



## 2015 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 this is done 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 this 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 Ahuja Medical Center (UH Ahuja Medical Center). UH Ahuja Medical Center – the first new stand-alone hospital in Cuyahoga County in 30 years – opened its doors in 2011. The 53-acre health care campus in Beachwood, Ohio, features a 144-bed hospital, and a 60,000-square-foot outpatient medical building. The hospital offers an array of inpatient and outpatient medical and surgical services including adult and pediatric emergency 24/7, pediatric outpatient surgery, intensive care services, and traditional, minimally invasive and robot-assisted surgery.

UH Ahuja 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.

Adopted by the UH Board of Directors  
September 24, 2015.

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## INTRODUCTION TO REPORT

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This report identifies and assesses community health needs in the areas served by UH Ahuja Medical Center in accordance with regulations promulgated by the Internal Revenue Service pursuant to the Patient Protection and Affordable Care Act (ACA), 2010. This CHNA was adopted by the UH Board of Directors on September 24, 2015.

This is the second UH Ahuja Medical Center community health needs assessment (CHNA) in response to that federal government regulation.<sup>1</sup> The 2015 UH Ahuja Medical Center CHNA 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 hospital's service area.

**Objectives:** 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 hospital 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, some primary (survey of market area residents, hospital discharge data) and some secondary (regarding demographics, health status indicators, and measures of health care access).

This UH Ahuja Medical Center CHNA took into account input from persons representing the broad interests of the community through both a randomized mail survey of households in service area counties, and a series of mail surveys and in-person interviews with community leaders. Community leaders from the Cuyahoga County Board of Health offered their analysis based on their work as local governmental public health agencies. Participating community leaders provided input into the prioritization of significant health needs.

This report addresses the following broad topics:

- Demographics of UH Ahuja Medical Center's market areas;
- Economic issues facing the hospital's market areas (e.g., poverty, unemployment);
- Community issues (e.g., 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 (ACS) discharges, and use of emergency departments);
- Health disparities indicators; and
- Availability of health care facilities and resources.

<sup>1</sup>UH Ahuja Medical Center followed the 2013 Proposed Regulations, published by the Treasury Department and IRS on April 5, 2013, in the Federal Register (REG-106499-12, 2013-21 I.R.B. 1111, [78 FR 20523]), in accordance with Notice 2014-2 that confirms that hospital organizations can rely on proposed regulations under section 501(r) of the Internal Revenue Code issued on June 26, 2012, and April 5, 2013, pending the publication of final regulations or other applicable guidance. The final rule entitled "Additional Requirements for Charitable Hospitals' Community Health Needs Assessments for Charitable Hospitals"; Requirement of a Section 4959 Excise Tax Return and Time for Filing the Return, was published by the IRS on December 31, 2014, and requires compliance after December 29, 2015.

## EXECUTIVE SUMMARY

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### UH Ahuja Medical Center by the Numbers

- Five service area counties: Cuyahoga, Geauga, Lake, Portage, Summit
- Service area population, 2013: 585,600
- 55% of community population lives in Cuyahoga County
- 42.3% of inpatient discharges originate from the Primary Service Area
- 5% of community discharges were for patients with Medicaid; 2% were for uninsured patients
- 30.7% of Cuyahoga County households with incomes <\$25,000
- Cuyahoga, Summit and Portage Counties, are growing older, on average
- Cuyahoga County is majority White, but the percentage of the population that is White decreased by 1% from 2010 to 2013; Black is the dominant minority race in Cuyahoga County (29.7% of the total population in 2013)
- There exists a wide range of health status and access challenges across the community

This assessment focuses on the priority problems that impact the overall health of the UH Ahuja Medical Center Community.

UH Ahuja Medical Center's service area extends into five counties: Cuyahoga, Geauga, Lake, Portage and Summit. Key findings from analyses of that population 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.

From 2010 to 2013 the average (median) income decreased by 4.6% in Cuyahoga County, 2% in Summit County and 3.7% in Portage County. Cuyahoga County, Summit County and especially Portage County, saw modest increases in the proportion of economically vulnerable citizens and families from 2010 to 2013.

The proportion of households living below the poverty line increased by 1.3 percentage points (from 13.1% to 14.4%) from 2010 to 2013 in Cuyahoga County and 1.2 percentage points (from 10.1% to 11.3%) in Summit County. Portage County saw a greater increase in the proportion of families living beneath the poverty line (up 2.5 percentage points to 11.0%) from 2010 to 2013.

For UH Ahuja Medical Center, 22.7% of discharges were ACS discharges of residents within the market areas combined. This may signal lower availability or access to primary care within the total market area. In 2013, the most common primary ACS diagnoses for UH Ahuja Medical Center's discharged patients were congestive heart failure (5.7%), bacterial pneumonia (4.8%) and kidney/urinary infections (2.8%). Chronic obstructive pulmonary disease was also among the more common primary ACS diagnoses (2.2%). One-fourth (24.4%) of discharged patients in 2013 were diabetic and one in two (51.5%) had a primary or secondary diagnosis of hypertension.

## Priority Health 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.

After careful analysis of both qualitative and quantitative data, UH Ahuja Medical Center identified four categories of health needs that impact the community served by the hospital. These include (not listed in a specific order):

### 1. Health Disparities

- Aging population
- High rate of poverty
- High rate of unemployment
- Infant mortality/preterm births

### 2. Access Barriers

- High cost of care
- Access to primary care providers

### 3. Lifestyle Barriers

- Obesity
- Substance abuse (tobacco, drugs, alcohol)
- Violence

### 4. Chronic Disease Conditions

- Cardiovascular diseases
- Respiratory diseases
- Diabetes
- Kidney Disease
- Alzheimer’s
- Gonorrhea
- Mental Health
  - Older adult depression
  - Mental illness

From this list of health needs, UH Ahuja Medical center selected three chronic disease conditions as the hospital’s primary priorities for this CHNA. Those include:

1. Cardiovascular diseases
2. Respiratory diseases
3. Diabetes

These conditions are highly prevalent throughout UH Ahuja Medical Center’s service area and are directly related to a number of the access barriers and lifestyle barriers that were also identified as community health needs. UH Ahuja Medical Center’s anticipated approach to an implementation strategy will incorporate strategies that will address access and lifestyle barriers, including obesity, substance abuse, and access to primary care that related directly to these disease conditions.

## CHNA Collaboration

UH Ahuja Medical Center worked closely with The Center for Health Affairs and Cypress Research Group to complete the data assessment and summary portions of the 2015 CHNA. University Hospitals Health System, Inc. retained The Center for Health Affairs to assist in data collection and analysis to ensure the entire community served by the hospital was captured. The Center for Health Affairs is the leading advocate for Northeast Ohio hospitals. The Center advocates on behalf of 34 hospitals in six counties. Cypress Research Group provides custom research services to meet various market and business research needs. More information about The Center for Health Affairs and Cypress Research Group is provided in the Appendix.

## DESCRIPTION OF PROCESS AND METHODS

### A. Definition of Market Area (Community Served by the Hospital)

UH Ahuja Medical Center is located in the Chagrin Highlands area in the city of Beachwood in Cuyahoga County, Ohio. UH Ahuja Medical Center's market areas lie within five counties in Northeast Ohio, as illustrated in [Figure 1: UH Ahuja Medical Center Market Areas](#).

Illustrated in [Table 1: UH Ahuja Medical Center Market Areas](#), the majority of UH Ahuja Medical Center's 2013 discharges were for residents of Cuyahoga County (55.0%). In 2013, 10.6% of patient discharges were residents of Summit County. UH Ahuja Medical Center's market area includes 27 municipalities (nine in its primary market area, 13 in its secondary market area, and five in its tertiary market area) and includes part of five different counties.

[Table 2: UH Ahuja Medical Center: Hospital Discharges – Primary and Secondary Market Areas](#) shows that in 2013, UH Ahuja Medical Center had 6,667 discharged patients. Of those, 2,822 were from the hospital's primary (42.3%) market, 1,913 (28.7%) were from the secondary market, and 284 (4.2%) were from its tertiary market. One in four (24.7%) discharged patients in 2013 were from outside of UH Ahuja Medical Center's market area.

In 2014, UH Ahuja Medical Center had 36,807 visits to the emergency room; 50.6% were residents from the hospital's primary market area, 26.9% were residents from its secondary market area, and 1.6% were residents from its tertiary market area, shown in [Table 3: UH Ahuja Medical Center: Emergency Room Visits – Primary, Secondary and Tertiary Market Areas](#). One in five (20.9%) were from outside of UH Ahuja Medical Center's market area.

UH Ahuja Medical Center's emergency department draws patients from a large number of different communities to the east and south of Cleveland. The largest number of emergency room visits from a single ZIP code were for residents of Cranwood Station (Warrensville Heights/Cleveland) (44128) (5,169 or 14% of all emergency room visits) and Beachwood (44122) (4,370 or 11.9% of all emergency room visits). No municipality (ZIP code) dominates in terms of the proportion of visitors to UH Ahuja Medical Center's emergency department.

### County Health Rankings

The Robert Wood Johnson Foundation produces an annual report that ranks counties in Ohio based on two major indices of population health: health outcomes (length and quality of life) and health factors (clinical care, health behaviors/alcohol and drug use, social/environmental factors and physical environment). A rank of "1" is the best, "88" is the worst in the state of Ohio. While UH Ahuja Medical Center's market area does not include all of Cuyahoga County, Summit County or Portage County, it does include a significant portion of them. Therefore, understanding where these counties as a whole rank in Ohio, in terms of health, is useful.

[Table 4: Cuyahoga, Summit and Portage County Health Rankings](#) shows that on the whole, Cuyahoga County achieves moderately low ranks, compared to other Ohio counties, in terms of health outcomes (65 out of 88 counties) or health factors (50 out of 88 counties). Regarding health outcomes, Cuyahoga ranks more positively for length of life (rank of 51) than quality of life (rank of 72). In terms of health factors, Cuyahoga County ranks the highest in clinical care (rank of 6) and to a lesser degree health behaviors (rank of 36). Cuyahoga County is among the lowest ranking counties in Ohio in terms of social and economic factors (rank of 78) and physical environment (rank of 68).

Summit County, relative to Cuyahoga County, shows better health factor ratings. Summit County ranks 42 out of 88 counties in terms of health outcomes and 36 out of 88 counties in terms of health factors. Regarding length of life (rank of 40) and quality of life (rank of 53), Summit County compares favorably to Cuyahoga County. In terms of health factors, Summit County ranks the highest in health behaviors (21 out of 88 counties) and clinical care (24 out of 88 counties), and only moderately well on social and economic factors (rank of 48). Physical environment is where Summit County ranks lower than Cuyahoga County (82 out of 88 counties) and is one of the weakest counties in Ohio. Summit County is among the weakest counties in the state in terms of air pollution and drinking water violations.

Of the three counties examined here, Portage County has the most favorable rankings. Portage County ranks 17 out of 88 counties in terms of health outcomes and 33rd on health factors. Portage County ranks higher on length of life (rank of 16) than quality of life (rank of 22), but both rank far higher than Cuyahoga and Summit counties. Regarding health factors, Portage County's relative strengths are social and economic factors (rank of 28) and health behaviors (rank of 28). Portage County's ranking in terms of clinical care is moderately strong, but ranked less favorably compared to Cuyahoga and Summit counties. Portage County has a low ranking on physical environment (rank of 81) compared to other Ohio counties.

To better identify areas of greatest need, health rankings were further explored through data available at the Centers for Disease Control and Prevention (CDC, U.S. Department of Health and Human Services), which also compiles health-related population statistics. Shown in [Table 4: Cuyahoga, Summit and Portage County Health Rankings](#), the CDC identified several areas in which counties compared unfavorably to their peer counties (which closely match each county in terms of demographic and physical factors).

Cuyahoga County compares unfavorably to its peer counties in terms of coronary heart disease deaths and cancer deaths. Cuyahoga County also has higher-than-expected incidences of Alzheimer's disease, gonorrhea, older adult asthma and preterm births.

Summit County is either on par or doing better than its peer counties in terms of all mortalities reported by the CDC. Summit County does have higher-than-expected incidences of Alzheimer's disease, older adult asthma, older adult depression and preterm births.

Portage County compares unfavorably to its peer counties on many mortality measures: cancer, chronic lower respiratory disease, diabetes and stroke deaths. Like Cuyahoga and Summit counties, Portage County has a higher-than-expected rate of Alzheimer's disease/dementia and preterm births. Older adult depression is unusually prevalent in Portage County, as is adult obesity.

Shown in Table 5: Cuyahoga, Summit and Portage Counties: Higher Compared to Peer Counties Mortality and Morbidity Rates, the CDC also found that Cuyahoga, Summit and Portage Counties compare unfavorably to their peer counties in the U.S. in terms of the incidence of preventable hospitalizations for older adults. Portage County also appears to have weaker-than-expected access to primary care providers.

FIGURE 1: UH AHUJA MEDICAL CENTER MARKET AREAS

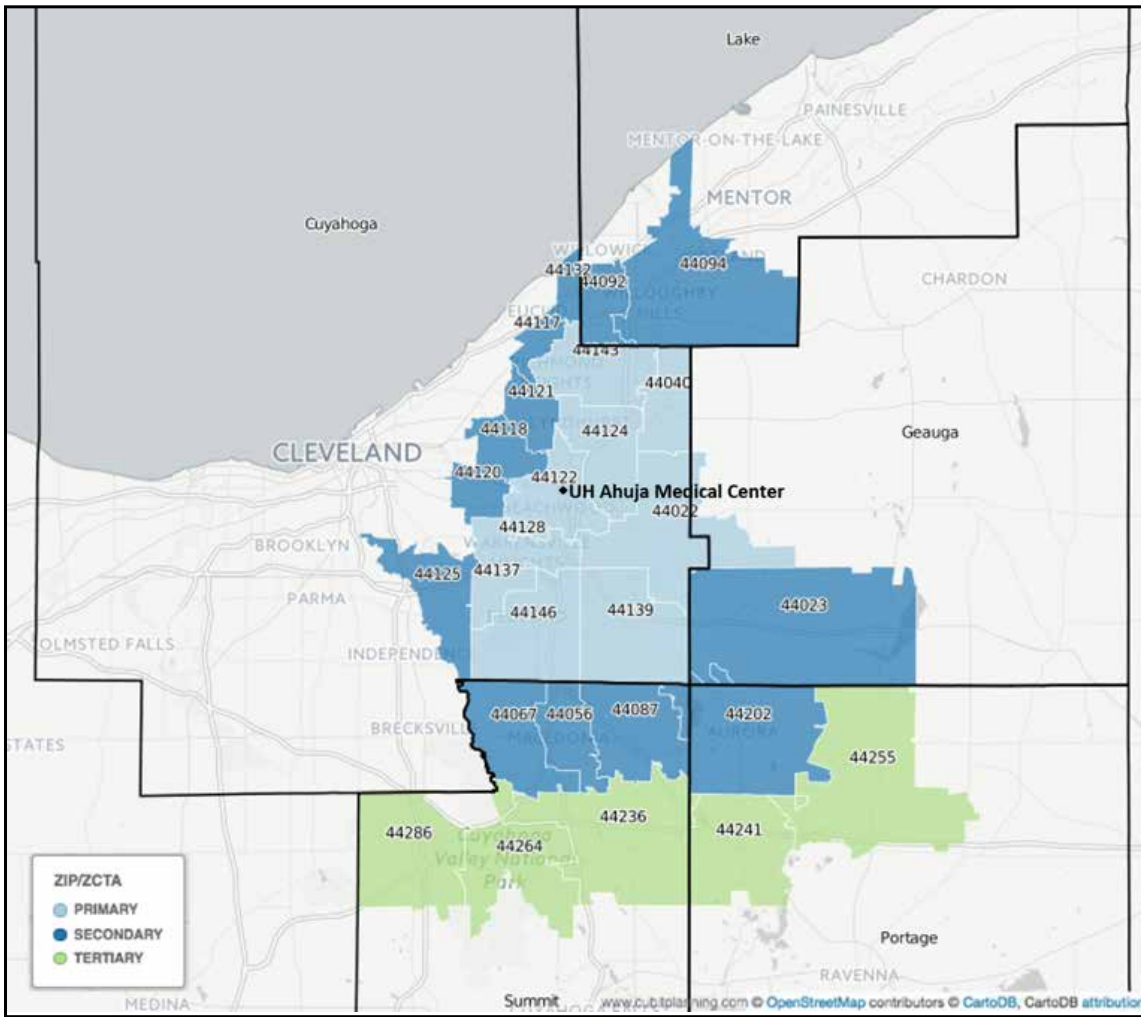


TABLE 1: UH AHUJA MEDICAL CENTER MARKET AREAS

		Number of Discharges, 2013	Percent Of All Discharges, 2013
Cuyahoga County	Primary and Secondary Markets	3,670	55.0%
Gauga County	Secondary Market	177	2.7%
Lake County	Secondary Market	78	1.2%
Portage County	Secondary & Tertiary Markets	385	5.8%
Summit County	Secondary & Tertiary Markets	709	10.6%
<b>Total Market Area</b>		<b>5,019</b>	<b>75.3%</b>
Out of Market		1,648	24.7%
<b>Total</b>		<b>6,667</b>	<b>100.0%</b>



TABLE 2: UH AHUJA MEDICAL CENTER: HOSPITAL DISCHARGES – PRIMARY AND SECONDARY MARKET AREAS

Primary Market Area	Municipalities & ZIP Codes	Number/percent of UH Ahuja Medical Center Discharges* (2013)		2013 Population (American Community Survey, U.S. Census Projection)**	
		Number	Percent	Number	Percent
Cuyahoga County	Lyndhurst/Mayfield (44124)	467	7.0%	37,971	6.5%
	Beachwood (44122)	726	10.9%	34,654	5.9%
	Bedford (44146)	307	4.6%	29,676	5.1%
	Cranwood Station (44128)	442	6.6%	29,667	5.1%
	Solon (44139)	331	5.0%	24,154	4.1%
	Richmond Heights (44143)	135	2.0%	24,044	4.1%
	Maple Heights (44137)	154	2.3%	23,080	3.9%
	Chagrin Falls (44022)	229	3.4%	16,655	2.8%
	Gates Mills (44040)	31	0.5%	3,191	0.5%
<b>Subtotal Primary Market</b>		<b>2,822</b>	<b>42.3%</b>	<b>223,092</b>	<b>38.0%</b>
<b>Secondary Market Area</b>					
Cuyahoga County	Cleveland Heights (44118)	243	3.6%	39,767	6.8%
	Shaker Heights (44120)	292	4.4%	36,313	6.2%
	South Euclid (44121)	183	2.7%	33,252	5.7%
	Garfield Heights (44125)	77	1.2%	28,633	4.9%
	Euclid (44132)	27	0.4%	14,883	2.5%
	Euclid (44117)	26	0.4%	10,367	1.8%
Summit County	Northfield (44067)	154	2.3%	20,457	3.5%
	Twinsburg (44087)	302	4.5%	20,030	3.4%
	Macedonia (44056)	120	1.8%	11,326	1.9%
Lake County	Willoughby (44094)	44	0.7%	35,334	6.0%
	Wickliffe (44092)	34	0.5%	16,754	2.9%
Portage County	Aurora (44202)	234	3.5%	19,598	3.3%
Geauga County	Bainbridge (44023)	177	2.7%	17,374	3.0%
<b>Subtotal Secondary Market</b>		<b>1,913</b>	<b>28.7%</b>	<b>304,088</b>	<b>51.9%</b>
<b>Tertiary Market Area</b>					
Summit County	Hudson (44236)	121	1.8%	25,277	4.3%
	Richfield (44286)	7	0.1%	5,942	1.0%
	Peninsula (44264)	5	0.1%	2,571	0.4%
Portage County	Streetsboro (44241)	129	1.9%	16,214	2.8%
	Mantua (44255)	22	0.3%	8,416	1.4%
<b>Subtotal Tertiary Market Area</b>		<b>284</b>	<b>4.2%</b>	<b>58,420</b>	<b>9.9%</b>
Other Market		1,648	24.7%		
<b>Total</b>		<b>6,667</b>	<b>100%</b>	<b>585,600</b>	

\*OHA hospital discharge data, 2013

\*\*Source: U.S. Census, American Community Survey, 2010 Decennial projection to 2013

TABLE 3: UH AHUJA MEDICAL CENTER: EMERGENCY ROOM VISITS – PRIMARY, SECONDARY AND TERTIARY MARKET AREAS

Primary Market Area	Municipalities & ZIP Codes	Number of UH Ahuja Medical Center Emergency Room Visits (2014)*		2013 Population **	
		Number	Percent	Number	Percent
Cuyahoga County	Lyndhurst/Mayfield (44124)	1,696	4.6%	37,971	6.5%
	Beachwood (44122)	4,370	11.9%	34,654	5.9%
	Bedford (44146)	2,081	5.7%	29,676	5.1%
	Cranwood Station (44128)	5,169	14.0%	29,667	5.1%
	Solon (44139)	1,642	4.5%	24,154	4.1%
	Richmond Heights (44143)	563	1.5%	24,044	4.1%
	Maple Heights (44137)	1,840	5.0%	23,080	3.9%
	Chagrin Falls (44022)	1,186	3.2%	16,655	2.8%
	Gates Mills (44040)	65	0.2%	3,191	0.5%
<b>Subtotal Primary Market</b>		<b>18,612</b>	<b>50.6%</b>	<b>223,092</b>	<b>38.0%</b>
<b>Secondary Market Area</b>					
Cuyahoga County	Cleveland Heights (44118)	1,713	4.7%	39,767	6.8%
	Shaker Heights (44120)	2,797	7.6%	36,313	6.2%
	South Euclid (44121)	1,439	3.9%	33,252	5.7%
	Garfield Heights (44125)	834	2.3%	28,633	4.9%
	Euclid (44132)	191	0.5%	14,883	2.5%
	Euclid (44117)	163	0.4%	10,367	1.8%
Summit County	Northfield (44067)	320	0.9%	20,457	3.5%
	Twinsburg (44087)	506	1.4%	20,030	3.4%
	Macedonia (44056)	266	0.7%	11,326	1.9%
Lake County	Willoughby (44094)	218	0.6%	35,334	6.0%
	Wickliffe (44092)	115	0.3%	16,754	2.9%
Portage County	Aurora (44202)	534	1.5%	19,598	3.3%
Geauga County	Bainbridge (44023)	781	2.1%	17,374	3.0%
<b>Subtotal Secondary Market</b>		<b>9,877</b>	<b>26.9%</b>	<b>304,088</b>	<b>51.9%</b>
<b>Tertiary Market Area</b>					
Summit County	Hudson (44236)	252	0.7%	25,277	4.3%
	Richfield (44286)	48	0.1%	5,942	1.0%
	Peninsula (44264)	11	0.0%	2,571	0.4%
Portage County	Streetsboro (44241)	226	0.6%	16,214	2.8%
	Mantua (44255)	74	0.2%	8,416	1.4%
<b>Subtotal Tertiary Market Area</b>		<b>611</b>	<b>1.6%</b>	<b>58,420</b>	<b>9.9%</b>
Other Market		7,707	20.9%		
<b>Total</b>		<b>36,807</b>	<b>100.0%</b>	<b>585,600</b>	

\*UH Ahuja Medical Center

\*\*Source: U.S. Census, American Community Survey, 2010 Decennial projection to 2013

TABLE 4: CUYAHOGA, SUMMIT AND PORTAGE COUNTY HEALTH RANKINGS

	Cuyahoga County, 2015	Subcomponents	Summit County, 2015	Subcomponents	Portage County, 2015	Subcomponents
Health Outcomes	65 out of 88 counties	Length of Life: 51 out of 88 counties Quality of Life: 72 out of 88 counties	42 out of 88 counties	Length of Life: 40 out of 88 counties Quality of Life: 53 out of 88 counties	17 out of 88 counties	Length of Life: 16 out of 88 counties Quality of Life: 22 out of 88 counties
Health Factors	50 out of 88 counties	Clinical Care: 6 out of 88 counties Health Behaviors: 36 out of 88 counties Social & Economic Factors: 78 out of 88 counties Physical Environment: 68 out of 88 counties	36 out of 88 counties	Clinical Care: 24 out of 88 counties Health Behaviors: 21 out of 88 counties Social & Economic Factors: 48 out of 88 counties Physical Environment: 82 out of 88 counties	33 out of 88 counties	Clinical Care: 37 out of 88 counties Health Behaviors: 28 out of 88 counties Social & Economic Factors: 28 out of 88 counties Physical Environment: 81 out of 88 counties

Source: County Health Rankings & Roadmaps; Robert Wood Johnson Foundation program, 2015.

