# Geomark Consulting's Understanding of Industry Challenges

*Location Intelligence in Healthcare…Using Geographic Information Systems (GIS) to Address:*

✓ Social Determinants of Health (SDoH)

✓ Community Health Needs Assessment (CHNA) Requirements

✓ Healthcare Consumerism

# Why Geomark Consulting?

**Geomark Consulting Utilizes…**

1.  Industry Knowledge: Over 30 years experience in academic medical centers

2.  State-of-the-art mapping software (ESRI ArcGIS Map, ArcGIS Pro, ArcGIS Online, 3D Analyst, Spatial Analyst, Business Analyst Web App, Insights for ArcGIS)

3.  Customized Solutions: Deliverables tailored to your needs, delivered on-time and on-budget

4.  Wide network of industry contacts (domestic & international)

5.  Visual results which aids in timely decision-making

# Client Successes:

## Mapping Services Provided

- Market Share by Zip Code for Client Burn Service Line

- Market Share by Zip Code for Orthopedics Service Line

- Patient Zip Code Origin for Chemo/IV  Therapy

- PET Scan Procedures by Zip Code for All Crozer Facilities

- Proximity of DE, NJ, & PA Hospitals to Philadelphia International Airport

- Primary & Secondary Service Area Definitions by Zip Code for Logan Township, NJ

- NJ Primary Care Doctors' Locations and Affiliations by Zip Code for Gloucester and Salem Counties
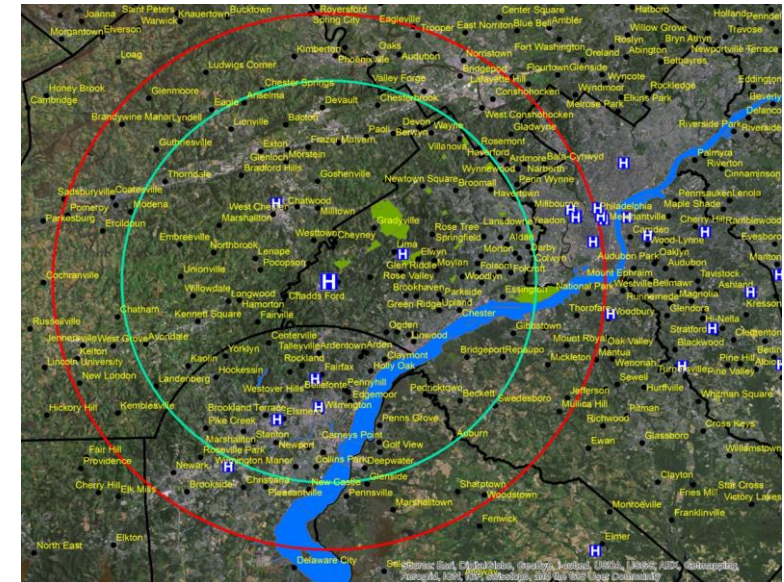
# Client Successes…continued

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## Additional Mapping Services Provided
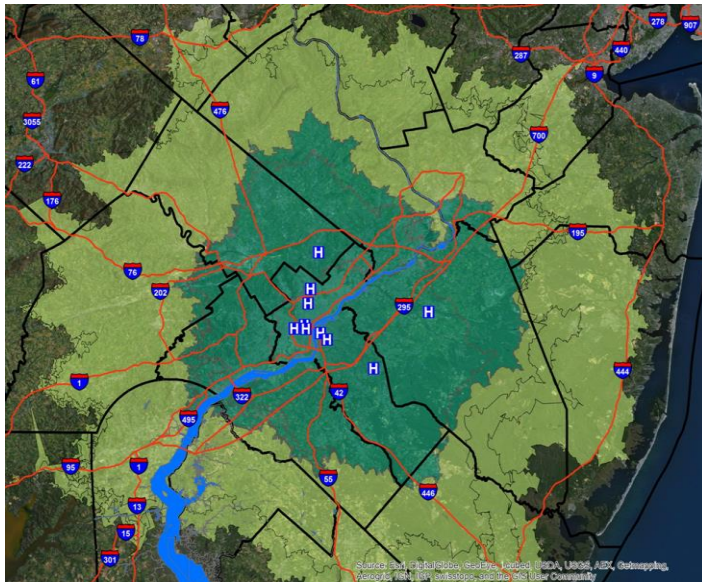


