



2012 Community Health Needs Assessment

University Hospitals' (UH) long-standing commitment to the community spans more than 145 years. This commitment has grown and evolved through significant thought and care in considering our community's most pressing health needs. One way we do this is by conducting a periodic, comprehensive Community Health Needs Assessment (CHNA) for each UH hospital facility. The most current assessments were completed by an external health care consulting service working with UH and include quantitative and qualitative data that serve to guide both our community benefit and strategic planning.

Through our CHNA, UH has identified the greatest health needs among each of our hospital's communities, enabling UH to ensure our resources are appropriately directed toward outreach, prevention, education and wellness opportunities where the greatest impact can be realized.

The following document is a detailed CHNA for University Hospitals Geauga Medical Center (UH Geauga Medical Center). UH Geauga Medical Center is a 226-bed, acute-care facility providing a full range of services including the Orthopaedic Center, Spine & Pain Management Center, UH Harrington Heart & Vascular Institute, UH Seidman Cancer Center and the Center for Women's Health.

UH Geauga Medical Center offers myriad programs and activities to address the surrounding community health needs. These range from an Alzheimer's education series and to a diabetes support group and free health screenings.

Additionally, UH as a health system has responded to community health needs as part the Vision 2010 strategic plan. This monumental community investment of more than \$1 billion over five years reaffirms a strong commitment to the UH community. This plan included building UH Ahuja Medical Center, UH Seidman Cancer Center, several outpatient health centers, expanding the UH Rainbow Babies & Children's Hospital Neonatal Intensive Care Unit, and renovating and expanding the adult and pediatric Centers for Emergency Medicine at UH Case Medical Center.

UH Geauga Medical Center strives to meet the health needs of its community. Please read the document's introduction below to better understand the health needs that have been identified.

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INTRODUCTION

This report identifies and assesses community health needs in the areas served by UH Geauga Medical Center in accordance with regulations promulgated by the Internal Revenue Service pursuant to the Patient Protection and Affordable Care Act, 2010.

UH Geauga Medical Center recognizes that a community health needs assessment (CHNA) is required to meet current government regulation. This assessment is intended to fulfill this purpose although final guidance has not yet been published and has been provided only on an anticipatory basis.

Prior to the enactment of the new legislation, UH Geauga Medical Center had conducted needs assessments to determine community needs and resources to meet those needs.

The 2012 CHNA, initiated by UH Geauga Medical Center, sets out the needs and does not address whether those needs are currently met by one or more community benefit programs already in existence. Rather, this assessment will serve as a foundation for developing an implementation strategy to address those needs that (a) the hospital determines it is able to meet in whole or in part; (b) are otherwise part of its mission; and (c) are not met (or are not adequately met) by other programs and services in the service area.

The UH Geauga Medical Center CHNA is the foundation for an implementation strategy as required by the applicable regulations. UH Geauga Medical Center is taking a leadership role as both the CHNA and implementation strategy are not required to be completed until 2013.

To assist with the assessment, UH retained Verité Healthcare Consulting, LLC (Verité). More information on Verité is provided in the Appendix.

CHNAs seek to identify priority health status and access issues for particular geographic areas and populations by focusing on the following questions:

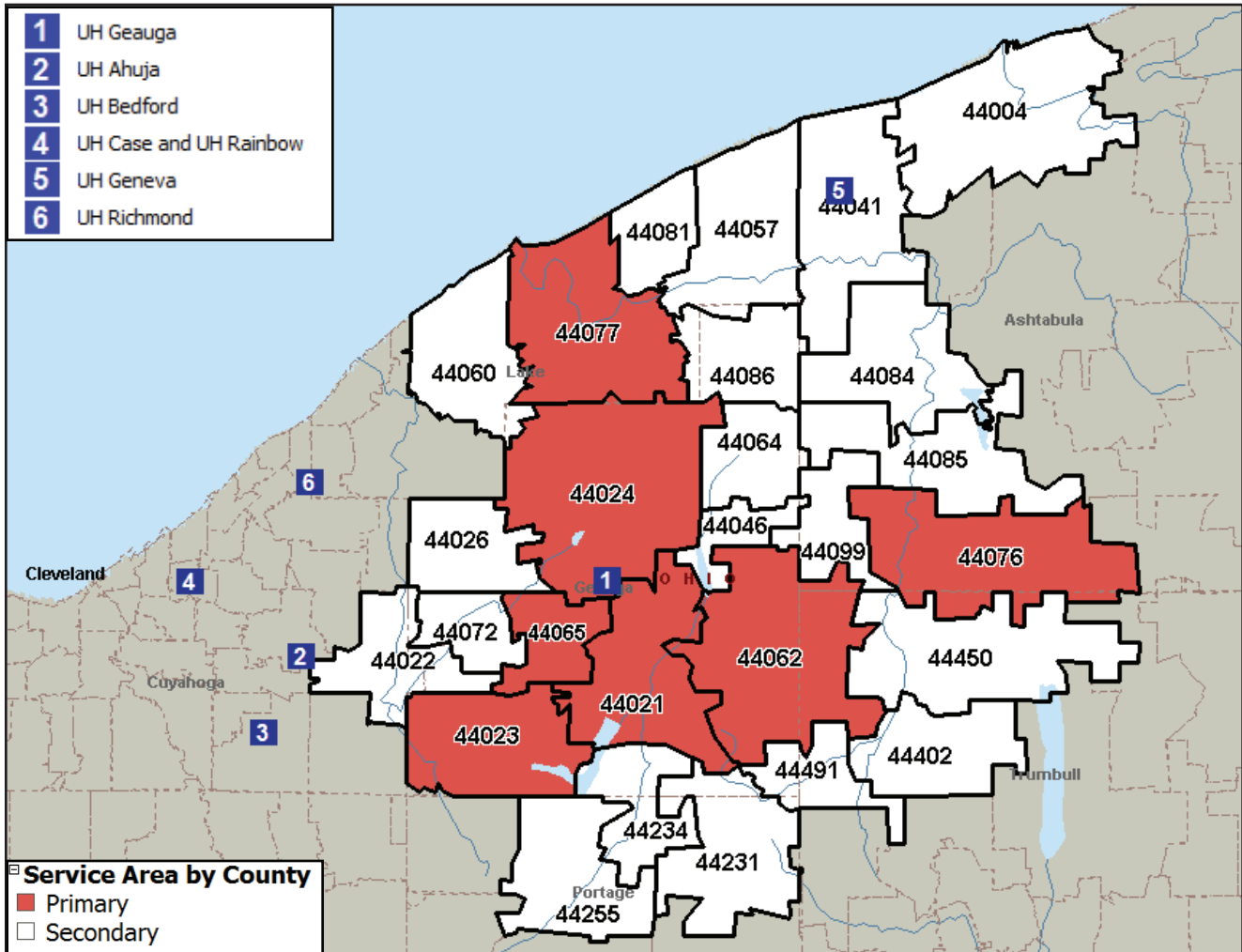
- **Who** in the community is most vulnerable in terms of health status or access to care?
- **What** are the unique health status and/or access needs for these populations?
- **Where** do these people live in the community?
- **Why** are these problems present?

The question of how the organization can best use its limited charitable resources to assist communities in need will be the subject of the hospital's Implementation Strategy.

To answer these questions, this assessment considered multiple data sources, including secondary data (regarding demographics, health status indicators, and measures of health care access), assessments prepared by other organizations in recent years, and primary data derived from interviews with persons who represent the broad interests of the community, including those with expertise in public health.

The following topics and data have been assessed:

- Demographics;
- Economic issues, e.g., poverty, unemployment, and state budget changes;
- Community issues, e.g., availability of healthcare facilities and resources, environmental concerns, and crime;
- Health status indicators, e.g. morbidity rates for various diseases and conditions, and mortality rates for leading causes of death;
- Health access indicators, e.g., uninsured rates, ambulatory care sensitive discharges, and use of emergency departments for non-emergent care;
- Health disparities indicators; and
- Availability of healthcare facilities and resources.



UH Geauga Medical Center Community By the Numbers

- 6 Service Area Counties: Ashtabula, Cuyahoga, Geauga, Lake, Portage, and Trumbull
- Population 2010: 344,974
- 43% of community population resides in Lake County; 26% in Geauga County
- 14% of community discharges were for patients with Medicaid; 4% were for uninsured patients
- Population change 2010-2015:
 - 1% increase in overall population; Ashtabula decreasing, and Geauga, Lake, and Portage increasing
 - 15% increase in 65+ population
- Higher concentration of 65+ population in Geauga ZIP codes
- Large Amish community in Geauga County
- 17% of households with incomes < \$25,000
- Population by race, 2010-2015:
 - Projected decline in the white population
 - Highest growth is expected in the Asian and other non-white populations
- There exists a wide range of health status and access challenges across the community

While the UH Geauga Medical Center community benchmarks favorably on a variety of health indicators compared to national and state averages, this assessment focuses on the priority problems that impact the overall health of the community.

UH Geauga Medical Center's service area extends into six counties: Ashtabula, Cuyahoga, Geauga, Lake, Portage, and Trumbull. Although the service area contains four ZIP codes in Cuyahoga and Trumbull counties, a low percentage of UH Geauga Medical Center patients live in these counties. Therefore, Cuyahoga and Trumbull counties are excluded from county-level analyses throughout this report. Key findings are as follows.

Poverty and unemployment in the area create barriers to access (to health services, healthy food, and other necessities) and thus contribute to poor health. Racial and ethnic minorities are more likely to lack economic and social resources and be at risk for poor health. These issues are most prominent in Ashtabula County:

- At 18 percent Ashtabula County had a higher poverty rate in 2009 than state and national averages.
- Ashtabula County also had an unemployment rate that was higher than state and national averages in 2011.
- The greatest proportions of households with incomes less than \$25,000 in 2010 were located in Ashtabula County.

A comparatively large portion of uninsured discharges was found in Geauga County due to a large uninsured Amish population.

Like many states, Ohio has been enacting budget cuts that are affecting health and human services providers. These changes include increases in nursing home franchise fees, reductions in Medicaid rates, decreases in general revenue fund appropriations to community based organizations, and others.

At UH Geauga Medical Center, 11 percent of discharges were found to be Ambulatory Care Sensitive (ACS) or potentially preventable if patients are accessing primary care resources at optimal rates; 69 percent were for patients 65 years of age and older. The most common conditions were congestive heart failure and bacterial pneumonia. In the UH Geauga Medical Center community, ACS discharges were prevalent for Medicare and uninsured patients.

The UH Geauga Medical Center community has many access issues. Areas and populations in Ashtabula County were designated as Health Professional Shortage Areas.

Community-Wide Needs

Poor health status results if a complex interaction of challenging social, economic, environmental, and behavioral factors combined with a lack of access to care is present. Addressing these "root" causes is an important way to improve a community's quality of life and to reduce mortality and morbidity.

The table that follows describes the health issues identified through the assessment as priorities across the entire community served by the hospital. These problems affect at least three of the four service area counties analyzed in this report. Health issues are listed in alphabetical order.

Documentation of the findings presented in this summary is provided in the Appendix.

Access to Care

- **Lack of Affordable and Accessible Care**

Community residents identified a growing lack of insurance coverage, a lack of physicians and specialists, a lack of preventive care, and a lack of outpatient services as key access problems.

- **Lack of Affordable and Accessible Dental Care**

Community residents frequently mentioned difficulty accessing affordable dental care due to a growing lack of dental insurance, high insurance co-pays and deductibles, and general financial hardship.

- **Lack of Affordable and Accessible Prescription Medications**

Community residents frequently mentioned difficulty accessing affordable prescription medications due to growing uninsurance, high insurance co-pays and deductibles, and general financial hardship.

- **Declines in Governmental and Philanthropic Funding Sources**

Safety net providers describe themselves as operating “at capacity” and are increasingly stretched due to higher demand and declines in governmental and philanthropic funding.

- **Lack of Transportation to Health Services**

Community residents, particularly low-income, rural, elderly, and Amish populations, report difficulty finding transportation to health services and facilities.

Health Behaviors

- **Prevalent Drug Use**

Health Conditions

- **Prevalent Diet and Exercise - Related Conditions**

High rates of obesity, childhood obesity, diabetes, and diabetes mortality are present in much of the community.

Mental and Behavioral Health

- **Poor Mental and Behavioral Health Status and Lack of Services**

Mortality Rates

- **High Rates of Child Motor Vehicle Mortality**

Community Outreach

- **Lack of Health Education**

Many community residents lack basic health literacy and healthy lifestyle knowledge. Residents often do not know where to seek care for non-emergent issues and how to access services available in the community.

Social and Economic Factors

- **High Rates of Unemployment and Financial Hardship**

Due to the recent downturn in the economy and in employment, many households are struggling financially. This has led to food and housing insecurity, delays in obtaining any health care, and noncompliance with drug regimens.

PRIORITY NEEDS IN GEAUGA COUNTY

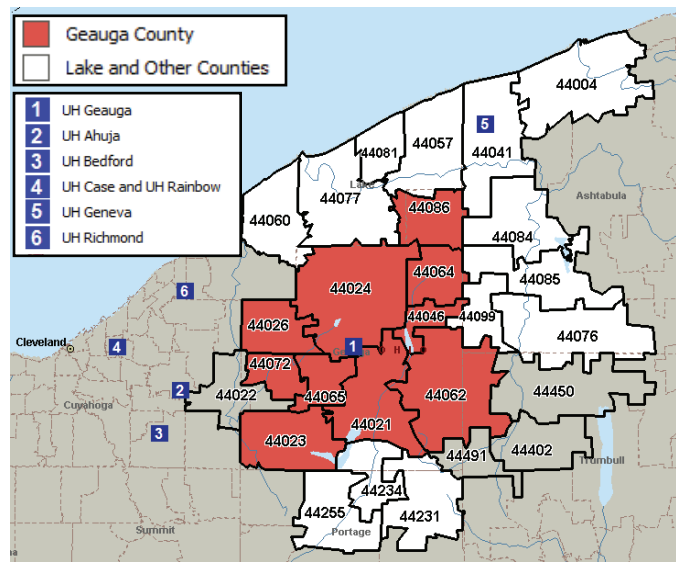
The UH Geauga Medical Center encompasses the entirety of Geauga County. The county accounts for 53 percent of the PSA population and 26 percent of the total community population. It also accounts for 52 percent of UH Geauga Medical Center discharges.

Other characteristics of the Geauga County are as follows:

- 61% of the hospital's emergency department visits originated in Geauga County in 2010.
- Between 2010 and 2015, Geauga County is expecting a 1% increase in population.
- A high percentage of uninsured discharges originated in Geauga County in 2010.
- 11% of Geauga County community discharges were ACS in 2010.
- Geauga County has two ZIP codes that ranked as "middle" needs in regards to access to healthcare.
- Residents noted a lack of access to perinatal and labor-and-delivery services in rural areas, especially Ashtabula and Geauga counties.
- Residents indicated that the Amish population in Geauga County is in need of culturally appropriate care.

The county ranked unfavorably on a variety of health status and access indicators. The table to the right lists priority health issues specific to Geauga County.

When assessing these issues, it is important to note the probable connections between behavioral, social, economic, and environmental factors and health status. For example, high rates of teen smoking may lead to future health status issues.



Health Behaviors

- **High Rates of Teen Tobacco Use**

Infant and Maternal Care

- **High Rates of Births to Women Age 40-54**
- **Lack of Prenatal Care in First Trimester**

PRIORITY NEEDS IN LAKE COUNTY

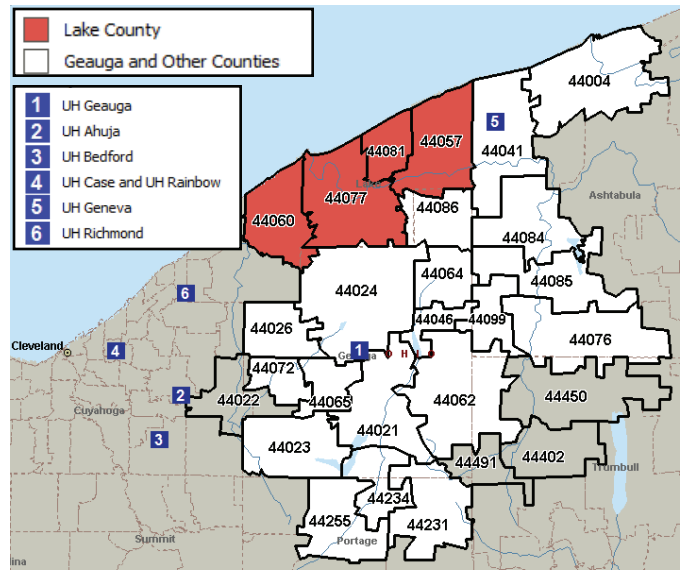
There are both similar and unique community health needs in Lake County. This county accounts for 43 percent of the UH Geauga Medical Center's PSA population and 43 percent of the total community population. It also accounts for 9 percent of UH Geauga Medical Center discharges.

Other characteristics of Lake County are as follows:

- 4% of UH Geauga Medical Center's emergency department visits originated from Lake County in 2010.
- Between 2010 and 2015, Lake County is expecting a 1% increase in population, and the 65+ population is expected to increase at a faster rate.
- Lake County's 2009 poverty rate and 2011 unemployment rates were lower than state and Ohio averages.
- 12% of Lake County community discharges were ACS in 2010.
- One service area ZIP code in Lake County ranked as "middle" need in regards to access to healthcare.
- One census tract in Lake County's service area ZIP codes was designated as a food desert in 2009.
- Residents indicated that the community lacks pediatricians, especially those willing to serve the uninsured, as well as mental health and behavioral health services for children and their families, particularly in Lake County.

The table to the right lists priority health issues specific to Lake County.

There are probable connections between identified behavioral, social, economic, and environmental factors and health status. For example, high rates of suicide may be linked to a lack of mental and behavioral health services.



Health Behaviors

- **High Rates of Smoking**

Health Conditions

- **Prevalence of Cardiovascular Issues**
Community residents have high rates of hypertension and cardiovascular disease.

Infant and Maternal Care

- **High Rates of Births to Women Age 40-54**
- **High Rates of Black Non-Hispanic Infant Mortality**

Mortality

- **High Rates of Breast Cancer**
- **High Rates of Suicide**

Physical Environment

- **Poor Air Quality**

PRIORITY NEEDS IN OTHER SERVICE AREA COUNTIES

There are both similar and unique community health needs in the other service area counties. These counties include Ashtabula and Portage. These counties account for 24 percent of the total community population. They also account for 19 percent of UH Geauga Medical Center discharges.

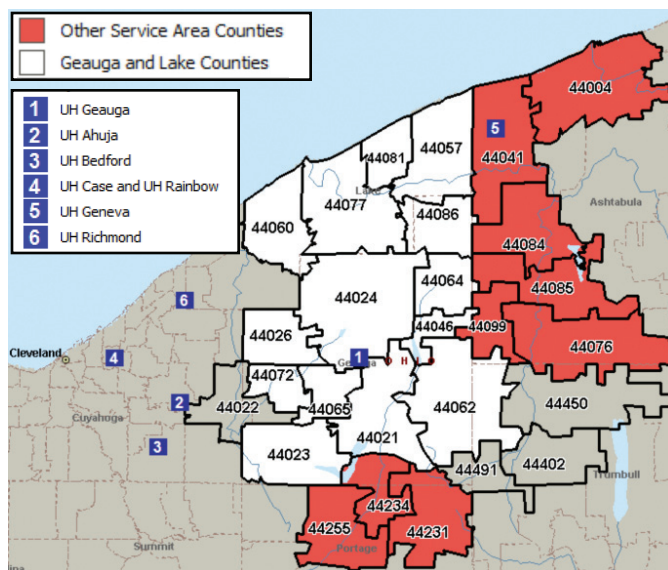
Ashtabula County has a high rate of poverty and unemployment as well as a comparatively high proportion of residents who are Medicaid recipients. These factors contribute to unique access challenges in the area.

Other characteristics of the two counties are as follows:

- Between 2010 and 2015, the Ashtabula County population is expected to decrease by 2% and the Portage County population is expected to increase by 1%.
- Analysis of health access indicators found that Ashtabula County has the largest concentration of ZIP codes with “mid to high” and “high” needs in regards to access to healthcare.
- One census tract in Ashtabula County’s service area ZIP codes was designated as a food desert in 2009.
- Residents noted a lack of access to perinatal and labor-and-delivery services in rural areas, especially Ashtabula and Geauga counties.
- Ashtabula County contains mental health, dental, and primary medical care HPSA areas and populations .

The two counties ranked unfavorably on a variety of health status and access indicators. The table to the right lists priority health issues specific to Ashtabula and Portage counties.

When assessing these issues, it is important to note the probable connections between behavioral, social, economic, and environmental factors and health status. For example, high rates of smoking and poor diet and exercise may be correlated with cardiovascular issues.



Health Behaviors

- **High Rates of Smoking (Ashtabula)**

Health Conditions

- **Prevalence of Cardiovascular Issues (Ashtabula)**
Community residents have high rates of hypertension, cardiovascular disease, and cardiovascular disease mortality.