TABLE 5: CUYAHOGA, SUMMIT AND PORTAGE COUNTIES: HIGHER COMPARED TO PEER COUNTIES MORTALITY AND MORBIDITY RATES

Cuyahoga County	Summit County	Portage County
<b>Mortality</b>		
Cancer deaths		Cancer deaths
Coronary heart disease deaths		
		Chronic lower respiratory disease deaths
		Diabetes deaths
		Stroke deaths
<b>Morbidity</b>		
Alzheimer's disease/dementia	Alzheimer's disease/dementia	Alzheimer's disease/dementia
Older adult asthma	Older adult asthma	
Gonorrhea		
	Older adult depression	Older adult depression
Preterm births	Preterm births	Preterm births
		Adult obesity
	Health care access	
Older adult preventable hospitalizations	Older adult preventable hospitalizations	Older adult preventable hospitalizations
		Primary care provider access

Source: County Health Rankings & Roadmaps; Robert Wood Johnson Foundation program, 2015.

## B. Introduction to Data Analysis

This report analyzed both primary and secondary data to draw conclusions regarding the priority health needs of the population within the UH Ahuja Medical Center community.

### Primary Data

There were three main sources of primary data:

#### A. Survey Data

- UH Ahuja Medical Center's market area is contained mostly within Cuyahoga County (55.0% of its 2013 discharges) and Summit County (10.6% of 2013 discharges). A random mail survey of households in Cuyahoga County was conducted in 2012. A total of 602 surveys were completed of which 232 (42%) were in UH Ahuja Medical Center's market areas. The survey was commissioned by Cuyahoga County Health Partners and conducted by the Hospital Council for Northwest Ohio to capture a comprehensive picture of Cuyahoga County residents' health status.

#### B. Hospital Discharge Data

- Discharge data from the Ohio Hospital Association was used to describe hospital admission patterns for UH Ahuja Medical Center from 2011 to 2013.

#### C. Qualitative Data

- A mailed survey was sent to seven community leaders from organizations that serve the populations in the hospital's service area. Three responses to the survey were received.
- UH Ahuja Medical Center conducted interviews with five community leaders from public health, local government and social service agencies.

### Qualitative Data Analysis

From January 2015 – July 2015, UH Ahuja Medical Center solicited the input of individuals who represent the broad interests of the community and individuals in leadership roles in public health, both in the form of mail surveys and in-person interviews.

### Community Leader Surveys

Surveys were sent to seven community leaders from local government and social service organizations that serve the populations in the hospital's service area. Three responses to the survey were received. A copy of the survey can be found in the Appendix.

The organizations solicited are listed below, those in **bold** responded.

Jewish Family Services Association

#### **Beachwood City Schools**

City of Solon

City of Warrensville Heights

Summit County ADM Board

#### **Summit County Health Department**

#### **The Gathering Place**

The top four health issues identified by those surveyed were: Substance Abuse, Mental Health, Obesity and Heart Disease. Respondents also identified Cancer, Dental Health, Maternal/Infant Health and Tobacco use as other issues. Furthermore, survey participants identified Substance Abuse, Obesity and Dental Health as the **most** significant health issues in the community.

Moreover, gaps in access to the following services were identified: (1) access to bilingual providers, and (2) access to mental health services.

When asked to identify the most significant barriers that keep people in the community from accessing health care when they need it, the following barriers were prioritized: (1) inability to navigate the health care system, (2) language/cultural barriers, (3) inability to pay out-of-pocket expenses (copays, prescriptions, etc.), (4) time limitations, (5) lack of health insurance coverage, and (6) availability of providers/appointments. When asked to prioritize the **most** significant of these barriers, survey responders identified both time limitations and inability to navigate the health care system.

Some respondents believed that there are specific populations in the UH Ahuja Medical Center service area that are not being adequately served by local health services. The identified populations were the uninsured, poor, immigrant and homeless.

There was a strong consensus that the majority of uninsured and underinsured individuals in this community use the hospital emergency department and urgent care centers as their primary point of care when in need of medical care.

All respondents agreed that there are a number of resources and services related to health and quality of life that are missing in the community. The highest ranked missing services identified were: free/low-cost dental care and free/low-cost medical care. Other identified missing services included transportation, bilingual services, specialists and mental health services.

Responses varied when asked what challenges people in the community face in trying to maintain healthy lifestyles. Examples include lack of motivation to maintain a healthy lifestyle; lack of understanding about healthy lifestyles; lack of community support for low-income individuals; high stress levels; and the increased availability of illegal substances, prescription substances and alcohol.

Respondents provided several recommendations that may help to improve the health and quality of life in the community. Some recommendations included increasing the number of community support services for chronic disease management and providing more affordable dental services. The respondents to this survey included leaders from mental and behavioral health services, public health services, and education/youth services.

### **Community Leader Interviews**

UH Ahuja Medical Center, in collaboration with UH Case Medical Center, UH Parma Medical Center and UH Regional Hospitals, further conducted interviews with community leaders who represent the broad interests of the community and public health. A copy of the interview guide can be found in the Appendix. Individuals interviewed included:

#### **June 23:**

- 1) Terry Allan, Commissioner, Cuyahoga County Board of Health
- 2) Joanne Mraz, Educational Program Director, American Diabetes Association (ADA)
- 3) Jeffrey Lox, Chief Clinical Officer, Bellefaire JCB

#### **July 8:**

- 4) Susan Drucker, Mayor, City of Solon
- 5) Brad Sellers, Mayor, City of Warrensville Heights

### **Public Health**

Cuyahoga County Board of Health (CCBH) Commissioner, Terry Allan, was interviewed on June 23, 2015. CCBH serves 855,000 people in Cuyahoga County and provides supplemental services regionally for seven counties. While CCBH serves this robust population, services are generally targeted to low-income, high need and often minority communities.

Mr. Allan believes that the biggest driver impacting health status in the community is poverty and education. He stated that social determinants of health have a vast impact across all age groups. Among the youth/young adult age

group the biggest issues driven by the social determinants of health are infant mortality, healthy eating/active living, tobacco use, violence, asthma, teen pregnancy and childhood vaccination.

Mr. Allan believes that many of these issues drive health issues as people age. In the age group of adults age 18 – 44, he identified the biggest health issues as preventive health, healthy eating/active living, chronic disease management, housing and employment.

As the population continues to age, Mr. Allan believes that chronic disease management continues to play an important role in population health. Employment among 45- to 65-year-olds is also a critical health indicator because it provides access to care, as well as family stabilization. In the senior population, Mr. Allan cited senior fall prevention, preventive screenings and pneumonia vaccines as primary health concerns.

Demographic trends have played a significant role in the health status of Cuyahoga County residents. In the past 10 years, the population of the City of Cleveland has shrunk considerably. Following that trend, first-ring communities have become higher need (more aligned with the city). The first-ring school districts are facing challenges that hadn't been seen in the suburbs previously because of a rise in poverty.

There has been an increase in the concentrations of immigrants and minority populations (upward of 50% in the City of Cleveland) that face their own unique health challenges. Importantly, care needs to become much more culturally competent to address these challenges.

Mr. Allan described several public health indicators that show challenges faced by the community. Overall, Cuyahoga County has decreased rates of lead poisoning among children. However, there remains a subset of neighborhoods in the most impoverished parts of the community that consistently have high rates of poisoning.

Similarly, trends in infant mortality remain deplorable among the minority populations in certain hotspots throughout the city. There are also negative trends in teen pregnancy disparities by race, even though the rate of teen pregnancy is going down overall. Diabetes-related health issues are also a big concern among the minority community.

Mr. Allan explained that while residents don't often find a need to leave the community to receive health services, they often migrate out of the community to meet other needs, which further drives the challenges associated with poverty

for those who are left behind. He explains several reasons the population of Cuyahoga County has migrated out of the county in recent years:

- It is less expensive to live in counties further from the City of Cleveland, and people are worried about living wage
- Taxes outside of Cuyahoga County are lower
- People hunt for school systems they believe are best for their children
- Some have perceptions about safety and space in outer communities (race-related)

Challenges related to access to health care, mental and behavioral health, and social services for community members are largely driven by poverty. Lack of transportation is a major barrier to access. Additionally, a variety of social determinants of health impact access, including stress, employment and housing. Mr. Allan believes that communities that are more integrated, over time, fare better. The racial polarity that is a reality in Cuyahoga County is a huge problem.

Mr. Allan suggests that a variety of stakeholders in the health care and social services sector must work together in a new way, in order to really drive change in the social determinants of health. He suggests that anchor agencies can play the role of facilitation, by managing the big issues in their areas of expertise. It is important to build a plan in an integrated way that provides collective impact and shared measurement and evaluation. If this doesn't happen, the community will continue to have organizations tripping over each other, because everyone tries to address the same issues without communication. Resources should be targeted based on data to address disparities and engage the community. Infant Mortality would be a great starting point to demonstrate how such collaboration could succeed.

### **Social Services**

On June 23, 2015, interviews were conducted with Joanne Mraz, Educational Program Director at the American Diabetes Association (ADA), and Jeffrey Lox, Chief Clinical Officer at Bellefaire JCB (Bellefaire).

The Northeast Ohio office of ADA works primarily with diabetic populations in need in the Cleveland area, working to close the resource gap for those that have the least access to resources. The organization primarily reaches its target population through work at community centers, senior centers, county facilities, libraries and hospitals. They provide fundamental diabetes education, including

biometric measurements, blood sugar screenings, blood pressure screenings and body mass index screenings. They couple screenings with fundamental, baseline education, such as food groups, mapping resources in the community, and how to access healthy options at local stores, like a dollar store.

Joanne explained that the majority of her low income, diabetic population does not go to specialists like endocrinologists for care. At best, they work with primary care physicians to treat their disease, but often report to emergency room visits for emergent care only.

Bellefaire JCB serves 22,000 children and families each year. It is the largest behavioral health provider between Chicago and New York City. The organization treats kids with behavioral health issues, mental health issues and substance abuse issues. Bellefaire has a residential treatment facility on its Cleveland Heights campus, which houses approximately 100 young people. That includes a locked intensive treatment facility that treats kids ages 11 – 18; a four-bed crisis stabilization unit for kids who need help but won't qualify to be in a psychiatric unit at a hospital; and a residential program for 40 kids, age 6 – 22 on the autism spectrum. Bellefaire also houses the Monarch School, a day school for 150 students with autism, and recently spun off an adult program for those with autism, which treats those who age out of Bellefaire's childhood programs.

Outside of these on-campus programs, Bellefaire has a robust school-based program that serves kids in 180 Northeast Ohio schools; an in-home family therapy program; a foster care program; an adoption program; traditional outpatient therapy, and several other social services programs for local children. The children seen through Bellefaire's programs are generally multineed kids with multisystem, complex medical needs.

Ms. Mraz and Mr. Lox expressed robust needs faced by their target audiences in the Cleveland area. To summarize, Ms. Mraz identified three primary issues: (1) health literacy, (2) lack of access to resources, and (3) lack of education. Mr. Lox identified: (1) a fundamental need for education, (2) issues of poverty and disenfranchisement, (3) a lack of care coordination.

While Bellefaire and ADA primarily work with populations at the opposite ends of the age spectrum, their target audiences are impacted by similar trends and significant challenges associated with poverty. Mr. Lox noted that the children his organization works with appear more ill, come from more poverty and more abuse and neglect. They have not seen any appreciable growth in circumstances based on the Affordable Care Act.

Mr. Lox also noted that for children with autism, there is a national epidemic, which is the result of a growing population with services/technologies that can't keep pace. They see more children diagnosed with autism spectrum disorders and are in turn seeing an aging population with related problems.

Bellefaire has not traditionally had a large population of uninsured children because kids have traditionally qualified for Medicaid. However, the organization is seeing a new problem that has resulted from families that cannot qualify for Medicaid, but cannot afford the expenses associated with private insurance.

Finally, Mr. Lox noted that there is a growing crisis related to heroin/opiate addiction. He stated that the problem is huge and his organization is seeing younger and younger children with addiction problems – they currently have an 11-year-old girl in their residential program for treatment of heroin addiction.

Poverty is also an underlying, growing issue for the populations Ms. Mraz works with through ADA. She noted that lifestyle is, both literally and figuratively, a killer for her patients. They do not have access to healthy food and do not properly exercise, and as such, contribute to the impact of their disease. There is also a significant population treated by ADA's programs that are underinsured and cannot afford copays associated with their insurance coverage. These patients do not visit their physicians regularly, do not receive the necessary durable goods to properly manage their disease, and are not properly educated on diabetes management.

Both leaders expressed that the community has a lack of mental health resources available for treatment of all ages. This is particularly a problem for kids on the autism spectrum, as there are no psych hospitals in town that will admit kids with a primary autism diagnosis. There was consensus that community members have several challenges related to access to health care. These primarily stem from a lack of access to primary care physicians and specialists that are willing to treat low-income individuals. There is also a lack of mental health providers that accept Medicaid (most have waiting lists) and a shortage of psych beds.

Mr. Lox and Ms. Mraz agreed that there is opportunity to improve circumstances for both of their target populations by bringing together community resources in creative, collaborative ways. The current challenge is that there is not a current, active, navigational hub to coordinate such efforts. There is a need to organize resources by health population and help individuals and families navigate through them.

## Local Government

On July 8, 2015, interviews were conducted with Warrensville Heights Mayor Brad Sellers, and Solon Mayor Susan Drucker.

Warrensville Heights is a community of approximately 14,000 people. The population is about 98% African-American and includes a mix of income levels and residents across the age spectrum.

Solon has a population of approximately 24,000 individuals, which increases to about 50,000 Monday – Friday from 9 a.m. – 5 p.m. because of the vast business and industrial population of the city. Solon is a diverse community – as of the 2010 census, approximately 10% of the population was African-American, 10% was Asian, 9% identified as other, and approximately 25% of the community was Jewish. Mayor Drucker estimates that these proportions have all risen in the past five years. Solon is a fairly wealthy community, especially because of the business community, and as such has a lot of community resources.

Though the populations of these two communities differ, the health needs among their populations are similar in a lot of ways. Both mayors identified issues of obesity among their communities. Mayor Sellers expressed, however, that residents of Warrensville Heights tend to be very inactive. To combat this, a YMCA recently opened in the community, which he is hopeful will contribute to an increase in activity. Mayor Drucker noted that there are several community resources that drive her residents to have more active lifestyles, including a popular recreation center.

Both Mayor Sellers and Mayor Drucker identified access to health care as the biggest health need for their communities. Two key driving factors to this access challenge are (1) cost of care and (2) transportation. Both mayors expressed that their residents often struggle with the costs of seeking health care and with living healthy lives. Though access to health insurance has become more prevalent, there are many individuals and families in the community that cannot afford the copays and deductibles that accompany the care they would seek. As such, they often delay care and end up in the emergency room when problems get out of hand.

The cost of healthy lifestyles, especially as it relates to accessing healthy food, was also a key point of discussion. Within these communities there is a perception that eating healthy is expensive. Because of this perception, many individuals do not even attempt to access healthy food. Unhealthy diets coupled with a lack of active lifestyle is leading to significant problems of obesity among adults and children.

Mayors Sellers and Drucker also identified transportation as a barrier to health care access. There are significant portions of their populations, particularly among seniors, that lack access to transportation, which prevents them from receiving the care that they need. Mayor Drucker noted a growing population of dialysis patients who lack access to transportation to dialysis centers. While both communities have senior vans to transport residents to appointments, there is sometimes a lack of availability for everyone who needs such support.

Other issues discussed with these mayors included mental health, drug abuse and health literacy. These are issues that are known to be challenges throughout the Northeast Ohio community and are present in both Solon and Warrensville Heights. However, neither mayor raised them as the most important issues facing their communities.

### Secondary Data

There were several sources of secondary data:

- U.S. Census. 2010 Decennial Census, American Community Survey (projections to 2013) (demographic data; poverty data);
- U.S. Bureau of Labor Statistics, 2015 (unemployment data);
- U.S. Health Resources and Services Administration (HRSA) (medically underserved areas and populations and food deserts);
- Health status and access indicators available from:
  - County Health Rankings & Roadmaps; Robert Wood Johnson Foundation program, 2014;
  - Ohio Department of Health, 2014;
  - U.S. Centers for Disease Control and Prevention, CHSI Information for Improving Community Health, Community Health Status Indicators Project, 2015;
  - Community Commons, 2015

### Information Gaps

To the best of The Center for Health Affairs' and Cypress Research Group's knowledge, no information gaps have affected UH Ahuja Medical Center's ability to reach reasonable conclusions regarding community health needs.

## C. Demographic Characteristics of UH Ahuja Medical Center's Market Area

About one-third (30.7%) of Cuyahoga County's total population resides within UH Ahuja Medical Center's market area. A similar proportion of Portage County's population (27.3%) resides within the hospital's market area. A smaller but still substantial proportion of Summit (15.8%), Lake (22.3%) and Geauga (18.4%) counties' populations reside within UH Ahuja Medical Center's market area.

Shown in [Figure 2: Market Area Population Size Trends](#), Cuyahoga County is the largest county in Ohio based on population size (1,259,828 residents in 2014). Cuyahoga County as a whole had a 1.4% reduction in population from 2010 to 2014. Summit, Portage and Lake counties had almost stable population sizes (no more than 0.3% change) over the five-year period. Geauga County had very modest growth in population during that same time period (0.9% increase).

Looking at only 2010 to 2013, the time period with full statistics available, Cuyahoga County had a 1.1% reduction in population. Summit County saw a very small increase (0.3%) in population during that time period. The demographic makeup of the population of both counties was largely stable from 2010 to 2013, with two exceptions noted below. Portage County saw no change in population size from 2010 to 2013.

[Table 6: Demographic Trends in Cuyahoga, Summit and Portage Counties: by Gender, Age and Race](#) shows the three counties which drew the largest number of inpatient and emergency room visitors in 2013 to UH Ahuja Medical Center.

Cuyahoga, Summit and Portage counties, like their neighboring counties, are growing older, on average. In 2013, the proportion of senior citizens increased by 0.4 percentage points in Cuyahoga County and 0.9 percentage points in Summit and Portage counties. This change is small, but given that the use of health care increases substantially with age, especially after age 65, the aging of the population will have significant impacts on the demand for health care in regions where the proportion of older citizens is increasing.

Cuyahoga County is majority White, but the percentage of the population that is White decreased by 1% from 2010 to 2013. Black is the dominant minority race in Cuyahoga County (29.7% of the total population in 2013).



Summit County is more majority White, but that majority percentage decreased by 0.8 percentage points from 2010 to 2013. The same trend was true in Portage County where the proportion of White residents decreased by 0.5% from 2010 to 2013.

While the basic demography in Cuyahoga, Summit and Portage counties did not see significant changes from 2010 to 2013, the economic situations for many residents did, shown in [Table 7: Economic Trends in Cuyahoga, Summit and Portage Counties: Income and Poverty](#).

From 2010 to 2013 the average (median) income decreased by 4.6% in Cuyahoga County, 2% in Summit County and 3.7% in Portage County. Mean household income decreased by 1.9%, 1.3% and 1.4%, respectively, during that same time period.

The proportion of households with Social Security income increased from 2010 to 2013 in all three counties: Cuyahoga (+1.4%), Summit (+2.5%) and Portage (+3.1%). However, the average (mean) income from Social Security decreased by 1.3% in Cuyahoga County in 2013, decreased by 0.4% in Summit County, but increased by 0.4% in Portage County. Mean retirement income (from pensions, 401(k) disbursements) increased by 1.0% in Cuyahoga County, by 2.5% in Summit County and by 12.9% in Portage County.

There were more households receiving cash public assistance income in 2013 compared to 2010 in Cuyahoga County (+0.6%) and Summit County (+0.5%), and to a very small degree (+0.1%) in Portage County. The size of cash public assistance decreased by 6.9% in those three years in Cuyahoga County, but increased in Summit County by a similar proportion (6.5%). The proportion of households receiving Food Stamp/SNAP benefits increased by 3.8% in Cuyahoga County from 2010 to 2013, 3.1% in Summit County and 2.4% in Portage County.

Cuyahoga County, Summit County and especially Portage County, saw modest increases in the proportion of economically vulnerable citizens and families from 2010 to 2013, shown in [Table 8: Most Economically Vulnerable Cuyahoga, Summit and Portage County Residents](#).

The proportion of households living below the poverty line increased by 1.3 percentage points (from 13.1% to 14.4%) from 2010 to 2013 in Cuyahoga County and 1.2 percentage points (from 10.1% to 11.3%) in Summit

County. Portage County saw a greater increase in the proportion of families living beneath the poverty line (up 2.5% points to 11.0%) from 2010 to 2013.

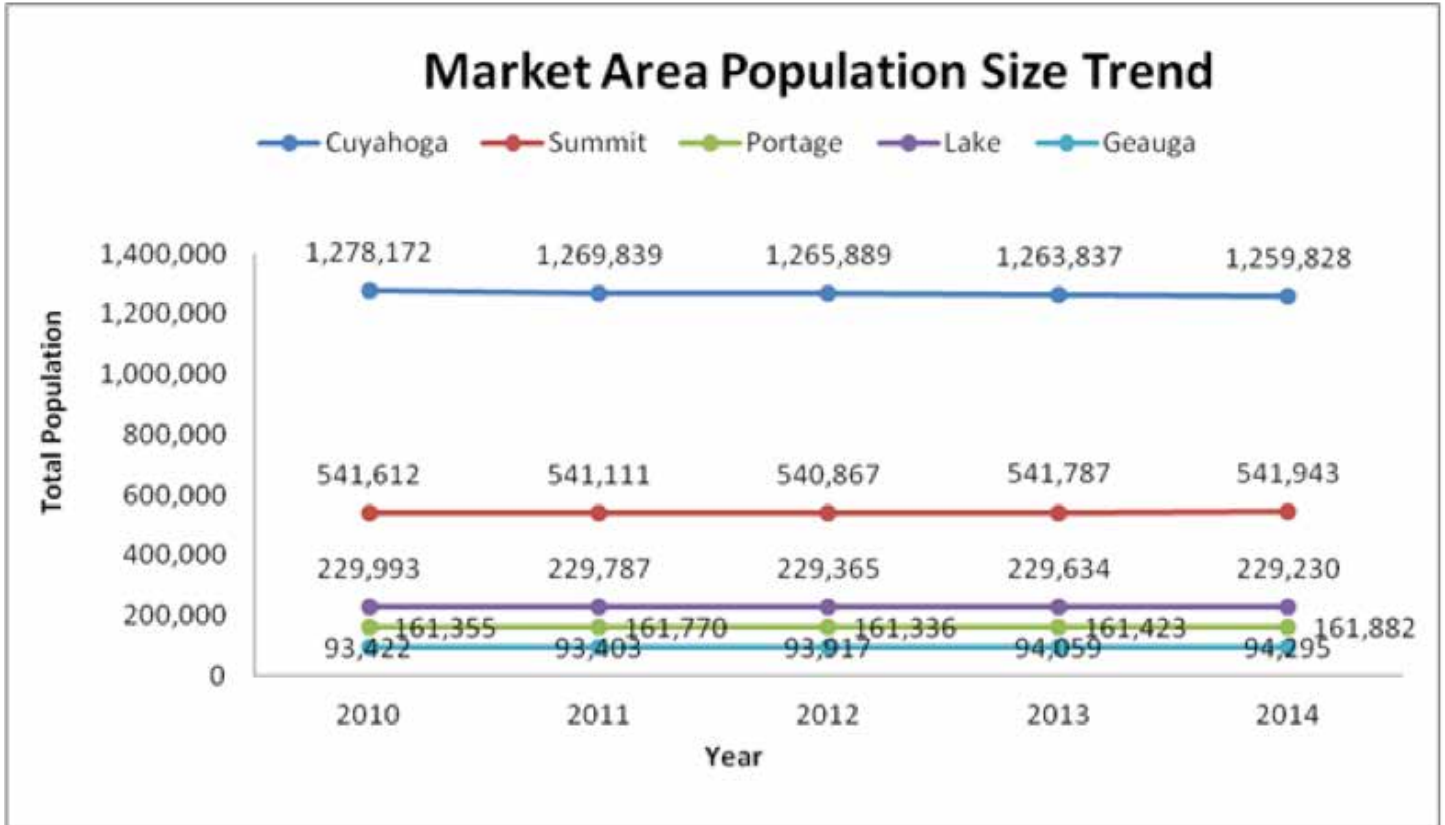
Almost one in four Cuyahoga County households with children under age 18 lived below the poverty line in 2013 (23.9%), an increase of 2.7%. Roughly one in five households with children lived below the poverty line in Summit County in 2013 (19.4%, an increase of 1.6% since 2010). An increase of 3.8 percentage points to 19.4% of households with children under the poverty level made Portage County on par with Summit County on this measure in 2013.