**30- and 60-Minute Drive Time**
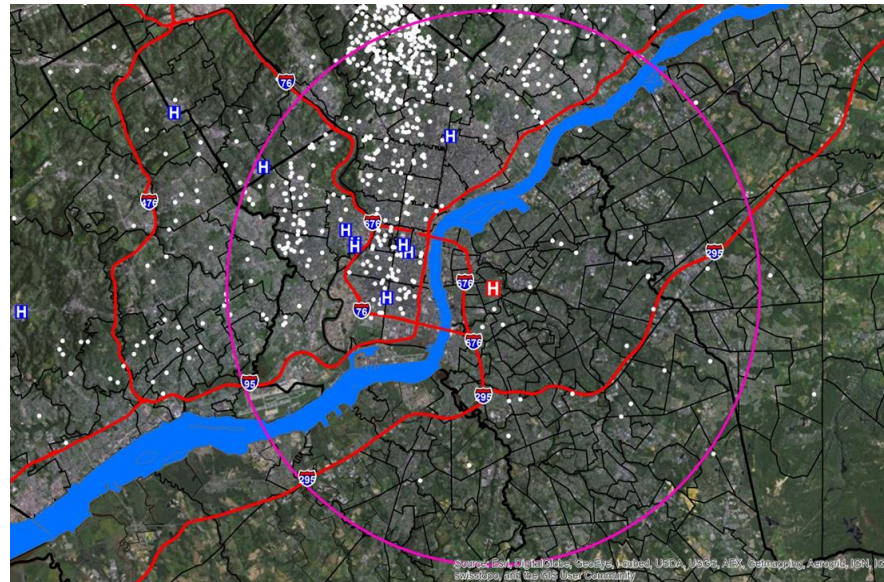


**Geocoding Service for Patient Origin**



**30- and 40-mile Service Areas**

# Healthcare Industry Challenges

1.  Providers & Payers Must Understand the SDoH of the Population They Serve

2.  Healthcare Organizations Staying Compliant With CHNA 3 Year Requirements

3.  Healthcare Industry ~ Retail Industry

# Challenge 1 - Payers & Providers Must Understand
## the SDoH of the Population They Serve
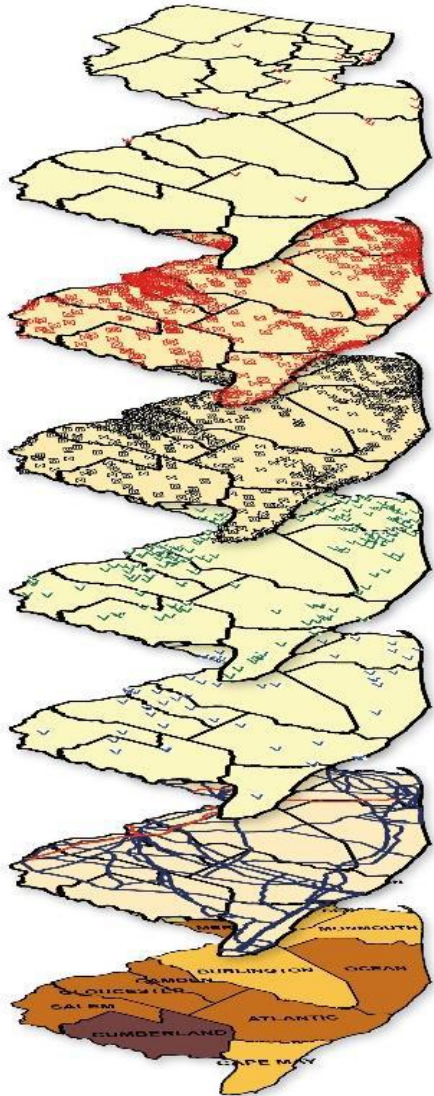
Location of potential neighborhood hazards

Availability of Police, Fire, EMS Stations

Availability of Economic, Educational and Job Opportunities

Availability of hospitals and clinics

Availability of Green spaces and recreational locations

Transportation Networks

Social Variables (poverty level, per capita income, educational attainment, etc.) by geography

# Challenge 1 (continued) - Recent Survey to Understand How SDoH Impacted Health Outcomes, Utilization & Preferences Found...

Food Environment

Community Safety

Housing

Social Support

Transportation

*53% of Surveyed Respondents Are Adversely Impacted by At Least One of These Location - Based SDoH*

# Challenge 1 (continued) - Recent Survey to Understand How SDoH Impacted Health Outcomes, Utilization & Preferences Found…

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| | | |
|---|---|---|
| | Food Environment | 35% |
| | Community Safety | 25% |
| | Housing | 21% |
| | Social Support | 17% |
| | Transportation | 15% |

# Challenge 2 - Community Health Needs Assessments

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## "Hot Spot" Analysis



Camden County, NJ People Aged 65 And Over (Census 2010 Est.) By Census Tract Indicating "Hot Spots"

This map shows the population aged 65 and over by census tract (2010 est.)