Infant and Maternal Care

- **High Rates of Infant Mortality (Ashtabula)**
High rates of infant mortality generally, as well as high rates of black non-hispanic infant mortality, white non-hispanic infant mortality, and post-neonatal infant mortality were identified as priority health issues in the two counties

Mortality

- **High Rates of Adult and Child Mortality (Ashtabula and Portage)**
- **High Rates of Cancer (Ashtabula and Portage)**
Data show high rates of lung, breast, and cervical cancers in Ashtabula County. Ashtabula and Portage counties have high rates of colon cancer.

Physical Environment

- **Poor Community Safety (Ashtabula)**

Social and Economic Factors

- **Low Educational Achievement (Ashtabula)**
- **High Rates of Emergency Room Use (Ashtabula)**

APPENDIX

UH Geauga Medical Center Community Health Needs Assessment

VERITÉ HEALTHCARE CONSULTING, LLC

April 5, 2012

QUALIFICATIONS OF VERITÉ HEALTHCARE CONSULTING

Verité Healthcare Consulting, LLC (Verité) was founded in May 2006 and is located in Alexandria, Virginia. The firm serves as a national resource that assists healthcare organizations, hospital associations, and policy makers with community benefit reporting, planning, community health needs assessment, program assessment, and policy and guidelines development. Verité is a recognized, national thought leader in community benefit and in the evolving expectations that tax-exempt healthcare organizations are being required to meet.

Verité has also been engaged by organizations to conduct or assist in the preparation of community health needs assessments (CHNAs).

The CHNA prepared for UH Geauga Medical Center was directed by the firm's president and managed by a senior-level consultant. Associates and research analysts supported the work. The firm's president, as well as all senior-level consultants and associates, hold graduate degrees in relevant fields.

More information on the firm and its qualifications can be found at www.VeriteConsulting.com

STUDY METHODS

A. Analytic Methods

This report begins by identifying the communities (counties and ZIP codes) served by UH Geauga Medical Center. Findings based on various quantitative analyses regarding health needs in those areas are discussed, followed by a review of health assessments conducted by other organizations in recent years.

The assessment then considers information obtained from interviews with stakeholders who represent the broad interests of the community, including public health officials and experts, and UH Geauga Medical Center-affiliated clinicians, administrators, and staff. Interviews were conducted in March, April, May, and June of 2010 and in November and December of 2011. The report concludes with a summary of findings, taking into account all quantitative and qualitative information.

The assessment also quantifies and analyzes ambulatory care sensitive (ACS) discharges. The ACS discharges methodology quantifies inpatient admissions for diabetes, perforated appendixes, chronic obstructive pulmonary disease (COPD), hypertension, congestive heart failure, dehydration, bacterial pneumonia, urinary tract infection, asthma, and other conditions that, in theory, could have been prevented if adequate ambulatory (primary) care resources were available and accessed by consumers.¹ Findings from the ACS analysis are presented at the county, ZIP code, and UH hospital level of detail.

The methodologies for quantifying ACS discharges have been well-tested for more than a decade. Disproportionately large numbers of ACS discharges indicate potential problems with the availability or accessibility of ambulatory care services. The Agency for Healthcare Research and Quality (AHRQ), part of the U.S. Department of Health and Human Services, publishes software and methodologies for assessing ACS discharges. The AHRQ software was applied to analyze the prevalence of ACS discharges in geographic areas served by UH Geauga Medical Center.

The ACS analysis provides a single indicator of potential health problems - allowing comparisons to be made reliably across geographic areas and hospital facilities. This analysis also allows demonstrating a possible “return on investment” from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through improved access to ambulatory care resources.

Identifying priority community health needs involves benchmarking and trend analysis. Statistics for several health status and health access indicators thus were analyzed and compared to state-wide and national benchmarks or goals. The assessment considers multiple data sources, including indicators from state and federal agencies. Multiple

¹ See: <http://www.ahrq.gov/data/hcup/factbk5> for more information on this methodology.

data sources and stakeholder views are important to assessing the level of consensus that exists regarding community health needs. If alternative data sources including interviews support similar conclusions, then confidence is increased regarding the most problematic community health needs in an area.

B. Data Sources

CHNAs seek to identify the priority health status and access issues for particular geographic areas and populations. Accordingly, the following topics and data are assessed:

- Demographics, e.g., numbers and locations of vulnerable people;
- Economic issues, e.g., poverty and unemployment rates, and impacts of state budget changes;
- Community issues, e.g., homelessness, housing, environmental concerns, transportation and traffic, crime, and availability of social services;
- Health status indicators, e.g. morbidity rates for various diseases and conditions and mortality rates for leading causes of death;
- Health access indicators, e.g., uninsurance rates, ACS discharges, and use of emergency departments for non-emergent care;
- Health disparities indicators; and
- Availability of healthcare facilities and resources.

Verité relied on UH's current service area definitions to identify the communities to be assessed. The definitions were based on the geographic origins of UH discharges.

Data sets for quantitative analyses included:

- Demographic data provided by UH for 2000, 2010, and 2015 from Claritas, Inc.;
- Unemployment data from the U.S. Bureau of Labor Statistics for 2010 and 2011;
- Poverty data from the U.S. Census Bureau for 2010;
- Data from the U.S. Health Resources and Services Administration (HRSA) from August 2011 regarding federally qualified health centers, medically underserved areas and populations, and health professional shortage areas;
- Discharge data provided by UH for the nine months ended September 30, 2010 from the Ohio Hospital Association;

- Findings reported in other needs assessments that analyzed communities served by UH Geauga Medical Center that were published between 2008 and 2011; and
- Health status and access indicators available from:
 - County Health Rankings, 2010 and 2011;
 - Community Health Status Indicators Project, 2009;
 - Ohio Department of Health, 2010;
 - U.S. Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS), 2010;
 - Catholic Healthcare West Community Needs Index, 2011; and
 - U.S. Department of Agriculture (USDA), 2009.

C. Information Gaps

To the best of Verité’s knowledge, no information gaps have affected UH Geauga Medical Center’s ability to reach reasonable conclusions regarding community health needs.

D. Collaborating Organizations

For this assessment, UH Geauga Medical Center collaborated with UH Ahuja Medical Center, UH Bedford Medical Center, UH Case Medical Center, UH Conneaut Medical Center, UH Geneva Medical Center, UH Rainbow Babies & Children’s Hospital, and UH Richmond Medical Center.

DEFINITION OF COMMUNITY ASSESSED

This section identifies the community assessed by UH Geauga Medical Center.

UH Geauga Medical Center's community is comprised of 27 ZIP codes that extend into (and overlap with) six counties: Ashtabula, Cuyahoga, Geauga, Lake, Portage, and Trumbull (**Tables 1 and 2**).

Table 1: Service Area Population, 2010

UH Geauga Medical Center				
Service Area	ZIP Code	Town	County	Population 2010
Primary	44021	Burton	Geauga	6,817
	44023	Bainbridge	Geauga	16,868
	44024	Chardon	Geauga	23,846
	44062	Middlefield	Geauga	14,888
	44065	Newbury	Geauga	4,418
	44076	Orwell	Ashtabula	4,647
	44077	Painesville	Lake	54,643
	Subtotal			
Secondary	44004	Ashtabula	Ashtabula	33,794
	44022	Chagrin Falls	Cuyahoga	16,244
	44026	Chesterland	Geauga	11,762
	44041	Geneva	Ashtabula	14,731
	44046	Huntsburg	Geauga	1,870
	44057	Madison	Lake	20,921
	44060	Mentor	Lake	65,430
	44064	Montville	Geauga	2,044
	44072	Novelty	Geauga	4,568
	44081	Perry	Lake	7,285
	44084	Rock Creek	Ashtabula	3,392
	44085	Rome	Ashtabula	3,158
	44086	Thompson	Geauga	2,893
	44099	Windsor	Ashtabula	1,774
	44231	Garrettsville	Portage	7,969
	44234	Hiram	Portage	4,163
	44255	Mantua	Portage	7,839
	44402	Bristolville	Trumbull	3,383
	44450	North Bloomfield	Trumbull	2,529
44491	West Farmington	Trumbull	3,098	
Subtotal				218,847
Combined				344,974

Source: Claritas, Inc., 2011.

In 2010, the UH Geauga Medical Center Primary Service Area (PSA) included about 126,000 persons and its Secondary Service Area (SSA) included a population of approximately 219,000 persons, for a total service area population of 345,000.

Table 2: Service Area and County Population Overlap, 2010

UH Geauga Medical Center				
County	Service Area (ZIP Code) Population	Percent of Service Area (ZIP Code) Population	Total County Population	Service Area Percent of Total County
Ashtabula	61,496	17.8%	100,484	61.2%
Cuyahoga*	16,244	4.7%	1,270,520	1.3%
Gauga	89,974	26.1%	89,974	100.0%
Lake	148,279	43.0%	234,557	63.2%
Portage	19,971	5.8%	149,687	13.3%
Trumbull*	9,010	2.6%	200,891	4.5%
Total	344,974	100.0%	2,046,113	16.9%

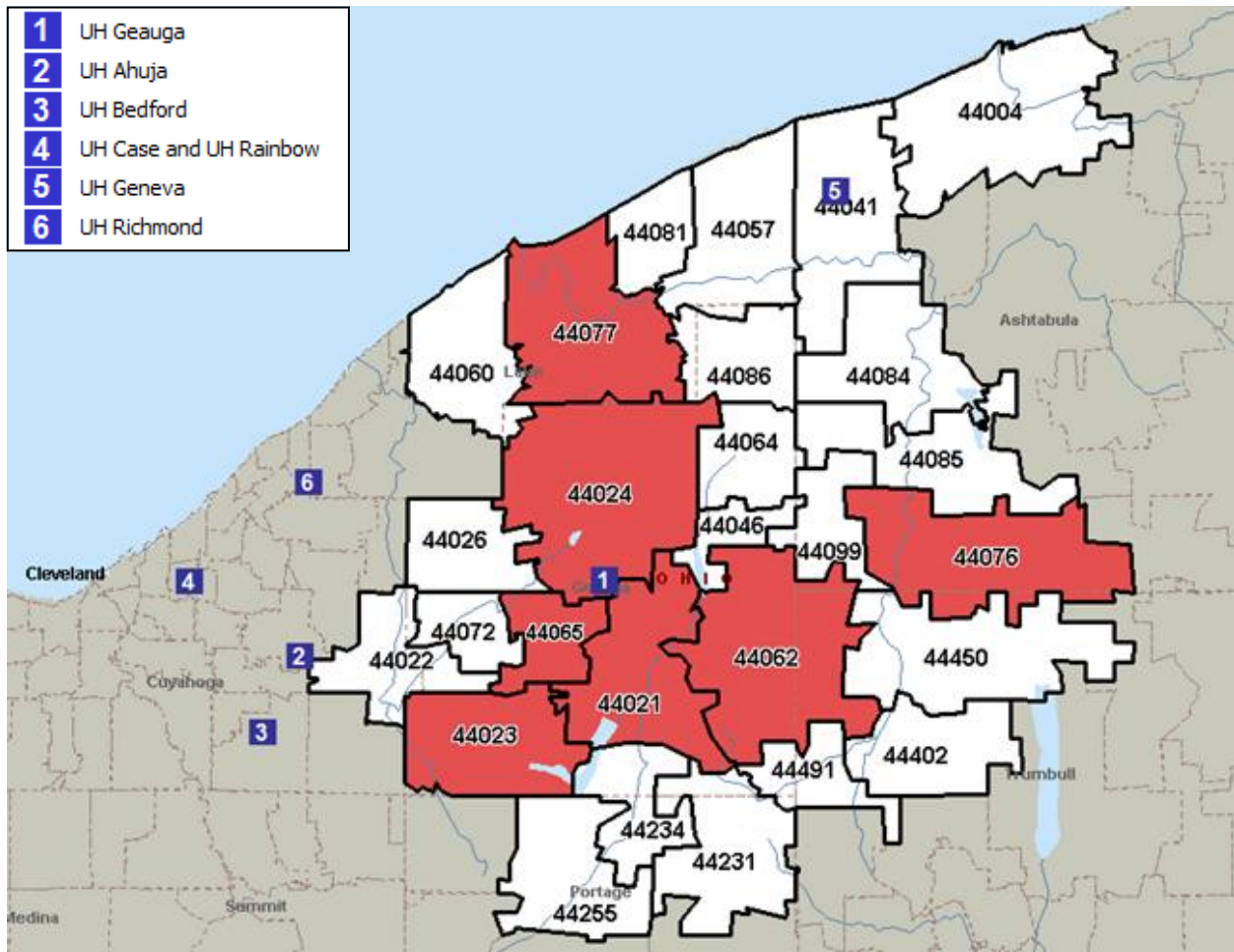
Source: Claritas, Inc., 2011.

*Although the service area contains ZIP codes in Cuyahoga and Trumbull counties, they counties contain a low percentage of UH Geauga Medical Center patients. Therefore, Cuyahoga and Trumbull counties are excluded from county-level analyses throughout this report.

In 2010, the majority (43 percent) of the service area population for UH Geauga Medical Center resided in Lake County; however, these ZIP codes represented only 63 percent of that county's population as a whole. Twenty-six percent of the UH Geauga Medical Center service area population resided in Geauga County; these ZIP codes represent the total population of the county (**Table 2**).

Figure 1 presents a map that shows the communities served by the hospital.

Figure 1: Service Area Map



☐ **Service Area by ZIP Code**

- Primary
- ☐ Secondary

Sources: Microsoft MapPoint and UH.

The community was defined based on the geographic origins of UH Geauga Medical Center inpatients. In 2010, approximately 51 percent of the hospital’s inpatients originated from the PSA and another 32 percent from the SSA (**Table 3**).

Table 3: UH Geauga Medical Center Inpatient Discharges by ZIP Code and Service Area, Nine Months Ended September 30, 2010

UH Geauga Medical Center					
Service Area	ZIP Code	Town	County	Number of Discharges	Percent of Total
Primary	44021	Burton	Geauga	368	6.1%
	44023	Bainbridge	Geauga	182	3.0%
	44024	Chardon	Geauga	962	16.0%
	44062	Middlefield	Geauga	860	14.3%
	44065	Newbury	Geauga	187	3.1%
	44076	Orwell	Ashtabula	276	4.6%
	44077	Painesville	Lake	232	3.8%
	Subtotal				3,067
Secondary	44004	Ashtabula	Ashtabula	122	2.0%
	44022	Chagrin Falls	Cuyahoga	85	1.4%
	44026	Chesterland	Geauga	160	2.7%
	44041	Geneva	Ashtabula	163	2.7%
	44046	Huntsburg	Geauga	138	2.3%
	44057	Madison	Lake	137	2.3%
	44060	Mentor	Lake	146	2.4%
	44064	Montville	Geauga	94	1.6%
	44072	Novelty	Geauga	83	1.4%
	44081	Perry	Lake	16	0.3%
	44084	Rock Creek	Ashtabula	41	0.7%
	44085	Rome	Ashtabula	115	1.9%
	44086	Thompson	Geauga	99	1.6%
	44099	Windsor	Ashtabula	116	1.9%
	44231	Garrettsville	Portage	111	1.8%
	44234	Hiram	Portage	70	1.2%
	44255	Mantua	Portage	77	1.3%
	44402	Bristolville	Trumbull	11	0.2%
44450	North Bloomfield	Trumbull	34	0.6%	
44491	West Farmington	Trumbull	94	1.6%	
Subtotal				1,912	31.7%
Combined				4,979	82.6%
All Other Areas				1,050	17.4%
Total				6,029	100.0%

Source: OHA discharge data, 2011.

The service area definitions were confirmed by examining the geographic origin of emergency department encounters by ZIP code (**Table 4**).

Table 4: Emergency Department Visits by ZIP Code and Service Area, Nine Months Ended September 30, 2010

UH Geauga Medical Center					
Service Area	ZIP Code	Town	County	Emergency Department Visits	Percent of Total
Primary	44021	Burton	Geauga	663	7.5%
	44023	Bainbridge	Geauga	345	3.9%
	44024	Chardon	Geauga	1,822	20.6%
	44062	Middlefield	Geauga	1,206	13.6%
	44065	Newbury	Geauga	532	6.0%
	44076	Orwell	Ashtabula	563	6.4%
	44077	Painesville	Lake	170	1.9%
	Subtotal				5,301
Secondary	44004	Ashtabula	Ashtabula	41	0.5%
	44022	Chagrin Falls	Cuyahoga	88	1.0%
	44026	Chesterland	Geauga	216	2.4%
	44041	Geneva	Ashtabula	23	0.3%
	44046	Huntsburg	Geauga	199	2.2%
	44057	Madison	Lake	43	0.5%
	44060	Mentor	Lake	87	1.0%
	44064	Montville	Geauga	160	1.8%
	44072	Novelty	Geauga	112	1.3%
	44081	Perry	Lake	19	0.2%
	44084	Rock Creek	Ashtabula	77	0.9%
	44085	Rome	Ashtabula	182	2.1%
	44086	Thompson	Geauga	137	1.5%
	44099	Windsor	Ashtabula	174	2.0%
	44231	Garrettsville	Portage	195	2.2%
	44234	Hiram	Portage	207	2.3%
	44255	Mantua	Portage	174	2.0%
	44402	Bristolville	Trumbull	27	0.3%
	44450	North Bloomfield	Trumbull	87	1.0%
	44491	West Farmington	Trumbull	185	2.1%
Subtotal				2,433	27.5%
Combined				7,734	87.4%
All Other Areas				1,112	12.6%
Total				8,846	100.0%

Source: OHA, 2011.

Table 4 is based on 2010 data from the Ohio Hospital Association. The 2010 data included only those emergency department patients not admitted as inpatients.

In 2010, approximately 87 percent of all UH Geauga Medical Center emergency department visits originated from ZIP codes in its primary and secondary service areas. Residents from the PSA accounted for nearly 60 percent of the visits. At 21 percent, residents from the town of Chardon (ZIP code 44024) accounted for the highest percentage of emergency department patients.

SECONDARY DATA ASSESSMENT

This section assesses secondary data regarding community health needs in UH Geauga Medical Center's community.

A. Demographics

Population change plays a determining role in the types of health and social services communities need. The region served by UH as a whole is comprised of 15 counties. Overall, the population living in the 15-county region declined 2.6 percent between 2000 and 2010 and is expected to decline 2.1 percent between 2010 and 2015. Unlike the 15-county region, the population in UH Geauga Medical Center's service area is expected to increase by 0.5 percent (Table 5).

Table 5: Regional Population by County, 2000-2015

UH Geauga Medical Center					
County	Total County Population			Percent Change in Population	
	2000	2010	2015	2000-2010	2010-2015
Ashland	51,030	53,695	54,691	5.2%	1.9%
Ashtabula	103,055	100,484	98,298	-2.5%	-2.2%
Cuyahoga	1,400,450	1,270,520	1,199,339	-9.3%	-5.6%
Erie	82,706	80,259	78,503	-3.0%	-2.2%
Geauga	84,935	89,974	90,871	5.9%	1.0%
Huron	57,621	58,259	57,985	1.1%	-0.5%
Lake	227,357	234,557	236,242	3.2%	0.7%
Lorain	275,599	297,843	305,577	8.1%	2.6%
Mahoning	255,585	232,602	219,499	-9.0%	-5.6%
Medina	149,687	172,829	181,775	15.5%	5.2%
Portage	145,595	149,687	150,951	2.8%	0.8%
Stark	380,327	381,461	378,775	0.3%	-0.7%
Summit	560,449	557,542	551,374	-0.5%	-1.1%
Trumbull	217,328	200,891	191,356	-7.6%	-4.7%
Wayne	117,896	120,379	120,852	2.1%	0.4%
Total	4,109,620	4,000,982	3,916,088	-2.6%	-2.1%
Relevant Counties	560,942	574,702	576,362	2.5%	0.3%
UH Geauga Medical Center					
Primary	117,590	126,127	128,351	7.3%	1.8%
Secondary	216,710	218,847	218,296	1.0%	-0.3%
Service Area	334,300	344,974	346,647	3.2%	0.5%

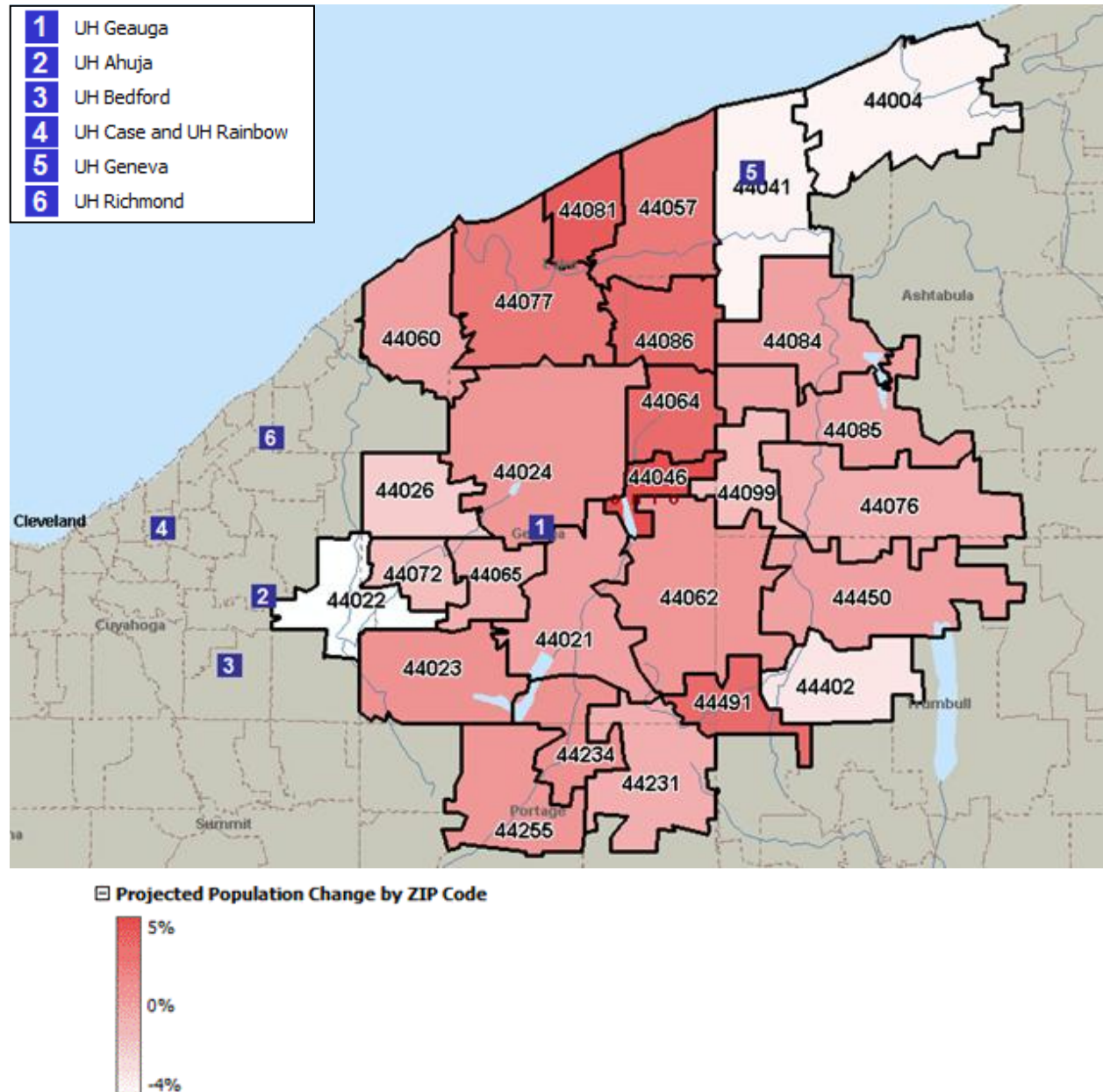
Source: Claritas, Inc., 2011.