Roughly one-fourth of Cuyahoga County households with children under age 5 (but no older children) lived under the poverty line in 2013 (26.1%), a 4.6 percentage point increase from 2010 levels. However, such households in Summit County, as a group, did better in 2013 compared to 2010, showing a 6.1% point decrease to 23.5% of households with young children only living beneath the poverty line. Single-mother households fared worse: approximately half (52.9%) of single mothers with young children under age 5 (and no older children) were living under the poverty line in Cuyahoga County in 2013, as were 61.5% of these families in Summit County and 78.8% of these families in Portage County.

From 2010 to 2013, the proportion of residents in all three counties with health insurance was fairly stable. However, there was a shift away from commercially provided insurance to publicly funded insurance. Fewer residents in Cuyahoga County had private health insurance (a reduction of 2%), but more had public health coverage (an increase of 2.3%) from 2010 to 2013. There was a similar pattern in Summit County during that time period: while 2.8% fewer had private health insurance in 2013, 3.1% more had public-provided coverage that same year. Likewise, in Portage County, 2% fewer had private health insurance and 2.4% more had public coverage from 2010 to 2013.

Finally, the unemployment rate\* in Cuyahoga County is the 30th highest in Ohio and was 5.5% in April of 2015. Summit County's unemployment rate was lower (4.7%, 46th highest in the state) than in Cuyahoga County. Of the three counties, Portage County had the lowest unemployment rate in April 2015 (4.5% or 54th highest in the state). (\*Source: U.S. Bureau of Labor Statistics 2015)

FIGURE 2: MARKET AREA POPULATION SIZE TRENDS  
 CUYAHOGA, SUMMIT, PORTAGE, LAKE AND GEAUGA COUNTIES



Source: U.S. Decennial Census, American Community Survey projections to 2014

TABLE 6: DEMOGRAPHIC TRENDS IN CUYAHOGA, SUMMIT AND PORTAGE COUNTIES: BY GENDER, AGE AND RACE

	Cuyahoga County			Summit County			Portage County		
	2010	2013	Percent Change	2010	2013	Percent Change	2010	2013	Percent Change
Total Population	1,278,172	1,263,837	-1.1%	541,612	541,787	+0.3%	161,355	161,423	+0.04%
<b>By Gender</b>									
Males	47.4%	47.5%	+0.1%	48.3%	48.4%	+0.1%	48.9%	48.5%	-0.4%
Females	52.6%	52.5%	-0.1%	51.7%	51.6%	-0.1%	51.1%	51.5%	+0.4%
<b>By Age Group</b>									
0 – 19	25.6%	24.6%	-1.0%	25.8%	24.7%	-1.1%	26.0%	25.3%	-0.7%
20 – 44	31.0%	31.0%	0.0%	31.3%	31.0%	-0.3%	33.9%	33.9%	0.0%
45 – 64	27.8%	28.3%	+0.5%	28.3%	28.8%	+0.5%	27.3%	27.0%	-0.3%
65+	15.4%	15.8%	+0.4%	14.4%	15.3%	+0.9%	12.6%	13.5%	+0.9%
<b>By Race</b>									
White	64.9%	63.9%	-1.0%	81.0%	80.2%	-0.8%	92.3%	91.8%	-0.5%
Black or African-American	29.6%	29.7%	+0.1%	14.4%	14.2%	-0.2%	4.0%	3.8%	-0.2%
American Indian and Alaska Native	0.2%	0.2%	0.0%	0.1%	0.2%	+0.1%	0.1%	0.0%	-0.1%
Asian	2.6%	2.7%	+0.1%	2.1%	2.3%	+0.2%	1.4%	1.7%	+0.3%
Native Hawaiian and Other Pacific Islander	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Some other race	0.9%	1.2%	+0.3%	0.4%	0.4%	0.0%	0.4%	0.3%	-0.1%

TABLE 7: ECONOMIC TRENDS IN CUYAHOGA, SUMMIT AND PORTAGE COUNTIES: INCOME AND POVERTY

	Cuyahoga County			Summit County			Portage County		
	2010	2013	Percent Change	2010	2013	Percent Change	2010	2013	Percent Change
<b>Total Households</b>	534,653	532,702	-0.4%	222,330	219,214	-1.4%	61,912	60,323	-2.6%
Less than \$10,000	10.2%	11.2%	+1.0%	7.9%	8.2%	+0.3%	7.9%	9.1%	+1.2%
\$10,000 to \$14,999	6.5%	6.9%	+0.4%	5.4%	6.1%	+0.7%	5.3%	4.7%	-0.6%
\$15,000 to \$24,999	12.1%	12.6%	+0.5%	10.4%	11.4%	+1.0%	10.0%	9.4%	-0.6%
\$25,000 to \$34,999	11.2%	11.3%	+0.1%	11.1%	10.8%	-0.3%	10.1%	9.4%	-0.7%
\$35,000 to \$49,999	14.3%	13.7%	-0.6%	15.1%	14.3%	-0.8%	12.8%	15.0%	+2.2%
\$50,000 to \$74,999	16.9%	16.6%	-0.3%	18.8%	18.8%	0.0%	19.5%	19.4%	-0.1%
\$75,000 to \$99,999	10.9%	10.3%	-0.6%	11.7%	11.7%	0.0%	15.0%	14.2%	-0.8%
\$100,000 to \$149,999	10.8%	10.2%	-0.6%	11.7%	11.3%	-0.4%	12.8%	13.2%	+0.4%
\$150,000 to \$199,999	3.6%	3.4%	-0.2%	4.5%	3.5%	-1.0%	4.1%	3.4%	-0.7%
\$200,000 or more	3.6%	3.7%	+0.1%	3.5%	3.8%	+0.3%	2.5%	2.4%	-0.1%
Median household income (dollars)	\$45,184	\$43,112	-4.6%	\$50,138	\$49,146	-2.0%	\$54,241	\$52,213	-3.7%
Mean household income (dollars)	\$64,552	\$63,340	-1.9%	\$67,534	\$66,648	-1.3%	\$66,677	\$65,711	-1.4%
Percent of households with Social Security	29.0%	30.4%	+1.4%	27.9%	30.4%	+2.5%	26.2%	29.3%	+3.1%
Mean Social Security income (dollars)	\$16,127	\$15,921	-1.3%	\$16,927	\$16,856	-0.4%	\$17,463	\$17,538	+0.4%
Percent with retirement income	18.5%	18.8%	+0.3%	19.6%	20.9%	+1.3%	19.2%	21.1%	+1.9%
Mean retirement income (dollars)	\$21,612	\$21,819	+1.0%	\$21,998	\$22,560	+2.5%	\$22,442	\$25,338	+12.9%
Percent with Supplemental Security income	5.3%	6.8%	+1.5%	3.9%	5.5%	+1.6%	3.5%	3.9%	+0.4%
Mean Supplemental Security income (dollars)	\$8,406	\$8,860	+5.4%	\$8,760	\$9,288	+5.7%	\$8,574	\$9,668	+12.8%
Percent with cash public assistance income	3.7%	4.3%	+0.6%	4.6%	5.1%	+0.5%	2.8%	2.9%	+0.1%
Mean cash public assistance income (dollars)	\$3,142	\$2,925	-6.9%	\$3,458	\$3,700	+6.5%	\$3,067	\$3,149	+2.7%
Percent With Food Stamp/SNAP benefits in the past 12 months	14.5%	18.3%	+3.8%	11.8%	14.9%	+3.1%	10.2%	12.6%	+2.4%

Source: U.S. Decennial Census, American Community Survey projections to 2013

TABLE 8: MOST ECONOMICALLY VULNERABLE CUYAHOGA, SUMMIT AND PORTAGE COUNTY RESIDENTS

	Cuyahoga County			Summit County			Portage County		
	2010	2013	Percent Change	2010	2013	Percent Change	2010	2013	Percent Change
Percent of families under the poverty line	13.1%	14.4%	+1.3%	10.1%	11.3%	+1.2%	8.5%	11.0%	+2.5%
Percent of households with related children under 18 years under the poverty line	21.2%	23.9%	+2.7%	17.8%	19.4%	+1.6%	15.6%	19.4%	+3.8%
Percent of households with related children under 5 years (no older children) under the poverty line	21.5%	26.1%	+4.6%	29.6%	23.5%	-6.1%	19.4%	26.3%	+6.9%
<b>Married Couple Families</b>									
Percent of married couple families under the poverty line	4.3%	5.1%	+0.8%	3.6%	3.8%	+0.2%	3.6%	4.5%	+0.9%
Percent of married couple families with related children under 18 years under the poverty line	5.6%	7.7%	+2.1%	6.0%	5.1%	-0.9%	5.8%	6.8%	+1.0%
Percent of married couple families with related children under 5 years (no older children) under the poverty line	4.5%	8.4%	+3.9%	5.9%	3.8%	-2.1%	3.7%	4.7%	+1.0%
<b>Female Householders, No Husband Present</b>									
Percent of families with female householder, no husband present, under the poverty line	33.1%	34.2%	+1.1%	30.7%	33.9%	+3.2%	28.3%	38.1%	+9.8%
Percent of families with female householder, no husband present, with related children under 18 years, under the poverty line	43.2%	45.7%	+2.5%	43.2%	45.3%	+2.1%	39.9%	48.9%	+9.0%
Percent of families with female householder, no husband present, with related children under 5 years (no older children), under the poverty line	46.7%	52.9%	+6.2%	61.4%	61.5%	+0.1%	38.3%	78.8%	+40.5%
<b>All People in the County</b>									
Percent of all people in the county under the poverty line:	17.3%	18.7%	+1.4%	14.0%	15.6%	+1.6%	14.0%	16.9%	+2.9%
Of those under 18 years	26.1%	28.1%	+2.0%	20.4%	22.8%	+2.4%	17.1%	21.4%	+4.3%
Of those with related children under 18 years	25.8%	27.8%	+2.0%	20.1%	22.5%	+2.4%	16.7%	20.9%	+4.2%
Of those with related children under 5 years	30.4%	31.7%	+1.3%	27.3%	27.8%	+0.5%	26.8%	27.4%	+0.6%
Of those with related children 5 to 17 years	24.2%	26.3%	+2.1%	17.6%	20.6%	+3.0%	13.4%	18.9%	+5.5%

	Cuyahoga County			Summit County			Portage County		
	2010	2013	Percent Change	2010	2013	Percent Change	2010	2013	Percent Change
<b>Living under poverty line, by age:</b>									
Of those 18 years and over	14.6%	16.0%	+1.4%	12.1%	13.5%	+1.4%	13.1%	15.7%	+2.6%
18 to 64 years	15.6%	17.2%	+1.6%	13.0%	15.0%	+2.0%	14.7%	17.7%	+3.0%
65 years and over	10.8%	11.2%	+0.4%	7.8%	7.5%	-0.3%	5.0%	6.0%	+1.0%
Percent with health insurance coverage	88.2%	88.7%	+0.5%	88.7%	88.9%	+0.2%	89.5%	90.0%	+0.5%
Percent with private health insurance	67.6%	65.6%	-2.0%	72.9%	70.1%	-2.8%	76.4%	74.4%	-2.0%
Percent with public coverage	32.9%	35.2%	+2.3%	28.0%	31.1%	+3.1%	24.8%	27.2%	+2.4%
Percent with no health insurance coverage	11.8%	11.3%	-0.5%	11.3%	11.1%	-0.2%	10.5%	10.0%	-0.5%

Source: U.S. Decennial Census, American Community Survey projections to 2013

## D. UH Ahuja Medical Center Patients Served

UH Ahuja Medical Center opened and began admitting patients in 2011. As illustrated in [Table 9: Hospitalizations, UH Ahuja Medical Center Market Area](#), the number of patient discharges increased for UH Ahuja Medical Center by 60.1% within the primary market area and 59.5% in the secondary market area. Growth in the smaller tertiary market was 70%.

Within the market overall, however, there was a decline in hospitalization rates (into any hospital in the region), of 6.8% in the primary market, 1.5% in the secondary market and 5% in the tertiary market area (not shown).

[Table 10: UH Ahuja Medical Center, 2013 Discharges, by Payer](#) shows that of all discharges in 2013, two-thirds (62.8%) were Medicare patients and 5% were Medicaid patients. The percentage of Medicare patients was different among markets: 70% in the primary market versus 63.3% in the secondary market. Some differences exist across ZIP code areas within the primary market, most notably in Beachwood (44122) and Chagrin Falls (44022) from which 78.5 and 80.3%, respectively, of patients discharged in 2013 were Medicare patients. In contrast,

the municipalities/ZIP codes in the primary market with the lowest Medicare discharges were Maple Heights (44137) (55.2%) and Hudson (44236) (45.5%).

Of the communities from which a significant number of patients visited UH Ahuja Medical Center in 2013, Bedford (44146), Cranwood Station (44128), and Maple Heights (44137) had the highest proportion of Medicaid patients (10.4% to 11.1%).

The proportion of those covered by commercially available insurance was higher among those who reside in UH Ahuja Medical Center's secondary market (26.1%) compared to its primary market (19.1%). Discharges in the tertiary market were too small in number to allow for reliable analysis by ZIP code.

[Shown in Figure 3: Age of UH Ahuja Medical Center's Discharged Patients, 2013, by Market](#), in 2013, all discharged patients from UH Ahuja Medical Center market areas were adults (ages 18 and older). The median age for primary market patient discharges in 2013 was 76; the median age for secondary market patient discharges was somewhat younger at 71 years.

TABLE 9: HOSPITALIZATIONS, UH AHUJA MEDICAL CENTER MARKET AREA RESIDENTS 2011 – 2013  
UH AHUJA MEDICAL CENTER'S DISCHARGES VERSUS ALL OTHER OHIO HOSPITALS' DISCHARGES

		UH Ahuja Medical Center's Primary Market	UH Ahuja Medical Center's Secondary Market	UH Ahuja Medical Center's Tertiary Market	Total UH Ahuja Medical Center Market Area Residents
2011	Discharges from UH Ahuja Medical Center	1,764	1,199	167	3,130
2012	Discharges from UH Ahuja Medical Center	2,649	1,846	295	4,790
2013	Discharges from UH Ahuja Medical Center	2,822	1,913	284	5,019
	Change in Discharges from UH Ahuja Medical Center, 2011 to 2013	60.1%	59.5%	70.0%	60.4%

Source: Ohio Hospital Association discharge data

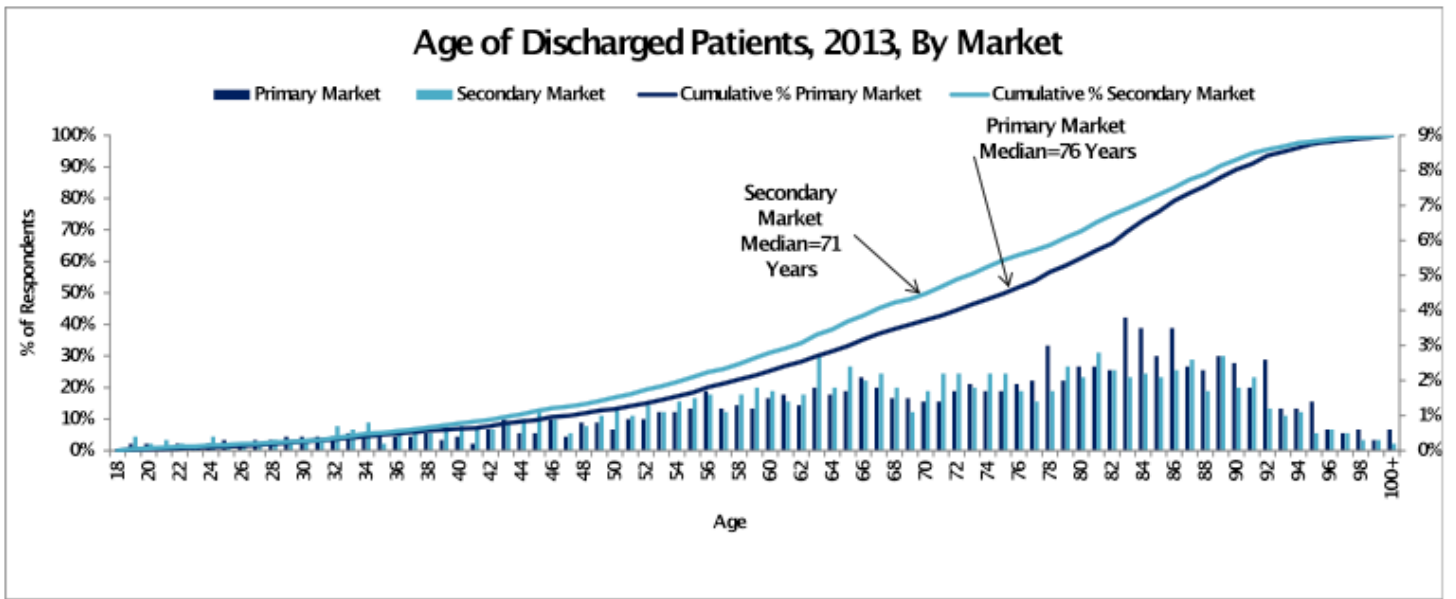
TABLE 10: UH AHUJA MEDICAL CENTER, 2013 DISCHARGES, BY PAYER

			Percent in ZIP Code By Payer				
		Number of Discharges	Medicare	Medicaid	Commercial	Other	Self-Pay
<b>Primary Market Area</b>							
Cuyahoga County	Lyndhurst/Mayfield (44124)	467	73.4%	2.8%	16.7%	5.8%	1.3%
	Beachwood (44122)	726	78.5%	2.5%	14.7%	2.6%	1.7%
	Bedford (44146)	307	61.2%	10.7%	23.8%	1.6%	2.6%
	Cranwood Station (44128)	442	65.6%	11.1%	15.4%	4.3%	3.6%
	Solon (44139)	331	63.7%	1.5%	26.6%	3.9%	4.2%
	Richmond Heights (44143)	135	60.0%	1.5%	31.1%	7.4%	0.0%
	Maple Heights (44137)	154	55.2%	10.4%	26.0%	5.2%	3.2%
	Chagrin Falls (44022)	229	80.3%	0.4%	15.7%	2.2%	1.3%
	Gates Mills (44040)	31	74.2%	0.0%	22.6%	3.2%	0.0%
Subtotal Primary Market		2,822	70.0%	4.9%	19.1%	3.8%	2.3%
<b>Secondary Market Area</b>							
Cuyahoga County	Cleveland Heights (44118)	243	70.0%	4.1%	18.9%	5.3%	1.6%
	Shaker Heights (44120)	292	66.1%	8.2%	17.8%	6.2%	1.7%
	South Euclid (44121)	183	56.8%	6.6%	28.4%	4.9%	3.3%
	Garfield Heights (44125)	77	49.4%	2.6%	37.7%	6.5%	3.9%
	Euclid (44132)	27	44.4%	25.9%	14.8%	11.1%	3.7%
	Euclid (44117)	26	53.8%	3.8%	19.2%	23.1%	0.0%
Summit County	Northfield (44067)	154	70.8%	0.0%	25.3%	2.6%	1.3%
	Twinsburg (44087)	302	61.9%	3.0%	28.8%	3.6%	2.6%
	Macedonia (44056)	120	66.7%	4.2%	28.3%	0.8%	0.0%
Lake County	Willoughby (44094)	44	47.7%	0.0%	43.2%	9.1%	0.0%
	Wickliffe (44092)	34	47.1%	2.9%	50.0%	0.0%	0.0%
Portage County	Aurora (44202)	234	69.2%	1.7%	25.6%	2.1%	1.3%
Geauga County	Bainbridge (44023)	177	62.7%	1.1%	27.7%	6.2%	2.3%
Subtotal Secondary Market		1,913	63.3%	4.0%	26.1%	4.7%	1.9%
<b>Tertiary Market Area</b>							
Summit County	Hudson (44236)	121	45.5%	0.8%	52.1%	1.7%	0.0%
	Richfield (44286)	7	85.7%	0.0%	14.3%	0.0%	0.0%
	Peninsula (44264)	5	20.0%	40.0%	40.0%	0.0%	0.0%
Portage County	Streetsboro (44241)	129	59.7%	7.0%	29.5%	1.6%	2.3%
	Mantua (44255)	22	59.1%	0.0%	36.4%	0.0%	4.5%
Subtotal Tertiary Market Area		284	53.5%	4.2%	39.4%	1.4%	1.4%
Other Market		1,648	51.3%	6.5%	30.6%	9.2%	2.4%
<b>Total</b>		<b>6,667</b>	<b>62.8%</b>	<b>5.0%</b>	<b>24.7%</b>	<b>5.3%</b>	<b>2.1%</b>

Source: Ohio Hospital Association discharge data



FIGURE 3: AGE OF UH AHUJA MEDICAL CENTER'S DISCHARGED PATIENTS, 2013, BY MARKET



Source: Ohio Hospital Association discharge data

## E. Ambulatory Care Sensitive Discharges

### Adults

Using discharge data from UH Ahuja Medical Center, which includes the reason for patient admission into the hospital, “ambulatory care sensitive discharges” can be identified. Ambulatory care sensitive (ACS) conditions are conditions for which “good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease,” according to the Agency for Healthcare Research and Quality. The incidence of ambulatory care sensitive discharges has been used as an index of adequate primary care in a market area. The diagnostic categories (and associated ICD-9-CM codes) can be found in the Appendix.

Table 11: UH Ahuja Medical Center, Primary and Secondary Diagnoses of Adult (Age 16+) ACS Discharges in 2013 shows the number of adult discharges for UH Ahuja Medical Center in 2013 and the percent that were ACS cases. For all discharges, there are both primary and nonprimary diagnoses (“secondary” diagnoses), and both are shown in the table below. Patients can have up to 19 different secondary diagnoses. For UH Ahuja Medical Center, 22.7% of discharges were ACS discharges of residents within the market areas combined. This may signal lower availability or access to primary care within the total market area.

In 2013, the most common primary ACS diagnoses for UH Ahuja Medical Center’s discharged patients were congestive heart failure (5.7%), bacterial pneumonia (4.8%) and kidney/urinary infections (2.8%). Chronic obstructive pulmonary disease was also among the more common primary ACS diagnoses (2.2%).

In terms of secondary diagnoses in 2013, congestive heart failure comprised an additional 32.1% of discharges and COPD comprised an additional 13.2% of discharges. One-fourth (24.4%) of discharged patients in 2013 were diabetic and one in two (51.5%) had a primary or secondary diagnosis of hypertension.

The incidence of ACS primary diagnoses differs by patients’ age groups, shown in Table 12: UH Ahuja Medical Center, Primary and Secondary Diagnoses ACS Discharges in 2013, by Age Group. Patients under age 64 were less likely to have a primary ACS diagnosis than their older counterparts in 2013 among UH Ahuja Medical Center discharges.

Congestive heart failure and COPD were far more common ACS conditions among older (age 40+) discharges than

those under age 40. Bacterial pneumonia, cellulitis, diabetes and asthma were the most common ACS diagnoses among those under age 40.

Tables 11 and 12 show the incidence of ACS cases among discharged patients for UH Ahuja Medical Center in 2013, and that is useful to point out the proportion of discharged patients who may have avoided hospitalization if, for example, they had increased access to primary medical care.

Table 13: UH Ahuja Medical Center Market Areas Versus Contiguous Counties, Primary Diagnosis of Adult (Age 18+) ACS Discharges in 2013 displays the number of adult discharges with ACS conditions as a primary diagnosis for UH Ahuja Medical Center in 2013 compared to Cuyahoga County, Summit County and other nearby Northeast Ohio counties (hospitalizations for UH Ahuja Medical Center and other hospitals, combined). This table also isolates the ACS discharge rate for those who live in UH Ahuja Medical Center’s market area, regardless of which hospital they were admitted to. This latter comparison is the most useful for understanding the prevalence of ACS cases within UH Ahuja Medical Center’s market area.

UH Ahuja Medical Center had higher rates of ACS discharges compared to each of the five comparison counties (22.7% versus 18.7%, at worst). Another way to examine the data is to look at the incidence of ACS cases within UH Ahuja Medical Center’s market area, regardless of which hospital patients were discharged from. This may provide a clearer picture of the relative need for primary care in this area. In UH Ahuja Medical Center’s market area, 16.5% of discharges are ACS cases, which is lower than the ACS discharge level in all surrounding counties except for Geauga County.

