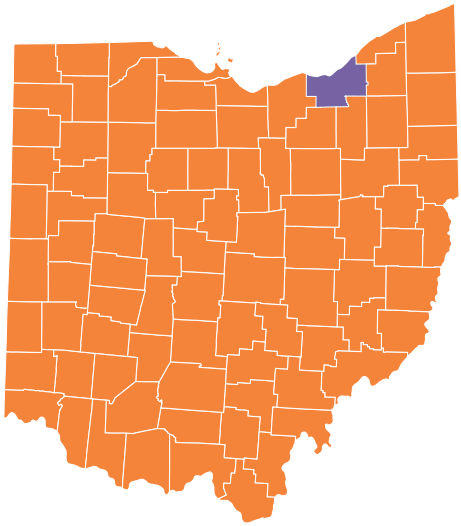
2019
CUYAHOGA COUNTY
Community Health
NEEDS ASSESSMENT



2019 Cuyahoga County Community Health Needs Assessment

Acknowledgements

The following organizations collaborated to conduct the 2019 Cuyahoga County Community Health Needs Assessment:

Better Health Partnership
Case Western Reserve University School of Medicine
Cleveland Department of Public Health
Cuyahoga County Board of Health
Health Improvement Partnership-Cuyahoga
PolicyBridge
Southwest General Health Center
St. Vincent Charity Medical Center
The Center for Health Affairs
The MetroHealth System
United Way of Greater Cleveland
University Hospitals

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In addition to the organizations listed above, the following entities provided input that guided the content and format of this assessment:

Alcohol, Drug Addiction and Mental Health Services (ADAMHS) Board of Cuyahoga County
Benjamin Rose Institute on Aging
Boys & Girls Clubs of Cleveland
Calvary Hill Church of God in Christ
CHN Housing Partners
Cleveland City Planning Commission
Cleveland Division of Police
Cleveland Metroparks
Cleveland Rape Crisis Center
Cleveland State University, NEOMED-CSU Partnership for Urban Health
Council for Economic Opportunities in Greater Cleveland
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Cuyahoga County Medical Examiner
Cuyahoga County Office of the Executive
Cuyahoga County Office of Reentry
Cuyahoga Metropolitan Housing Authority

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LGBT Community Center
Neighborhood Connections
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https://www.stvincentcharity.com/about/community-benefit/
www.UHhospitals.org/CHNA-IS
http://betterhealthpartnership.org/cc_hna_2019_landing.asp http://www.policybridgeneo.org/reports
https://case.edu/medicine/healthintegration/

Written Comments

Southwest General Health Center solicited feedback on its 2016 Community Health Needs Assessment, which is posted on its website, but did not receive any comments. Individuals are encouraged to submit written comments on the current joint Community Health Needs Assessment (CHNA) to dborowske@swgeneral.com. These comments provide additional information to the hospital regarding the broad interests of the community and help to inform future CHNAs and implementation strategies.

St. Vincent Charity Medial Center solicited feedback on its 2016 Community Health Needs Assessment, which is posted on its website, but did not receive any comments. Individuals are encouraged to submit written comments on the current joint Community Health Needs Assessment (CHNA) to Leslie Andrews at Leslie.Andrews@stvincentcharity.com. These comments provide additional information to the hospital regarding the broad interests of the community and help to inform future CHNAs and implementation strategies.

University Hospitals solicited feedback on its 2018 Cuyahoga County Community Health Needs Assessment (CHNA), which is posted on its website, but did not receive any comments. Individuals are encouraged to submit written comments on the current joint Community Health Needs Assessment (CHNA) to CommunityBenefit@UHhospitals.org. These comments provide additional information to hospital facilities regarding the broad interests of the community and help to inform future CHNAs and implementation strategies.

Table of Contents: 2019 Cuyahoga County Community Health Needs Assessment

Introduction

The 2019 Cuyahoga County Community Health Needs Assessment (CHNA) represents a powerful collaboration between Better Health Partnership, Case Western Reserve University School of Medicine, the Cleveland Department of Public Health, the Cuyahoga County Board of Health, the Health Improvement Partnership-Cuyahoga (HIP-Cuyahoga), The MetroHealth System, PolicyBridge, Southwest General Health Center, St. Vincent Charity Medical Center, The Center for Health Affairs, United Way of Greater Cleveland and University Hospitals.

A tremendous wealth of community assets and health care resources exist in Cuyahoga County, yet stark inequities in health are experienced by its residents. The conditions that shape health (commonly referred to as the social and environmental determinants of health) – such as financial resources, access to healthy food, and safe and affordable housing, to name a few – are not spread equitably, resulting in significant differences in health outcomes, such as disease severity, life expectancy and infant mortality. These differences are shaped by long-standing systems and structures that impact the conditions in which residents live, work, learn and play. The decision to work collaboratively centers around the recognition that these problems cannot be solved by the isolated actions of individual organizations, but are resolvable through cross-sector cooperative action. Through working to develop trust and communication, a collective desire is emerging to more effectively address health inequities[1] in Cuyahoga County and to align local community health improvement planning efforts with state population health efforts, which also place a strong emphasis on employing an equity lens. An equity lens is defined as the perspective through which conditions and circumstances are viewed to assess which individuals and populations experience benefits and burdens as the result of a program, policy, or practice. Please see **Appendix A** for a list of key terms used throughout this report.