*Counties highlighted in bold contain UH Geauga Medical Center PSA and/or SSA ZIP codes.

The U.S. Census Bureau indicates that the total population of Ohio increased by 1.6 percent between 2000 and 2010. In the United States, population increased by about ten percent.

Figure 2 shows the anticipated population change by ZIP code from 2010 to 2015. The populations of Huntsburg (ZIP code 44046) and Perry (ZIP code 44081) are expected to increase the most.

Figure 2: UH Geauga Medical Center Population Change by ZIP Code, 2010-2015



Sources: Microsoft MapPoint and Claritas, Inc., 2011.

Table 6 indicates that 65+ age cohort is expected to increase more rapidly than the service area as a whole.

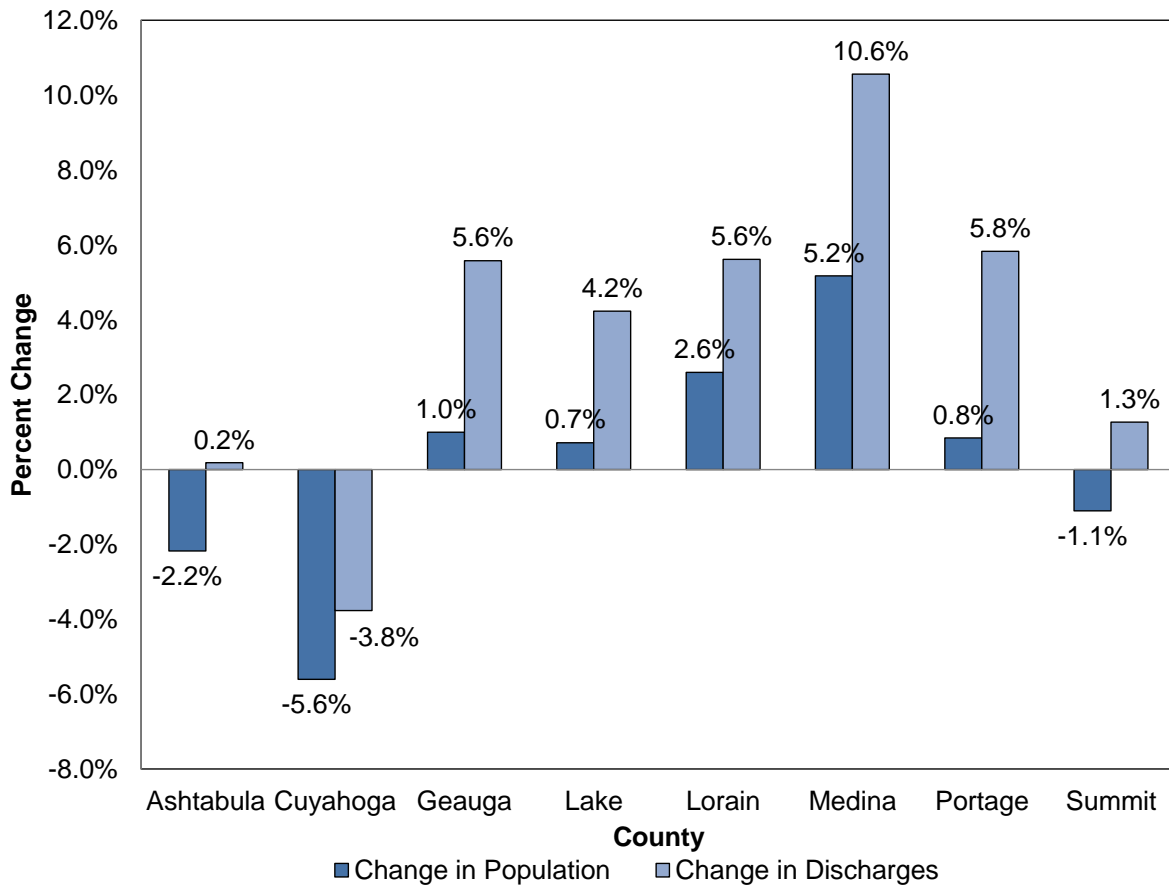
Table 6: Distribution of Population by Age Cohort, 2000-2015

UH Geauga Medical Center					
Age/Sex Cohort	Service Area Population			Percent Change in Population	
	2000	2010	2015	2000-2010	2010-2015
Primary Service Area					
0-17	28.1%	24.8%	23.8%	-5.4%	-2.6%
Female, 18-44	18.1%	16.3%	16.0%	-3.7%	0.2%
Male, 18-44	18.2%	16.6%	16.6%	-1.8%	1.6%
45-64	24.3%	28.7%	28.0%	26.7%	-0.7%
65+	11.3%	13.6%	15.6%	29.3%	17.0%
Total	117,590	126,127	128,351	7.3%	1.8%
75+	5.3%	5.8%	6.4%	17.2%	11.2%
Secondary Service Area					
0-17	26.1%	22.5%	21.4%	-13.1%	-5.0%
Female, 18-44	17.9%	16.3%	16.0%	-8.5%	-1.9%
Male, 18-44	17.4%	16.2%	16.1%	-6.2%	-0.9%
45-64	25.6%	30.3%	29.8%	19.9%	-2.1%
65+	13.0%	14.7%	16.8%	14.7%	13.4%
Total	216,710	218,847	218,296	1.0%	-0.3%
75+	5.9%	6.7%	7.1%	14.2%	6.5%
Combined Service Areas					
0-17	16.0%	14.0%	13.4%	-10.2%	-4.1%
Female, 18-44	10.7%	9.8%	9.6%	-6.8%	-1.1%
Male, 18-44	10.5%	9.8%	9.8%	-4.6%	0.0%
45-64	15.0%	17.8%	17.5%	22.3%	-1.6%
65+	7.4%	8.6%	9.8%	19.4%	14.7%
Total	334,300	344,974	346,647	3.2%	0.5%
75+	3.4%	3.8%	4.1%	15.2%	8.1%
Relevant Counties					
0-17	25.2%	22.1%	21.2%	-9.9%	-4.1%
Female, 18-44	19.2%	17.5%	17.1%	-6.3%	-2.2%
Male, 18-44	18.7%	17.3%	17.0%	-5.0%	-1.4%
45-64	24.0%	28.5%	28.2%	21.5%	-0.6%
65+	13.0%	14.6%	16.5%	14.9%	13.7%
Total	560,942	574,702	576,362	2.5%	0.3%
75+	6.0%	6.6%	7.1%	12.7%	7.3%

Source: Claritas, Inc., 2011.

The aging of the population may increase demand for health services (**Figure 3**).

Figure 3: Projected Change in Community-Wide Discharges and Population by County, 2010-2015

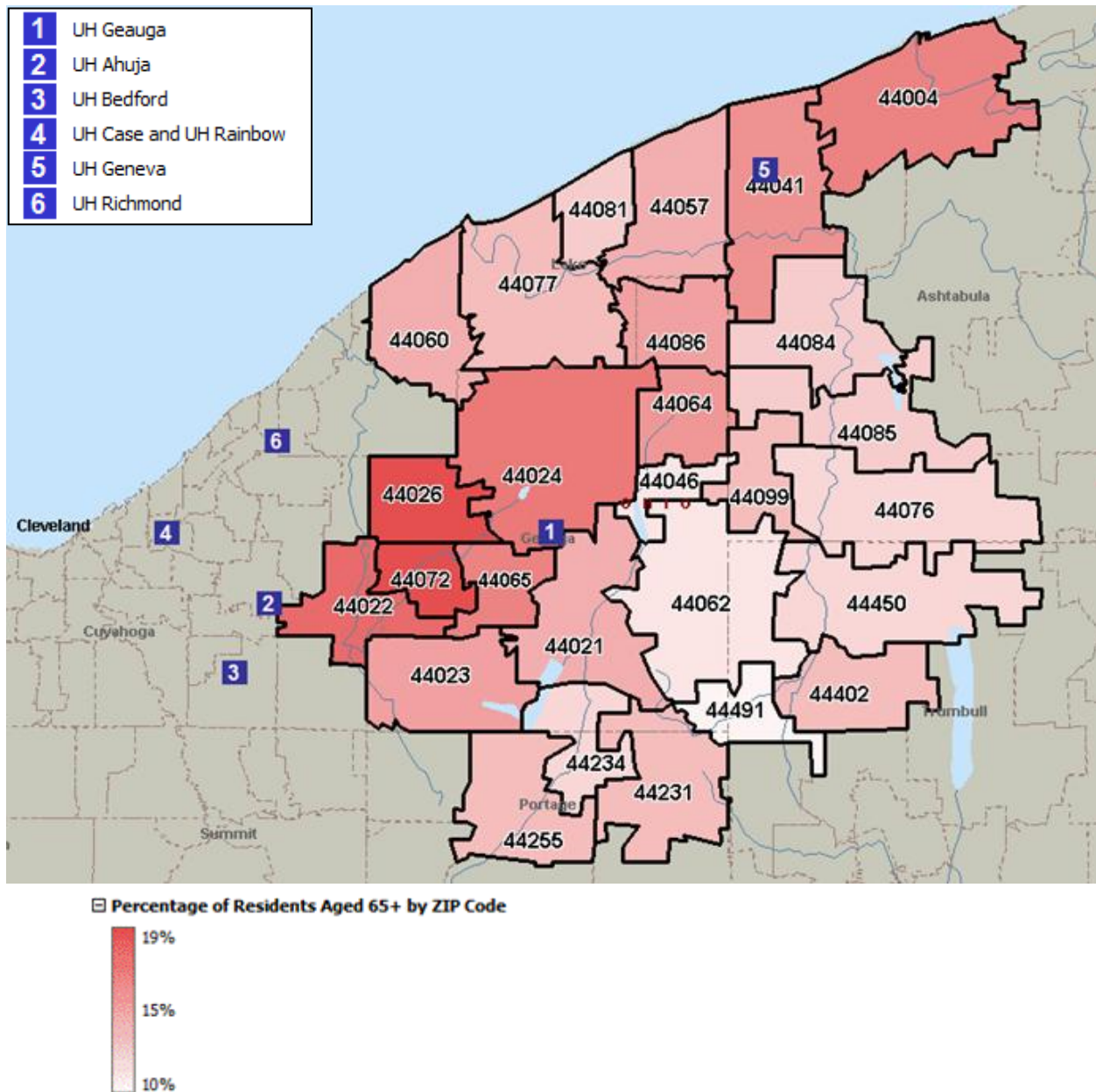


Sources: Analysis of demographic data from Claritas, Inc., 2011, and OHA discharge data, 2011.

Figure 3 assumes that inpatient use rates (discharges per 1,000 persons by age group) in each county remain constant over the 2010 to 2015 time frame. Because of population aging, demand for inpatient services may increase more (or decrease less) than the total population across the eight-county PSA.

The proportion of the population 65 years of age and older varies by ZIP code. The towns of Novelty (ZIP code 44072) and Chesterland (ZIP code 44026) had a comparatively high proportion of this population (**Figure 4**).

Figure 4: Percentage of Residents Aged 65+, 2010



Sources: Microsoft MapPoint and Claritas, Inc., 2011.

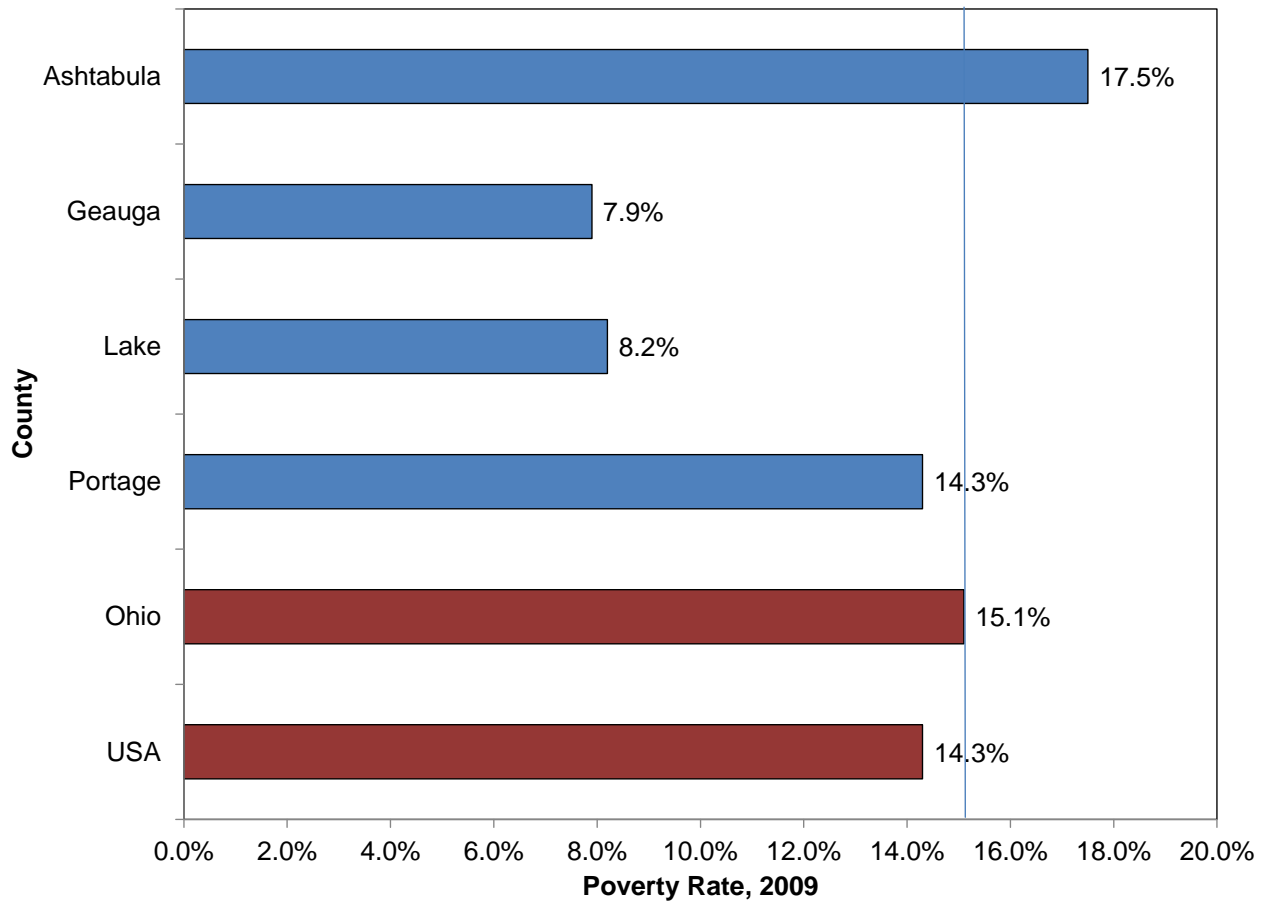
B. Economic Indicators

The following topics were assessed to examine various economic indicators with implications for health: people in poverty, unemployment rates, state budget cuts, and household income.

1. People in Poverty

Many health needs are associated with poverty. According to the U.S. Census, in 2010, about 15 percent of people in the U.S. lived in poverty and about 16 percent in Ohio. Ashtabula County reported a poverty rate in 2009 that was higher than national and state averages in that year (**Figure 5**).

Figure 5: Percent of People in Poverty, 2009

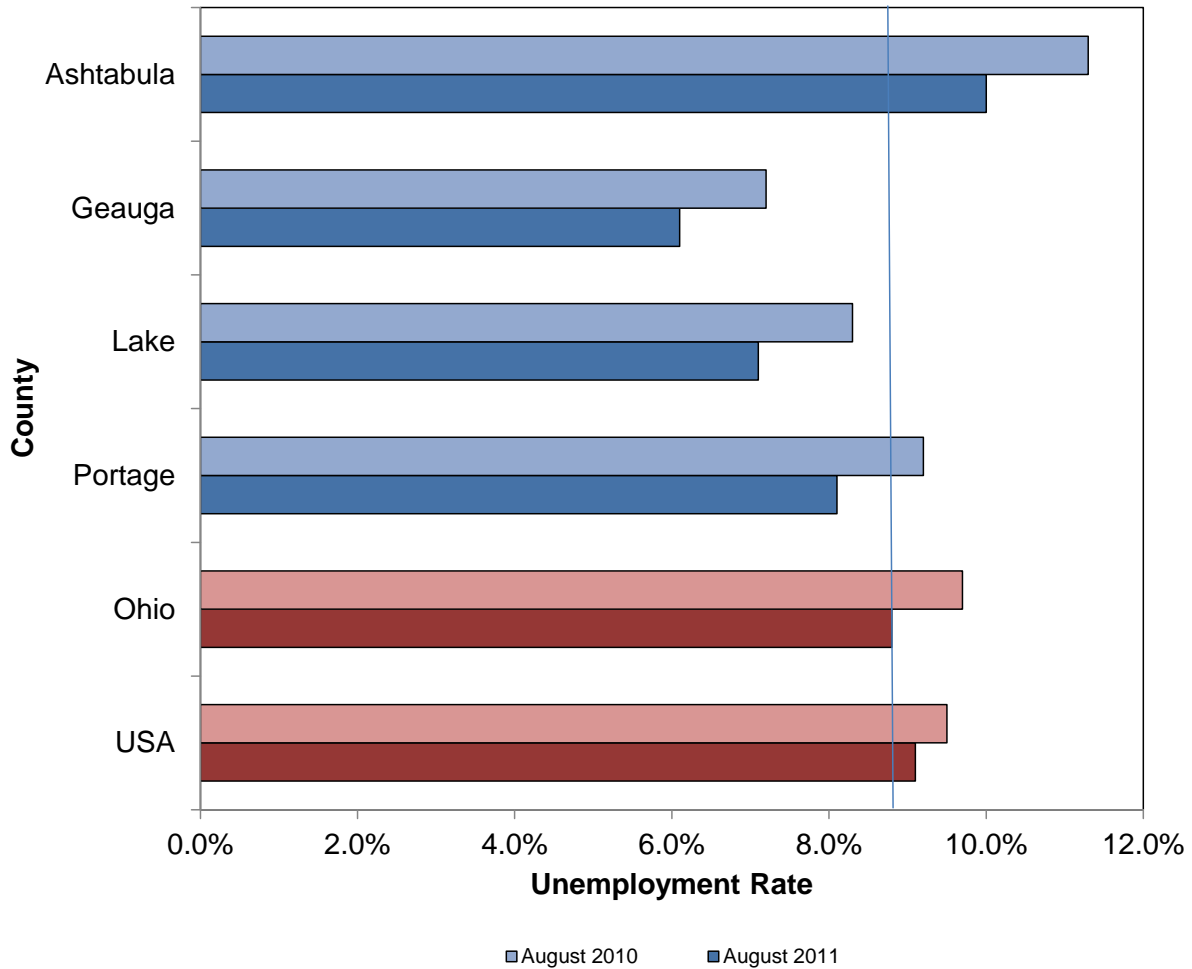


Source: U.S. Census Bureau, 2010.