A review of the more common ACS conditions by payer can shed light on particular primary care-related issues that are more or less common within certain subpopulations, shown in Table 14: UH Ahuja Medical Center, Primary Diagnosis of Adult (Age 18+) ACS Versus Non-ACS Discharges in 2013, by Primary Payer.

Congestive heart failure (7.2%), bacterial pneumonia (5%) and kidney/urinary infections (3.6%) were the most common ACS conditions among Medicare patients, and were also more common for these patients than for those with most other specific sources of health coverage; this is likely associated with age. Each of the more common ACS conditions were less prevalent among Medicaid patients than Medicare patients, with the exception of cellulitis, diabetes, and asthma.

TABLE 11: UH AHUJA MEDICAL CENTER, PRIMARY AND SECONDARY DIAGNOSES OF ADULT (AGE 16+) ACS DISCHARGES IN 2013

		Primary Diagnosis		Secondary Diagnosis
No ACS Condition	3,880	77.3%		
Specific ACS Conditions:		22.7%		
Congestive Heart Failure (CHF)	284	5.7%	1,613	32.1%
Bacterial Pneumonia	241	4.8%	214	4.3%
Kidney/Urinary Infections	141	2.8%	507	10.1%
Chronic Obstructive Pulmonary Disease (COPD)	108	2.2%	665	13.2%
Cellulitis	105	2.1%	108	2.2%
Asthma	72	1.4%	420	8.4%
Diabetes	59	1.2%	1,224	24.4%
Dehydration/Volume Depletion	32	0.6%	668	13.3%
Hypertension	25	0.5%	2,559	51.0%
Iron Deficiency Anemia	25	0.5%	221	4.4%
Epilepsy	16	0.3%	125	2.5%
Gastroenteritis	14	0.3%	36	0.7%
Angina	7	0.1%	340	6.8%
Convulsions	5	0.1%	23	0.5%
Pelvic Inflammatory Disease	2	0.04%	3	0.1%
Severe ENT Infections	1	0.02%	48	1.0%
Hypoglycemia	1	0.02%	21	0.4%
Dental Conditions	1	0.02%	10	0.2%
Nutritional Deficiencies	0	0.0%	86	1.7%

Source: Ohio Hospital Association discharge data

Source: Definition of ACS conditions: Billings J, Zeitel L, Lukomnik J, Carey TS, Blank AE, Newman L. Impact of socio-economic status on hospital use in New York City. *Health Affairs (Millwood)* 1993; 12(1):172-173.

TABLE 12: UH AHUJA MEDICAL CENTER, PRIMARY AND SECONDARY DIAGNOSES  
ACS DISCHARGES IN 2013, BY AGE GROUP

	< Age 40	Ages 40 to 64	Age 65+
<b>Number of discharges:</b>	<b>359</b>	<b>1,367</b>	<b>3,293</b>
No ACS Condition	78.0%	81.8%	75.4%
Congestive Heart Failure (CHF)	0.6%	3.3%	7.2%
Chronic Obstructive Pulmonary Disease (COPD)	0.3%	1.0%	2.8%
Bacterial Pneumonia	6.4%	4.0%	4.9%
Kidney/Urinary Tract Infections	0.8%	1.2%	3.7%
Cellulitis	5.3%	2.2%	1.7%
Diabetes	2.8%	1.3%	0.9%
Asthma	2.8%	2.3%	0.9%

TABLE 13: UH AHUJA MEDICAL CENTER MARKET AREAS VERSUS CONTIGUOUS COUNTIES, PRIMARY DIAGNOSIS OF ADULT (AGE 18+) ACS DISCHARGES IN 2013

	UH Ahuja Medical Center	UH Ahuja Medical Center Market Area (Discharge from All Area Hospitals)	Cuyahoga County	Summit County	Geauga County	Lake County	Portage County
No ACS Condition	77.3%	83.5%	81.3%	81.9%	84.3%	83.2%	82.5%
ACS Condition, Total	22.7%	16.5%	18.7%	18.1%	15.7%	16.8%	17.5%
<b>Specific ACS Conditions:</b>							
Congestive Heart Failure (CHF)	5.7%	3.3%	3.8%	3.5%	3.4%	3.4%	3.5%
Chronic Obstructive Pulmonary Disease (COPD)	2.2%	1.8%	2.5%	2.4%	1.9%	2.5%	2.6%
Bacterial Pneumonia	4.8%	2.5%	2.6%	2.9%	2.4%	2.9%	3.1%
Kidney/Urinary Infections	2.8%	1.9%	1.9%	2.1%	1.9%	2.0%	2.0%
Cellulitis	2.1%	1.6%	2.1%	2.4%	2.3%	1.9%	2.2%
Diabetes	1.2%	1.1%	1.4%	1.4%	0.8%	1.1%	1.2%
Asthma	1.4%	1.5%	1.7%	1.0%	0.7%	0.8%	0.7%
Dehydration/Volume Depletion	0.6%	0.6%	0.5%	0.7%	0.6%	0.5%	0.7%
Iron Deficiency Anemia	0.5%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%
Hypertension	0.5%	0.3%	0.4%	0.3%	0.2%	0.3%	0.3%
Angina	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Epilepsy	0.3%	0.8%	0.7%	0.5%	0.5%	0.4%	0.4%
Nutritional Deficiencies	0.01%	0.002%	0.02%	0.03%	0.01%	0.01%	0.04%
Gastroenteritis	0.2%	0.02%	0.3%	0.3%	0.2%	0.3%	0.3%
Severe ENT Infections	0.02%	0.1%	0.1%	0.1%	0.1%	0.1%	0.04%
Dental Conditions	0.02%	0.1%	0.1%	0.1%	0.02%	0.1%	0.1%
Convulsions	0.1%	0.3%	0.2%	0.2%	0.2%	0.3%	0.2%
Pelvic Inflammatory Disease	0.04%	0.1%	0.1%	0.04%	0.0%	0.0%	0.0%
Hypoglycemia	0.02%	0.01%	0.02%	0.01%	0.02%	0.02%	0.03%
Immunization-Related and Preventable Conditions	0.0%	0.01%	0.001%	0.0%	0.01%	0.004%	0.0%

Source: Ohio Hospital Association discharge data.

Source: Definition of ACS conditions: Billings et al 1993.

TABLE 14: UH AHUJA MEDICAL CENTER, PRIMARY DIAGNOSIS OF ADULT (AGE 18+)  
ACS VERSUS NON-ACS DISCHARGES IN 2013, BY PRIMARY PAYER

	Medicare	Medicaid	Commercial	Other	Self-Pay	Total
<b>Number of Discharges</b>	<b>3344</b>	<b>226</b>	<b>1144</b>	<b>201</b>	<b>104</b>	<b>5019</b>
No ACS Primary Diagnosis	75.7%	75.2%	82.9%	80.1%	68.3%	77.3
<b>Specific ACS Conditions:</b>						
Congestive Heart Failure (CHF)	7.2%	5.8%	1.8%	2.5%	3.8%	5.7%
Bacterial Pneumonia	5.0%	3.1%	4.5%	6.0%	4.8%	4.8%
Chronic Obstructive Pulmonary Disease (COPD)	2.6%	1.8%	0.9%	2.0%	1.9%	2.2%
Kidney/Urinary Infections	3.6%	1.3%	1.3%	1.5%	0.0%	2.8%
Cellulitis	1.7%	3.5%	2.3%	4.0%	5.8%	2.1%
Diabetes	0.8%	2.7%	1.4%	1.0%	7.7%	1.2%
Asthma	1.0%	1.8%	2.2%	1.5%	5.8%	1.4%

*\*Small number of discharged patients; interpret with care.  
Source: Ohio Hospital Association discharge data.  
Source: Definition of ACS conditions: Billings et al 1993.*

## UH Ahuja Medical Center Discharges

This section again examines UH Ahuja Medical Center's discharge data from 2013. These data provide primary and secondary diagnosis information for each patient discharged in 2013. This data evaluation seeks to identify particular diagnoses or diagnostic categories that can shed light on how public health or preventive care initiatives could impact the overall health of UH Ahuja Medical Center's market area residents.

Table 15: UH Ahuja Medical Center, Primary and Secondary Diagnosis of Adults (Age 18+), Discharged in 2013 shows the number and percentage of discharges based on the major diagnostic category of adult patients' primary diagnoses. There are more than 17,000 different medical diagnostic codes. For specific diagnoses, only those that were relatively common are shown.

In 2013, the most common primary diagnostic category (22.1%) was diseases of the circulatory system. Heart failure was the most common primary diagnosis within that category (5.6%), but 32.2% of discharges had a secondary diagnosis of heart failure.

Diseases of the respiratory system were the second most common ACS primary diagnoses (12.7%). Pneumonia and chronic bronchitis were the two most common specific diagnoses in this category. Almost as common were digestive system diseases (12.5%), and while no specific digestive disease primary diagnosis was very common, 22.7% of discharged patients had a secondary diagnosis of disease of the esophagus.

Over half of all discharges (52%) had a secondary diagnosis of essential hypertension; 14.9% had a secondary diagnosis of acute renal failure but twice as many (16.6%) were in chronic renal failure. One in five (21.7%) adults discharged in 2013 had a secondary diagnosis of obesity and almost one-third (29.8%) were diabetic.

While very few discharged patients in 2013 had a mental disorder as a primary diagnosis, mental disorders were very common secondary diagnoses. One in eight (13.2%) had a secondary diagnosis of nondependent drug abuse.

TABLE 15: UH AHUJA MEDICAL CENTER, PRIMARY AND SECONDARY DIAGNOSIS OF ADULTS (AGE 18+), DISCHARGED IN 2013

	Primary Diagnosis		Secondary Diagnoses	
	Number of Cases With Diagnosis*	Percent of All Adult Cases*	Number of Cases With Diagnosis	Percent of All Adult Cases**
<b>Diseases of the circulatory system</b>	<b>1107</b>	<b>22.1%</b>		
Most common specific diagnoses in category:				
Heart failure	280	5.6%	1,601	32.2%
Cardiac dysrhythmias	204	4.1%	1,493	30.0%
Acute myocardial infarction	131	2.6%	75	1.5%
Essential hypertension			2,583	52.0%
Other chronic ischemic heart disease			1,487	29.9%
Hypertensive renal disease			927	18.7%
Old myocardial infarction			459	9.2%
Hypotension			446	9.0%
<b>Diseases of the respiratory system</b>	<b>636</b>	<b>12.7%</b>		
Most common specific diagnoses in category:				
Pneumonia, organism unspecified	238	4.7%	208	4.2%
Chronic bronchitis	104	2.1%	147	3.0%
Other lung diseases			563	11.3%

	Primary Diagnosis		Secondary Diagnoses	
	Number of Cases With Diagnosis*	Percent of All Adult Cases*	Number of Cases With Diagnosis	Percent of All Adult Cases**
Chronic airway obstruction, not elsewhere classified			460	9.3%
Asthma			420	8.5%
<b>Diseases of the digestive system</b>	<b>627</b>	<b>12.5%</b>		
Most common specific diagnoses in category:				
Diverticula of the intestine	102	2.0%	179	3.6%
Diseases of the esophagus			1,130	22.7%
Functional digestive disorder, not elsewhere classified			394	7.9%
<b>Diseases of the musculoskeletal system and connective tissue</b>	<b>467</b>	<b>9.3%</b>		
Most common specific diagnoses in category:				
Osteoarthritis	315	6.3%	686	13.8%
Back disorder, not elsewhere classified			369	7.4%
Other soft tissue diseases			244	4.9%
<b>Diseases of the genitourinary system</b>	<b>422</b>	<b>8.4%</b>		
Most common specific diagnoses in category:				
Acute renal failure	181	3.6%	740	14.9%
Other urinary tract disorders	133	2.6%	601	12.1%
Chronic renal failure			827	16.6%
Hyperplasia of the prostate			322	6.5%
<b>Injury and poisoning</b>	<b>399</b>	<b>8.0%</b>		
<b>Infectious and parasitic diseases</b>	<b>381</b>	<b>7.6%</b>		
Most common specific diagnoses in category:				
Septicemia	272	5.4%	121	2.4%
Bacterial infection in other disease, not elsewhere classified			381	7.7%
<b>Symptoms, signs, and ill-defined conditions</b>	<b>257</b>	<b>5.1%</b>		
Most common specific diagnoses in category:				
General symptoms			319	6.4%
Gastrointestinal system symptoms			317	6.4%
Urinary system symptoms			239	4.8%
Respiratory system/other chest symptoms			232	4.7%
<b>Endocrine, nutritional and metabolic diseases, and immunity disorders</b>	<b>187</b>	<b>3.7%</b>		
Most common specific diagnoses in category:				
Diabetes mellitus	91	1.8%	1,479	29.8%
Fluid/electrolyte diseases			2,272	45.7%
Diseases of lipid metabolism			2,234	44.9%



	Primary Diagnosis		Secondary Diagnoses	
	Number of Cases With Diagnosis*	Percent of All Adult Cases*	Number of Cases With Diagnosis	Percent of All Adult Cases**
Acquired hypothyroidism			819	16.5%
Obesity/hyperalimentation			781	21.7%
Diseases of mineral metabolism			384	7.7%
Gout			323	6.5%
<b>Diseases of the blood and blood-forming organs</b>	<b>124</b>	<b>2.5%</b>		
Most common specific diagnoses in category:				
Anemia not otherwise classified			1,398	28.1%
Purpura and other hemorrhagic conditions			269	5.4%
Iron deficiency anemias			261	5.3%
<b>Diseases of the skin and subcutaneous tissue</b>	<b>119</b>	<b>2.4%</b>		
Most common specific diagnoses in category:				
Other cellulitis/abscess	96	1.9%	88	1.8%
Chronic ulcer of skin			260	5.2%
<b>Neoplasms-malignant</b>	<b>80</b>	<b>1.6%</b>		
<b>Diseases of the nervous system</b>	<b>76</b>	<b>1.5%</b>		
Most common specific diagnoses in category:				
Organic sleep disorders			502	10.1%
Other brain conditions			276	5.6%
Central pain			268	5.4%
<b>Neoplasms-benign</b>	<b>45</b>	<b>0.9%</b>		
<b>Mental disorders</b>	<b>45</b>	<b>0.9%</b>		
Most common specific diagnoses in category:				
Nondependent drug abuse			654	13.2%
Other organic psychiatric conditions			602	12.1%
Neurotic disorders			572	11.5%
Depressive disorder, not elsewhere classified			556	11.2%
<b>Diseases of the sense organs</b>	<b>16</b>	<b>0.3%</b>		
<b>Other</b>	<b>9</b>	<b>0.2%</b>		
<b>Congenital anomalies</b>	<b>5</b>	<b>0.1%</b>		
<b>Complications of pregnancy, childbirth and the puerperium</b>	<b>4</b>	<b>0.1%</b>		

\*Total includes all diagnoses within this category, not just those shown.

\*\*These are duplicated counts; patients may have more than one secondary diagnosis.

Source: Ohio Hospital Association discharge data.

## F. Cuyahoga County Mortality and Morbidity

Table 16: Most Prevalent Causes of Death or Impaired Health and Table 17: Most Prevalent Morbidity – Adults and Youth show the most prevalent types of mortality and morbidity of chronic diseases and other health-impacting events.

Cancer is the leading cause of death for adults in Cuyahoga County, followed by coronary heart disease. The CDC shows that the prevalence of both of these diseases is higher in Cuyahoga County than in peer counties. While the mortality rates for both cancer and coronary heart disease are lower in Summit County than in Cuyahoga County, those conditions are the leading causes of death in Summit County also. Portage and Summit counties are similar in their cancer and coronary heart disease rates.

Strokes, accidents, diabetes and kidney disease combined account for far fewer deaths than cancer in all three counties. Stroke mortality is higher in Summit County than Cuyahoga. Portage County has a higher stroke mortality rate than Cuyahoga County, but a lower stroke mortality rate compared to Summit County.

The diabetes mortality rate in Cuyahoga County is higher compared to peer counties across the U.S. In contrast, Cuyahoga County has a lower-than-expected prevalence of motor vehicle deaths. Portage County compares unfavorably to its peer counties across the U.S. in terms

of deaths attributable to cancer, strokes and diabetes. In contrast, violent crime is lower than expected in Portage County.

Linked to the most common death rates are common habitual behaviors. About one-fourth of Cuyahoga residents are obese (BMI > 30); one in five are tobacco smokers. Compared to Cuyahoga County, the obesity rate is slightly higher in Summit County (28.4%) but smoking prevalence is almost identical. Portage County's obesity rate is similar to both Cuyahoga and Summit counties, yet its smoking rate is the highest of the three counties.

Finally, the CDC also designates Cuyahoga County as one with lower-than-average access to primary care providers in that the county has a higher-than-average preventable hospitalization rate for older adults (74.5 per 1,000 Medicare enrollees). This is true for Portage County, also (85.2 per 1,000 Medicare enrollees).

Summit County fares better than its peer counties in terms of prevalence of smoking and teen births. Summit County compares unfavorably to its peer counties in terms of older adult depression, older adult asthma, Alzheimer's disease, and preterm births.

Rates of obesity, smoking, older adult depression, Alzheimer's disease and preterm births are higher in Portage County compared to its peer counties.

TABLE 16: MOST PREVALENT CAUSES OF DEATH OR IMPAIRED HEALTH

	Cuyahoga County	CDC's Comparison to Peer Counties	Summit County	CDC's Comparison to Peer Counties	Portage County	CDC's Comparison to Peer Counties
Cancer Deaths	196.1	Rate is higher than average**	190.8		190.2	Rate is higher than average**
Coronary Heart Disease Deaths	151.3	Rate is higher than average**	113.6		123.6	
Stroke Deaths	38.7		44.8		41.8	Rate is higher than average**
Accidental Deaths (including motor vehicle)	32.1		34.1		32.3	
Motor Vehicle Deaths	5.7	Rate is lower than average**	7.7		10.0	
Diabetes Deaths	23.1	Rate is higher than average**	24.2		22.6	Rate is higher than average**
Kidney Disease Deaths	15		14.9		13.0	
Violent Crime (homicide, rape, assault)	559.7		405.6		84.8	Rate is lower than average**

Source, U.S. Centers for Disease Control and Prevention, 2015

\*\*Compared to peer counties in the U.S.

TABLE 17: MOST PREVALENT MORBIDITY – ADULTS AND YOUTH

	Cuyahoga County	CDC's Comparison to Peer Counties	Summit County	CDC's Comparison to Peer Counties	Portage County	CDC's Comparison to Peer Counties
Obesity	26.4%		28.4%		28.7%	Rate is higher than average**
Smokers	19.3%		19.0%	Rate is lower than average**	27.9%	Rate is higher than average**
Adult Diabetes	7.7%		8.6%		7.1%	
Older Adult Depression	14.0%		17.2%	Rate is higher than average**	16.0%	Rate is higher than average**
Older Adult Asthma	5.2%		5.4%	Rate is higher than average**	4.5%	
Alzheimer's Disease (among older adults)	14.4%	Rate is higher than average**	14.6%	Rate is higher than average**	12.5%	Rate is higher than average**
Teen Births (of females ages 15 to 19)	3.9%		3.3%	Rate is lower than average**	1.6%	
Preterm Births	14.4%	Rate is higher than average**	13.6%	Rate is higher than average**	11.8%	Rate is higher than average**

Source, U.S. Centers for Disease Control and Prevention, 2015

\*\*Compared to peer counties.

## G. Primary Analysis of Representative Sample of Market Area Population

The ACS analysis section provided evidence from UH Ahuja Medical Center's discharge data that market area residents may lack full access to primary care. The proportion of ACS cases in UH Ahuja Medical Center in 2013 was higher in UH Ahuja Medical Center's market areas than in Ohio overall.

To further understand market area health needs, the following section presents the results of a mail survey of Cuyahoga County adults (who reside in UH Ahuja Medical Center's market areas) regarding their health and access to health care. A random mail survey of households in Cuyahoga County was conducted in 2012. A total of 602 surveys were completed of which 232 (42%) were in UH Ahuja Medical Center's market areas. The survey was commissioned by Cuyahoga County Health Partners and conducted by the Hospital Council for Northwest Ohio to capture a comprehensive picture of Cuyahoga County residents' health status. The Cuyahoga County Health Partners did not commission similar studies for children or youth in the county, therefore, data is only available for the adult population.

### Population Health Status

This section describes the self-reported health status of Cuyahoga adults (who reside in UH Ahuja Medical Center's market areas) regarding their health and access to health care. Survey respondents for the county-wide data were designated as residents of UH Ahuja Medical Center's market area via their residential ZIP code. The sample size for the survey data for those who live within UH Ahuja

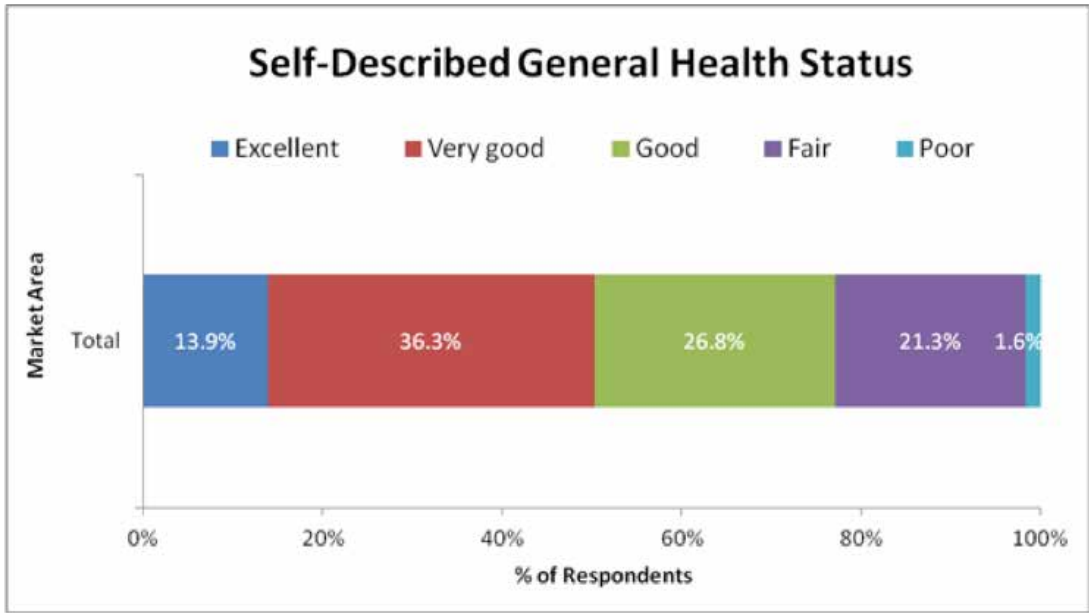
Medical Center's market area in Cuyahoga County is very small (n=67) and is below industry standards for survey data. The results should be interpreted with care as they are only directional and not representative of the total adult population in the hospital's market area in Cuyahoga County.

Seeking medical care outside of the county was uncommon for Cuyahoga County adults (within UH Ahuja Medical Center's market areas) in 2012: only 10.8% sought any type of medical care outside of the county within the year prior to the survey; only 1.5% of those adults surveyed sought primary care outside of the county.

Shown in [Figure 4: Self-Described General Health Status](#), most (77%) report their 'overall health care' as at least good. Roughly one in four (22.9%) felt their overall health was 'fair' or 'poor.'

[Table 18: Self-Described Physical and Mental Health Status: Past 30 Days](#) shows that residents within UH Ahuja Medical Center's market area reported that their physical health was 'not good' an average (mean) of 5.6 days during the previous 30 days. On average, this group reported that their mental health was 'not good' an average (mean) of 3.0 days. For them, these less-than-optimal health days prevented them from doing their normal activities (work, school) an average of 5.7 days within that 30-day period. Note that most (55.9%) reported zero days with physical health problems within the 30-day period, and 69% reported zero days with any mental health issues during that time. Three in four (67.3%) reported that their health didn't keep them from any of their normal activities within the past 30 days.

FIGURE 4: SELF-DESCRIBED GENERAL HEALTH STATUS



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

TABLE 18: SELF-DESCRIBED PHYSICAL AND MENTAL HEALTH STATUS: PAST 30 DAYS (MEAN NUMBER OF DAYS)

	Physical health 'not good'	Mental health 'not good'	Poor physical or mental health prevented normal activities
<b>Total UH Ahuja Medical Center Market</b>			
Mean Number of Days	5.6 days	3.0 days	5.7 days
Proportion With At Least One Day	44.1%	31.0%	32.7%

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

## Health Care Coverage

Figure 5: Percent of Adults with Health Coverage, 2011 shows a majority of adults in UH Ahuja Medical Center's market areas have health coverage (91%). The U.S. Census Bureau (American Community Survey) found that 11.3% of adults in Cuyahoga County, overall, were without health insurance in 2013, which is approximately what the survey data showed.