This map shows statistically significant (Moran's I) "hot spots" (red shading) of people aged 65 and over by census tract
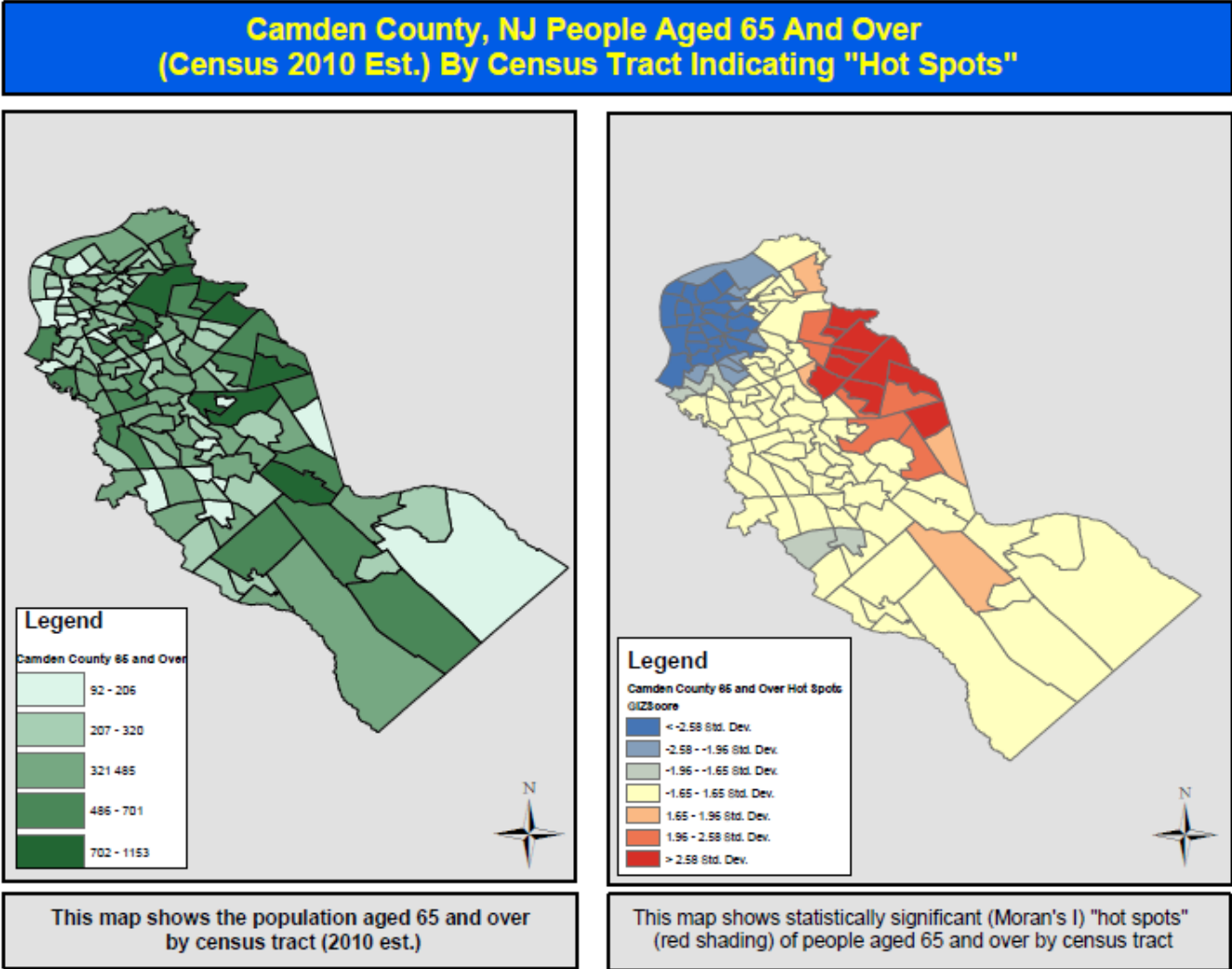
- Service Line Strategy
- Capital Dollars
- Competitor Analysis
- Utilize SDoH Results

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- **Service Line Strategy** - Add service lines based on updated demographics, claims data, or other incoming spatial information (i.e. Hahnemann Hospital closure)

- **Capital Dollar Allocation** - Use hot spot analysis to better utilize scarce capital dollars to maximize ROI

- **Competitor Analysis** - Are competitors adding facilities (urgent care, ASCs, etc.)?