2. Unemployment Rates

Ashtabula County reported a higher unemployment rate (in August 2011) than the national or state averages (**Figure 6**).

Figure 6: Unemployment Rates, 2010 - 2011



Source: U.S. Bureau of Labor Statistics, 2011.

3. State Budget Cuts

The recent recession has had major implications not only for employment but also for state budget resources devoted to health, public health, and social services. In the 2012-2013 budget, the state of Ohio reduced Medicaid reimbursements, increased fees assessed to hospitals and skilled nursing facilities, and reduced funding for resources appropriated for health and human services. The state’s budget changes include the following:

Skilled Nursing

- An increase in the nursing home franchise fee to \$11.47 per bed per day in FY 2012 and \$11.67 per bed per day in FY 2013;²
- A 5.8 percent reduction in the rates that skilled nursing facilities are paid for Medicaid patients;³

Hospitals

- An increase in the hospital assessment tax from 1.38 percent to 2.80 percent;⁴

Other Health and Human Services

- A decrease in general revenue fund appropriations to \$2.0 billion in FY 2012 (4.9 percent less than FY 2011) and a further decrease for FY 2013;⁵ and
- Reallocation of funds to the Department of Job and Family Services from the Department of Aging in FY 2012 and FY 2013, and from the departments of Alcohol and Drug Addictions Services and Mental Health in FY 2013.⁶

As described later in this report, stakeholders interviewed for this assessment expressed significant concerns about the impact of these funding cuts for health and social services agencies across the community.

4. Household Income

In the combined service area, 17 percent of households are estimated to have had incomes less than \$25,000 in 2010; 42 percent less than \$50,000 (**Table 7**).

² Ohio Legislative Service Commission, Budget in Brief, H.B. 153 – As Enacted.

³ [PR Newswire](#). “Care, Jobs in Ohio Skilled Nursing Facilities Threatened by Federal Cuts.” August 4, 2011.

⁴ Ohio Legislative Service Commission, Budget in Brief, H.B. 153 – As Enacted.

⁵ State of Ohio, The Executive Budget Fiscal Years 2012 and 2013, The Jobs Budget: Transforming Ohio for Growth, Book Three: The Budget Summary, Prepared by the Office of Budget and Management.

⁶ Ohio Legislative Service Commission, Budget in Brief, H.B. 153 – As Enacted.

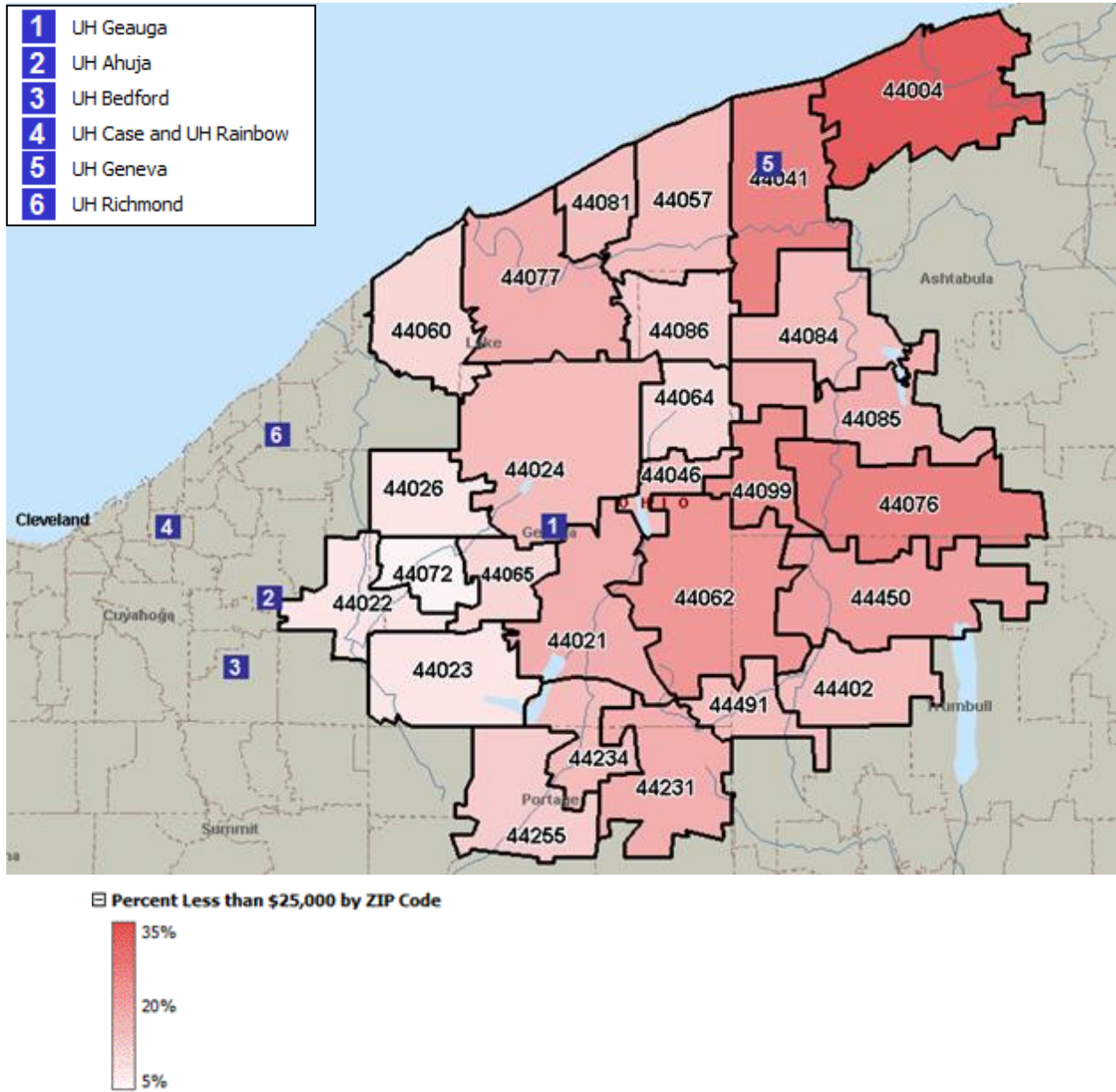
Table 7: Percent of Households with Incomes Less than \$25,000 and \$50,000 by ZIP Code, 2010

UH Geauga Medical Center						
Service Area	ZIP Code	Town	County	Number of Households 2010	\$0-\$24,999	\$0-\$49,999
Northern Ohio				1,602,617	24.0%	52.0%
Primary	44021	Burton	Geauga	2,379	18.6%	43.8%
	44023	Bainbridge	Geauga	6,005	9.0%	24.2%
	44024	Chardon	Geauga	8,840	14.4%	38.3%
	44062	Middlefield	Geauga	4,321	22.1%	56.1%
	44065	Newbury	Geauga	1,646	10.4%	35.7%
	44076	Orwell	Ashtabula	1,605	25.5%	57.3%
	44077	Painesville	Lake	21,361	18.4%	44.1%
	Subtotal				46,157	16.7%
Secondary	44004	Ashtabula	Ashtabula	13,784	32.9%	64.0%
	44022	Chagrin Falls	Cuyahoga	6,315	9.8%	23.7%
	44026	Chesterland	Geauga	4,330	8.8%	26.9%
	44041	Geneva	Ashtabula	5,716	25.4%	57.1%
	44046	Huntsburg	Geauga	550	14.5%	38.7%
	44057	Madison	Lake	7,993	16.4%	45.4%
	44060	Mentor	Lake	25,639	11.5%	35.8%
	44064	Montville	Geauga	727	11.0%	31.8%
	44072	Novelty	Geauga	1,747	8.0%	27.4%
	44081	Perry	Lake	2,606	14.6%	35.3%
	44084	Rock Creek	Ashtabula	1,245	16.6%	45.6%
	44085	Rome	Ashtabula	1,139	17.5%	45.5%
	44086	Thompson	Geauga	1,069	13.3%	41.0%
	44099	Windsor	Ashtabula	550	23.3%	46.4%
	44231	Garrettsville	Portage	3,042	18.5%	46.4%
	44234	Hiram	Portage	1,339	15.5%	38.5%
	44255	Mantua	Portage	2,943	13.5%	40.6%
	44402	Bristolville	Trumbull	1,246	14.0%	39.8%
	44450	North Bloomfield	Trumbull	862	21.2%	54.8%
	44491	West Farmington	Trumbull	975	14.5%	41.4%
Subtotal				83,817	17.0%	42.5%
Combined				129,974	16.9%	42.2%
Total County			Ashtabula	38,757	27.9%	59.4%
			Geauga	31,614	13.3%	36.1%
			Lake	95,362	16.3%	43.3%
			Portage	57,595	20.9%	48.3%

Source: Claritas, Inc., 2011.

The greatest proportions of lower-income households in 2010 were located in Ashtabula (ZIP code 44004), Orwell (ZIP code 44076), and Geneva (ZIP code 44041) (**Figure 7**).

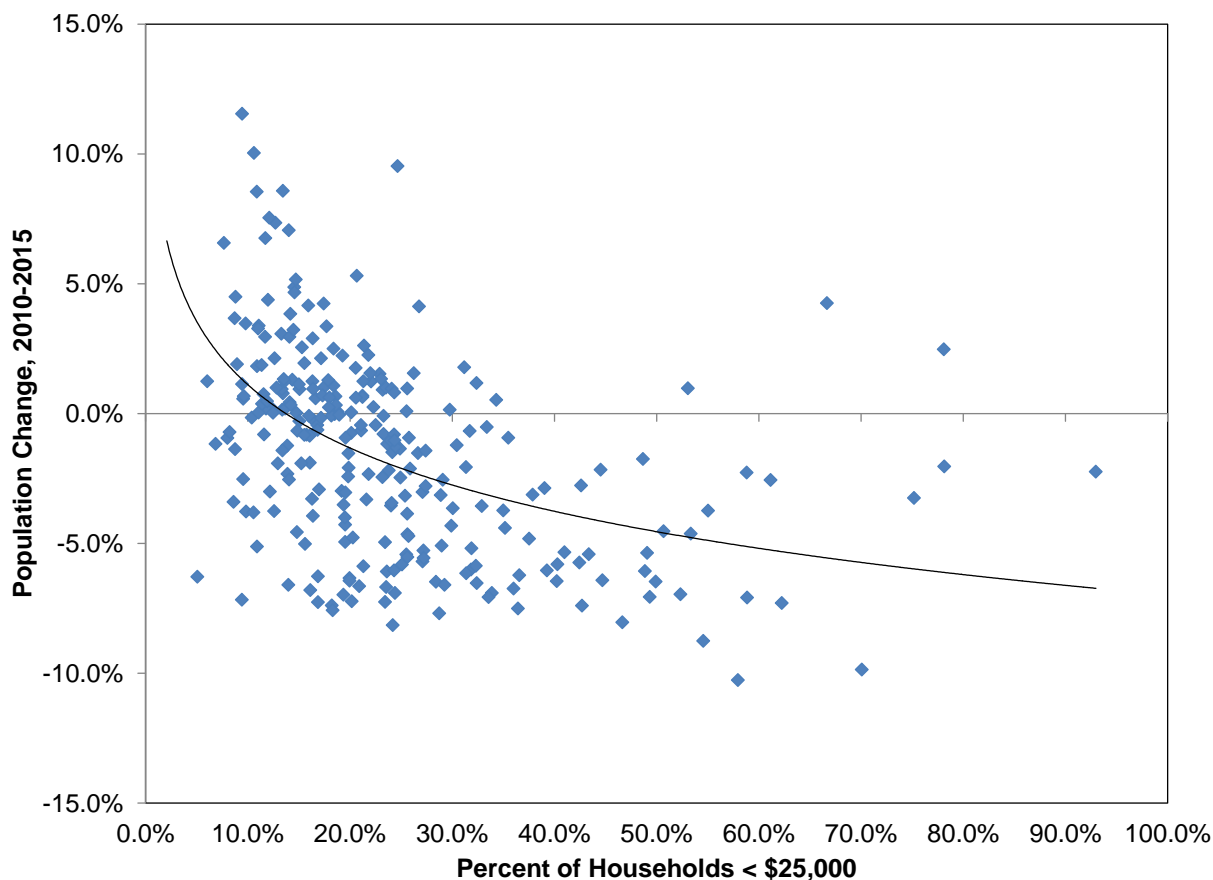
Figure 7: Percent of Households with Incomes Less than \$25,000 by ZIP Code, 2010



Sources: Microsoft MapPoint and Claritas, Inc., 2011.

Analysis of the demographics across the eight-county PSA served by UH indicates that those ZIP codes with a preponderance of lower-income households are expected to incur the most significant declines in population (**Figure 8**).

Figure 8: Percent of Households < \$25,000, 2010 vs. Population Growth by ZIP Code, 2010 - 2015



Source: Analysis of data from Claritas, Inc., 2011.

This generally is not the case for ZIP codes in the UH Geauga Medical Center community. Certain ZIP codes with a preponderance of low-income households are projected to decline the most (or grow the least) (**Table 8**).

Table 8: Percent of Households with Incomes Less than \$25,000, 2010, and Population Growth, 2010 - 2015

UH Geauga Medical Center			
ZIP Code	Town	Households <\$25,000	Population Growth 2010 to 2015
44004	Ashtabula	32.9%	-3.6%
44076	Orwell	25.5%	0.1%
44041	Geneva	25.4%	-3.2%
44099	Windsor	23.3%	-0.8%
44062	Middlefield	22.1%	1.2%
44450	North Bloomfield	21.2%	0.6%
44021	Burton	18.6%	0.7%
44231	Garrettsville	18.5%	0.0%
44085	Rome	17.5%	1.0%
44084	Rock Creek	16.6%	0.6%
44057	Madison	16.4%	2.9%
44234	Hiram	15.5%	1.9%
44081	Perry	14.6%	4.7%
44046	Huntsburg	14.5%	4.9%
44491	West Farmington	14.5%	3.2%
44024	Chardon	14.4%	1.3%
44402	Bristolville	14.0%	-2.5%
44255	Mantua	13.5%	1.3%
44086	Thompson	13.3%	3.1%
44060	Mentor	11.5%	0.8%
44064	Montville	11.0%	3.3%
44065	Newbury	10.4%	-0.2%
44022	Chagrin Falls	9.8%	-3.8%
44023	Bainbridge	9.0%	1.9%
44026	Chesterland	8.8%	-1.4%
44072	Novelty	8.0%	-0.9%

Source: Claritas, Inc., 2011.

As a proxy for where uninsured consumers and Medicaid recipients live, **Table 9** portrays the distribution of discharges by ZIP code and by payer.

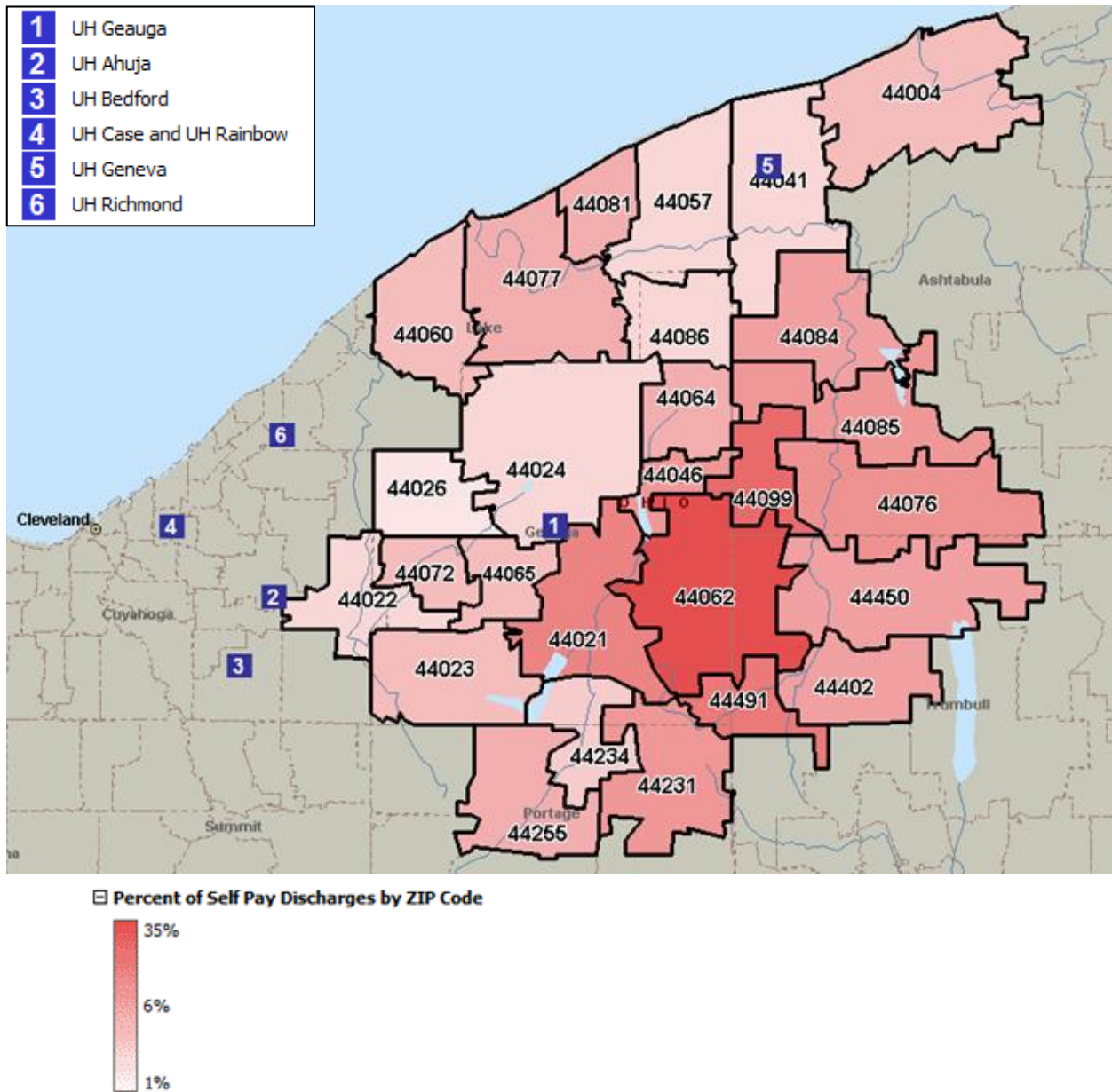
Table 9: Distribution of Discharges by ZIP Code and Payer, Nine Months Ended September 30, 2010

UH Geauga Medical Center									
Service Area	ZIP Code	Town	County	Number of Discharges	Medicare	Medicaid	Self Pay	Private	Other
Northern Ohio				416,844	46.6%	17.7%	5.1%	28.4%	2.2%
Primary	44021	Burton	Geauga	566	45.8%	12.0%	10.8%	28.8%	2.7%
	44023	Bainbridge	Geauga	1,115	43.9%	4.1%	3.6%	45.9%	2.5%
	44024	Chardon	Geauga	2,010	50.9%	8.8%	2.3%	34.8%	3.3%
	44062	Middlefield	Geauga	1,221	29.4%	12.8%	33.1%	20.4%	4.3%
	44065	Newbury	Geauga	341	50.1%	10.9%	4.1%	30.8%	4.1%
	44076	Orwell	Ashtabula	526	45.2%	19.0%	8.7%	23.0%	4.0%
	44077	Painesville	Lake	5,291	39.6%	14.8%	5.4%	38.0%	2.2%
	Subtotal			11,070	41.9%	12.3%	8.1%	34.9%	2.8%
Secondary	44004	Ashtabula	Ashtabula	4,238	44.4%	28.7%	3.0%	22.1%	1.7%
	44022	Chagrin Falls	Cuyahoga	1,298	54.7%	2.5%	2.2%	37.1%	3.4%
	44026	Chesterland	Geauga	953	56.6%	4.1%	1.6%	34.9%	2.8%
	44041	Geneva	Ashtabula	1,634	46.6%	22.0%	2.3%	26.1%	3.0%
	44046	Huntsburg	Geauga	208	44.7%	10.6%	8.2%	34.1%	2.4%
	44057	Madison	Lake	1,878	47.3%	13.9%	2.3%	33.2%	3.2%
	44060	Mentor	Lake	5,515	48.8%	7.8%	3.0%	37.6%	2.8%
	44064	Montville	Geauga	164	43.3%	9.1%	5.5%	38.4%	3.7%
	44072	Novelty	Geauga	320	50.3%	4.7%	3.1%	38.4%	3.4%
	44081	Perry	Lake	540	45.2%	5.7%	5.2%	40.6%	3.3%
	44084	Rock Creek	Ashtabula	239	38.9%	12.6%	6.3%	39.3%	2.9%
	44085	Rome	Ashtabula	265	38.1%	14.0%	7.5%	35.5%	4.9%
	44086	Thompson	Geauga	259	42.1%	14.3%	2.3%	37.8%	3.5%
	44099	Windsor	Ashtabula	185	27.6%	17.8%	21.1%	27.0%	6.5%
	44231	Garrettsville	Portage	668	43.6%	12.6%	7.9%	33.8%	2.1%
	44234	Hiram	Portage	288	45.8%	5.9%	2.8%	44.4%	1.0%
	44255	Mantua	Portage	751	41.3%	16.8%	5.3%	34.9%	1.7%
	44402	Bristolville	Trumbull	325	48.0%	6.8%	7.1%	37.8%	0.3%
44450	North Bloomfield	Trumbull	170	48.2%	9.4%	7.1%	33.5%	1.8%	
44491	West Farmington	Trumbull	302	35.1%	12.3%	16.2%	34.4%	2.0%	
Subtotal			20,200	46.9%	14.2%	3.7%	32.6%	2.6%	
Combined				31,270	45.1%	13.5%	5.3%	33.4%	2.7%
Total County			Ashtabula	10,929	45.9%	22.8%	3.9%	25.1%	2.4%
			Geauga	7,210	45.7%	8.7%	8.6%	33.7%	3.3%
			Lake	22,631	48.0%	10.2%	3.6%	35.5%	2.6%
			Portage	14,568	45.9%	14.9%	4.0%	33.5%	1.7%

Source: Analysis of OHA discharge data, 2010.