Lack of access to health coverage is a common occurrence during some point in the adult lives of many of UH Ahuja Medical Center's market area adult residents: 66.6% of those in the market area always had health coverage, meaning roughly one in three were without health coverage at some point in their adult lives.

A majority of adults in UH Ahuja Medical Center's market area reported having a primary care provider (88.9%), shown in Figure 6: Access to Health Care. Many (33.3%) reported that their financial situation, combined with their level of health coverage, could prevent them from seeking needed medical care because of cost. Only one in 10 (10.1%) adults in UH Ahuja Medical Center's market area reported transportation as a barrier to obtaining health care.

All survey respondents (100%) were able to name a location or source from which they primarily seek health care services or information, shown in Figure 7: Specific Sources of Care. The most common specific location where health care or information was primarily sought was a physician's office (69.4%). The next most common sources for health care services or information were a hospital emergency department (6.9%) and the Internet (4.2%). Some (6.5%) reported not having one specific location or type of location that they go to for health care services or information.

While few reported a hospital emergency room as the primary place where they seek medical care or information, 23.6% reported seeking care from a hospital emergency department at least once in the year prior to the survey (not shown).

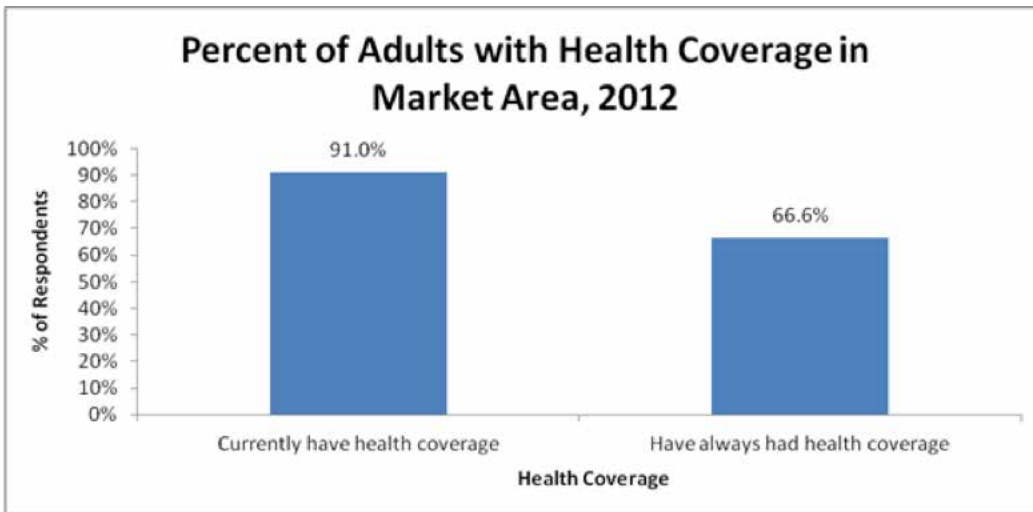
For those with health insurance coverage, eight in 10 (79.8%) have a private source of insurance, illustrated in Figure 8: Source of Health Care Coverage. Most commonly those with private health care coverage have it primarily paid for by their own employer (43.1%) and many obtain it through another person's employer-provided coverage (24%). A substantial portion (17.4%) obtain their coverage through a public source, most often Medicare (11.0%) or Medicaid (4.3%).

One-third (33.4%) of adults reported that at some point they have been without health care coverage as adults. The reasons for lack or loss of coverage are varied, and no reason dominates, shown in Table 19: Reason For No Health Care Coverage. Note that the figures included are of the total survey respondent base. Given that employers were the most common source of payment for health care coverage, loss of coverage is most commonly related to a change in employment (job loss, employers not offering coverage, or loss of coverage due to reduction in work hours/status).

Figure 9: Type of Care Covered shows while almost all health coverage includes medical care, other types of health care are not covered for residents within UH Ahuja Medical Center's market areas. Health care coverage includes medical care, and a great majority of those with coverage have a prescription plan as part of their coverage (90.2%).

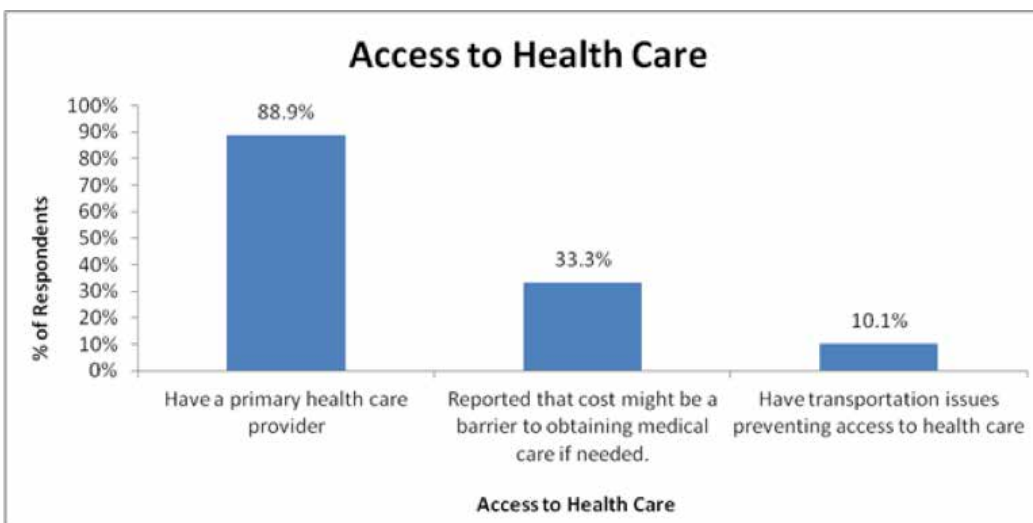
Only roughly three in four of those covered have plans that include mental health (78.3%), immunizations (83.6%), vision (73.7%), preventive care (76.2%) and/or dental (68.1%). Half of those covered are aware that they have plans that cover alcohol and drug treatment (45.2%), and about one-third of plans cover home care (34.4%), hospice care (36.3%), and/or skilled nursing (36.1%). Note that many were unsure of their coverage for these types of health issues. Many (51%) of those with health care coverage say their plans can also include their spouses. Fewer (43%) say their children can be or are covered under their own plan.

FIGURE 5: PERCENT OF ADULTS WITH HEALTH COVERAGE, 2011



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

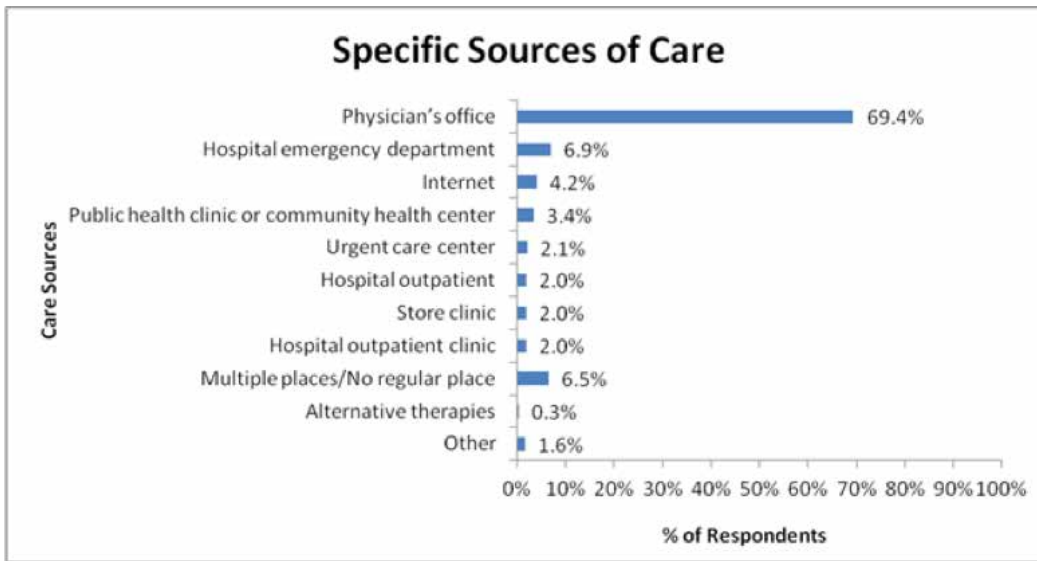
FIGURE 6: ACCESS TO HEALTH CARE



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

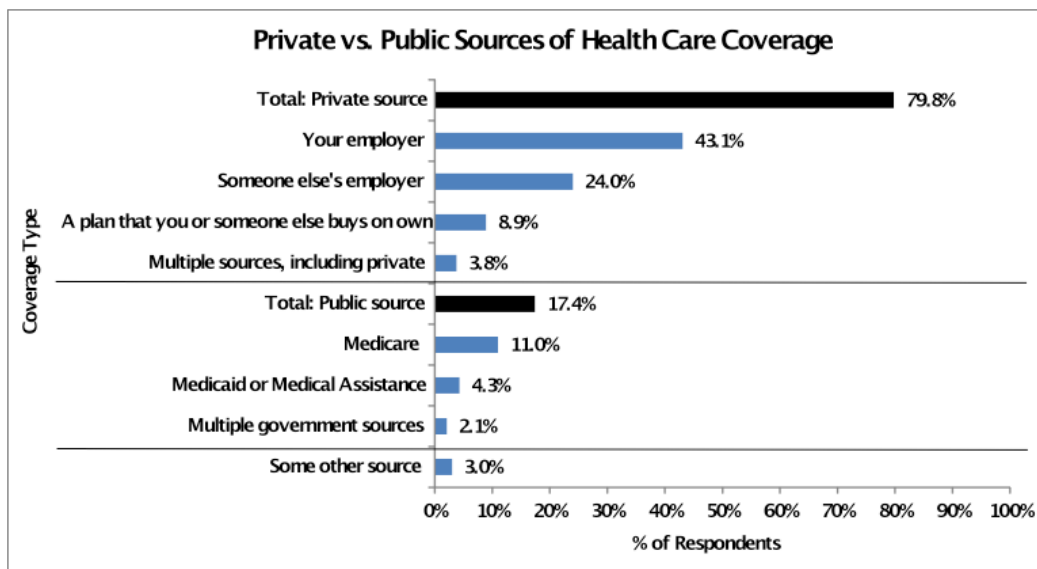
FIGURE 7: SPECIFIC SOURCES OF CARE

When you are sick or need advice about your health, to which one of the following places do you usually go?



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

FIGURE 8: SOURCE OF HEALTH CARE COVERAGE



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

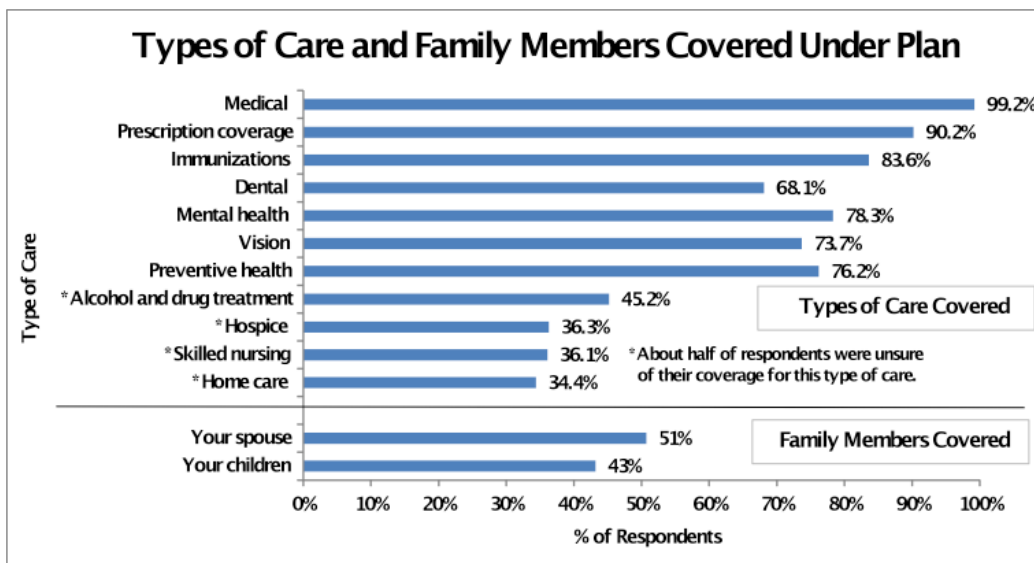


TABLE 19: REASON FOR NO HEALTH CARE COVERAGE

Of All in UH Ahuja Medical Center's Market Area (n=227)	Of All in UH Ahuja Medical Center's Market Area (n=227)
Couldn't afford to pay the premiums	7.9%
Lost job or changed employers	6.7%
Became ineligible (aged out or left school)	2.4%
Became a part-time or temporary employee	1.9%
Lost Medicaid eligibility	2.1%
Spouse or parent died	1.1%
Employer doesn't/stopped offering coverage	1.9%
Benefits from employer/former employer ran out	1.4%
Spouse or parent lost job	1.1%
Insurance company refused coverage	0.2%
Became divorced or separated	0.2%

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

FIGURE 9: TYPE OF CARE COVERED



\*Roughly half of respondents were unsure of their coverage for this type of care.  
 Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

## Health Care Utilization

Table 20: Percent of Adults Who Have Not Obtained Preventive Care Procedures or Other Medical Services Because of Cost shows that many respondents reported that cost has been a barrier to seeking various specific preventive care or medical services. One in five (21.4%) reported that cost has prevented them from obtaining at least one of these types of medical services.

In addition, having health insurance coverage is not necessarily associated with having a primary care provider: 17.9% of those with coverage did not have a primary care physician or other provider, shown in Table 21: Percent of Adults with Primary Care Physician(s).

Seeking and obtaining preventive care (general medical or dental checkup) was completed by a majority of adults in UH Ahuja Medical Center's market area, shown in Table 22: Incidence of Receiving Routine Health Care: UH Ahuja Medical Center Market. Males were less likely to obtain prostate cancer screenings than females were to obtain clinical breast exams. Some preventive tests are routinely obtained by fewer than half of survey respondents.

TABLE 20: PERCENT OF ADULTS WHO HAVE NOT OBTAINED PREVENTIVE CARE PROCEDURES OR OTHER MEDICAL SERVICES BECAUSE OF COST

Preventive Care Procedures	Percent
Pap smear test (females)	11.0%
<b>Mammogram (females)</b>	<b>10.6%</b>
Medications	6.6%
<b>Weight loss program</b>	<b>5.9%</b>
Mental health treatment	5.6%
<b>Colonoscopy</b>	<b>5.2%</b>
Surgery	4.3%
<b>Immunizations</b>	<b>3.0%</b>
Family Planning	2.0%
<b>Smoking cessation</b>	<b>1.5%</b>
Alcohol and drug treatment	1.1%
<b>PSA test (males)</b>	<b>1.0%</b>

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

TABLE 21: PERCENT OF ADULTS WITH PRIMARY CARE PHYSICIAN(S)

	Total Market
Of All Respondents (Those With And Without Coverage)	78.9%
Of Respondents With Health Insurance Coverage	82.1%

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

TABLE 22: INCIDENCE OF RECEIVING ROUTINE HEALTH CARE: UH AHUJA MEDICAL CENTER MARKET

Type of Routine Health Care Service	Percent
Obtained routine checkup within past two years	87.6%
Visited a dentist for a routine checkup within past two years	78.9%
Recent blood pressure check (within past year)	90.9%
Recent cholesterol check (within past year)	69.1%
Received flu vaccine (within past year)	63.9%
Recent clinical breast exam (females only, within past year)	63.9%
Recent Pap smear (females only, within past year)	48.3%
Recent mammogram (females only, within past year)	34.0%
Recent Prostate-Specific Antigen test (males only, within past year)	52.2%
Recent digital exam of prostate gland (males only, within past year)	45.9%

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

## Unhealthy Behaviors

Certain unhealthy or risky behaviors are fairly prevalent among adults in UH Ahuja Medical Center's market area, illustrated in [Table 23: Incidence of Unhealthy Behaviors Among Adults in UH Ahuja Medical Center's Primary and Secondary Markets](#).

The survey found that 13.2% of those within UH Ahuja Medical Center's market area were smokers at the time of the survey in 2012. The CDC reported that about one in five adults in Cuyahoga County were smokers in 2014, somewhat higher than what was found in the survey (UH Ahuja Medical Center's market area within Cuyahoga County). In addition, 12.6% reported using illicit drugs recreationally and 6.9% reported using medications (prescribed for others) recreationally. Recall that a large percentage of UH Ahuja Medical Center patients (13.2% of adults) had a secondary diagnosis of nondependent drug abuse.

A significant proportion of households in UH Ahuja Medical Center's market area either store a firearm which is not locked (9.5%), is loaded (4.8%), or is both unlocked and loaded (2.4%). About one in four (24.2%) adults in UH Ahuja Medical Center's market area do not always wear a seat belt while driving in a vehicle.

Among the adult population, unhealthy consumption of alcohol (binge drinking) occurred two or more times for

30.6% of the adult population in the 30 days prior to being surveyed. Many (11.9%) reported binge drinking (five or more drinks) at least once a week.

Although more than eight in 10 surveyed adults had obtained a medical checkup within the two years prior to the survey, for many that checkup did not include discussions about diet, exercise, injury prevention, or healthy sexual practices, shown in [Figure 10: Health Care Providers' Communication of Key Health Supporting Behaviors, UH Ahuja Medical Center Primary and Secondary Market Areas](#). Likewise, most were not counseled on the importance of family history as it relates to health or their immunization status.

While obesity was very common among those hospitalized at UH Ahuja Medical Center in 2013 (21.7%), not all have had discussions with a health care provider about that health condition (36.9% never have).

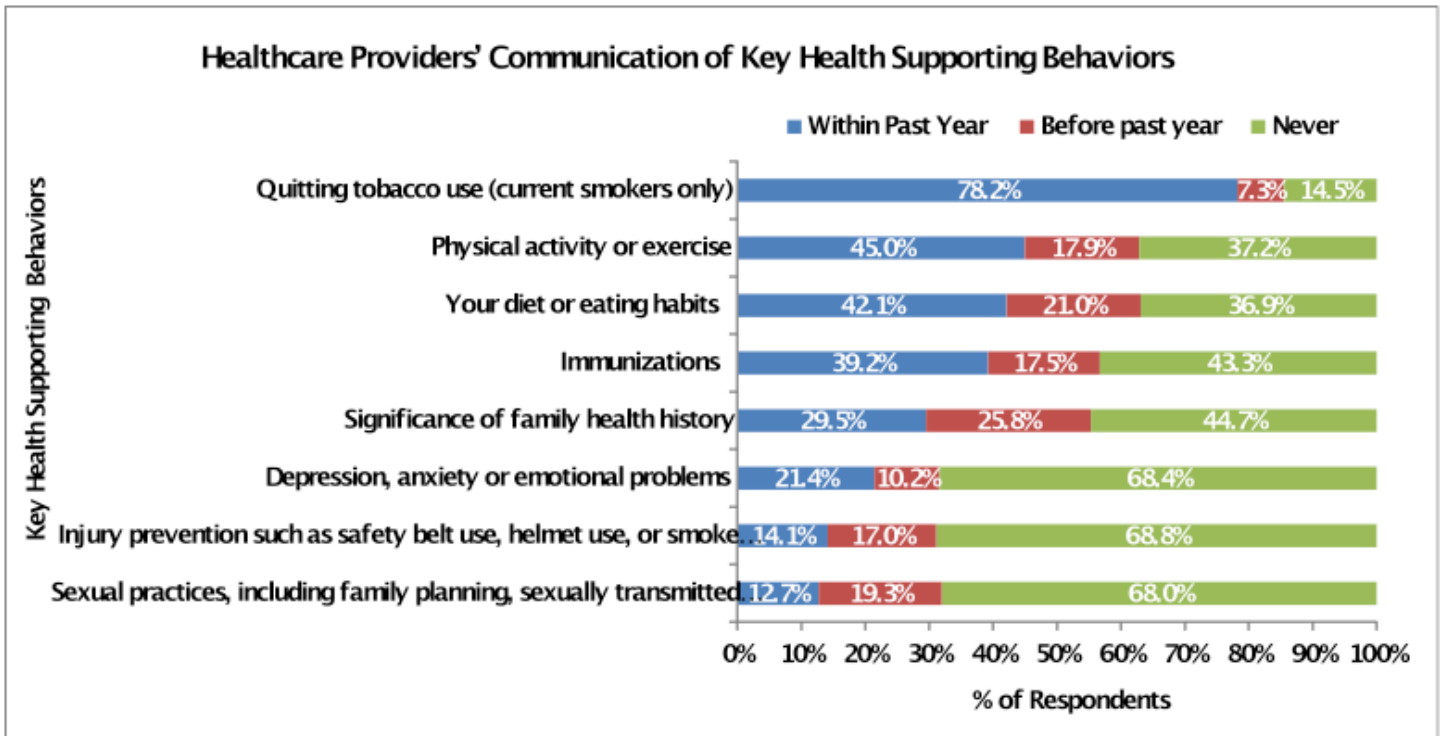
Recall that almost one in five of UH Ahuja Medical Center's adult discharged patients in 2013 had a primary diagnosis of circulatory system disease. Another 59% had a secondary diagnosis of a circulatory system disease. 18% had a primary diagnosis of lung diseases, which are often tied to smoking. One-fourth were diabetics. These and related conditions are strongly tied to lifestyle choices.

TABLE 23: INCIDENCE OF UNHEALTHY BEHAVIORS AMONG ADULTS IN UH AHUJA MEDICAL CENTER'S PRIMARY AND SECONDARY MARKETS

Type of Unhealthy/Risky Behavior	Percent
Smoke cigarettes	13.2%
Used recreational drugs within past six months	12.6%
Recreational use of medications prescribed for others or obtained illegally	6.9%
Have firearm(s) in home which is unlocked/loaded	9.5%/4.8%; 2.4% have firearm(s) both unlocked and loaded
Do not always wear seat belt while in vehicle	24.2%
Binge drinking, two or more times a month (within past 30 days)	30.6%
Binge drinking once a week or more	11.9%
Driving a vehicle after consuming alcohol (within past 30 days)	13.1%

Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

FIGURE 10: HEALTH CARE PROVIDERS' COMMUNICATION OF KEY HEALTH SUPPORTING BEHAVIORS, UH AHUJA MEDICAL CENTER PRIMARY AND SECONDARY MARKET AREAS



Source: Hospital Council of Northwest Ohio Community Health Needs Assessment

## H. Infant Mortality

This indicator reports the rate of deaths to infants less than one year of age per 1,000 births. This indicator is relevant because high rates of infant mortality may indicate the existence of broader issues pertaining to access to care and maternal and child health. Data at the ZIP code level (and hence hospital market area) are not available; only data at the county level are available.

Historically, infant mortality rates for Blacks have been significantly higher in the U.S. In fact, according to the most recently available data, infant mortality rates for Blacks were almost twice as high as infant mortality rates for Whites in 2012, shown in [Figure 11: Infant Mortality Trends](#). This disparity is also true for Cuyahoga County and Summit County. In 2012, the infant mortality rate for Blacks was 154% higher than for Whites in Cuyahoga County, and 94% higher for Blacks in Summit County compared to Whites.

The infant mortality rate per 1,000 births in Cuyahoga County (8.86) was somewhat higher than Ohio overall (7.57) in 2012, but significantly higher than that in the United States overall (5.98). Infant mortality rates in Summit (6.67), Portage (5.06), Geauga (6.36) and Lake (4.12) counties were lower than those in Cuyahoga County, as illustrated in [Table 24: Infant Mortality Trends, 2007 to 2012, U.S., Cuyahoga and Surrounding Counties, Per 1,000 Births\\*](#).

Infant mortality rates in Portage and Lake counties for Blacks show a similar concerning disparity compared to White rates; however, the fairly small number of Black births in those counties result in large fluctuations in the infant mortality rate which is expressed as births per 1,000 (there were no more than 164 Black births in either of those counties in the five years of measurements). The number of Black births in Geauga County was too low for calculations from 2007 to 2012. Looking only at White births, the lowest infant mortality levels are found in Portage and Lake counties (4.83 and 4.34 respectively).

