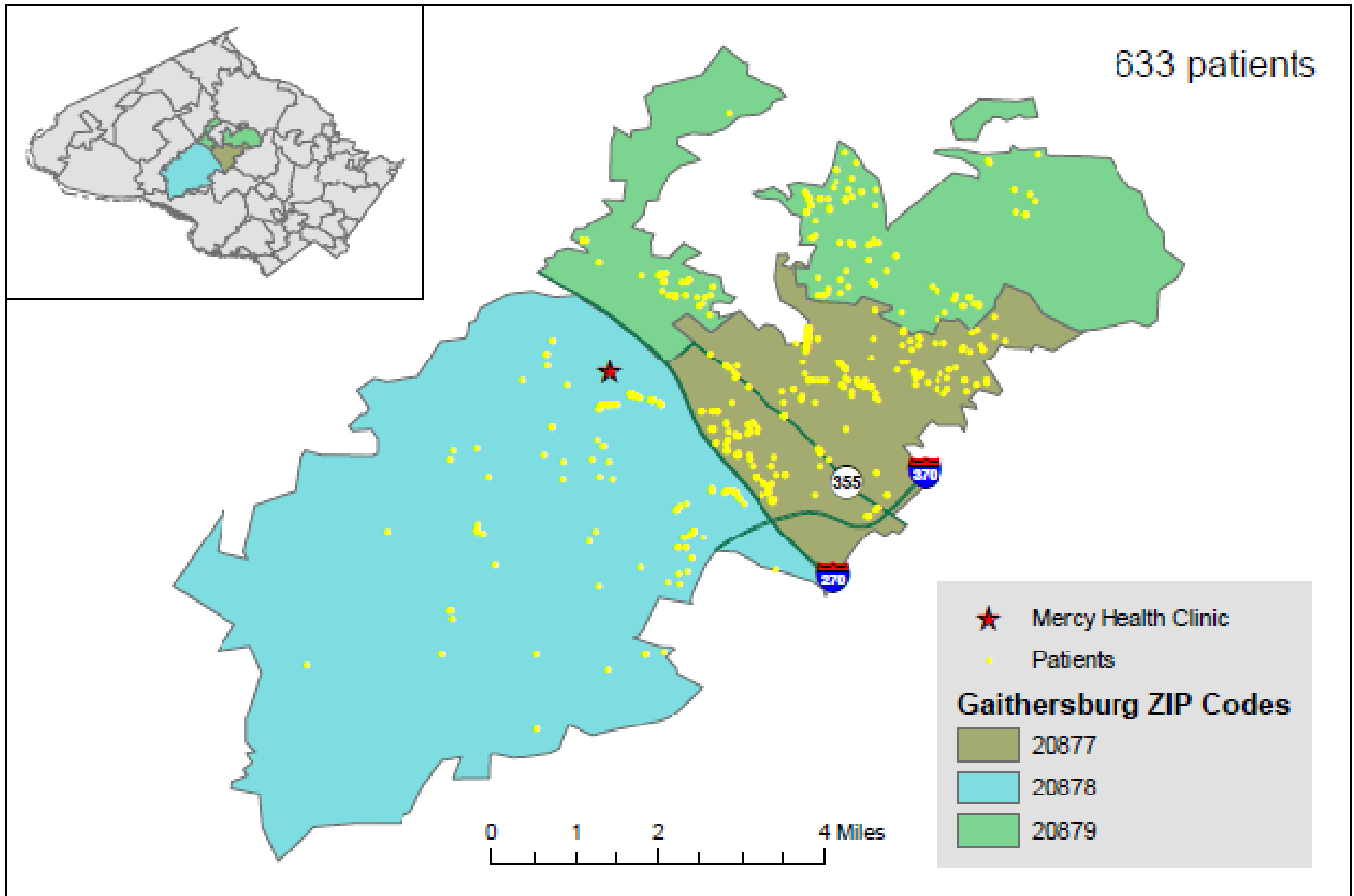
Uninsured Patients Only



Susan B. Komen Grant – Mammography Screenings



Mercy Health Clinic Patients in Gaithersburg



Challenges

Safety net clinic setting

- o Emphasis on providing care to as many people as possible – not entering data
- o Constant effort to increase data entry including
 - o Grants for data improvement
 - o Gradually increasing data entry for payment from county
 - o Reports that assist with patient care
 - o Technical assistance & user group meetings

Difficulty of obtaining detailed demographic data at a sub-county level

- o Currently using 2000 census data for federal poverty level

Current financial situation leads to focus on maintaining funding rather than creating new programs

Next Steps

Increased training for additional staff members

Perform more in-depth analysis on current maps

- Use demographic & clinic usage data to determine areas of need for clinic services
- Analyze chronic disease burden as a function of demographic factors
- Continue to use maps to inform policy decisions & program development
 - Fulfill data requests of Montgomery Cares Advisory Board
 - Share map data with Montgomery County Council & outside funders

Contact Information

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