A comparatively large proportion of uninsured discharges was found in Middlefield (ZIP code 44062) and Windsor (ZIP code 44099). Approximately 33 percent of discharges from the UH Geauga Medical Center community were for patients with commercial coverage; the greatest proportions of private discharges originated from Bainbridge (ZIP code 44023), Hiram (ZIP code 44234), and Perry (ZIP code 44081) (**Figures 9 and 10**). Approximately 14 percent of discharges were for patients with Medicaid, and 47 percent were for patients with Medicare. Medicaid recipients were more prevalent in Ashtabula (ZIP code 44004), Geneva (ZIP code 44041), and Orwell (ZIP code 44076) (**Figures 11 and 12**).

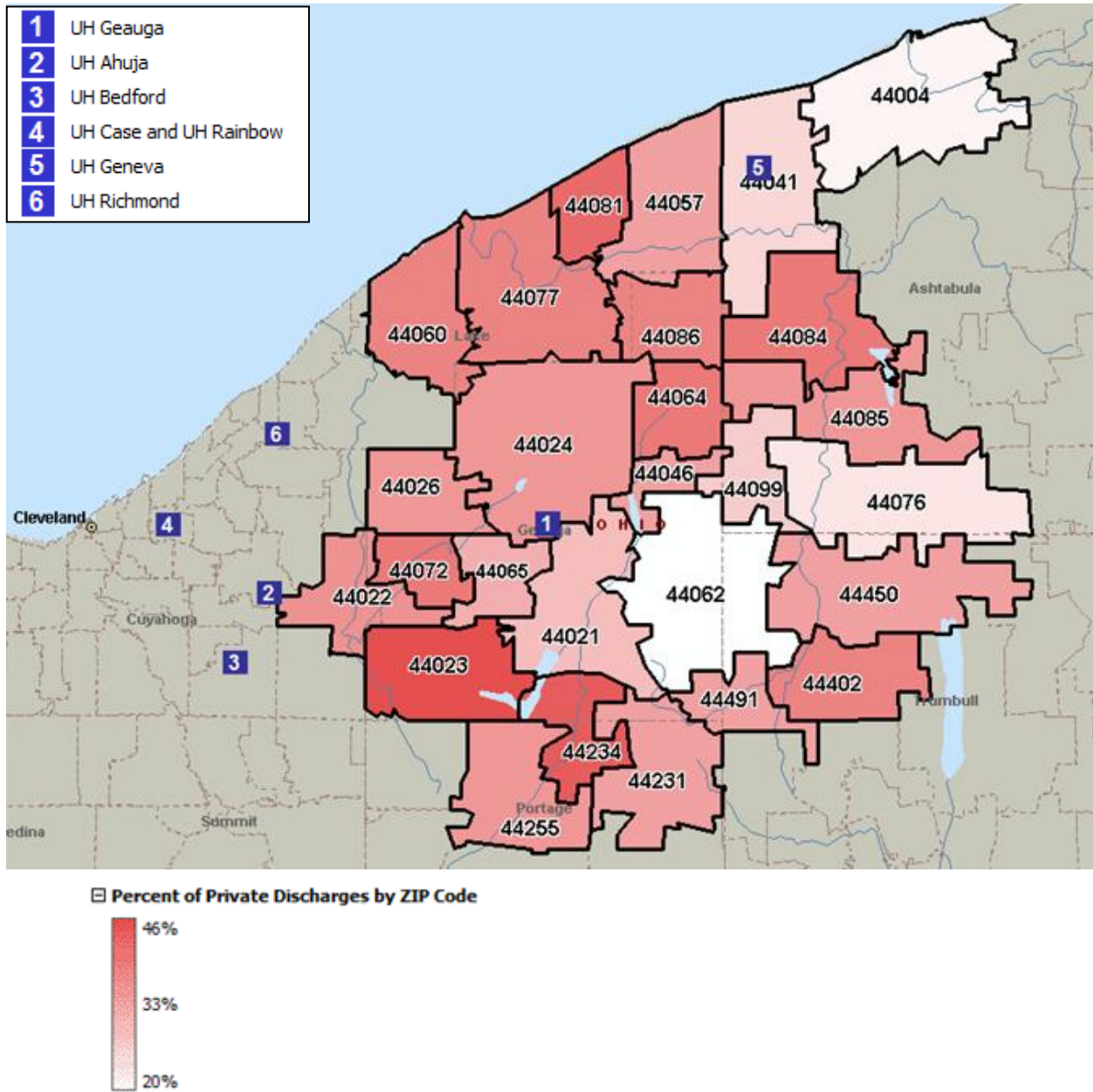
Figure 9: Percentage of Self Pay Discharges by ZIP Code, 2010



Sources: Microsoft MapPoint and OHA discharge data, 2011.

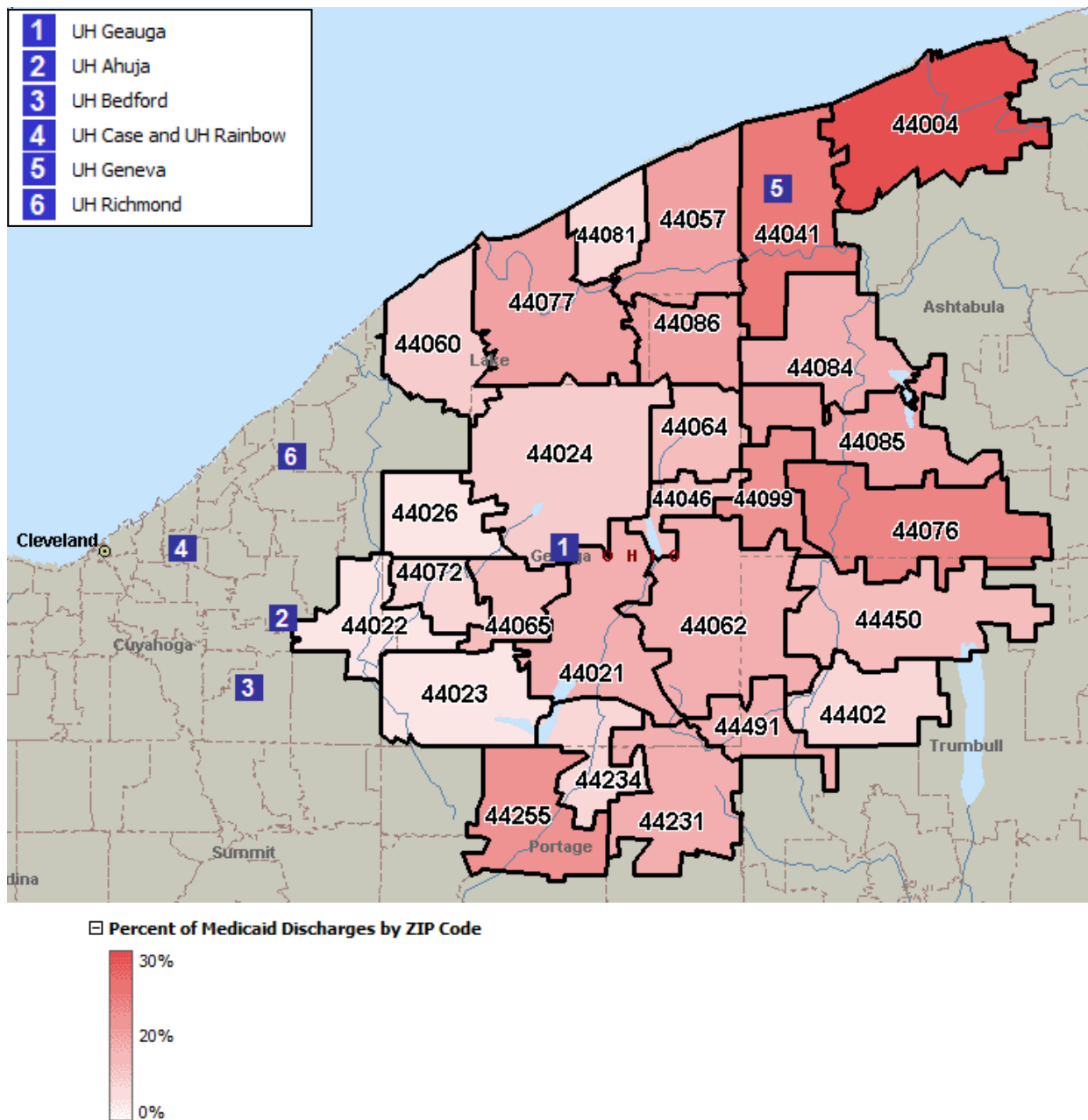
Figure 9 illustrates the presence of a large Amish community in Geauga and parts of Ashtabula and Trumbull counties.

Figure 10: Percentage of Private Discharges by ZIP Code, 2010



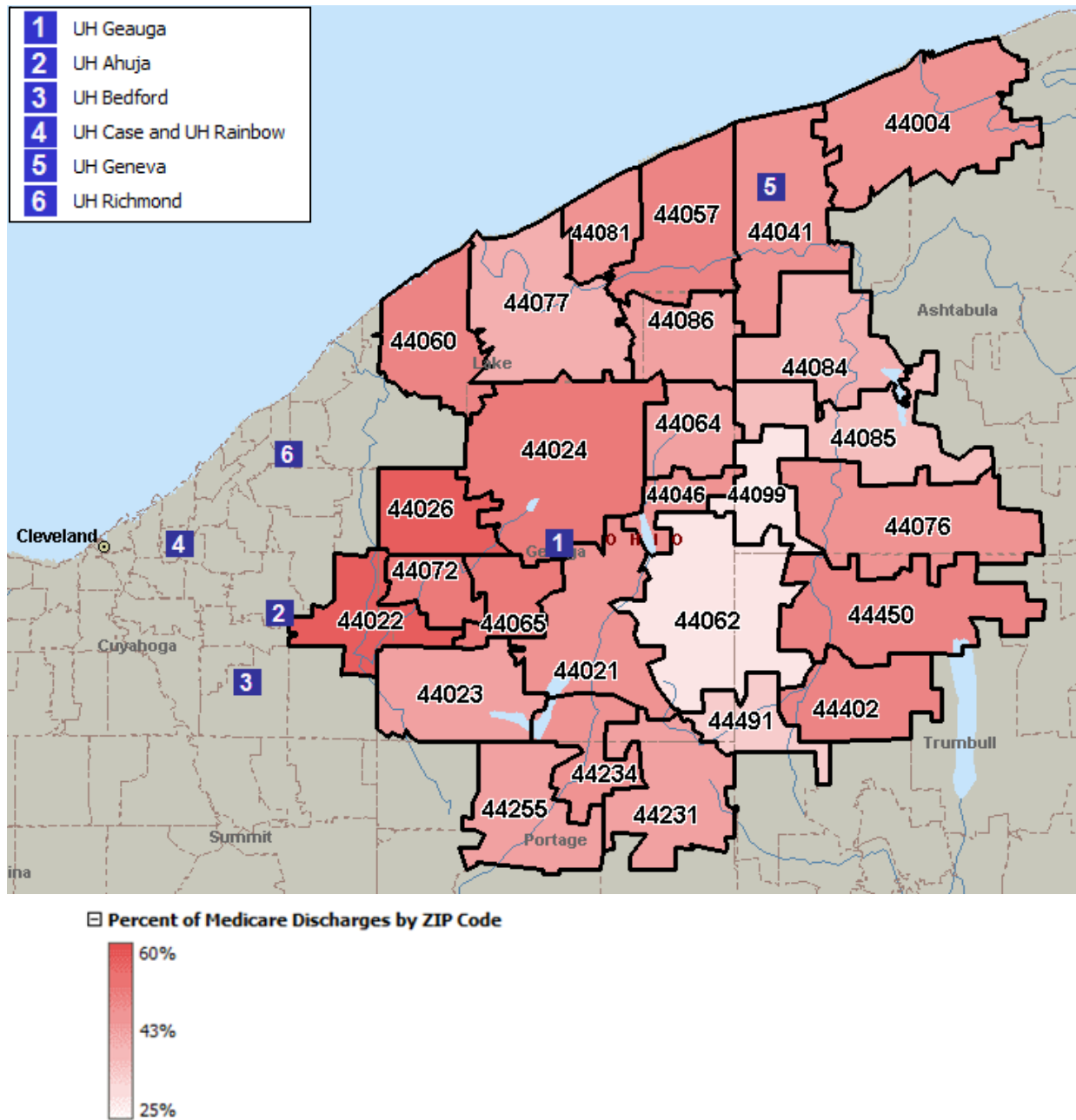
Sources: Microsoft MapPoint and OHA discharge data, 2011.

Figure 11: Percentage of Medicaid Discharges by ZIP Code, 2010



Sources: Microsoft MapPoint and OHA discharge data, 2011.

Figure 12: Percentage of Medicare Discharges by ZIP Code, 2010



Sources: Microsoft MapPoint and OHA discharge data, 2011.

Across the 15-county region served by UH Case Medical Center, 81 percent of the 2010 population was reported to be white and 15 percent African American. These statistics for the UH Geauga Medical Center community were 94 percent and three percent, respectively.

Projections indicate that certain non-white populations are expected to grow at above average rates in the UH Geauga Medical Center community and in the counties that overlap with UH Geauga Medical Center service area ZIP codes (**Table 10**).

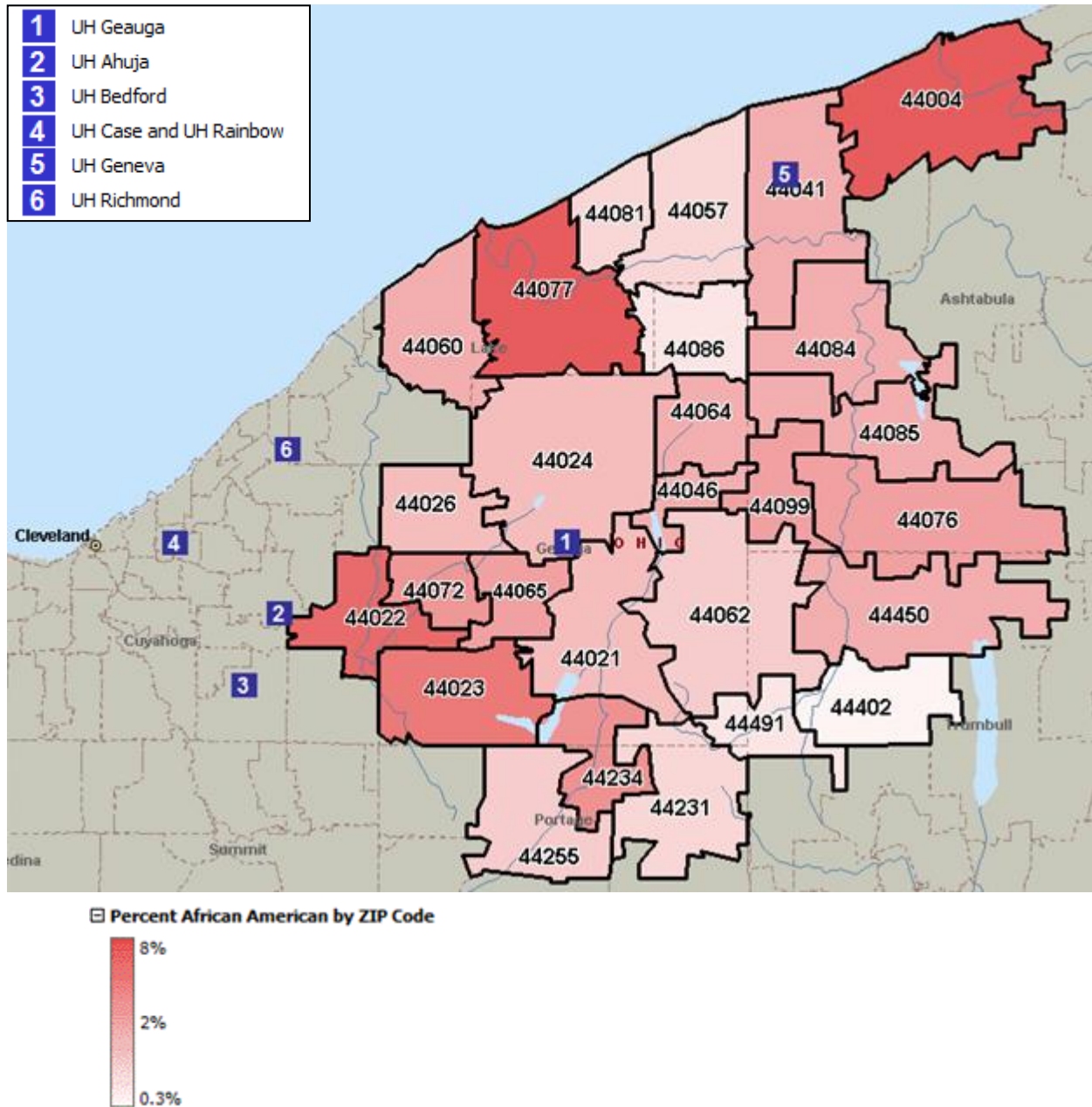
Table 10: Distribution of Population by Race, 2000-2015

UHGeauga Medical Center					
Ethnic/Racial Cohort	Service Area Population			Percent Change in Population	
	2000	2010	2015	2000-2010	2010-2015
Primary					
African American	3.0%	4.0%	4.4%	41.8%	13.9%
Asian	0.4%	0.6%	0.6%	45.8%	14.3%
Multi-racial	1.1%	1.4%	1.6%	35.0%	12.0%
Other	1.3%	2.1%	2.5%	79.4%	21.2%
White	94.2%	92.0%	90.9%	4.7%	0.6%
Total	117,590	126,127	128,351	7.3%	1.8%
Secondary					
African American	1.9%	2.2%	2.4%	19.4%	7.8%
Asian	0.7%	0.9%	1.0%	33.4%	11.5%
Multi-racial	0.9%	1.2%	1.4%	31.1%	11.6%
Other	0.6%	0.8%	0.9%	33.3%	11.7%
White	95.9%	94.8%	94.3%	-0.1%	-0.8%
Total	216,710	218,847	218,296	1.0%	-0.3%
Combined					
African American	2.3%	2.9%	3.2%	29.7%	10.9%
Asian	0.6%	0.8%	0.9%	36.4%	12.3%
Multi-racial	1.0%	1.3%	1.4%	32.6%	11.8%
Other	0.8%	1.3%	1.5%	57.6%	17.4%
White	95.3%	93.8%	93.0%	1.6%	-0.3%
Total	334,300	344,974	346,647	3.2%	0.5%
Relevant Counties					
African American	2.4%	3.3%	3.7%	38.0%	13.4%
Asian	0.7%	1.0%	1.2%	46.8%	15.5%
Multi-racial	1.1%	1.4%	1.5%	31.3%	11.6%
Other	0.7%	0.9%	1.1%	47.1%	15.9%
White	95.1%	93.4%	92.5%	0.6%	-0.7%
Total	560,942	574,702	576,362	2.5%	0.3%

Source: Claritas, Inc., 2011.

African American communities appear to be most prevalent in the towns of Ashtabula (ZIP code 44004) and Painesville (ZIP code 44077) (**Figure 13**).

Figure 13: Areas with Highest Concentration of African American Residents, 2010



Sources: Microsoft MapPoint and Claritas, Inc., 2011.

C. Ambulatory Care Sensitive Discharges

This section examines the frequency of ACS discharges within the UH Geauga Medical Center community and at UH Geauga Medical Center.

1. Community-Level Analysis

Disproportionately large numbers of ACS discharges indicate potential problems with the availability or accessibility of ambulatory (primary) care services. **Table 11** indicates for the UH Case Medical Center PSA and Trumbull County how many hospital discharges in 2010 were found to be ACS, by county and by primary payer.