FIGURE 11: INFANT MORTALITY TRENDS

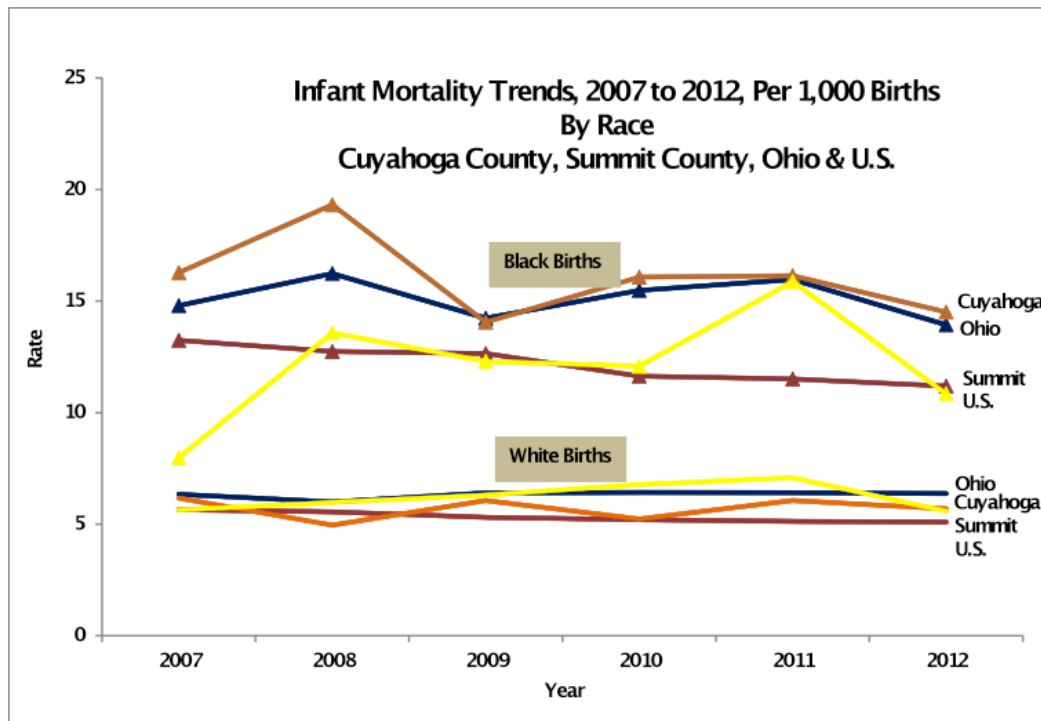


TABLE 24: INFANT MORTALITY TRENDS, 2007 TO 2012, U.S., CUYAHOGA AND SURROUNDING COUNTIES, PER 1,000 BIRTHS\*

Geography	Race	Infant Mortality Rate						Number of Births					
		'07	'08	'09	'10	'11	'12	'07	'08	'09	'10	'11	'12
United States Overall	Total	6.75	6.61	6.39	6.15	6.07	5.98	4,316,233	4,247,694	4,130,665	3,999,386	3,953,590	3,952,841
	White	5.64	5.55	5.3	5.2	5.12	5.09	3,336,626	3,274,163	3,173,293	3,069,315	3,020,355	2,999,820
	Black	13.24	12.74	12.64	11.63	11.51	11.19	675,676	670,809	657,618	636,425	632,901	634,126
Ohio Overall	<b>Total</b>	<b>7.71</b>	<b>7.7</b>	<b>7.67</b>	<b>7.68</b>	<b>7.87</b>	<b>7.57</b>	<b>150,784</b>	<b>148,592</b>	<b>144,569</b>	<b>139,034</b>	<b>138,024</b>	<b>138,284</b>
	White	6.34	6	6.4	6.42	6.41	6.37	121,267	118,901	115,328	107,189	104,906	106,004
	Black	14.79	16.23	14.23	15.47	15.96	13.93	25,959	26,131	25,433	23,469	23,252	23,696
Cuyahoga County	<b>Total</b>	<b>9.97</b>	<b>10.59</b>	<b>9.08</b>	<b>9.07</b>	<b>9.47</b>	<b>8.86</b>	<b>16,450</b>	<b>16,249</b>	<b>15,525</b>	<b>15,108</b>	<b>14,993</b>	<b>14,787</b>
	White	6.17	4.95	6.06	5.23	6.06	5.69	9,233	9,092	8,746	7,842	7,750	7,554
	Black	16.27	19.32	14.05	16.07	16.13	14.51	6,576	6,573	6,192	5,912	5,829	5,789
Summit County	<b>Total</b>	<b>6.23</b>	<b>7.49</b>	<b>7.57</b>	<b>8.04</b>	<b>8.91</b>	<b>6.67</b>	<b>6,738</b>	<b>6,279</b>	<b>6,342</b>	<b>6,096</b>	<b>6,174</b>	<b>6,145</b>
	White	5.63	5.97	6.3	6.77	7.08	5.58	5,152	4,688	4,746	4,429	4,520	4,482
	Black	7.97	13.57	12.29	12.08	15.87	10.84	1,380	1,400	1,383	1,342	1,323	1,292
Portage County	<b>Total</b>	<b>7.79</b>	<b>8.30</b>	<b>7.08</b>	<b>7.52</b>	<b>5.43</b>	<b>5.06</b>	<b>1,669</b>	<b>1,566</b>	<b>1,553</b>	<b>1,462</b>	<b>1,474</b>	<b>1,383</b>
	White	7.18	8.93	5.61	6.07	5.22	4.83	1,533	1,456	1,426	1,317	1,340	1,242
	Black	21.05	0.00	31.58	20.83	0.00	10.20	95	73	95	96	80	98
Geauga County	<b>Total</b>	<b>8.23</b>	<b>2.21</b>	<b>2.22</b>	<b>2.13</b>	<b>7.84</b>	<b>6.36</b>	<b>972</b>	<b>905</b>	<b>901</b>	<b>939</b>	<b>893</b>	<b>944</b>
	White	8.46	2.25	2.27	2.18	8.03	6.67	946	887	880	916	872	899
	Black	0.00	0.00	0.00	0.00	0.00	0.00	18	11	7	12	9	18
Lake County	<b>Total</b>	<b>8.31</b>	<b>6.71</b>	<b>3.38</b>	<b>2.53</b>	<b>3.95</b>	<b>4.12</b>	<b>2,526</b>	<b>2,532</b>	<b>2,366</b>	<b>2,376</b>	<b>2,280</b>	<b>2,187</b>
	White	8.15	5.63	3.70	1.96	4.08	4.34	2,332	2,308	2,161	2,038	1,961	1,843
	Black	14.39	24.39	0.00	14.60	8.62	6.49	139	164	140	137	116	154

\*Source: Ohio Department of Health

## I. Incidence of Health Issues

Many adults within UH Ahuja Medical Center's market area who were surveyed have been diagnosed with a chronic disease. Of surveyed adults in UH Ahuja Medical Center's market area, 12.8% have been diagnosed with asthma, 40% have been diagnosed with arthritis and 7.7% have been diagnosed with diabetes. Also, 21.1% of adults in UH Ahuja Medical Center's market area have a known circulatory disease (heart attack/myocardial infarction, angina, stroke).

Previous diagnosis of and/or treatment for mental health issues was reported by 20.1% of adults in UH Ahuja Medical Center's market area in 2012. Many (7.2%) reported a bout of depression (lasting two or more weeks) within the year prior to the survey.

High blood pressure impacts nearly half (46%) of those in UH Ahuja Medical Center's market area, as do high blood cholesterol levels (47.8%). One in three (34.1%) adults within UH Ahuja Medical Center's market area have both high blood pressure and high cholesterol levels.

Many adults within UH Ahuja Medical Center's market area have also been impacted by these serious health events:

- 1% have been a victim of some type of abuse (physical, sexual, financial and/or emotional) within the past year;
- 24.1% have had a cancer diagnosis at some point.

Prostate cancer and breast cancer are the two most common cancer diagnoses in Cuyahoga, Summit and Portage counties, shown in [Table 25: Cancer Incidence by Cancer Type](#). This is true in Ohio and the U.S. overall.

Note that prostate, breast and cervical cancer rates in Cuyahoga County are higher than rates in the U.S. and in Ohio. Lung cancer rates in Cuyahoga County are low compared to Ohio, but higher than U.S. rates.

Summit County has the lowest rates for all cancers shown below in comparison to Cuyahoga County, Ohio and the United States overall – with one exception: Summit County has higher lung cancer rates than the U.S. overall.

Portage County compares favorably to Ohio and the U.S. overall in terms of breast cancer and colon/rectal cancer rates. Portage County has higher rates of prostate and lung cancers, and very slightly higher rates of cervical cancer, than Ohio overall.

For prostate, breast, colon/rectum and cervical cancers, Cuyahoga County shows the highest rates among the three comparison counties. Portage County has the highest lung cancer rate of the three comparison counties.

Finally, many adults in UH Ahuja Medical Center's market area are subject to major life stressors:

- 25% of adults lack a support system such as child care backup, financial assistance, etc.
- 67% experienced some type of major stressful event within the past year (household member death, hospitalized or jailed; job loss; homelessness; changed residences; self or child was slapped or hit; household member abused drugs or alcohol).

TABLE 25: CANCER INCIDENCE BY CANCER TYPE

Cancer Type	Report Area	Total Population	Average New Cases per Year	Annual Incidence Rate (Per 100,000 Population)
<b>Prostate Cancer (total population Male only)</b>	Cuyahoga County	609,670	1,076	156
	Summit County	261,864	361	122.5
	Portage County	78,578	123	147.1
	Ohio	5,624,513	8,272	135.8
	United States	150,740,224	220,000	142.3
<b>Breast Cancer (total population Female only)</b>	Cuyahoga County	675,609	1,107	129.7
	Summit County	280,305	392	114.1
	Portage County	82,135	104	113.7
	Ohio	5,901,023	8,435	120
	United States	155,863,552	216,052	122.7
<b>Lung</b>	Cuyahoga County	1,285,279	1,143	71.5
	Summit County	542,169	458	70.6
	Portage County	160,713	125	73.4
	Ohio	11,525,536	9,551	72.4
	United States	306,603,776	212,768	64.9
<b>Colon and Rectum</b>	Cuyahoga County	1,285,279	709	44.2
	Summit County	542,169	269	41.4
	Portage County	160,713	71	42.6
	Ohio	11,525,536	5,862	44.5
	United States	306,603,776	142,173	43.3
<b>Cervical (total population Female only)</b>	Cuyahoga County	675,609	61	8.3
	Summit County	280,305	15	5.3
	Portage County	82,135	6	7.8
	Ohio	5,901,023	471	7.7
	United States	155,863,552	12,530	7.8

Data Source: National Institutes of Health, National Cancer Institute, Surveillance, Epidemiology, and End Results Program. State Cancer Profiles.  
Source geography: County



## J. Vulnerable Populations

### Medically Underserved Areas, Federally Qualified Health Centers and Food Deserts

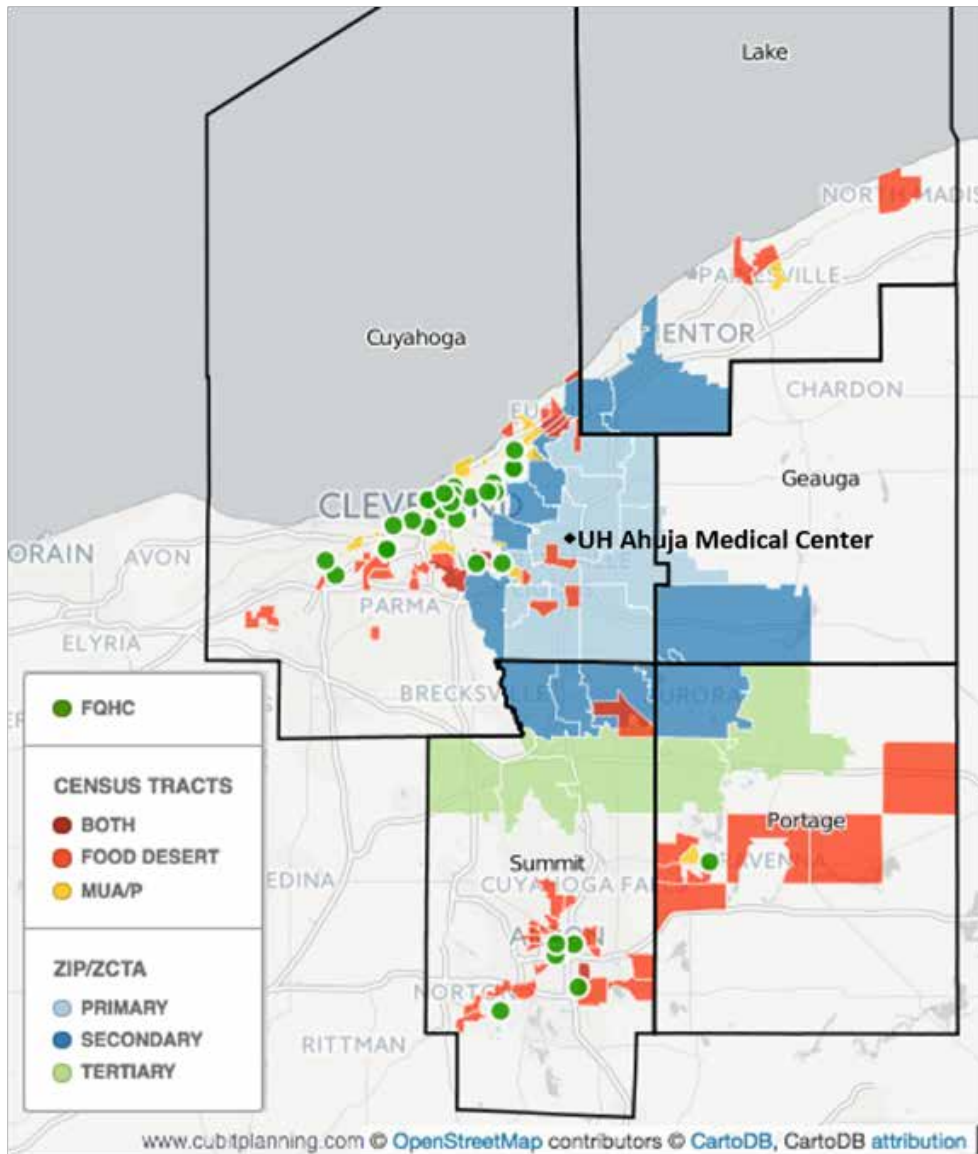
Medically underserved areas/populations (MUAs/MUPs) are areas or populations designated by the U.S. Department of Health and Human Services' Health Resources and Services Administration (HRSA) as having insufficient primary care providers, a high infant mortality rate, high poverty or a high elderly population. Within UH Ahuja Medical Center's market areas, there are several MUA/MUPs designated by HRSA (shown on map).

Federally Qualified Health Centers (FQHCs) are community-based organizations that provide comprehensive primary care and preventive care, including health, oral, and mental health/substance abuse services to persons of all ages, regardless of their ability to pay or health insurance status. There are no FQHCs inside the market area.

In addition, pinpointing food desert locations in a hospital's service area can help to identify areas with insufficient access to healthy and affordable food. According to the U.S. Department of Agriculture, food deserts are defined as "urban neighborhoods and rural towns without ready access to fresh, healthy and affordable food." Rather than having grocery stores in these communities, there may be no food access or limited access to healthy, affordable food options. The Food Desert Locator, created by the U.S. Department of Agriculture's Economic Research Service, is a web-based mapping tool that pinpoints food desert locations in the U.S. There are multiple census tracts within UH Ahuja Medical Center's market area (in Cuyahoga and Summit counties) that are designated as food deserts.

Figure 12: Medically Underserved Areas/Populations, FQHCs and Food Deserts: UH Ahuja Medical Center overlays medically underserved areas and food deserts in UH Ahuja Medical Center's market areas and beyond to determine areas that may have the highest need for services. To provide further context, the map also pinpoints the location of FQHCs (all of which are outside of UH Ahuja Medical Center's market area).

FIGURE 12: MEDICALLY UNDERSERVED AREAS/POPULATIONS, FQHCS AND FOOD DESERTS: UH AHUJA MEDICAL CENTER



### ACS Analysis of Vulnerable Populations

Revisiting the ACS data can provide further insight into the level of access to health care for vulnerable populations. Details of this analysis can be found in the Appendix. In sum, a higher incidence of ACS conditions were found among residents of UH Ahuja Medical Center's market area (from all area hospitals) among Blacks (18.2%) compared to Whites (15.2%). This suggests lower access to primary care among Blacks compared to Whites in UH Ahuja Medical Center's market area.

However, this varies by specific ACS diagnoses for residents of UH Ahuja Medical Center's market area. The ACS diagnoses of congestive heart failure, diabetes, epilepsy and asthma were higher among Blacks. The ACS diagnoses of bacterial pneumonia, cellulitis, and kidney/urinary infections were higher among Whites.

## CONCLUSIONS

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### A. Priority Health Needs

The list that follows describes the priority health issues identified through this CHNA.

#### Health Disparities

- Aging population
- High rate of poverty
- High rate of unemployment
- Infant mortality/preterm births

#### Access Barriers

- High cost of care
- Access to primary care providers

#### Lifestyle Barriers

- Obesity
- Substance abuse (tobacco, drugs, alcohol)
- Violence

#### Chronic Disease Conditions

- Cardiovascular diseases
- Respiratory diseases
- Diabetes
- Kidney Disease
- Alzheimer's
- Gonorrhea
- Mental Health
  - Older adult depression
  - Mental illness

This list of health needs was compiled based on the variety of data assessed throughout this report. For example, issues like cardiovascular diseases and diabetes were found prevalently throughout the data sets; including in hospital discharge data, Hospital Council of Northwest Ohio Community Health Needs Assessment Data, and qualitative

data collected through surveys and public health interviews. Health needs were categorized into four primary categories, which encompassed a broader list of specific, related needs.

The prioritization process included input from hospital leaders who work closely with the community and have an in-depth understanding of community needs. After reviewing the primary and secondary data analysis for the UH Ahuja Medical Center service area, a team of leaders from the hospital assembled to determine priority health needs. This team included:

1. Susan Juris, President, UH Ahuja Medical Center
2. LouAnn Marx, Director, Regional Marketing
3. Julie Bogdan, LPN, Community Outreach

The team met in July 2015 and together determined a set of criteria with which to select priority health needs. These included: (1) magnitude of the problem, (2) alignment of the problem with organizational strengths and priorities, and (3) existing resources to address the problem. Feedback from external community leaders, as described in the Qualitative Data Analysis section of this report, was a driving factor in this prioritization process as well.

This team decided to select three chronic disease conditions as the hospital's primary priorities for this CHNA. Those include:

1. Cardiovascular diseases
2. Respiratory diseases
3. Diabetes

These conditions are highly prevalent throughout UH Ahuja Medical Center's service area and are directly related to a number of the access conditions and lifestyle conditions that were also identified as community health needs. The UH Ahuja Medical Center team believes that their implementation approach to addressing these disease conditions will incorporate strategies that will also address those access and lifestyle conditions, including obesity, substance abuse, and access to primary care. The team anticipates creating opportunities for individuals to actively manage their diseases with health care professionals and community resources.

## **B. Resources Available to Address Priority Health Needs within the Community Served by the Hospital**

The following is a list of available facilities and resources that the Hospital uses to assist in meeting identified community health needs:

### **Health Disparities**

#### **Aging Population**

- University Hospitals Center for Lifelong Health
- Western Reserve Area Agency on Aging
- Community Partnership on Aging, serves South Euclid, Lyndhurst, Highland Heights, Mayfield Village and Mayfield Heights
- Cleveland Heights Office on Aging

#### **High Rate of Poverty**

- The City Mission, homeless shelter and nonprofit charity
- Council for Economic Opportunities in Greater Cleveland
- Cleveland Housing Network
- Hunger Network of Greater Cleveland
- The HARP Mission, based in Broadview Heights
- Housing Research and Advocacy Center

#### **High Rate of Unemployment**

- Cuyahoga County Department of Job and Family Services

### **Lifestyle Barriers**

#### **Obesity**

- Cuyahoga County Board of Health
- St. Luke's Foundation
- Warrensville Heights YMCA
- Cuyahoga Child and Family Health Services Executive Committee

### **Substance Abuse**

- Recovery Resources
- Partnership for Prevention Coalition
- Cuyahoga County Board of Alcohol, Drug Addiction, and Mental Health Services
- Northern Ohio Recovery Association

### **Violence**

- Cuyahoga County Child Fatality Review Committee
- Domestic Violence and Child Advocacy Center
- Partnership for a Safer Cleveland
- Louis Stokes Greater Cleveland Consortium for Violence Prevention

### **Chronic Disease Conditions**

- UH Ahuja Medical Center (inpatient care)
- Alzheimer's Association
- American Diabetes Association
- Diabetes Partnership of Cleveland
- American Heart Association
- Bellefaire JCB

### **Access Barriers**

- UH Ahuja Medical Center (inpatient care)
- Free Clinic of Greater Cleveland
- Cuyahoga County Health Care Council/Joint Advisory Committee
- Health Improvement Partnership – Cuyahoga
- Universal Health Care Action Network

### A. Qualifications of Consulting Companies

#### The Center for Health Affairs, Cleveland, Ohio

The Center for Health Affairs is the leading advocate for Northeast Ohio hospitals. With a rich history as the Northeast Ohio hospital association, dating back to 1916, The Center serves as the collective voice of 34 hospitals spanning six counties.

The Center recognizes the importance of analyzing the top health needs in each community while ensuring hospitals are compliant with IRS regulations governing nonprofit hospitals. Since 2010, The Center has helped hospitals fulfill the CHNA requirements contained within the Affordable Care Act. The Center offers a variety of CHNA services to help hospitals produce robust and meaningful CHNA reports that can guide a hospital's community health improvement activities. Beyond helping hospitals with the completion of timely CHNA reports, The Center spearheads the Northeast Ohio CHNA Roundtable, which brings member hospitals and other essential stakeholders together to spur opportunities for shared learning and collaboration in the region.

The 2015 CHNA prepared for UH Ahuja Medical Center was directed by The Center's vice president of corporate communications, managed by The Center's community outreach director and supported by a project manager. The Center engaged Cypress Research Group to provide expertise in data analysis and statistical methods.

More information about The Center for Health Affairs and its involvement in CHNAs can be found at [www.chanet.org](http://www.chanet.org).

#### Cypress Research Group, Cleveland, Ohio

Founded in 1997, Cypress Research Group focuses on quantitative analysis of primary and secondary market and industry data. Industry specialties include health care, hi-tech and higher education. Since 2002, Cypress Research Group has partnered with The Center for Health Affairs to conduct a range of studies including building forecast models for nurses and most recently to analyze data for CHNAs.

UH Ahuja Medical Center's CHNA was directed by the company's president and supported by the work of associates and research analysts. The company's president, as well as all associates and research analysts, hold graduate degrees in relevant fields.

## B. ACS Conditions and ICD-9-CM Codes

Below are the general categories of ACS conditions and their associated ICD-9-CM codes.

1. Congenital Syphilis: ICD-9-CM code 090 (newborns only).
2. Immunization-Related and Preventable Conditions: ICD-9-CM codes 033, 037, 045, 390, 391; (also including haemophilus meningitis for children ages 1-5 only, ICD-9-CM code 320.0; ICD-10-CA code G00.0).
3. Epilepsy: ICD-9-CM code 345.
4. Convulsions: ICD-9-CM code 780.3.
5. Severe ENT Infections: ICD-9-CM codes 382, 462, 463, 465, 472.1; (cases of otitis media, ICD-9-CM code 382).
6. Pulmonary Tuberculosis: ICD-9-CM code 011.
7. Other Tuberculosis: ICD-9-CM codes 012-018.
8. Chronic Obstructive Pulmonary Disease (COPD): ICD-9-CM codes 491, 492, 494, 496.
9. Acute Bronchitis: (only included if a secondary diagnosis of COPD is also present, diagnosis codes as above), ICD-9-CM code 466.0.
10. Bacterial Pneumonia: ICD-9-CM codes 481, 482.2, 482.3, 482.9, 483, 485, 486; (patients with a secondary diagnosis of sickle-cell anemia, ICD-9-CM code 282.6; and patients less than two months of age are excluded).
11. Asthma: ICD-9-CM code 493.
12. Congestive Heart Failure (CHF): ICD-9-CM codes 402.01, 402.11, 402.91, 428, 518.4.
13. Hypertension: ICD-9-CM codes 401.0, 401.9, 402.00, 402.10, 402.90.
14. Angina: ICD-9-CM codes 411.1, 411.8, 413 (patients with any surgical procedure coded are excluded).
15. Cellulitis: ICD-9-CM codes 681, 682, 683, 686 (patients with any surgical procedure coded are excluded, except for incisions of skin and subcutaneous tissue, ICD-9-CM procedure code 86.0).
16. Diabetes: ICD-9-CM codes 250.0, 250.1, 250.2, 250.3, 250.8, 250.9.
17. Hypoglycemia: ICD-9-CM code 251.2.
18. Gastroenteritis: ICD-9-CM code 558.9.
19. Kidney/Urinary Infections: ICD-9-CM codes 590, 599.0, 599.9.
20. Dehydration/Volume Depletion: ICD-9-CM code 276.5.
21. Iron Deficiency Anemia: ICD-9-CM codes 280.1, 280.8, 280.9.
22. Nutritional Deficiencies: ICD-9-CM codes 260, 261, 262, 268.0, 268.1.
23. Failure to Thrive: ICD-9-CM code 783.4; ICD-10-CA code R62 (patients less than one year of age only).
24. Pelvic Inflammatory Disease: ICD-9-CM code 614; ICD-10-CA codes N70, N73, N99.4 (female patients only, patients with a hysterectomy procedure coded are excluded, ICD-9-CM procedure codes 68.3-68.8).
25. Dental Conditions: ICD-9-CM codes 521, 522, 523, 525, 528.