- **Results from SDoH Analysis** -  Partnering with local social services or faith-based organizations

# Challenge 3 - The Health Care "Consumer

## Convenience & Access
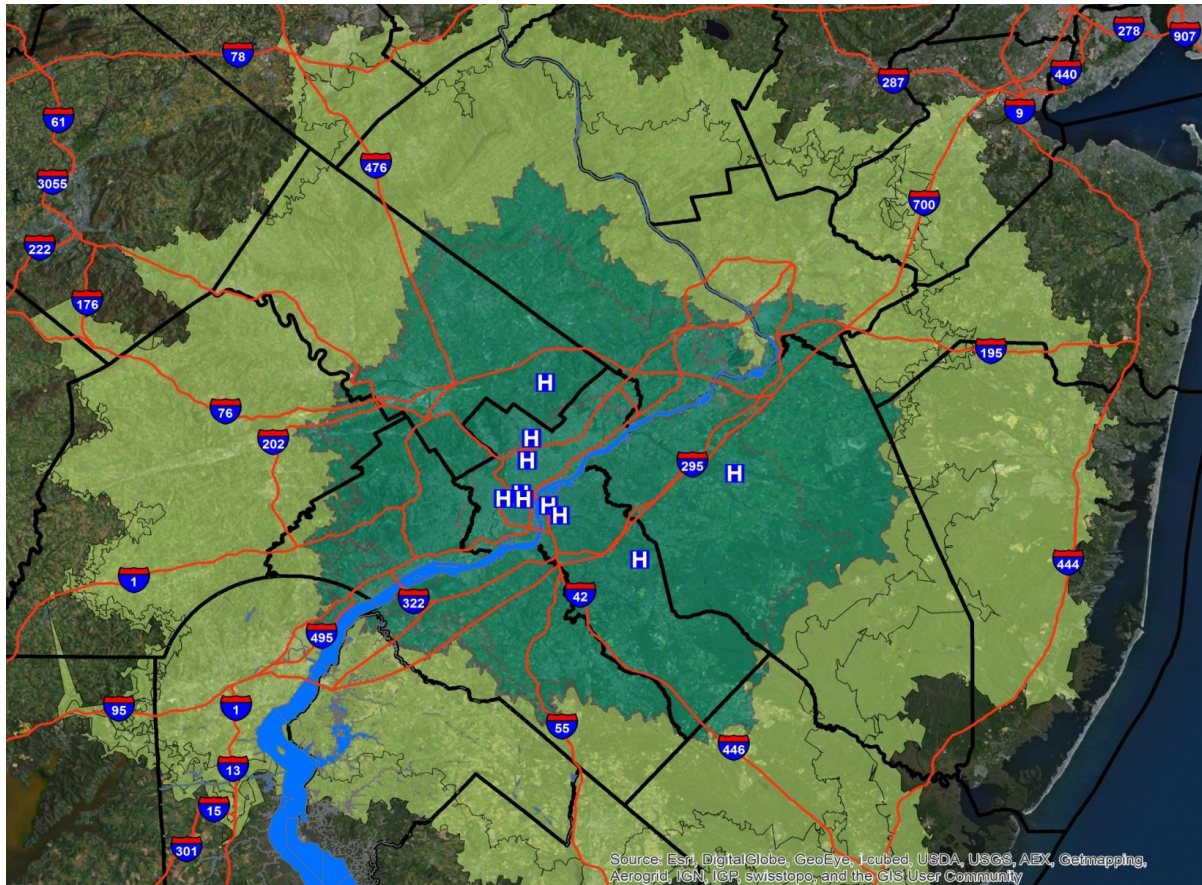


- Patient Access: Drive Times & Walking Distance

- Physician Network Spatial Analysis

- Competitor Spatial Analysis

- Expansion (local, regional, national, etc.)