Table 11: ACS Discharges as a Percent of Total by County and Payer, Nine Months Ended September 30, 2010

UH Geauga Medical Center						
County	Medicare	Private	Medicaid	Self Pay	Other	All Payers
Ashtabula	20.3%	7.9%	6.2%	5.2%	7.2%	13.1%
Cuyahoga	19.7%	8.2%	10.0%	14.6%	7.2%	14.2%
Gauga	16.4%	6.6%	6.7%	5.8%	4.7%	10.9%
Lake	17.6%	6.9%	6.0%	12.4%	4.5%	12.1%
Lorain	17.1%	7.7%	6.9%	13.7%	4.8%	12.4%
Medina	20.9%	5.6%	5.1%	10.7%	4.6%	12.4%
Portage	19.0%	7.0%	7.6%	12.5%	5.3%	12.8%
Summit	19.4%	7.2%	9.1%	12.1%	9.3%	13.2%
Trumbull	19.2%	8.4%	8.0%	12.4%	6.9%	14.1%
Relevant Counties	18.3%	7.0%	6.6%	9.5%	5.2%	12.3%
Northern Ohio						
ACS Discharges	36,467	8,625	6,262	2,769	646	54,769
Total Discharges	194,276	118,281	73,639	21,448	9,200	416,844
ACS %	18.8%	7.3%	8.5%	12.9%	7.0%	13.1%

Source: Analysis of OHA discharge data using AHRQ software, 2011.

The table indicates that across the UH Geauga Medical Center service area counties, 12 percent of total discharges in 2010 were ACS; 18 percent of Medicare discharges and 10 percent of self pay discharges were ACS. The UH Geauga Medical Center community had a slightly lower percentage of discharges that were ACS than the 15-county region.

Across the 15-county region, further analysis at the ZIP code level indicates that there are proportionately more ACS discharges in areas where lower-income residents are concentrated; proportionately fewer ACS discharges are associated with ZIP codes with higher levels of private insurance coverage.

However, UH Geauga Medical Center community ACS discharges do not appear to be associated with high numbers of low-income consumers and low numbers of discharges for privately insured patients (**Table 12**).

**Table 12: ACS Discharges by Service Area ZIP Code,
Nine Months Ended September 30, 2010**

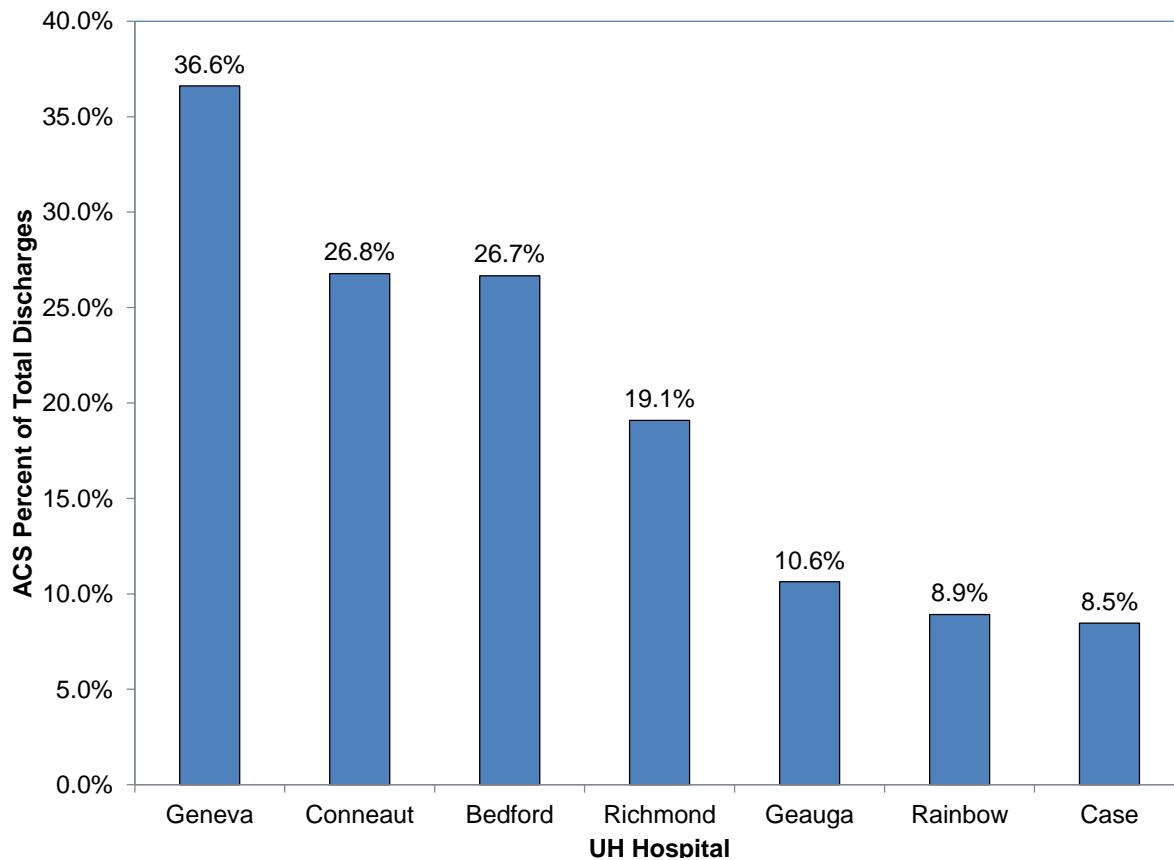
UH Geauga Medical Center								
Service Area	ZIP Code	Town	County	ACS Discharges	Total Discharges	ACS % of Total	Households < \$25,000	Private % of Discharges
Northern Ohio				54,769	416,844	13.1%	24.0%	28.4%
Primary	44021	Burton	Geauga	55	566	9.7%	18.6%	28.8%
	44023	Bainbridge	Geauga	130	1,115	11.7%	9.0%	45.9%
	44024	Chardon	Geauga	221	2,010	11.0%	14.4%	34.8%
	44062	Middlefield	Geauga	105	1,221	8.6%	22.1%	20.4%
	44065	Newbury	Geauga	44	341	12.9%	10.4%	30.8%
	44076	Orwell	Ashtabula	61	526	11.6%	25.5%	23.0%
	44077	Painesville	Lake	583	5,291	11.0%	18.4%	38.0%
Subtotal				1,199	11,070	10.8%	16.7%	34.9%
Secondary	44004	Ashtabula	Ashtabula	547	4,238	12.9%	32.9%	22.1%
	44022	Chagrin Falls	Cuyahoga	151	1,298	11.6%	9.8%	37.1%
	44026	Chesterland	Geauga	130	953	13.6%	8.8%	34.9%
	44041	Geneva	Ashtabula	235	1,634	14.4%	25.4%	26.1%
	44046	Huntsburg	Geauga	24	208	11.5%	14.5%	34.1%
	44057	Madison	Lake	249	1,878	13.3%	16.4%	33.2%
	44060	Mentor	Lake	655	5,515	11.9%	11.5%	37.6%
	44064	Montville	Geauga	15	164	9.1%	11.0%	38.4%
	44072	Novelty	Geauga	27	320	8.4%	8.0%	38.4%
	44081	Perry	Lake	53	540	9.8%	14.6%	40.6%
	44084	Rock Creek	Ashtabula	32	239	13.4%	16.6%	39.3%
	44085	Rome	Ashtabula	30	265	11.3%	17.5%	35.5%
	44086	Thompson	Geauga	30	259	11.6%	13.3%	37.8%
	44099	Windsor	Ashtabula	15	185	8.1%	23.3%	27.0%
	44231	Garrettsville	Portage	91	668	13.6%	18.5%	33.8%
	44234	Hiram	Portage	25	288	8.7%	15.5%	44.4%
	44255	Mantua	Portage	89	751	11.9%	13.5%	34.9%
44402	Bristolville	Trumbull	54	325	16.6%	14.0%	37.8%	
44450	North Bloomfield	Trumbull	23	170	13.5%	21.2%	33.5%	
44491	West Farmington	Trumbull	26	302	8.6%	14.5%	34.4%	
Subtotal				2,501	20,200	12.4%	17.0%	32.6%
Combined				3,700	31,270	11.8%	16.9%	33.4%
Total County			Ashtabula	1,430	10,929	13.1%	27.9%	25.1%
			Geauga	789	7,210	10.9%	13.3%	33.7%
			Lake	2,733	22,631	12.1%	16.3%	35.5%
			Portage	1,864	14,568	12.8%	20.9%	33.5%

Sources: Analysis of OHA discharge data, 2011, using AHRQ software, and data from Claritas, Inc., 2011.

2. Facility-Level Analysis

Figure 14 indicates that nearly 11 percent of UH Geauga Medical Center's discharges in 2010 were for ACS conditions. Across all UH hospitals, 11.6 percent of discharges were ACS in 2010.

Figure 14: ACS Discharges as Percent of Total by UH Hospital, Nine Months Ended September 30, 2010



Source: Analysis of OHA discharge data using AHRQ software, 2011.

Table 13 indicates that UH Geauga Medical Center's ACS discharges in 2010 were concentrated in two conditions: congestive heart failure and bacterial pneumonia.

Table 13: Distribution of ACS Discharges by Condition and Facility, Nine Months Ended September 30, 2010

Condition	UH							
	Bedford	Case	Conneaut	Geauga	Geneva	Rainbow	Richmond	Total
Congestive Heart Failure	24.5%	27.9%	29.9%	23.1%	15.0%		23.7%	22.7%
Bacterial Pneumonia	16.8%	15.1%	24.5%	23.4%	35.2%	5.2%	14.4%	17.0%
Urinary Tract Infection	20.1%	12.4%	6.1%	12.8%	17.7%	1.2%	13.7%	12.8%
Chronic Obstructive Pulmonary Disease	11.8%	6.8%	21.1%	12.0%	14.7%		18.0%	9.7%
Adult Asthma	9.9%	9.1%	2.7%	6.4%	4.4%	0.2%	5.5%	7.1%
Diabetes Long-term Complication	7.0%	7.8%	3.4%	3.6%	2.8%		11.7%	6.3%
Dehydration	4.3%	7.0%	2.7%	9.7%	4.7%	0.4%	3.4%	5.6%
Pediatric Asthma				0.2%		54.6%		5.5%
Hypertension	2.1%	6.3%		3.4%	0.6%	0.4%	3.1%	3.8%
Diabetes Short-term Complication	1.3%	4.1%	2.7%	1.2%	2.2%	0.4%	2.4%	2.6%
Pediatric Urinary Tract Infection						16.2%		1.6%
Pediatric Diabetes Short-term Complication						11.0%		1.1%
Perforated Appendix	0.9%	0.9%	1.4%	1.6%	1.1%	0.4%	0.5%	0.9%
Uncontrolled Diabetes	0.9%	0.9%	2.7%	0.6%	0.6%		1.7%	0.9%
Angina Without Procedure	0.4%	0.9%	2.0%	0.8%	1.1%		1.7%	0.9%
Pediatric Gastroenteritis				0.2%		5.8%		0.6%
Pediatric Perforated Appendix				0.3%		4.1%		0.4%
Accidental Puncture or Laceration		0.2%	0.7%	0.5%		0.2%		0.2%
Iatrogenic Pneumothorax		0.2%		0.2%				0.1%
Hospital Acquired Infections		0.1%		0.2%				0.1%
Foreign Body Left In During Procedure		0.1%						0.1%
Low Birth Weight Rate								
Total Cases	770	2,129	147	641	361	518	582	5,148

Source: Analysis of OHA discharge data using AHRQ software, 2011.

In 2010, 69 percent of UH Geauga Medical Center's ACS discharges were associated with persons 65 years of age or older (**Table 14**).

Table 14: Distribution of ACS Discharges by Age Group and Facility, Nine Months Ended September 30, 2010

Facility	0 - 17	18-39	40 - 64	65+	Total Cases
UH Bedford	0.0%	5.7%	24.3%	70.0%	770
UH Case	0.0%	11.2%	40.2%	48.6%	2,129
UH Conneaut	0.0%	1.4%	26.5%	72.1%	147
UH Geauga	0.6%	5.0%	25.3%	69.1%	641
UH Geneva	0.0%	5.5%	21.1%	73.4%	361
UH Rainbow	91.7%	7.9%	0.2%	0.2%	518
UH Richmond	0.0%	5.0%	31.6%	63.4%	582
Total	9.3%	7.9%	29.2%	53.6%	5,148

Source: Analysis of OHA discharge data using AHRQ software, 2011.

Table 15 further analyzes UH Geauga Medical Center's ACS discharges indicating that the most prevalent conditions for persons 65 years of age or older were for: bacterial pneumonia, congestive heart failure, chronic obstructive pulmonary disease, and urinary tract infection.

Table 15: Distribution of UH Geauga Medical Center ACS Discharges by Age Group and Condition, Nine Months Ended September 30, 2010

UH Geneva Medical Center					
Condition	0 to 17	18 to 39	40 to 64	65+	All Cases
Bacterial Pneumonia	0.0%	4.0%	28.0%	68.0%	150
Congestive Heart Failure	0.0%	0.0%	12.8%	87.2%	148
Urinary Tract Infection	0.0%	8.5%	17.1%	74.4%	82
Chronic Obstructive Pulmonary Disease	0.0%	1.3%	18.2%	80.5%	77
Dehydration	0.0%	6.5%	30.6%	62.9%	62
Adult Asthma	0.0%	9.8%	43.9%	46.3%	41
Diabetes Long-term Complication	0.0%	0.0%	65.2%	34.8%	23
Hypertension	0.0%	4.5%	36.4%	59.1%	22
Perforated Appendix	0.0%	50.0%	30.0%	20.0%	10
Diabetes Short-term Complication	0.0%	37.5%	50.0%	12.5%	8
Angina Without Procedure	0.0%	0.0%	80.0%	20.0%	5
Uncontrolled Diabetes	0.0%	25.0%	25.0%	50.0%	4
Accidental Puncture or Laceration	0.0%	0.0%	33.3%	66.7%	3
Pediatric Perforated Appendix	100.0%	0.0%	0.0%	0.0%	2
Hospital Acquired Vascular Catheter Related Infections	0.0%	0.0%	0.0%	100.0%	1
Iatrogenic Pneumothorax	0.0%	0.0%	0.0%	100.0%	1
Pediatric Asthma	100.0%	0.0%	0.0%	0.0%	1
Pediatric Gastroenteritis	100.0%	0.0%	0.0%	0.0%	1
Total	0.6%	5.0%	25.3%	69.1%	641

Source: Analysis of OHA discharge data using AHRQ software, 2011.

D. County-Level Health Status and Access Indicators

The following secondary data sources were used to examine county-level health status and access to care indicators in the UH Geauga Medical Center community:

1. County Health Rankings;
2. Community Health Status Indicators;
3. Ohio Department of Health; and
4. BRFSS.

County Health Rankings: The first source is *County Health Rankings*, a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. *County Health Rankings* examines a variety of health status indicators and ranks each county in each state in terms of health factors and health outcomes. The health outcomes measure is a composite based on mortality and morbidity statistics, and the health factors measure is a composite of several variables known to affect health outcomes: health behaviors, clinical care, social and economic factors, and physical environment.

County Health Rankings is updated annually. *County Health Rankings 2010* relies on data from 2000 to 2008, with most data originating in 2005 to 2007. *County Health*

Rankings 2011 relies on data from 2001 to 2009, with most data originating in 2006 to 2008.

Table 16 provides a summary analysis of the rankings for the counties served by UH Geauga Medical Center. Rankings for Ohio were converted into quartiles to indicate how each county ranks versus others in the state. **Table 16** illustrates the quartile into which each county fell by indicator in the 2011 edition, and also illustrates whether a county's ranking worsened or improved from 2010. For example, for the 2011 edition, Ashtabula County was in the top one-half of Ohio counties for the overall rate of morbidity; however, its rankings worsened for this indicator from the previous year.

Table 16: County-Level Health Status and Access Indicators, UH Geauga Medical Center

Indicator	2011	Rank Change	2011	Rank Change	2011	Rank Change	2011	Rank Change
	Ashtabula		Gauga		Lake		Portage	
Health Outcomes		↓						↓
Mortality						↓		↓
Morbidity		↓		↓				↓
Health Factors		↓						
Health Behaviors		↓		↓		↓		↓
Smoking				↓				↓
Diet and Exercise		↓				↓		
Alcohol Use		↓		↓		↓		
Unsafe Sex						↓		
Clinical Care		↓						↓
Access to Care		↓						↓
Quality of Care		↓				↓		↓
Social & Economic Factors		↓						↓
Education		↓				↓		↓
Employment								
Income		↓				↓		
Family and Social Support				↓				↓
Community Safety						↓		↓
Physical Environment		↓				↓		
Air Quality								
Built Environment		↓		↓		↓		↓

Key	
>50th Percentile	
25th to 49th Percentile	
<25th Percentile	
↓	Ranking Worsened Between 2010 and 2011

Source: *County Health Rankings*, 2010 and 2011.

For the UH Geauga Medical Center community, the indicators that most frequently ranked in the bottom one-half of Ohio counties were Smoking, Access to Care, and Air Quality.

Built Environment worsened between the 2010 and 2011 in all counties.

Ashtabula County ranked the most unfavorably with 18 indicators in the bottom one-half of Ohio counties, followed by Lake with 6.

Community Health Status Indicators: The second analysis is based on findings from the *Community Health Status Indicators (CHSI) Project*, provided by the U.S. Department of Health and Human Services. The CHSI Project compares many health status and access indicators to both the median rates in the U.S. and to rates in “peer counties” across the U.S.

Counties are considered “peers” if they share common characteristics such as population size, poverty rates, average age, and population density.

Table 17 highlights the analysis of CHSI health status indicators. Cells in the table are shaded if, on that indicator, a county compared unfavorably both to the U.S. as a whole and to the group of specified peer counties.

Table 17: Unfavorable Health Status Indicators, UH Geauga Medical Center

Indicator	Ashtabula	Geauga	Lake	Portage
Breast Cancer				
Colon Cancer				
Lung Cancer				
Coronary Heart Disease				
Stroke				
Motor Vehicle Injuries				
Unintentional Injury				
Suicide				
Homicide				
Births to Unmarried Women				
Births to Women 40-54				
Births to Women Under 18				
Prenatal Care				
Premature Births				
Low Birth Weight				
Very Low Birth Weight				
Infant Mortality				
Neonatal Infant Mortality				
Hispanic Infant Mortality				
White non-Hispanic Infant Mortality				
Post Neonatal Infant Mortality				
Black non-Hispanic Infant Mortality				

Key	
	Unfavorable

Source: *Community Health Status Indicators Project*, 2009.

With a few exceptions, Geauga and Portage counties compared relatively favorably to U.S. and peer county benchmarks. Nine of the indicators were unfavorable for Ashtabula County. All but one county compared unfavorably for coronary heart disease; two counties compared unfavorably for breast cancer, colon cancer, lung cancer, births to women 40-54, and Black non-Hispanic infant mortality.

Ohio Department of Health: The third set of health status and health access indicators is maintained by the Ohio Department of Health. The state maintains a publicly-available data warehouse including indicators regarding a number of health status issues. **Table 18** summarizes these variables for the UH Geauga Medical Center community. Following the methodology of the Ohio Department of Health, the counties were grouped and ranked into thirds. This data warehouse also indicates whether

counties had achieved certain Healthy People 2010⁷ goals using an average of 2006-2008 rates. **Table 19** indicates whether or not counties had achieved these goals.

Table 18: Ohio Department of Health, Health Status Indicators

Indicator	Ashtabula	Geauga	Lake	Portage
Maternal and Child Health Indicators				
Prenatal Care In First Trimester				
Rate Of Adolescent Births (Ages 15-17)				
Very Low Birth Weight, All Births				
Very Low Birth Weight, Singleton Births				
Very Low Birth Weight Infants Delivered At Level III Facilities				
Perinatal Mortality Rate				
Ratio Of Black To White Perinatal Mortality Rate				
Infant Mortality Rate				
Neonatal Mortality Rate				
Postneonatal Mortality Rate				
Child Death Rate (1-14 Years)				
Child Motor Vehicle Crash Death Rate (Ages 1-14 Years)				
Other Indicators				
Adult Death Rate (Age 18 And Over)				
Unintentional Injury Deaths				
Motor Vehicle Traffic Related Deaths				
Assault (Homicide) Deaths				
Intentional Self-Harm (Suicide) Deaths				
Cancer Deaths (All Sites)				
Lung Cancer Deaths				
Breast Cancer Deaths (Females)				
Cervical Cancer Deaths (Females)				
Colorectal Cancer Deaths				
Cardiovascular Disease Deaths				
Coronary Heart Disease Deaths				
Stroke Deaths				
Diabetes Deaths				
Chronic Lower Respiratory Diseases (Ages 45+)				
Pneumonia/Influenza Deaths				
Chronic Liver Disease And Cirrhosis Deaths				

Ranking Based on Distribution of Ohio Counties	
Top and Middle Third of Counties	
Bottom Third of Counties	

Source: Ohio Department of Health data warehouse, 2010.

⁷ Healthy People 2010 is a national health promotion and disease prevention agenda established in January 2000 by the U.S. Department of Health and Human Services.

Table 19: Ohio Department of Health, Variation from Healthy People 2010 Goals

	Ashtabula	Geauga	Lake	Portage
Maternal and Child Health Indicators				
Prenatal Care In First Trimester				
Infant Mortality Rate				
Neonatal Mortality Rate				
Perinatal Mortality Rate				
Postneonatal Mortality Rate				
Ratio Of Black To White Perinatal Mortality Rate				
Very Low Birth Weight, All Births				
Other Indicators				
Assault (Homicide) Deaths				
Breast Cancer Deaths (Females)				
Cancer Deaths (All Sites)				
Cervical Cancer Deaths (Females)				
Chronic Liver Disease And Cirrhosis Deaths				
Chronic Lower Respiratory Diseases (Ages 45+)				
Colorectal Cancer Deaths				
Coronary Heart Disease Deaths				
Intentional Self-Harm(Suicide) Deaths				
Lung Cancer Deaths				
Motor Vehicle Traffic Related Deaths				
Stroke Deaths				
Unintentional Injury Deaths				

Key	
HP 2010 Met	
0% to 25% Worse than HP 2010 Goal	
25% to 50% Worse than HP 2010 Goal	
>50% Worse than HP 2010 Goal	

Source: Ohio Department of Health data warehouse, 2010.