### C. Vulnerable Populations Analysis

It is well established that access to medical care and health outcomes are weaker in the lowest income areas throughout the U.S. To shine a light on this problem and help policymakers properly allocate resources, HRSA identified Medically Underserved Areas/Populations (MUA/Ps). Currently there are several MUA/Ps identified within UH Ahuja Medical Center's market area (see body of report).

However, area hospitals' discharge data, including UH Ahuja Medical Center's, can further be examined to look for potential health care access issues among economically vulnerable populations in terms of ambulatory care sensitive (ACS) cases. An earlier analysis showed that UH Ahuja Medical Center's inpatient discharges, as a group, had a fairly high prevalence of ACS cases in 2013 (22.7%). For the hospital's market area counties, on the whole (discharges for all hospitals) there was an ACS level no higher than 18.7%.

Shown in [Table 26: Poverty Levels, by Race, Cuyahoga and Surrounding Counties, 2013\\*](#), in all of the counties that UH Ahuja Medical Center serves, Blacks are two to three times more likely to live in poverty than Whites.

There are not socioeconomic indicators associated with hospital discharge data, the association between race and hospital discharge findings can be used to illuminate

possible health care access issues within the economically vulnerable areas UH Ahuja Medical Center serves.

[Table 27: Most Common\\* ACS Conditions, by County, White versus Black Discharges, 2014](#) shows the prevalence of ACS conditions by race for those admitted to any hospital for those who live in UH Ahuja Medical Center's market area. It is not possible to look only at those discharged from UH Ahuja Medical Center because the number of racial minorities is too low for reliable analysis. For comparison the ACS discharge rates overall and primary diagnoses for those in Cuyahoga, Portage and Summit Counties in 2014 are shown.

Overall, there was a higher prevalence of ACS conditions among residents of UH Ahuja Medical Center's **market area** (from all area hospitals) among Blacks (18.2%) than Whites (15.2%). This warrants concern that there is a racial disparity between Blacks and Whites in terms of access to primary care in UH Ahuja Medical Center's market area.

**However, this varies by specific ACS diagnoses** among residents of UH Ahuja Medical Center's market area. The ACS **diagnoses** of congestive heart failure, diabetes, epilepsy and asthma were higher among Blacks. The ACS diagnoses of bacterial pneumonia, cellulitis and kidney/urinary infections were higher among Whites.

TABLE 26: POVERTY LEVELS, BY RACE, CUYAHOGA AND SURROUNDING COUNTIES, 2013\*

Geography	Percent Below Poverty Level	
	White	Black
Cuyahoga County, Ohio	11%	33.5%
Lake County, Ohio	8.3%	25.3%
Summit County, Ohio	11.4%	33.8%
Portage County, Ohio	14.6%	33.1%
Geauga County, Ohio	7.9%	17.5%

Source: U.S. Census Bureau, American Community Survey 2013 5-year Estimates (Table: S1701)

TABLE 27: MOST COMMON\* ACS CONDITIONS, BY COUNTY, WHITE VERSUS BLACK DISCHARGES, 2014

	UH Ahuja Medical Center Market Area		Cuyahoga County		Summit County		Portage County	
	White	Black	White	Black	White	Black	White	Black
<b>Number of discharges:</b>	<b>36,943</b>	<b>4,239</b>	<b>34,806</b>	<b>4,249</b>	<b>43,300</b>	<b>11,549</b>	<b>16,003</b>	<b>788</b>
No ACS Condition as Primary Diagnosis*	83.6%	80.4%	83.6%	80.3%	85.4%	84.1%	85.1%	83.1%
<b>ACS Condition as Primary Diagnosis, Total</b>	<b>16.4%</b>	<b>19.6%</b>	<b>16.4%</b>	<b>19.7%</b>	<b>14.6%</b>	<b>15.9%</b>	<b>14.9%</b>	<b>16.9%</b>
Congestive Heart Failure (CHF)	2.7%	3.8%	2.7%	3.8%	2.8%	3.7%	3.1%	3.8%
Bacterial Pneumonia	3.0%	2.5%	3.0%	2.5%	2.2%	1.8%	2.5%	1.1%
Chronic Obstructive Pulmonary Disease (COPD)	2.6%	2.5%	2.6%	2.6%	1.8%	1.3%	1.9%	1.9%
Asthma	2.2%	1.5%	2.2%	1.5%	0.8%	1.3%	0.7%	2.4%
Cellulitis	1.0%	1.6%	1.0%	1.6%	2.1%	1.4%	1.8%	1.0%
Diabetes	1.4%	1.1%	1.4%	1.1%	1.0%	2.1%	1.1%	1.6%
Epilepsy	0.6%	0.8%	0.6%	0.8%	0.5%	0.8%	0.5%	1.5%
Kidney/Urinary Infections	1.1%	2.9%	1.1%	2.9%	1.9%	1.5%	1.5%	1.1%

\*This refers to any ACS condition. Only the most prevalent ACS conditions are shown in the table.



## D. 2012 – 2015 Implementation Strategy Objectives

- A. Continue to provide access to care through the UH Hospital Financial Assistance Program. (STATUS: Ongoing)
- B. Continue to address lack of accessible and affordable prescription medications through direct patient access counseling and education. (STATUS: Ongoing)
- C. Positively impact adverse health conditions, unfavorable health behaviors, and mortality rates, through health education.
  - a. Work with the Cuyahoga County Health Alliance and with multiple communities in the Hospital's service area to establish a health and wellness initiative. Through this initiative, the Hospital plans to:
    - i. Impact prevalent diet- and exercise-related conditions through a physician speaker series, community education and health fairs. (STATUS: Ongoing)
    - ii. Increase awareness of preventive care that encourages healthy behaviors including, but not limited to:
      - 1. Exploration of ways to offer a community smoking cessation program. (STATUS: Not yet started)
      - 2. Provision of screenings for cancer, cardiovascular and other diseases. (STATUS: Ongoing)
    - iii. Offer free community education by physicians and allied health professionals at community senior centers, civic centers and recreation centers. Topics will include chronic disease management, prevention and wellness information, and disease-specific education, including liver disease and cardiovascular disease. (STATUS: Ongoing)
- D. Reduce inappropriate emergency department usage through education about health care options for nonemergency care, including urgent care clinics and access to primary care providers. This will be part of the Cuyahoga County Health Alliance health and wellness initiatives in municipalities throughout the Hospital's service area. (STATUS: Ongoing)
- E. Impact social and economic conditions.
  - a. Provide targeted education at community-based senior centers and on-site health fairs to educate residents about support resources in the community. (STATUS: Ongoing)
  - b. Address the high rate of unemployment and financial hardship.
    - i. Host a job table at health fairs and community events hosted by the Hospital to encourage application for employment at the Hospital. (STATUS: Ongoing)
    - ii. Continue to make the UH Hospital Financial Assistance Program available to those who qualify. (STATUS: Ongoing)
- F. Evaluate the potential to improve mental and behavioral health status and lack of immediately available services through the creation of a senior adult assessment program that may include psychological, cognitive, physical and occupational therapy evaluations, and referrals to persons who may be at-risk. (STATUS: Not yet started – to be implemented sometime in 2015)

## E. 2015 CHNA Community Leader Survey

### KEY HEALTH ISSUES

1. What are the top five (5) health issues you see in your community?

- |   |  |
|---|--|
| <input type="checkbox"/> Access to Care/Uninsured | <input type="checkbox"/> Overweight/Obesity            |
| <input type="checkbox"/> Cancer                   | <input type="checkbox"/> Sexually Transmitted Diseases |
| <input type="checkbox"/> Dental Health            | <input type="checkbox"/> Stroke                        |
| <input type="checkbox"/> Diabetes                 | <input type="checkbox"/> Substance Abuse/Alcohol Use   |
| <input type="checkbox"/> Heart Disease            | <input type="checkbox"/> Tobacco                       |
| <input type="checkbox"/> Maternal/Infant Health   | <input type="checkbox"/> Other (specify):              |
| <input type="checkbox"/> Mental Health/Suicide    |  |

2. Of those health issues mentioned, which one (1) is the most significant?

- |   |  |
|---|--|
| <input type="checkbox"/> Access to Care/Uninsured | <input type="checkbox"/> Overweight/Obesity            |
| <input type="checkbox"/> Cancer                   | <input type="checkbox"/> Sexually Transmitted Diseases |
| <input type="checkbox"/> Dental Health            | <input type="checkbox"/> Stroke                        |
| <input type="checkbox"/> Diabetes                 | <input type="checkbox"/> Substance Abuse/Alcohol Use   |
| <input type="checkbox"/> Heart Disease            | <input type="checkbox"/> Tobacco                       |
| <input type="checkbox"/> Maternal/Infant Health   | <input type="checkbox"/> Other (specify):              |
| <input type="checkbox"/> Mental Health/Suicide    |  |

3. Please share any additional information regarding these health issues and your reasons for ranking them this way below:

### ACCESS TO CARE

4. On a scale of 1 (strongly disagree) through 5 (strongly agree), please rate each of the following statements about Health Care Access in the area.

Residents in the area are able to access a primary care provider when needed (Family Doctor, Pediatrician, General Practitioner)	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Residents in the area are able to access a medical specialist when needed (Cardiologist, Dermatologist, Neurologist, etc.)	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Residents in the area are able to access a dentist when needed	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
There is a sufficient number of providers accepting Medicaid in the area	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
There is a sufficient number of bilingual providers in the area	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
There is a sufficient number of mental/behavioral health providers in the area	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5
Transportation for medical appointments is available to area residents when needed	<input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5

5. What are the most significant barriers that keep people in the community from accessing health care when they need it?  
(Select all that apply)

- Availability of Providers/Appointments
- Basic Needs Not Met (Food/Shelter)
- Inability to Navigate Health Care System
- Inability to Pay Out-of-Pocket Expenses (Copays, Prescriptions, etc.)
- Lack of Child Care
- Lack of Health Insurance Coverage
- Lack of Transportation
- Lack of Trust
- Language/Cultural Barriers
- Time Limitations (Long Wait Times, Limited Offices Hours, Time off Work)
- Non/No Barriers
- Other (specify):

6. Of those barriers mentioned, which one (1) is the most significant?

- Availability of Providers/Appointments
- Basic Needs Not Met (Food/Shelter)
- Inability to Navigate Health Care System
- Inability to Pay Out-of-Pocket Expenses (Copays, Prescriptions, etc.)
- Lack of Child Care
- Lack of Health Insurance Coverage
- Lack of Transportation
- Lack of Trust
- Language/Cultural Barriers
- Time Limitations (Long Wait Times, Limited Offices Hours, Time off Work)
- Non/No Barriers
- Other (specify):

7. Please share any additional information regarding barriers to health care below:

8. Are there specific populations in this community that you think are not being adequately served by local health services?

\_\_\_ Yes \_\_\_ No

9. If yes, which populations are underserved? (Select all that apply)

- Uninsured/Underinsured
- Low-income/Poor
- Hispanic/Latino
- Black/African-American
- Immigrant/Refugee
- Disabled
- Children/Youth
- Young Adults
- Seniors/Aging/Elderly
- Homeless
- None
- Other (specify):

10. In general, where do you think MOST uninsured and underinsured individuals living in the area go when they are in need of medical care? (Choose one)

- Doctor's Office
- Health Clinic/FQHC
- Hospital Emergency Department
- Walk-in/Urgent Care Center
- Don't Know
- Other (specify):

11. Please share any additional information regarding uninsured/underinsured individuals and underserved populations below:

12. Related to health and quality of life, what resources or services do you think are missing in the community?  
(Select all that apply)

- Free/Low-Cost Medical Care
- Free/Low-Cost Dental Care
- Primary Care Providers
- Medical Specialists
- Mental Health Services
- Substance Abuse Services
- Bilingual Services
- Transportation
- Prescription Assistance
- Health Education/Information/Outreach
- Health Screenings
- None
- Other (specify):

## CHALLENGES & SOLUTIONS

13. What challenges do people in the community face in trying to maintain healthy lifestyles like exercising and eating healthy and/or trying to manage chronic conditions like diabetes or heart disease?

14. In your opinion, what is being done well in the community in terms of health and quality of life?

15. What recommendations or suggestions do you have to improve health and quality of life in the community?

### CLOSING

Please answer the following demographic questions.

16. Name and Contact Information

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Organization: \_\_\_\_\_

Email Address: \_\_\_\_\_

Phone Number: \_\_\_\_\_

17. Which one of these categories would you say BEST represents your community affiliation (Choose one):

- Health Care/Public Health Organization
- Mental/Behavioral Health Organization
- Nonprofit/Social Services/Aging Services
- Faith-Based/Cultural Organization
- Education/Youth Services
- Government/Housing/Transportation Sector
- Business Sector
- Community Member
- Other (specify):

18. What is your gender?    \_\_\_ Male    \_\_\_ Female

19. Which one of these groups would you say BEST represents your race/ethnicity?

- White/Caucasian
- Black/African-American
- Hispanic/Latino
- Asian/Pacific Islander
- Other (specify):

20. University Hospitals will be using the information gathered through these surveys to develop a community health implementation plan. Please share any other feedback you may have for them below:

## F. 2015 CHNA Community Leader Interview Guide

### Community Health Needs Assessment Survey Questions

Name: \_\_\_\_\_

Organization: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Do we have your permission to list your name in the report? \_\_\_\_\_

#### Questions:

1. Briefly describe the services your organization offers, and the population you serve.

2. Are your services targeted toward a particular geographical area (city, ZIP code, school, etc.)? Are they county-wide?

3. In your opinion, what is the biggest issue or concern facing the people served by your agency/in your community?  
In surrounding counties? Particular age groups (0 – 17, 18 – 44, 45 – 65, 65+)?  
*(Note: If not health care related, what is biggest health care related issue or concern?)*



5. If residents are leaving the community to receive certain services, what services are not accessible locally? Why do residents need to travel for care? Are people entering the county for services? Why/from where? Particular age groups (0 – 17, 18 – 44, 45 – 65, 65+)?

6. Please discuss the kinds of problems that the people served by your agency (by community agencies) have in accessing health care, mental and behavioral health, and/or social services for themselves and/or their families?  
*(Prompt: In answering this question you may wish to consider the following problems – language barriers, transportation, no health insurance, lack of information on available resources, delays in getting needed care, economic constraints, and/or dissatisfaction with treatment.)*

7. What are the community organizations/assets that are or could be working to address these needs?

8. Is there capacity within your organization to serve additional clients? If not, what are the biggest barrier(s) impacting your ability to increase capacity?



9. What role do you see the hospital(s) in your area currently playing to help address the community health issues faced by the low-income people who live here?

What role do you think the hospitals in your area should play?

10. If resources were not a concern, what specific initiative(s) would you recommend to address the most pressing access or health status problems in the community? Why?

## G. 2012 Cuyahoga County Health Survey

*Answers Will Remain Confidential!*

We need your help! We are asking you to complete this survey and return it to us within the next 7 days. We have enclosed a \$2.00 bill as a “thank you” for your time. We have also enclosed a postage-paid envelope for your convenience.

If you have any questions or concerns, please contact Deanna Moore, The Center For Health Affairs, at 216-255-3614.

### **Instructions:**

- Please complete the survey now rather than later.
- Please do NOT put your name on the survey. Your responses to this survey will be kept confidential. No one will be able to link your identity to your survey.
- Please be completely honest as you answer each question.
- Answer each question by selecting the response that best describes you.

Thank you for your assistance. Your responses will help to make Cuyahoga County a healthier place for all of our residents.

Turn the page to start the survey →

## HEALTH STATUS

1. Would you say that in general your health is:

- Excellent
- Very good
- Good
- Fair
- Poor

2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health **not** good?

- Number of days \_\_\_\_\_
- None
- Don't know

3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health **not** good?

- Number of days \_\_\_\_\_
- one
- Don't know

4. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

- Number of days \_\_\_\_\_
- None
- Don't know

## HEALTH CARE UTILIZATION

5. Do you have one person you think of as your personal doctor or health care provider?

- Yes, only one
- More than one
- No
- Don't know

6. How do you prefer to get information about your health or healthcare services?

- Family member or friend
- My doctor
- Newspaper articles or radio/television news stories
- Internet searches
- Advertising or mailings from hospitals, clinics, or doctors' offices
- Other \_\_\_\_\_
- Don't know

7. What transportation issues do you have when you need services? **(CHECK ALL THAT APPLY)**

- No car
- No driver's license
- Can't afford gas
- Disabled
- Car does not work
- No car insurance
- Other car issues/expenses
- No public transportation
- I do not have any transportation issues

## HEALTH CARE COVERAGE

8. Do you have any kind of health coverage, including health insurance, prepaid plans such as HMO's, or governmental plans such as Medicare?

- Yes
- No – **GO TO QUESTION 12**
- Don't know

9. What type of health care coverage do you use to pay for most of your medical care?

- Your employer
- Someone else's employer
- A plan that you or someone else buys on your own
- Medicare
- Medicaid or Medical Assistance
- The military, CHAMPUS, TriCare, or the VA
- The Indian Health Service
- Some other source
- None /self pay
- Don't know

10. Are any of the following true about your health care coverage? **(CHECK ALL THAT APPLY)**

- Co-pays are too high
- Premiums are too high
- Deductibles are too high
- High deductible with health savings account (HSA)
- Opted out of certain coverage because I could not afford it
- Opted out of certain coverage because I did not need it
- None of the above
- Don't know

11. Does your health coverage include:

- |                             |                              |                             |                                     |
|-----------------------------|------------------------------|-----------------------------|-------------------------------------|
| Medical?                    | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Dental?                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Vision?                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Mental health?              | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Prescription coverage?      | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Home care?                  | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Skilled nursing?            | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Hospice?                    | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Preventive health?          | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Immunizations?              | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Alcohol and drug treatment? | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Your spouse?                | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |
| Your children?              | <input type="checkbox"/> Yes | <input type="checkbox"/> No | <input type="checkbox"/> Don't know |

12. What was the reason you were without health care coverage? (CHECK ALL THAT APPLY)

- Never without health care coverage
- Lost job or changed employers
- Spouse or parent lost job or changed employers
- I chose not to buy health care coverage
- Became divorced or separated
- Spouse or parent died
- Became ineligible (age or left school)
- Employer doesn't/stopped offering coverage
- Became a part time or temporary employee
- Benefits from employer/former employer ran out
- Couldn't afford to pay the premiums
- Insurance company refused coverage
- Lost Medicaid eligibility
- Other
- Don't know

13. Was there a time in the past 12 months when you needed to see a doctor but could not because of cost?

- Yes
- No
- Don't know

14. If you have Medicaid, how did you hear about it?

- I don't have Medicaid
- Brochure
- Placemat
- Advertisement
- TV coverage
- Visiting nurses
- Health department
- School
- Hospital clinic
- Job and Family Services
- ADAS
- Ohio Benefit Bank
- Eligibility worker at the hospital
- Other professional
- Mental Health Center
- Internet
- Somewhere else
- Don't know

## HEALTH CARE ACCESS

15. About how long has it been since you last visited a doctor for a routine checkup? A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition.

- Less than a year ago
- 1 to 2 years ago
- More than 2 but less than 5 years
- 5 or more years
- Don't know
- Never

16. When you are sick or need advice about your health, to which one of the following places do you usually go?

- A doctor's office
- A public health clinic or community health center
- A hospital outpatient department
- A hospital emergency room
- Urgent care center
- VA
- Lorain County Health and Dentistry
- Lorain County Free Clinic
- Store clinic (Walgreens, Walmart, etc.)
- Some other kind of place
- No usual place
- Don't know

17. In the past 12 months, have you chosen to go outside of Lorain County for any of these health care services? (CHECK ALL THAT APPLY)

- Don't use any services outside of Lorain County
- Specialty care
- Primary care
- Dental services
- Cardiac care
- Orthopedic care
- Cancer care
- Mental health care
- Hospice care
- Pediatric care
- Obstetrics/maternity/NICU
- Developmental disability services
- Substance abuse care and/or treatment
- Another service: \_\_\_\_\_
- Don't know

18. Have you looked for a program to assist in care for the elderly or disabled adult (either in-home or out-of-home) for you or someone else? (CHECK ALL THAT APPLY)

- Yes, I looked for in-home care
- Yes, I looked for out-of-home placement
- Yes, I looked for Respite or overnight care
- Yes, I looked for day care
- Yes, I looked for an assisted living program
- Yes, I looked for a disabled adult program
- No

## ORAL HEALTH

19. How long has it been since you last visited a dentist or a dental clinic for any reasons? Include visits to dental specialists, such as orthodontists.

- Within the past year (anytime less than 12 months ago) – **GO TO QUESTION 21**
- Within the past 2 years (1 year but less than 2 years ago)
- Within the past 5 years (2 years but less than 5 years ago)
- 5 or more years ago
- Don't know/Not sure
- Never

20. What is the main reason you have not visited the dentist in the last year?

- I have been to the dentist in the past year
- Fear, apprehension, nervousness, pain, dislike going
- Cost
- No insurance
- Do not have/know a dentist
- Cannot get to the office/clinic (too far away, no transportation, no appointments available)
- Cannot find dentist to take Medicaid
- No reason to go (no problems, no teeth)
- Other priorities
- Have not thought of it
- Other: \_\_\_\_\_
- Don't know

## ALCOHOL CONSUMPTION

21. During the past month, how many days did you have at least one drink of any alcoholic beverage?

Days per month \_\_\_\_\_

- Do not drink – GO TO QUESTION 25

22. A drink is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail or 1 shot of liquor. On the days you drank, about how many drinks did you consume on average?

Number of drinks \_\_\_\_\_

23. Considering all types of alcoholic beverages, how many times during the past 30 days did you have (for males) 5 or more drinks on an occasion, or (for females) 4 or more drinks on an occasion?

Number of times \_\_\_\_\_

- None

24. During the past 30 days, how many times have you driven when you've had perhaps too much to drink?

Number of times \_\_\_\_\_

- None

## PREVENTIVE MEDICINE AND HEALTH SCREENINGS

25. Have you ever been told by a doctor, nurse, or other health professional that you had asthma?

- Yes
- No
- Don't know

26. Have you ever been told by a doctor or other health professional that you have the following: (CHECK ALL THAT APPLY)

- Some form of arthritis
- Rheumatoid arthritis
- Gout
- Lupus
- Fibromyalgia
- None
- Don't know/Not sure

27. Have you ever been told by a doctor, nurse, or other health professional that you had diabetes?

- Yes
- Yes, but only during pregnancy
- No
- Don't know

28. Has a doctor ever told you that you have had any of the following? (CHECK ALL THAT APPLY)

- Had a heart attack or myocardial infarction
- Angina (chest pain) or coronary heart disease
- Had a stroke
- None of the above

29. Have you ever been told by a doctor, nurse, or other health professional that you had high blood pressure?

- Yes
- Yes, but female told only during pregnancy
- No
- Told borderline high or pre-hypertensive
- Don't know

30. When did you last have your blood pressure taken by a doctor, nurse, or other health professional?

- Less than six months ago
- More than 6 but less than 12 months ago
- More than 1 but less than 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know
- Never
- Never, did myself at self-operated location



31. Blood cholesterol is a fatty substance found in the blood. Has a doctor, nurse, or other health professional ever told you that you had high blood cholesterol?