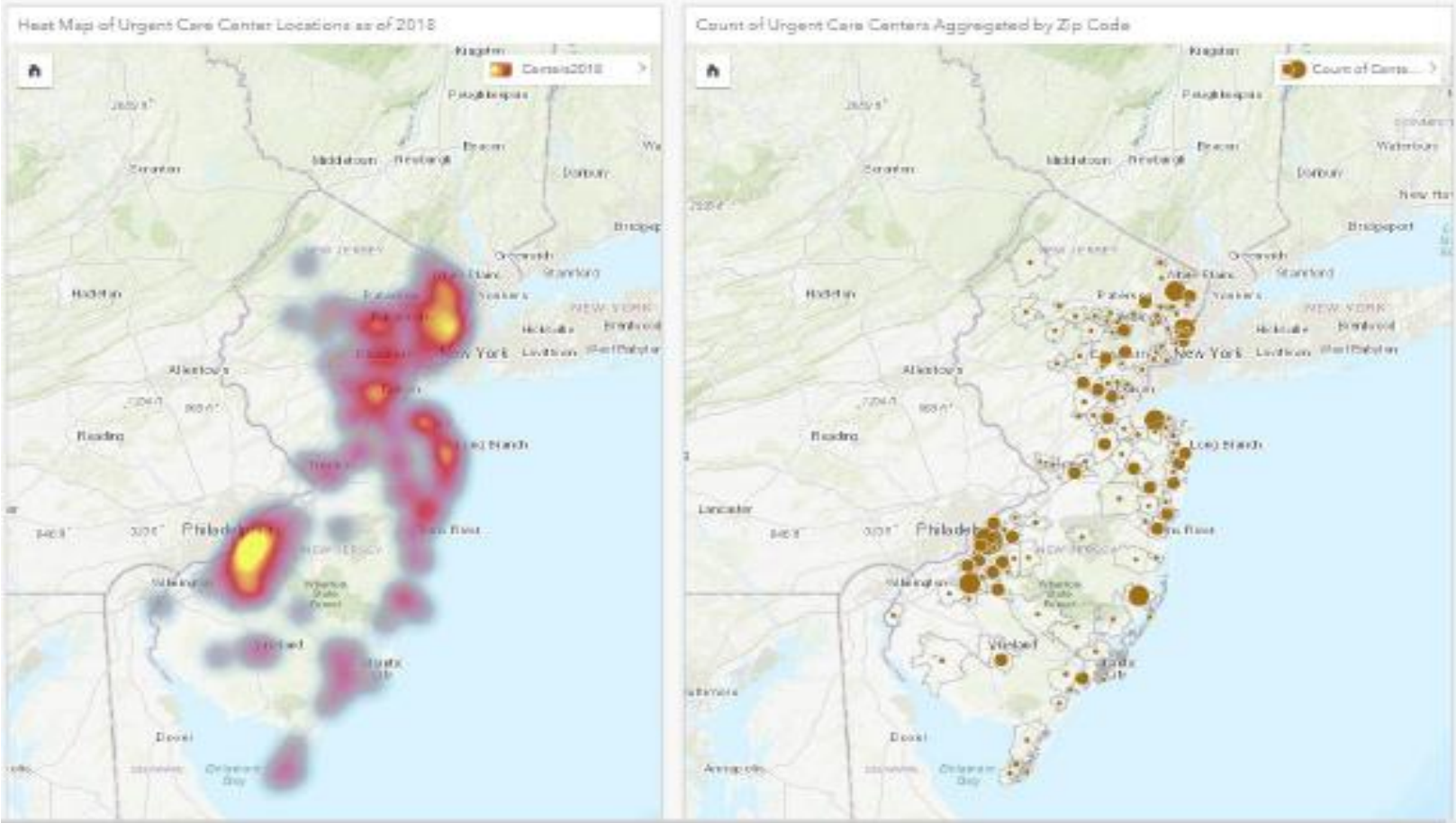# Challenge 3 - The Health Care "Consumer...continued

## Consumer Demographics

Geomark Consulting Can Reveal Up-To-Date Consumer Demographics & Tapestry® Life-Mode Classifications Using Insights for ArcGIS app:

- Visualize "hot spots" of patient or facility locations

- Uncover dominant tapestry segments by geography

- Understand patient characteristics by segment to provide actionable insights

# Hot Spots & Spatial Aggregation Can
# Reveal Dominant Tapestry Segments

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**Example of 2 Dominant Tapestry Segments**

Pleasantville

Savvy
Suburbanites

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# Dominant Tapestry Segments Characteristics

## Pleasantville

- Life Mode Group: Upscale Avenues

- Spend 45% more on healthcare than the average US household

- Median household income: $92,900

- Diversity Index: 61.0 (US: 64.0)

## Savvy Suburbanites

- Life Mode Group: Affluent Estates

- Spend 84% more on healthcare than the average US household

- Median household income: $108,700

- Diversity Index: 36.2 (US: 64.0)

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