According to the Ohio Department of Health data, the UH Geauga Medical Center counties had numerous comparatively unfavorable health status indicators in 2008. Ashtabula was in the bottom third of Ohio counties on 19 indicators. Three of the counties were in the bottom third of Ohio counties for child motor vehicle crash death; two of the counties were in the bottom third of Ohio counties for prenatal care in the first trimester, very low birth weight infants delivered at level III facilities, child death rate, and breast cancer deaths.

When compared to Healthy People 2010 goals, Ashtabula County ranked the most unfavorably with 16 indicators greater than 25 percent worse than the Health People 2010 goal followed by Lake County with 11 indicators and Portage County with 10 indicators. Five indicators ranked in the bottom one-half of counties for all counties:

- Neonatal mortality;
- Chronic liver disease and cirrhosis;

- Chronic lower respiratory disease;
- Suicide; and
- Unintentional injury deaths.

Behavioral Risk Factor Surveillance System: The fourth analysis is based on data collected by the CDC's BRFSS. This system is based on a telephonic survey that gathers data on various health indicators, risk behaviors, healthcare access, and preventive health measures. Data are collected for the entire U.S. Analysis of BRFSS data can identify localized health issues and trends, and provide county, state, or nation-wide comparisons. **Table 20** compares the prevalence of various indicators in the UH Geauga Medical Center community and Ohio. Indicators are shaded if values compare unfavorably to Ohio averages. Shading is based on percent difference of an indicator from the Ohio average.

Table 20: Prevalence of BRFSS Indicators and Variation from the State of Ohio in Service Area Counties, 2010

Indicator		Ashtabula	Geauga	Lake	Portage	Ohio
Health Behaviors	Heavy Drinkers*	1.8%	11.5%	4.2%	7.6%	4.2%
	Binge Drinkers**	12.3%	11.5%	15.1%	13.3%	10.8%
	Currently Smokes Every Day	26.3%	17.3%	21.0%	24.8%	15.1%
	Currently Smokes Some Days	1.8%	0.0%	2.5%	5.7%	5.0%
Health Conditions	Told Have Asthma	7.0%	5.8%	11.8%	8.6%	9.7%
	Told Have Diabetes	14.0%	3.8%	16.8%	12.4%	13.9%
	Obese	31.6%	19.2%	22.7%	29.5%	29.3%
	Overweight	35.1%	55.8%	42.9%	36.2%	34.2%
Mental Health	Poor Mental Health > 21 Days/Month	17.5%	5.8%	7.6%	5.7%	7.6%
	Not Receiving Needed Emotional and Social Support	5.3%	7.7%	1.7%	7.6%	5.2%
	Rarely Receiving Needed Emotional and Social Support	5.3%	0.0%	2.5%	3.8%	3.5%
Oral Health	Greater than 6 Teeth Extracted	22.8%	9.6%	15.1%	17.1%	15.6%
	All Teeth Extracted	10.5%	3.8%	8.4%	7.6%	9.8%
	No Dental Care Visit in Last Year	42.1%	25.0%	21.0%	24.8%	28.4%
Overall Health	Reported Fair or Poor Health	29.8%	11.5%	19.3%	17.1%	20.2%
	Inhibited from Usual Activities > 21 Days/Month	8.8%	0.0%	6.7%	6.7%	10.3%
	Poor Physical Health > 21 Days/Month	14.0%	0.0%	9.2%	10.5%	9.6%
	Limited by Physical, Mental, or Emotional Problems	40.4%	19.2%	29.4%	25.7%	26.6%

Key	
Better than OH	
0%-25% worse than OH	
25% to 75% worse than OH	
>75% worse than OH	

Source: CDC BRFSS, 2010.

*Adult men having more than two drinks per day; adult women having more than one drink per day

**Adult males having five or more drinks on one occasion; adult females having four or more drinks on one occasion.

Across the UH Geauga Medical Center service area counties, the percent of people who are binge drinkers, who currently smoke every day, and who reported being overweight compared unfavorably in all counties; the percent of people who are heavy drinkers and those not receiving needed emotional and social support compared unfavorably in three counties. Within the service area, Ashtabula County had the greatest number of indicators (14) that compared unfavorably to the state of Ohio.

The percent of people who are heavy drinkers in Geauga and Portage counties and the percent of people reporting poor mental health more than 21 days per month in Ashtabula County were reported as being greater than 75 percent worse than the state of Ohio.

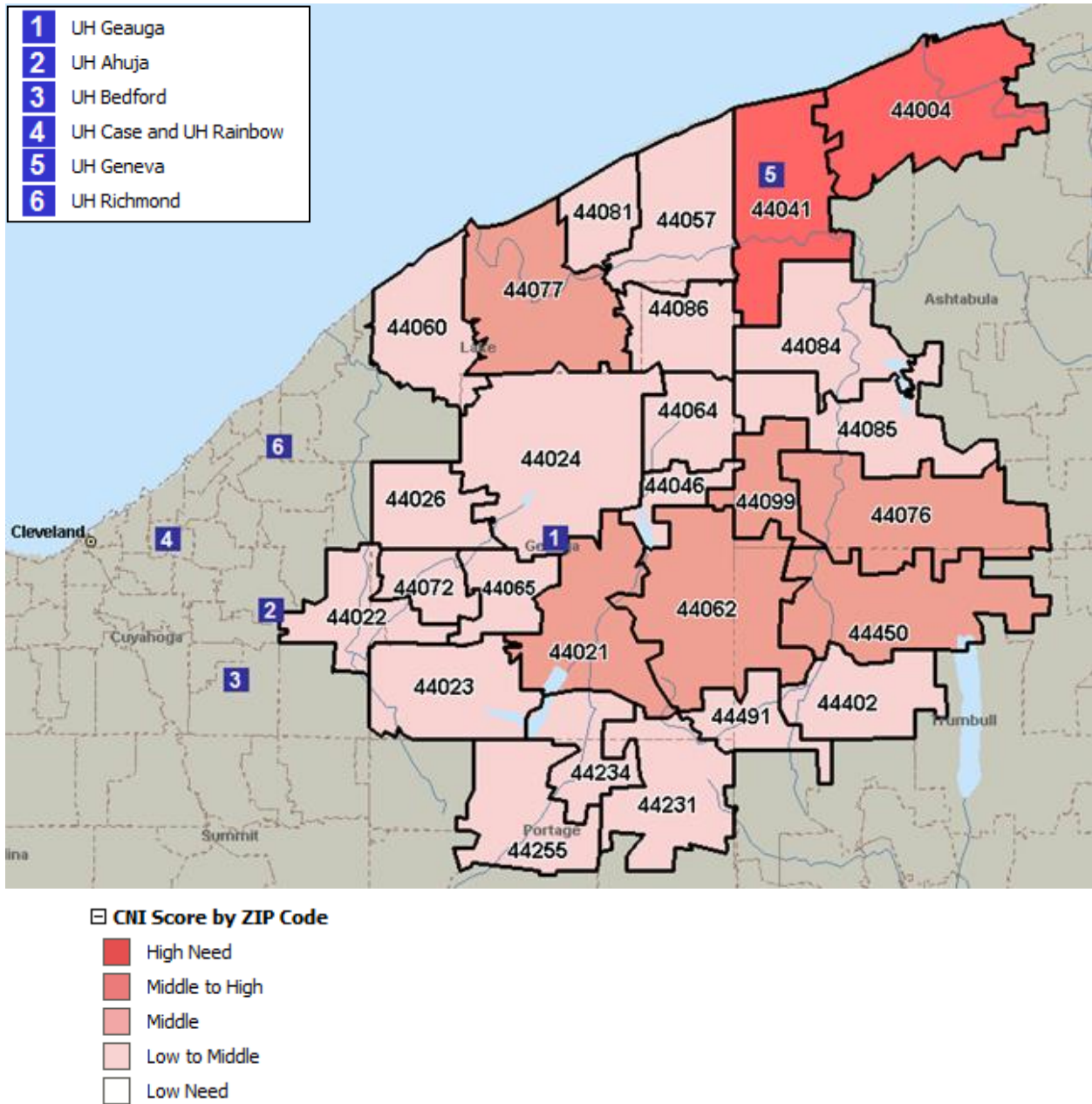
E. ZIP Code and Census Tract Level Health Access Indicators

The following secondary data sources were used to examine ZIP code and census tract level indicators in the UH Geauga Medical Center community:

1. Catholic Healthcare West; and
2. U.S. Department of Agriculture.

Catholic Healthcare West: Catholic Healthcare West, a hospital system based in California, developed the *Community Needs Index*, a standardized index that measures certain access variables by county and ZIP code. The *Community Needs Index* represents a score assigned to each ZIP code, ranging from “Lowest Need” (1-1.7), to “Highest Need” (4.2-5). **Figure 15** presents the *Community Needs Index* (CNI) score for each ZIP code in the UH Geauga Medical Center community.

Figure 15: Community Needs Index Scores by ZIP Code, 2011



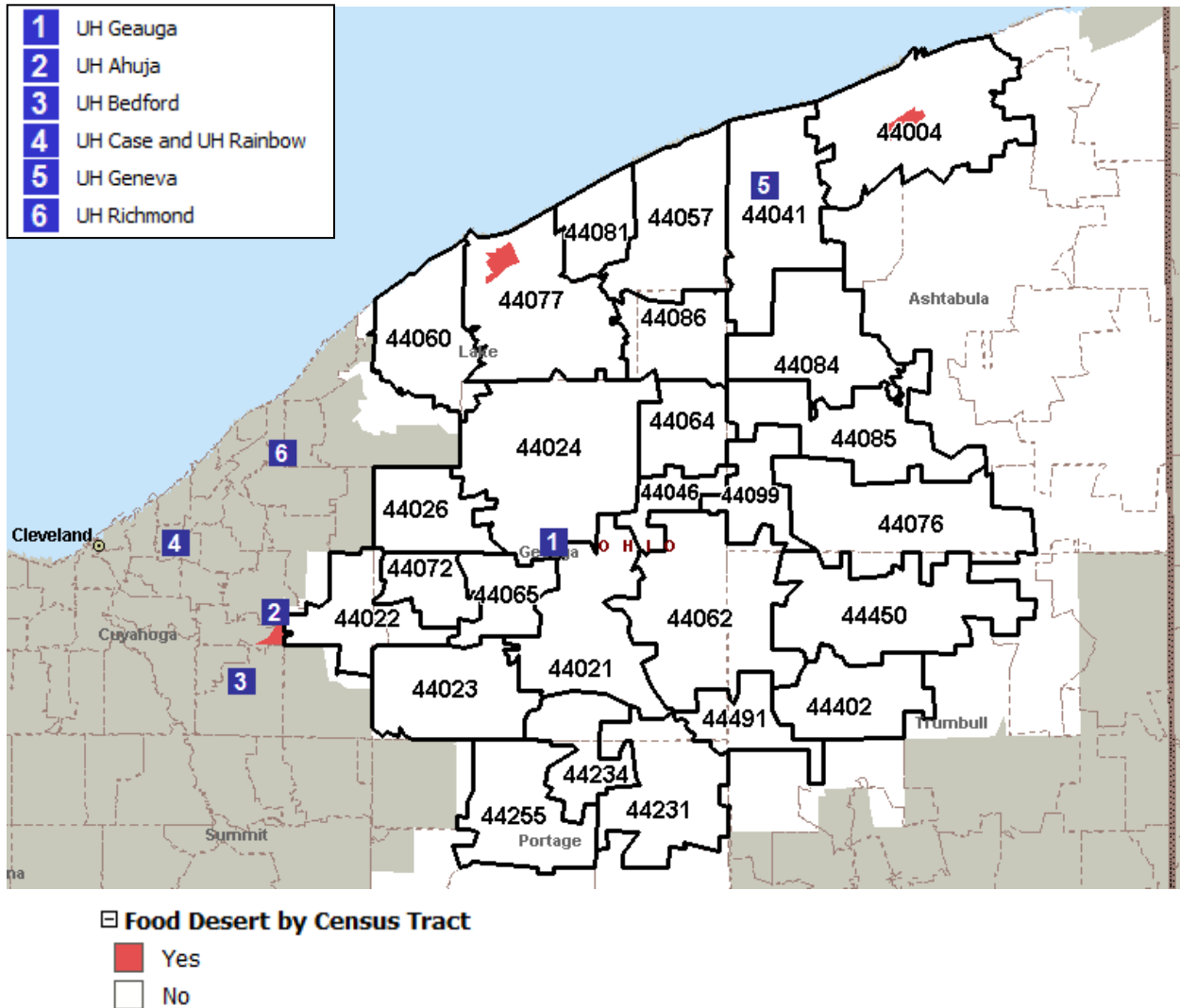
Sources: Microsoft MapPoint and Catholic Healthcare West *Community Needs Index*, 2011.

Within the UH Geauga Medical Center community, Ashtabula (ZIP code 44004) and Geneva (ZIP code 44041) had the highest CNI scores, indicating the greatest need. Bainbridge (ZIP code 44023), Chesterland (ZIP code 44026), Montville (ZIP code 44064) and Thompson (ZIP code 44086) had the lowest scores, indicating the lowest need (**Figure 15**).

U.S. Department of Agriculture: The USDA Economic Research Service has estimated the number of people in each census tract that live “more than 1 mile from a supermarket or large grocery store in urban areas and more than 10 miles from a

supermarket or large grocery store in rural areas.”⁸ Many government-led initiatives aim to increase the availability of nutritious and affordable foods to people living in these “food deserts.” **Figure 16** indicates the location of food deserts in the UH Geauga Medical Center community.

Figure 16: Location of Food Deserts by Census Tract



Sources: Microsoft MapPoint and U.S. Department of Agriculture, 2009.

F. Medically Underserved Areas and Populations

HRSA has calculated an Index of Medical Underservice (IMU) score for communities across the U.S. The IMU score calculation includes the ratio of primary medical care physicians per 1,000 persons, the infant mortality rate, the percentage of the population with incomes below the poverty level, and the percentage of the population older than

⁸ <http://www.ers.usda.gov/data/fooddesert/documentation.html>

64. IMU scores range from zero to 100 where 100 represents the least underserved and zero represents the most underserved.⁹

Any area or population receiving an IMU score of 62.0 or below qualifies for Medically Underserved Area (MUA) or Medically Underserved Population (MUP) designation. Federally Qualified Health Centers (FQHCs) may be established to serve MUAs and MUPs. Populations receiving an MUP designation include groups within a geographic area with economic barriers or cultural and/or linguistic access barriers to receiving primary care. When a population group does not qualify for MUP status based on the IMU score, Public Law 99-280 allows MUP designation if “unusual local conditions which are a barrier to access to or the availability of personal health services exist and are documented, and if such a designation is recommended by the chief executive officer and local officials of the State where the requested population resides.”¹⁰

Although Cuyahoga, Portage, and Trumbull counties all contain MUAs or MUPS, none are located within UH Geauga Medical Center’s service area ZIP codes.

G. Health Professional Shortage Areas

An area can receive a federal Health Professional Shortage Area (HPSA) designation if a shortage of primary care, dental care, or mental health care professionals is found to be present.

HPSAs can be: “(1) An urban or rural area (which need not conform to the geographic boundaries of a political subdivision and which is a rational area for the delivery of health services); (2) a population group; or (3) a public or nonprofit private medical facility.”¹¹

In the UH Geauga Medical Center community, areas and populations designated as HPSAs as of August 2011 include:

Ashtabula County

- Fifteen townships within Ashtabula County are designated as primary medical care HPSAs. These townships include: Andover, Cherry Valley, Colebrook, Dorset, Hartsgrove, Lenox, Morgan, New Lyme, Orwell, Richmond, Rome, Trumbull, Wayne, Williamsfield, and Windsor.
- The entire county and the low-income population of the county are designated as dental HPSAs.

⁹ Guidelines for Medically Underserved Area and Population Designation.” U.S. Department of Health and Human Services, Health Resources and Services Administration. <http://bhpr.hrsa.gov/shortage/muaguide.htm>.

¹⁰ *Ibid.*

¹¹ HRSA, Bureau of Health Professionals. “Health Professional Shortage Area Designation Criteria.” <http://bhpr.hrsa.gov/shortage/hpsacrit.htm>.

- The entire county is designated as a mental health HPSA.

H. Description of Other Facilities and Resources within the Community

The UH Geauga Medical Center community contains a variety of resources that are available to meet the health needs identified through this CHNA. These resources include facilities designated as HPSAs, hospitals, FQHCs, and other agencies and organizations.

In addition to areas and populations that can be designated as HPSAs, a facility can receive federal HPSA designation and a resultant, additional Medicare payment if it provides primary medical care services to an area or population group identified as having inadequate access to primary care, dental, or mental health professionals and service capacity.

Facilities in Ashtabula County have been designated as primary medical care, mental health, and dental HPSAs; however, no facilities in the UH Geauga Medical Center community are designated as HPSAs.

Although each county in the community contains at least one hospital, only seven hospitals are within UH Geauga Medical Center service area ZIP codes (**Table 21**).

Table 21: Information on Hospitals in the UH Geauga Medical Center Service Area ZIP Codes, 2011

County	Hospital Name	Town	Beds
Ashtabula	Ashtabula County Medical Center	Ashtabula	103
	Glenbeigh	Rock Creek	112
	UH Conneaut Medical Center	Conneaut	25
	UH Geneva Medical Center	Geneva	25
Gauga	Heather Hill Care Communities	Chardon	118
	UH Geauga Medical Center	Chardon	109
Lake	Lake Health	Concord	278

Sources: Ohio Directory of Registered Hospitals, Ohio Department of Health, 2011, CMS Impact File, 2012, American Hospital Directory, and hospital facility websites, 2011.

FQHCs were created by Congress to promote access to ambulatory care in areas designated as “medically underserved.” These clinics receive cost-based reimbursement for Medicare and also receive grant funding under Section 330 of the Public Health Service Act. FQHCs also receive a prospective payment rate for Medicaid services (based on reasonable costs).

Four FQHCs are located in Ashtabula and Portage counties. One facility, Andover Primary Care, in Ashtabula County is located within the UH Geauga Medical Center service area ZIP codes.

As of 2011, a range of other agencies and organizations are available in each county to assist in meeting health needs, including county health departments, mental health boards, and human services departments (**Table 22**).

Table 22: Other Agencies and Organizations in the UH Geauga Medical Center Service Area Counties, 2011

County	Organization/Agency
Ashtabula	Ashtabula County Health Department United Way of Ashtabula County
Geauga	Geauga County General Health District Geauga Board of Mental Health and Recovery Services United Way Services of Geauga County
Lake	Lake County General Health District United Way of Lake County
Portage	Health Department-Portage County Portage County Mental Health and Recovery Board United Way of Portage County

Source: Verité research.

I. Review of Other Recent Community Health Needs Assessments

Verité also considered the findings of other needs assessments published since January 2008. Five such assessments have been conducted in the UH Geauga Medical Center area.

1. Lake County Community Health Assessment

In January 2011, the Lake County General Health District published the 2011 Lake County Community Health Assessment¹² (LCCHA). The LCCHA was based on a 72 question survey that was administered both online and in person.

Key conclusions were:

- Over 60 percent of respondents agreed or strongly agreed that there are many available options for accessing health care in Lake County.
- Health problems believed most important in the county were adult obesity, drug addiction, mental health, child obesity, and aging problems.
- The majority of respondents, nearly 63 percent, chose alcohol and drug abuse as the most unhealthy behavior.

¹² *Lake County General Health District, The 2011 Lake County Community Health Assessment, September 2011.*
http://www.lcghd.org/Comm_Hlth_Assmt

- In order of importance, the major community issues that respondents believed impact quality of life are unemployment, affordable health services, low income/poverty, inadequate health insurance, and unsupervised youth/children.
- About 27 percent of females reported they had an unexpected pregnancy.
- About 22 percent of individuals between the ages of 18 and 53 mentioned they had problems accessing healthcare.
- About 23 percent of respondents stated that they were current smokers. African American males were most likely to be current smokers.

2. The Center for Community Solutions

In January 2010, the Center for Community Solutions published the *Northeast Ohio Family Health Program Needs Assessment Plan*.¹³ That report discussed demographic, economic, and public health indicators to assess challenges facing family planning services.

The assessment focused on Ashtabula, Cuyahoga, Geauga, Lake, and Lorain counties. Key findings were:

- In 2007, 44 percent of Ohio pregnancies that resulted in live births were unintended; this rate is higher than the national average and the Healthy People 2010 Goal for such births.
- About 43 percent of women were using contraception when they became pregnant.
- Unintended pregnancies were most common in African American women, young women under age 20, women with less than 12 years of education, unmarried women, and women who receive Medicaid.
- Nearly 11 percent of all live births in the five-county area and 19 percent of live births in Cleveland in Cuyahoga County were to teens.
- Nearly 9 percent of births in Ashtabula and Geauga counties were less than 18 months apart, the highest rate in the five-county area.
- Both the rate of births to low-weight babies and the rate of premature births have increased in the last ten years.