- Yes
- No
- Don't know

32. When did you last have your blood cholesterol checked?

- 1 to 12 months ago
- More than 1 but less than 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Have never had it checked
- Don't know

33. During the past 12 months, have you had any of the following vaccines? (CHECK ALL THAT APPLY)

- Seasonal flu vaccine – shot
- Seasonal flu vaccine – nasal spray
- None of the above
- Don't know

34. A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia vaccination?

- Yes
- No
- Don't know

35. When was the last time you had your eyes examined by any doctor or eye care provider?

- Within the past month
- Within the past year
- Within the past 2 years
- 2 or more years ago
- Never
- Don't know

36. Have you ever been screened by a doctor or other health professional for skin cancer?

- Yes, and test results were negative
- Yes, and I was diagnosed with skin cancer
- No, I have not been screened
- No, I am afraid to find out

37. With your most recent diagnoses of cancer, what type of cancer was it?

- I have not been diagnosed with cancer
- Breast cancer
- Cervical cancer
- Endometrial (Uterus) cancer
- Ovarian cancer
- Head and neck cancer
- Oral cancer
- Pharyngeal (throat) cancer
- Thyroid cancer
- Colon (intestine) cancer
- Esophageal cancer
- Liver cancer
- Pancreatic cancer
- Rectal cancer
- Stomach cancer
- Hodgkin's Lymphoma
- Leukemia (blood) cancer
- Non-Hodgkin's Lymphoma
- Prostate cancer
- Testicular cancer
- Melanoma
- Other skin cancer
- Heart cancer
- Lung cancer
- Bladder cancer
- Renal (kidney) cancer
- Bone cancer
- Brain cancer
- Neuroblastoma
- Other

**PREVENTIVE COUNSELING SERVICES**

38. Has a doctor or other health professional talked to you about the following topics? Please check the box that indicates if you have discussed this topic within the past year, before the past year, or not at all.

	Within past year	Before the past year	Not at all
Your diet or eating habits?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Physical activity or exercise?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Injury prevention such as safety belt use, helmet use, or smoke detectors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Illicit drug abuse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Alcohol use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prescription drug abuse/misuse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Over the counter drug abuse/misuse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quitting tobacco use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sexual practices, including family planning, sexually transmitted diseases, AIDS, or the use of condoms?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Depression, anxiety or emotional problems?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Domestic violence?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Significance of family health history?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Immunizations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**TOBACCO USE**

39. Have you smoked at least 100 cigarettes in your entire life?

- Yes
- No – **GO TO QUESTION 42**
- Don't know

40. Do you now smoke cigarettes every day, some days, or not at all?

- Every day
- Some days
- Not at all – **GO TO QUESTION 42**

41. During the past 12 months, have you quit smoking for 1 day or longer because you were trying to quit smoking?

- Yes
- No
- Don't know

42. Which forms of tobacco listed below have you used in the past year? **(CHECK ALL THAT APPLY)**

- Flavored Cigarettes
- E-cigarette
- Bidis
- Cigars
- Black & Milds
- Cigarillos
- Little Cigars
- Swishers
- Snus
- Chewing tobacco, snuff
- Hookah
- Other
- None

43. Do you believe that secondhand tobacco smoke is harmful to you or your family's health?

- Yes
- No
- Don't know/Not sure

#### DRUG USE

44. During the past six months, have you used any of the following: **(CHECK ALL THAT APPLY)**

- Marijuana or hashish
- Amphetamines, methamphetamines or speed
- Cocaine, crack, or coca leaves
- Heroin
- LSD, mescaline, peyote, psilocybin, DMT, or mushrooms
- Inhalants such as glue, toluene, gasoline, or paint
- Ecstasy or E, or GHB
- I have not used any of these substances in the past six months – **GO TO QUESTION 46**
- Don't know

45. How frequently have you used drugs checked in question 44 during the past six months?

- Almost every day
- 3 to 4 days a week
- 1 or 2 days a week
- 1 to 3 days a month
- Less than once a month
- Don't know

46. Have you used any of the following medications during the past six months that were either not prescribed for you, or you took more than was prescribed? **(CHECK ALL THAT APPLY)**

- Oxycontin
- Vicodin
- Tranquilizers such as Valium or Xanax, sleeping pills, barbituates, or Seconal
- Codeine, Demerol, Morphine, Percodan, or Dilaudid
- Suboxone or Methadone
- Steroids
- Ritalin or Adderall
- I have not used any of these medications in the past 6 months – **GO TO QUESTION 48**
- Don't know/Not sure

47. How frequently have you used the medications checked in question 46 during the past six months?

- Almost every day
- 3 to 4 days a week
- 1 or 2 days a week
- 1 to 3 days a month
- Less than once a month
- I have not used any of these medications during the past six months
- Don't know/Not sure

48. What are your reasons for not seeking a program or service to help with drug problems for you or a loved one?

- Not needed
- Transportation
- Fear
- Cannot afford to go
- Cannot get to the office or clinic
- Don't know how to find a program
- Stigma of seeking drug services
- Do not want to get in trouble
- Do not want to miss work
- Have not thought of it
- Other: \_\_\_\_\_

49. In the past year, have you used any prescription medications that were not prescribed for you?

- Yes
- No
- Don't know

## WOMEN'S HEALTH

MEN -- GO TO QUESTION 55, MEN'S HEALTH SECTION

50. A mammogram is an x-ray of each breast to look for breast cancer. When was your last mammogram?

- Have never had a mammogram
- Less than a year ago
- 1 to 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know

51. A clinical breast exam is when a doctor, nurse, or other health professional feels the breast for lumps. When was your last breast exam?

- Have never had a breast exam
- Less than a year ago
- 1 to 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know

52. A Pap smear is a test for cancer of the cervix. How long has it been since you had your last Pap smear?

- Have never had a Pap smear
- Less than a year ago
- 1 to 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know

53. What is your usual source of services for female health concerns, such as family planning, annual exams, breast exams, tests for sexually transmitted diseases, and other female health concerns?

- A family planning clinic
- A health department clinic
- A community health center
- A private gynecologist
- A general or family physician
- VA
- Lorain County Health and Dentistry
- Lorain County Free Clinic
- Store Clinic (Walgreens, Walmart, etc.)
- Some other kind of place
- Don't know
- Don't have a usual source

54. If you were pregnant in the past 5 years, did you...**(CHECK ALL THAT APPLY)**

- I was not pregnant in the past 5 years
- Get prenatal care within the first 3 months
- Take a multi-vitamin
- Take folic acid
- Smoke cigarettes
- Consume alcoholic beverages
- Use marijuana
- Use any drugs not prescribed
- Experience perinatal depression
- Experience domestic violence
- Do none of these things

## MEN'S HEALTH

*WOMEN -- GO TO QUESTION 57, SEXUAL BEHAVIOR SECTION*

55. A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. When was your last PSA test?

- 1 to 12 months ago
- 1 to 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know
- Never

56. A digital rectal exam is an exam in which a doctor, nurse, or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. When was your last digital rectal exam?

- 1 to 12 months ago
- 1 to 2 years ago
- More than 2 but less than 5 years ago
- 5 or more years ago
- Don't know
- Never

## SEXUAL BEHAVIOR

57. During the past twelve months, with how many different people have you had sexual intercourse?

- Number of people \_\_\_\_\_
- Don't know
- Have not had intercourse in past 12 months

58. What are you or your partner doing now to keep from getting pregnant?

- No partner/not sexually active (abstinent)
- Not using birth control
- My partner and I are trying to get pregnant
- I am gay or a lesbian
- Tubes tied (female sterilization)
- Hysterectomy (female sterilization)
- Vasectomy (male sterilization)
- Pill, all kinds (Ortho Tri-Cyclen, etc.)
- IUD (including Mirena)
- Condoms (male or female)
- Contraceptive implants (Implanon or implants)
- Diaphragm, cervical ring or cap (Nuvaring or others)
- Shots (Depo-Provera, etc.)
- Contraceptive Patch
- Emergency contraception (EC)
- Withdrawal
- Having sex only at certain times (rhythm)
- Other method (foam, jelly, cream, etc.)
- Don't know/Not sure

59. What is the main reason for not doing anything to keep from getting pregnant?

- I am using a birth control method
- Didn't think I was going to have sex/no regular partner
- I want to get pregnant
- I am gay or a lesbian
- I do not want to use birth control
- My partner does not want to use any
- You or your partner don't like birth control/fear side effects
- I don't think my partner or I can get pregnant
- I can't pay for birth control
- My partner or I had a hysterectomy/vasectomy/tubes tied
- You or your partner is too old
- Lapse in use of method
- You or your partner is currently breast-feeding
- You or your partner just had a baby/postpartum
- Partner is pregnant now
- Don't care if you or your partner gets pregnant
- Religious beliefs
- Don't know

60. Have you ever engaged in sexual activity following alcohol or other drug use that you would not have done if sober?

- Yes
- No



61. Have you ever been forced to have sexual activity when you didn't want to?

- Yes
- No

62. What was the main reason you had your last test for HIV?

- Have never had an HIV test
- For hospitalization or surgical procedure
- To apply for health insurance
- To apply for life insurance
- For employment
- To apply for a marriage license
- For military induction or military service
- For immigration
- Just to find out if you were infected
- Because of referral by a doctor
- Because of pregnancy
- Referred by your sex partner
- Because it was part of a blood donation process
- For routine check-up
- Because of occupational exposure
- Because of illness
- Because I am at risk for HIV
- Other: \_\_\_\_\_
- Don't know

#### WEIGHT CONTROL / PHYSICAL ACTIVITY

63. Are you now trying to...

- Maintain your current weight, that is, to keep from gaining weight
- Lose weight
- Gain weight
- None of the above

64. During the past 30 days, did you do any of the following to lose weight or keep from gaining weight? **(CHECK ALL THAT APPLY)**

- I did not do anything to lose weight or keep from gaining weight
- Eat less food, fewer calories, or foods low in fat
- Exercise
- Go without eating for 24 hours
- Take any diet pills, powders, or liquids without a doctor's advice
- Vomit or take laxatives
- Smoke cigarettes
- Use a weight loss program such as Weight Watchers, Jenny Craig, etc.
- Participate in a dietary or fitness program prescribed for you by a health professional
- Take medications prescribed by a health professional

65. During the last 7 days, how many days did you engage in some type of exercise or physical activity for at least 30 minutes?

- 0 days
- 1 day
- 2 days
- 3 days
- 4 days
- 5 days
- 6 days
- 7 days
- Not able to exercise

66. For what reasons do you not exercise? **(CHECK ALL THAT APPLY)**

- I do exercise
- Weather
- Not enough time
- Cannot afford a gym membership
- Gym is not available
- No walking or biking trails
- Safety
- I do not have child care
- I do not know what activity to do
- Doctor advised me not to exercise
- I choose not to exercise
- Too tired
- Other: \_\_\_\_\_

67. When you are at work, which of the following best describes what you do?

- I don't work – Not employed
- Mostly sitting
- Mostly standing
- Mostly walking
- Mostly heavy labor or physically demanding work
- Varies

68. On an average day, approximately how many hours do you spend doing the following activities?

<b>TV</b>	<b>Internet (Computer or cell phone)</b>	<b>Cell Phone (talking, texting, games)</b>
<input type="checkbox"/> 0 hours	<input type="checkbox"/> 0 hours	<input type="checkbox"/> 0 hours
<input type="checkbox"/> Less than 1 hour	<input type="checkbox"/> Less than 1 hour	<input type="checkbox"/> Less than 1 hour
<input type="checkbox"/> 1 hour	<input type="checkbox"/> 1 hour	<input type="checkbox"/> 1 hour
<input type="checkbox"/> 2 hours	<input type="checkbox"/> 2 hours	<input type="checkbox"/> 2 hours
<input type="checkbox"/> 3 hours	<input type="checkbox"/> 3 hours	<input type="checkbox"/> 3 hours
<input type="checkbox"/> 4 hours	<input type="checkbox"/> 4 hours	<input type="checkbox"/> 4 hours
<input type="checkbox"/> 5 hours	<input type="checkbox"/> 5 hours	<input type="checkbox"/> 5 hours
<input type="checkbox"/> 6+ hours	<input type="checkbox"/> 6+ hours	<input type="checkbox"/> 6+ hours

## DIET AND NUTRITION

69. In general, do you read food labels or consider nutritional content when choosing foods you eat?

- Yes
- No
- Don't know

70. Where do you get your fruits and vegetables? **(CHECK ALL THAT APPLY)**

- Large grocery store
- Local grocery store
- Neighborhood Convenience store
- Restaurants
- Farmer's Market
- Food Pantry
- Grow your own
- Community garden
- Other
- I do not get fruits and vegetables

71. Where are your barriers in consuming fruits and vegetables? **(CHECK ALL THAT APPLY)**

- I do not like the taste
- Too expensive
- No variety
- Do not know how to prepare
- Other
- I have no barriers in consuming fruits and vegetables

72. On average how many servings of fruits and vegetables do you have per day?

- 1 to 4 servings per day
- 5 or more servings per day
- I do not eat fruits or vegetables

73. On average, how often do you eat whole grains per day?

- I only eat whole grains
- Half of the grains I eat are whole grain
- Less than half of the grains I eat are whole grain
- I do not eat any whole grains
- I do not know what whole grains are

## MENTAL HEALTH AND SUICIDE

74. During the past 12 months, did you ever seriously consider attempting suicide?

- Yes
- No

75. During the past 12 months, how many times did you actually attempt suicide?

- 0 times
- 1 time
- 2 or 3 times
- 4 or 5 times
- 6 or more times

76. During the past 12 months, which of the following have you experienced almost every day for two weeks or more in a row? **(CHECK ALL THAT APPLY)**

- Felt sad, blue or depressed where you stopped doing usual activities
- Felt worried, tense or anxious
- Did not get enough rest or sleep
- Felt very healthy and full of energy
- None of the above

77. What are your reasons for not using a program or service to help with depression, anxiety, or emotional problems for you or for a loved one?

- Not needed
- Transportation
- Fear
- Co-pay/deductible is too high
- Cannot afford to go
- Cannot get to the office or clinic
- Don't know how to find a program
- Didn't feel services you previously received were good
- Stigma of seeking mental health services
- Other priorities
- Have not thought of it
- Other: \_\_\_\_\_
- Don't know

78. On a typical day, how would you rate your stress level?

- Low stress level
- Moderate stress level
- High stress level

## QUALITY OF LIFE

79. Would you have any problems getting the following if you needed them today? **(CHECK ALL THAT APPLY)**

- Someone to loan me \$50
- Someone to help me if I were sick and needed to be in bed
- Someone to take me to the clinic or doctor's office if I needed a ride
- Someone to talk to about my problems
- Someone to explain directions from my doctor
- Someone to accompany me to my doctor's appointments
- Someone to help me pay for my medical expenses
- Back-up child care
- I would not have problems with any of these things if I needed them

80. Are you limited in any way in any activities because of any physical, mental, or emotional problems?

- Yes
- No
- Don't know

81. What major impairments or health problems limit your activities? **(CHECK ALL THAT APPLY)**

- I am not limited by any impairments or health problems
- Arthritis/rheumatism
- Back or neck problem
- Fractures, bone/joint injury
- Walking problem
- Lung/breathing problem
- Hearing problem
- Eye/vision problem
- Heart problem
- Stroke-related problem
- Hypertension/high blood pressure
- Diabetes
- Cancer
- Depression/anxiety/emotional problems
- Tobacco dependency
- Alcohol dependency
- Drug addiction
- Learning disability
- Developmental disability
- Other impairment/problem

82. Because of any impairment or health problem, do you need the help of other persons with any of the following needs? **(CHECK ALL THAT APPLY)**

- Eating
- Bathing
- Dressing
- Getting around the house
- Household chores
- Doing necessary business
- Shopping
- Getting around for other purposes
- None of the above

83. In past 12 months, was there any time when you needed the following equipment: **(CHECK ALL THAT APPLY)**

- Cane
- Wheelchair
- Special bed
- Special telephone
- Eyeglasses for vision
- Hearing aids or hearing care
- Mobility aids or devices (adaptive equipment)
- Communication aids or devices
- Medical supplies
- Durable medical equipment (Kaiser-Wells or O.E. Meyer)
- None of the above

84. During the past week, on how many days did all the family members who live in the household eat a meal together?

\_\_\_\_\_ number of times

85. How many hours do you sleep at night?

\_\_\_\_\_ hours

#### SOCIAL CONTEXT

86. How often do you wear a seat belt when in a car?

- Never
- Rarely
- Sometimes
- Most of the time
- Always

87. Do you do any of the following while driving? **(CHECK ALL THAT APPLY)**

- Talk on cell phone
- Text
- Are under the influence of alcohol
- Are under the influence of drugs
- Read
- Eat
- Use internet on cell phone
- Check facebook on cell phone
- Other (apply make-up, shave)
- I do not drive
- None of the above

88. Are any firearms now kept in or around your home? Include those kept in a garage, outdoor storage area, car, truck, or other motor vehicle. **(CHECK ALL THAT APPLY)**

- Yes, and they are unlocked
- Yes, and they are loaded
- Yes, but they are **not** unlocked
- Yes, but they are **not** loaded
- No
- Don't know

89. What is the main reason that there are firearms in or around your home?

- Hunting or sport
- Protection
- Work
- Some other reason
- Don't know

90. During the past 12 months, were you abused by any of the following? Include physical, sexual, emotional, financial and verbal abuse. **(CHECK ALL THAT APPLY)**

- A spouse or partner
- A parent
- Child
- Another person from outside the home
- Another family member living in your household
- Someone else
- I was not abused in the past 12 months

91. How safe from crime do you consider your neighborhood to be?

- Extremely safe
- Quite safe
- Slightly safe
- Not at all safe
- Don't know

92. In the past year, have you sought assistance for any of the following? **(CHECK ALL THAT APPLY)**

- Rent/mortgage
- Utilities
- Food
- Emergency shelter
- Clothing
- Legal aid services
- Free tax preparation
- Transportation
- Credit counseling
- None of the above

93. Have you experienced the following in the past 12 months? **(CHECK ALL THAT APPLY)**

- A close family member had to go into the hospital
- Death of a family member or close friend
- I became separated or divorced
- I moved to a new address
- I was homeless
- I had someone homeless living with me
- Someone in my household lost their job
- Someone in my household had their hours at work reduced
- I had bills I could not pay
- I was involved in a physical fight
- Someone in my household went to jail
- Someone close to me had a problem with drinking or drugs
- I was hit or slapped by my spouse or partner
- My child was hit or slapped by my spouse or partner
- I did not experience any of these things in the past 12 months

94. Which of the following do you think Lorain County residents need more education about? **(CHECK ALL THAT APPLY)**

- Seat belt or restraint usage
- Falls
- Violence
- Speed
- Bicycle safety
- DUI (Driving Under the Influence)
- Distracted driving
- Bullying
- Sexting
- Teenage pregnancy
- Suicide
- Tobacco use
- Drug abuse
- Childhood obesity
- Depression/anxiety/mental health
- None of the above
- Don't know
- Other \_\_\_\_\_

## PARENTING

*IF YOU HAVE NO CHILDREN OR YOUR CHILDREN ARE 18 OR OLDER, GO TO QUESTION 101, ENVIRONMENTAL HEALTH SECTION*

95. How often does your infant to 4-year-old child ride in a car seat when a passenger in a car?

- I do not have a child 4 years old or younger in the household
- Never
- Seldom
- Sometimes
- Nearly always
- Always
- Child never rides in a car



96. How often do you use a booster seat for children ages 5 to 8?

- I do not have a child 5 to 8 years old
- Always
- Nearly always
- Sometimes
- Seldom
- Never
- Child never rides in car
- Don't know

97. How did you put your child to sleep most of the time as an infant? **(CHECK ALL THAT APPLY)**

- On his or her side
- On his or her back
- On his or her stomach
- In bed with you or another person

98. How much unsupervised time (time without an adult 18 or older) does your child have after school on an average school day?

- Less than one hour
- 1 to 2 hours
- 3 to 4 hours
- More than 4 hours

99. What did you discuss with your 12 to 17 year old in the past year? **(CHECK ALL THAT APPLY)**

- I do not have a child 12 to 17 years old
- Abstinence and how to refuse sex
- Birth control
- Condoms/Safer sex/STD prevention
- Dating and relationships
- Eating habits
- Body image
- Screen time (TV, phone, video games, texting, or computer)
- Bullying (cyber, indirect, physical, verbal)
- Social media issues
- Energy drinks
- Depression, anxiety, suicide
- Refusal skills/peer pressure
- Negative effects of alcohol
- Negative effects of tobacco
- Negative effects of marijuana and other illegal drugs
- School/legal consequences using alcohol, tobacco or other drugs
- Negative effects of misusing prescription drugs
- Academic performance
- Finances
- Did not discuss

100. Do you think there is reason to be concerned about your school-age children with any of the following?

**(CHECK ALL THAT APPLY)**

- I do not have a school-age child
- Developing a weight problem
- Having a poor diet
- Not getting enough exercise
- Teen pregnancy
- Using alcohol
- Using drugs
- Using tobacco
- Depression/anxiety/mental health
- Violence
- Bullying (physical, verbal, cyber, etc.)
- Facebook or other social network sites
- Texting
- Drinking and driving
- Communication/speech
- Hearing
- Academic performance
- Getting alcohol
- TV watching
- None of the above

**ENVIRONMENTAL HEALTH**

101. What do you do with unused prescription medication? **(CHECK ALL THAT APPLY)**

- Throw it in the trash
- Flush it down the toilet
- Give them away
- Keep them
- Sell them
- Take them to the Medication Collection program
- Other: \_\_\_\_\_

102. The following problems are sometimes associated with poor health. In or around your household, which of the following do you think have threatened you or your family's health in the past year? **(CHECK ALL THAT APPLY)**

- Rodents (mice or rats)
- Insects (mosquitoes, ticks, flies)
- Bed bugs
- Lice
- Cockroaches
- Unsafe water supply
- Plumbing problems
- Sewage/waste water problems
- Temperature regulation (heating and air conditioning)
- Safety hazards (structural problems)
- Lead paint
- Chemicals found in household products (i.e., cleaning agents, pesticides, automotive products)
- Mold
- Asbestos
- Radiation
- Radon
- Excess medications in the home
- None

## MISCELLANEOUS

103. Does your household have any of the following disaster/emergency supplies? **(CHECK ALL THAT APPLY)**

- 3-day supply of water for everyone who lives there (1 gallon of water per person per day)
- 3-day supply of nonperishable food for everyone who lives there
- 3-day supply of prescription medication for each person who takes prescribed medicines
- A working battery operated radio and working batteries
- A working flashlight and working batteries
- Cell phone
- None of the above
- Don't know

## DEMOGRAPHICS

104. What is your zip code? \_\_\_\_\_

105. What is your age? \_\_\_\_\_

106. What is your gender?

- Male
- Female

107. What is your race?

- American Indian/Alaska Native
- Asian
- Black or African-American
- Native Hawaiian/ Other Pacific Islander
- White
- Other: \_\_\_\_\_
- Don't know

108. Are you Hispanic or Latino?

- Yes
- No
- Don't know

109. Are you...

- Married
- Divorced
- Widowed
- Separated
- Never been married
- A member of an unmarried couple

110. How many people live in your household who are...

Less than 5 years old \_\_\_\_\_

5 to 12 years old \_\_\_\_\_

13 to 17 years old \_\_\_\_\_

Adults \_\_\_\_\_

111. Where do you live?

- In an urban area
- In a suburban area
- In a rural area

112. What is the highest grade or year of school you completed?

- Never attended school or only attended kindergarten
- Grades 1 through 8 (Elementary)
- Grades 9 through 12 (Some high school)
- Grade 12 or GED (High school graduate)
- College 1 year to 3 years (Some college or technical school)
- College 4 years or more
- Post-graduate

113. Are you currently...

- Employed for wages full-time
- Employed for wages part-time
- Self-employed
- Out of work for more than 1 year
- Out of work for less than 1 year
- Homemaker
- Student
- Retired
- Unable to work

114. Is your annual household income from all sources...

- Less than \$10,000
- \$10,000 to \$14,999
- \$15,000 to \$19,999
- \$20,000 to \$24,999
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 or more
- Don't know

115. About how much do you weigh without shoes?

POUNDS \_\_\_\_\_

Don't know

116. About how tall are you without shoes?

FEET \_\_\_\_\_

INCHES \_\_\_\_\_

Don't know

*Certain questions provided by: Centers for Disease Control and Prevention. Behavioral Risk Factor Surveillance System. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2007-2009. Other questions are © 2011 Hospital Council of NW Ohio.*

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