¹³ The Center for Community Solutions. *Northeast Ohio Family Health Program Needs Assessment Plan*. January 5, 2010. http://www.communitysolutions.com/assets/1/AssetManager/NA_Final%20010510.pdf

- Nearly 51 percent of female-headed households with children in 2007 were below the poverty level.
- Nearly 26 percent of women in Ashtabula County were Medicaid recipients in 2006. This compares to 22 percent statewide and 14 percent in the U.S.

The assessment also found other needs such as helping people with the administrative challenges associated with Title X funding and Medicaid Waivers, affordable contraceptives, greater access to public transportation, and better access to affordable primary and specialty care in rural counties.

3. The Center for Health Affairs

The Center for Health Affairs (CHA), a health care association in Cleveland, Ohio, sponsored and published a needs assessment of Northeastern Ohio in 2007.¹⁴ That assessment was updated by the recently published *Health Facts 2009*.¹⁵

Health Facts 2009 reviewed a range of healthcare related topics including demographics, health related behaviors, health status, affordability of healthcare, access to hospital facilities, and other topics.

Key findings included:

- Nearly 20 percent of Ohioans were obese; the percentage of Ohio residents classified as obese has been steadily increasing over the past 8 years.
- Nearly 28 percent of Ohioans smoked cigarettes. The highest use rate was among 18 to 24 year olds. Annual health care costs in Ohio directly caused by smoking were in excess of \$4 billion in 2007.
- People over the age of 65 and those with annual incomes under \$20,000 spent a greater percentage of their income on health.
- Wage increases have not kept up with increases in health insurance premiums over the last seven years.

The Center's 2007 report *Community Health Needs Analysis & Assessment Summary*,¹⁶ described the state of the region's population health, identified major health issues, and recommended necessary actions. Key findings included:

¹⁴ CHA defines "Northeastern Ohio" as Cuyahoga, Lorain, Medina, Ashtabula, Lake, Geauga, Erie, Huron, Ashland, Wayne, Summit, Portage, and Trumbull counties.

¹⁵ The Center for Health Affairs. *Health Facts 2009*. http://www.cure-path.com/NR/rdonlyres/AD4CABB2-0A6E-4015-A701-769900EC3881/1118/Health_Facts_20092.pdf

¹⁶ The Center for Health Affairs. *Community Health Needs Analysis & Assessment Summary*. <http://www.communitysolutions.com/images/upload/resources/Summary.pdf>

- In 2006, the proportion of adults who were overweight was 41 percent.
- About 27.8 percent of adults studied reported that they smoked cigarettes in 2003-2004, almost identical to the statewide rate.
- From 2003 to 2004, 15.5 percent of Northeast Ohio adults (more than 400,000) were without health insurance at some time in the previous year.
- In FY 2005, almost half of all children under age five and more than one in three school-aged children five to 18 were enrolled in Medicaid or SCHIP.

PRIMARY DATA ASSESSMENT

A. *Interview Findings*

This section discusses findings from 16 interviews conducted with external stakeholders (those not directly affiliated with UH) and internal staff (including UH employees and members of UH Geauga Medical Center medical staff).

The interviews sought community input on health needs in communities served by UH Geauga Medical Center and on the types of program interventions or resources that could address identified concerns.

Primary Issues

Stakeholders from the UH Geauga Medical Center community identified the following issues, which are ordered based on the frequency and intensity of responses:

- High rates of unemployment and underemployment have negatively impacted the community as evidenced by increasing levels of uninsurance and underinsurance, increased food insecurities, and increased homelessness and shared housing, such as merged households of seniors, adult children, and grandchildren.
- Lack of insurance and underinsurance have negatively impacted the community as evidenced by delays in seeking primary care, reduced compliance with prescription drug regimens because of affordability concerns, increased use of emergency departments for non-emergent care, and increased acuity when care is delivered.
- The recession has led the state of Ohio to reduce funding for health and social services and has reduced the ability of foundations to provide grants. These reductions along with the increased demand for services are creating significant stress upon health care providers and agencies.
- Substance addiction is significant, including the use of low cost heroin and misuse of prescription drugs by seniors and adolescents.
- Diseases associated with lifestyle behaviors are prevalent, such as obesity in adults and children, hypertension, cardiovascular diseases, and adult on-set diabetes.
- There is insufficient access to perinatal and labor-and-delivery services in rural counties. This issue was especially mentioned for Ashtabula and Geauga counties.
- Suicides have increased amongst all populations groups, including children and the elderly.

- Many community residents lack basic health knowledge, such as where to seek care for non-emergent issues and how to access public and private services available throughout the community.
- Injuries related to transportation, including horse and buggy accidents, are more common in rural areas due to increased mileage and smaller roads.
- Different groups have needs that differ from other populations, such as culturally appropriate care of the Amish community in Ashtabula and Geauga counties.
- Population aging is also leading to an increased demand for services.
- Many individuals who receive hospital services have greater discharge planning or support needs, such as elderly individuals who need greater assistance from social workers because they have no local caregivers.
- Teenage pregnancy, teenage tobacco use, and childhood obesity, combined with other unhealthy lifestyle choices, are prevalent in the service area.
- Children, especially uninsured children, have difficulty finding a medical home because of the lack of pediatricians in certain communities. This issue is particularly true in Lake County.
- Low reimbursement rates of government payers negatively impact providers' abilities to participate in Medicare and Medicaid and to provide uncompensated care.
- Little integration and coordination exist between medical and mental/behavioral health services that impact the overall health of individuals, such as the physical side effects of psychotropic medications.
- Enhanced data collection efforts, such as over-sampling minority populations, may be necessary to measure fully the needs of minority community members, such as homelessness.

Barriers to Access

The most frequently mentioned barriers to accessing care, as ordered by frequency or intensity of responses, are as follows:

- Decreased insurance coverage, increasing numbers of high deductible health plans, and reductions in prescription drug coverage, mental health coverage, and dental coverage have decreased the affordability of services.
- Community residents are not fully aware of the breadth and depth of services provided by local hospitals and community organizations.

- Clinicians and social service providers are not fully aware of the services provided by other organizations.
- Services are not effectively promoted to some members of the community in messages targeted to specific populations, such as printed pamphlets for individuals without internet access.
- The service area lacks all forms of mental health services and has a limited number of psychiatrists to serve the community's mental health needs. Lake County, in particular, lacks mental health and behavioral health services for children and their families.
- Most health service organizations describe themselves as operating at capacity; most lack the resources needed to bring on additional staff.
- Access to health care professionals is not available at convenient times or locations in parts of the community.
- The service area lacks primary care physicians, home health care services, and an adequate supply of nurses.
- Inadequate supportive transportation exists for certain groups, specifically individuals who are elderly, disabled, and/or low-income. Additionally, transportation can be an issue for Amish populations in Ashtabula and Geauga counties.
- Time constraints limit the ability of clinicians and social service providers to deliver the ideal intervention for every encounter.
- Available community services are not fully utilized because (1) individuals seek services from providers that they perceive are supportive to their own group-identity and (2) providers are not promoting their services to diverse populations.
- The elderly have physical limitations that impact their mobility and access to care.
- The elderly stigmatize mental and behavioral health services and are reluctant to seek such care despite increasing needs.
- Service area residents lack access to affordable prescription medication, nutritional education, and exercise equipment or instruction.
- Lack of integration between health records increases the time required to receive necessary care.
- There is an inadequate supply of occupational, speech, and physical therapists. This issue was especially noted in Lake County.

Suggested Programs

Interviewees indicated that the following types of programs and initiatives would improve community health:

Collaboratives

- Establish new and enhance current collaborative efforts with diverse community organizations, including local governments, non-profit organizations, churches, community centers, and schools, to improve access to primary care, increase physical activity, foster programs for at-risk youth, and decrease the incidence and severity of adult and child obesity, diabetes, cardiovascular disease, pneumonia, hypertension, and mental/behavioral health needs;
- Partner with philanthropic organizations to receive matching funds for the development of a coordinated health information technology network;
- Provide technical support to smaller organizations, such as rural public health departments, to help these organizations better compete for grants; and
- Facilitate communication across the health care system, from EMS to nursing homes, including linkages between different electronic medical record systems.

Health Care Services

- Assist patients with navigating the health care system, including financial issues and advocacy efforts;
- Establish a fast track in emergency departments for treatment of minor conditions;
- Support existing and additional low- or no-cost providers, such as free clinics;
- Expand mental health services to provide additional services following acute hospitalizations;
- Increase the availability of residential treatment programs for mental/behavioral health, include treatment for eating disorders, autism, sex-offenders, and transitional-aged youth (18-24);
- Reduce the out-of-pocket costs for preventive care, such as vaccinations and blood glucose test strips;
- Increase integrative programs for individuals with complex needs, such as special needs children; and

- Develop programs that respond to the needs of populations that may be less likely to receive supporting services, such as older teens, adult men, and individuals that were recently incarcerated.

Educational, Promotional, and Marketing Efforts

- Expand health screenings and educational services in local settings, such as health fairs, that focus on diabetes, hypertension, high cholesterol, cigarette use, alcohol and drug use, obesity, nutrition, physical activity, and mental/behavioral health;
- Promote medical services available at local hospitals and other providers to community residents to reduce travel to downtown Cleveland when these services are available within the community;
- Develop more effective educational programs for adults and children to increase health literacy, including appropriate use of EDs;
- Encourage individuals to adopt healthy lifestyles and receive immunizations;
- Support education for parenting (and grandparenting) skills; and
- Utilize multiple types of media to distribute educational programs, including printed materials on healthy lifestyles targeted to individuals without internet access.

Operational Initiatives

- Establish electronic health records in order to better treat diseases and report public health data;
- Recruit and possibly employ additional primary care physicians;
- Prepare for newly-insured individuals when coverage under PPACA begins in 2014;
- Train staff members about the culturally appropriate care needs of vulnerable populations; and
- Focus activities on making people healthier, including greater emphasis on preventive activities.

B. Community Input

Sixteen key stakeholders participated in the interview process through individual interviews with non-profit, governmental, public safety, school, and hospital representatives. These stakeholders represented organizations that serve or have

specific knowledge about the health and human services needs of the community served by UH Geauga Medical Center.

The 16 stakeholders were comprised of public health experts; individuals from health or other departments and agencies; leaders or representatives of medically underserved, low-income, and minority populations; and other community members (**Tables 23, 24, 25, 26**).

Stakeholders often fell into multiple groups. Many public health experts were from health or other departments or agencies, and were also considered leaders or representatives of medically underserved, low-income, and minority populations. These public health experts do not appear on multiple lists.

1. Identification of Public Health Experts

Individuals interviewed with special knowledge of or expertise in public health include (**Table 23**):

Table 23: Public Health Experts Interviewed (Part I)

Name	Title	Affiliation	Special Knowledge/Expertise
Lee Elmore	Executive Director	North Coast Health Ministry	As Executive Director of a North Coast Health Ministry, Ms. Elmore has special knowledge of the uninsured patients to whom the clinic provides services.
Ron Graham, MPH, RD, LD	Director, Community Services & Deputy Health Commissioner	Lake County General Health District	Mr. Graham has expertise with the public health needs of Lake County residents.
Frank Kellogg, RS, MPH	Health Commissioner	Lake County General Health District	Mr. Kellogg has expertise with the public health needs of Lake County residents.
Chris Kettunen, PHD, RNCIC	Director of Nursing	Ashtabula County Health Department	Dr. Kettunen has expertise with the public health needs of Ashtabula County residents.
Dan Mix, MA, MPH	Personal Health Services Director	Geauga County General Health District	Mr. Mix has expertise with the public health needs of Geauga County residents.
Christine Pintchuk, RN	Nursing Director	Geauga County General Health District	Ms. Pintchuk has expertise with the public health needs of Geauga County residents.
Raymond J. Saporito, MPH, RS	Health Commissioner	Ashtabula County Health Department	Mr. Saporito has expertise with the public health needs of Ashtabula County residents.
Robert Weisdack, RS, MA, MPH	Health Commissioner	Geauga County General Health District	Mr. Weisdack has expertise with the public health needs of Geauga County residents.

2. Identification of Health or Other Departments or Agencies

Several interviewees were from departments or agencies with current data or other information relevant to the health needs of the UH Geauga Medical Center community (Table 24). This list excludes interviewees considered to be public health experts.

Table 24: Individuals from Health Departments or Agencies Interviewed

Name	Title	Affiliation
Tonnie Alliance	Manager of Special Events	American Diabetes Association
Angela C. Dawson, MS, MRC, LPC	Executive Director	Ohio Commission on Minority Health
Joann Mraz	Educational Program Director	American Diabetes Association

3. Identification of Community Leaders and Representatives

The following individuals were interviewed because they are considered leaders or representatives of medically underserved, low-income, and minority populations (Table 25). This list excludes interviewees considered to be public health experts.

Table 25: Community Leaders or Representatives Interviewed

Name	Title	Affiliation	Nature of Leadership Role
Tonnie Alliance	Manager of Special Events	American Diabetes Association	Ms. Alliance serves as a representative of community members with diabetes.
Angela C. Dawson, MS, MRC, LPC	Executive Director	Ohio Commission on Minority Health	Ms. Dawson represents the minority populations receiving health services in Ohio.
Jeffrey A. Lox, MSSA, LISW-S, ACSW	Clinical Director	Bellefaire JCB	Mr. Lox represents the children, adolescents, and families who receive services through Bellefaire JCB's counseling program, school for autism, and residential treatment facility.
Joann Mraz	Educational Program Director	American Diabetes Association	Ms. Mraz serves as a representative of community members with diabetes.

4. Identification of Other Persons Representing the Broad Interests of the Community

Table 26: Other Interviewees Representing the Broad Interests of the Community

Name	Title	Affiliation
Dan Ellenberger, CCEMT-P NREMT-P EMS-I	Director	UH EMS Training & Disaster Preparedness Institute
Judah Friedman, MD	Medical Director, Oncology	UH Geauga Seidman Cancer Center and UH Landerbrook Seidman Cancer Center
M. Steven Jones	President	UH Geauga Medical Center
Philip C. Mazanec, MBA	Chief Operating Officer	The Center for Health Affairs

PRIORITIZATION PROCESS AND CRITERIA

This assessment considers secondary and primary data including health status and access indicators, demographic information, previous needs assessments, and interviews. Verité applied a ranking methodology to help prioritize the community health needs identified by these data. Verité generated a list of every health issue identified by the assessment and assigned a severity score on a scale of 0 to 2, with “2” indicating that the problem was severe, as indicated, for example, by a prevalence that greatly exceeded Ohio or U.S. averages. The average severity score was calculated for each category of data (secondary data, interviews) in order to account for the number of sources that measured each health issue. These averages were assigned a weight (55 percent and 45 percent respectively). A final score was calculated by summing the weighted averages. **Table 27** illustrates the prioritization process for three indicators using Ashtabula County data.

Table 27: Example Prioritization Process by Data Source and Indicator, Ashtabula County

Data Source	Teen Pregnancy	Smoking	Drug Use
County Health Rankings	-	2	-
Community Health Status Indicators Project	0	-	-
Ohio Public Health Data	1	-	-
Healthy People 2010	-	-	-
Behavioral Risk Factor Surveillance Survey	-	1	-
Previous Assessments	1	1	-
Secondary Data - Weighted Average (55%)	0.37	0.73	0.00
Interviews	1	2	2
Interviews - Weighted Average (45%)	0.45	0.9	0.9
Final Score	0.82	1.63	0.90

Source: Verité analysis.

For UH Geauga Medical Center, primary and secondary data from Ashtabula, Geauga, Lake, and Portage counties were analyzed. It is important to note that all health issues were not measured by all sources. For example, infant mortality was only measured by six out of eight sources (**Table 27**). Using the process described above, any health issue with a final score of 0.9 or higher was determined to be a priority health need in the UH Geauga Medical Center community. The cutoff point of 0.9 was chosen because this final score allows for the inclusion of a health issue that were measured only in one source (such as interviews) AND identified as a “severe” need (score of 2.0) in that source. These parameters take into account both the severity scores for each health issue and the number of sources that measure each issue.

ASSESSMENT SUMMARY

UH Geauga Medical Center assessed the health needs of the community it serves. The assessment considered multiple data sources, including secondary data (regarding demographics, health status indicators, and measures of health care access), assessments prepared by other organizations in recent years, and primary data derived from interviews with persons who represent the broad interests of the community and those with expertise in public health. The following summary of findings is based on the methodology and analytic methods described in this report:

- UH Geauga Medical Center's service area is comprised of 27 ZIP codes that in 2010 were home to 344,974 persons. The service area extends into six counties: Ashtabula, Cuyahoga, Geauga, Lake, Portage, and Trumbull.
- The population of the hospital's service area is expected to increase by 0.5 percent between 2010 and 2015.
- The population 65 years of age and older is expected to grow between 2010 and 2015, yielding an increased demand for health services. The towns of Novelty and Chesterland had the highest proportion of residents 65 years of age or older.
- Ashtabula County had a higher poverty rate than the national or state average in 2009. Ashtabula County also had a higher rate of unemployment than that experienced by the state or nation in August 2011.
- Seventeen percent of households in the UH Geauga Medical Center service area had incomes less than \$25,000. The towns of Ashtabula, Orwell, and Geneva reported the greatest incidence of lower income households in 2010.
- Medicaid recipients were concentrated in the towns of Ashtabula, Orwell, and Geneva; uninsured discharges were most prevalent in the towns of Middlefield and Windsor.
- The UH Geauga Medical Center community was less diverse than the 15-county region with three percent of the population being African American, compared to 15 percent in the 15-county region.
- Portage County contained Medically Underserved Areas (MUAs) or Medically Underserved Populations (MUPS). However, no MUAs or MUPS were located within UH Geauga Medical Center's service area ZIP codes.
- Areas and facilities within Ashtabula County were designated as Health Professional Shortage Areas (HPSAs); no facilities were designated as HPSAs in the UH Geauga Medical Center community.
- One FQHC, Andover Primary Care in Ashtabula County, is located within the UH Geauga Medical Center service area.

- Available health status indicators suggested that health care needs vary across the four service area counties analyzed in this report:
 - **Ashtabula County** had several significant health status problems identified with infant mortality and cancer as the most visible issues. Ashtabula County compared unfavorably across the following indicators: white and black non-Hispanic infant mortality, infant mortality, post neonatal infant mortality, neonatal infant mortality, prenatal care, coronary heart disease, and breast, colon, lung, and cervical cancers. The county compared unfavorably in all socioeconomic indicators including education, employment, income, and family and social support. It also ranked unfavorably in community safety, air quality, diet and exercise, smoking, access to care, and quality of care. The county had comparatively high rates of mortality, child mortality (1-14), child motor vehicle crash mortality, and suicide. High rates of smoking, unsafe sex practices, cardiovascular disease, and diabetes were also present. Residents reported poor mental, dental, and physical health in Ashtabula County.
 - **Geauga County** compared favorably overall to other counties in the 15-county region. It compared unfavorably for births to women age 40-54, prenatal care, child motor vehicle crash mortality, chronic liver and cirrhosis deaths, suicide, individuals overweight, and alcohol use. Residents also reported not receiving needed emotional and social support.
 - **Lake County** compared unfavorably in two maternal and child health indicators: the proportion of births to women age 40-54 and black non-Hispanic infant mortality. The county also compared unfavorably for the rates of lung cancer, breast cancer, coronary heart disease, CLRD, chronic liver and cirrhosis mortality, individuals overweight, and suicide. Lake County ranked in the bottom two quartiles of Ohio counties for smoking, alcohol use, access to care, and air quality.
- Across the UH Geauga Medical Center service area counties, about 12 percent of 2010 discharges were found to be Ambulatory Care Sensitive (ACS) or potentially preventable if patients were accessing primary care resources at optimal rates.
- Nearly 11 percent of UH Geauga Medical Center's discharges were found to be ACS.
 - UH Geauga Medical Center's ACS discharges were clustered in two conditions: congestive heart failure and bacterial pneumonia.
 - About 69 percent of UH Geauga Medical Center's ACS discharges were for persons 65 years of age or older.

- In addition to reflecting themes indicated by the quantitative data, analysis of interview data identified the following community health concerns:
 - Increased levels of uninsurance and underinsurance, homelessness and shared housing, and food insecurities;
 - Delays in residents seeking primary care, reduced compliance with prescription drug regimens, increased use of emergency departments for non-emergent care, and increased acuity when care is delivered;
 - Access to primary care for low-income and uninsured consumers, especially preventive care and prenatal care;
 - Reductions in funding for health and social services;
 - Prevalence of health disparities, especially in the low-income African American population;
 - Limited access to and affordability of mental and behavioral health resources, prescription drugs, and dental coverage;
 - A lack of primary care physicians and specialists;
 - A lack of perinatal and labor-and-delivery care; and
 - Provision of culturally appropriate care to the Amish.

Interviewees also suggested that enhanced health education and outreach for consumers with multiple chronic conditions is a priority. Health education and outreach that focused on preventive care, healthy behaviors, and parenting skills could improve the overall health of the community. Interviewees advocated for greater partnerships and collaboration between hospital and community organizations to increase access, coordinate services, and improve outreach.