Moving from Separate Health Assessments toward Greater Collaboration for Collective Impact

Certain hospitals are required to complete a CHNA and corresponding implementation strategy (IS) at least once every three years in accordance with 501(r) Regulations developed by the Internal Revenue Service as a result of the Patient Protection and Affordable Care Act (ACA), 2010[*2]. In looking at the community population served by the hospital facilities and Cuyahoga County as a whole, it was clear that all facilities that are a part of this CHNA define their community to be the same.

Similar to the CHNAs that hospitals conduct, completing a Community Health Assessment ("CHA") and a corresponding Community Health Improvement Plan ("CHIP") is an important part of the process that local and state health departments must complete to seek accreditation through the Public Health Accreditation Board ("PHAB"). The Ohio Department of Health requires all local health departments to apply to become accredited through PHAB by 2018 and to be accredited by 2020. The initial 2013 CHA and 2015 CHIP, facilitated through HIP-Cuyahoga partners to identify and address the most pressing issues impacting the health of Cuyahoga County residents, were performed independently from local hospital systems' CHNAs and implementation strategies.

[*] The Patient Protection and Affordable Care Act (Pub. L. 111-148) added section 501(r) to the Internal Revenue Code, which imposes new requirements on nonprofit hospitals in order to qualify for an exemption under Section 501(c)(3), and adds new reporting requirements for such hospitals under Section 6033(b) of the Internal Revenue Code. UH followed 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.

Historical Context of Collaborative Assessment Process

During the process of developing the 2013 CHA, an equity-grounded, multi-sector collective impact consortium, known as the Health Improvement Partnership-Cuyahoga (HIP-Cuyahoga), evolved from long-standing working groups to a multi-sector consortium to make it easier to do collaborative community health improvement work across Cuyahoga County. HIP-Cuyahoga's backbone organization is the Cuyahoga County Board of Health, supported by five other anchor organizations listed in **Appendix B**. The consortium has grown to include over 300 community agencies and more than 1,000 individual stakeholders, including members of the public representing various neighborhoods.

HIP-Cuyahoga's four key approaches are perspective transformation, collective impact, community engagement, and health and equity in all policies. Since the first CHA and CHIP, work has focused on the four priority areas of eliminating structural racism, improving healthy eating and active living, improving chronic disease, and increasing collaboration between public health and clinical care. These priorities were chosen through a facilitated process grounded in equity and aligned with both the 2012-2014 Ohio State Health Improvement Plan and the National Prevention Strategy. To learn more about HIP-Cuyahoga's work, please visit http://hipcuyahoga.org/.

One of the four HIP-Cuyahoga subcommittees created based on the 2013 CHA, has been focused on improving collaboration between public health and clinical care. Multiple stakeholders created the following objective, which set the foundation for the combined health assessment in this document: *to develop an integrated system to conduct future coordinated, comprehensive countywide community, clinical and behavioral health assessments to identify future priority focus area(s) through a clinical care and public health multi-stakeholder partnership*. This group of HIP-Cuyahoga members has been working for the past six years to develop authentic relationships with the area's regional hospital association, The Center for Health Affairs, and individual hospital systems to realize this vision.

Historical Shift to Conducting Joint Assessments in Cuyahoga County

Historically, public health and hospital stakeholders in Cuyahoga County completed independent assessments to understand the health needs of the community and developed independent plans for responding to them. In 2018, the Cleveland Department of Public Health, the Cuyahoga County Board of Health and University Hospitals – together with Case Western Reserve University School of Medicine, HIP-Cuyahoga, and The Center for Health Affairs – committed their time and resources to bridging public health and clinical care by conducting a health assessment of Cuyahoga County together. The 2018 Cuyahoga County Community Health Assessment was the first joint assessment of its kind in Cuyahoga County and represented a new, more effective and collaborative approach to identifying and addressing the health needs of the community. A corresponding report, the 2019 Cuyahoga County Community Health Implementation Strategy, was developed to address the health needs identified in the 2018 Assessment through building on existing community strengths and resources.

These two reports enabled the Cleveland Department of Public Health, the Cuyahoga County Board of Health and University Hospitals to partner and align their health assessment and planning efforts on a smaller scale prior to conducting the more comprehensive 2019 Cuyahoga County Community Health Needs Assessment – described in this report – with additional Cuyahoga County hospitals and other stakeholders. The results of the 2019 Cuyahoga County Community Health Needs Assessment will inform the development of a robust 2020-

2022 Implementation Strategy and Community Health Improvement Plan. Conducting assessments and implementation planning efforts in back-to-back years was necessary to align all participating hospital and health department stakeholders to the same 3-year cycle to meet IRS and state statutory requirements.

Present Shift to Conducting Joint Health Assessments: Definition of Community

The hospital facilities that partnered with one another and with public health to develop the 2019 Cuyahoga County Community Health Needs Assessment recognized that a county-level definition of community would allow them to continue to comprehensively assess the health needs of their patients and the community in which their medical centers are located, while also identifying strengths on which to build additional community capacity. This shift also allows the health care systems to more readily collaborate with public health partners and other key stakeholders for both community health assessments and equity-grounded health improvement planning. Lastly, each of the hospitals partnering on this CHNA had the majority of their patient discharges from Cuyahoga County.

Per 501(r) federal compliance, a joint CHNA is only allowable if it meets all the requirements of a separate CHNA; clearly identifies the hospital facilities involved; and if all the collaborating hospital facilities and organizations included in the joint CHNA define their community to be the same*. This Assessment meets the requirements set forth under Treas. Reg. § 1.501(r) ("501(r) Regulations") and for the purposes of meeting these requirements, serves as the 2019 Community Health Needs Assessment ("CHNA") for the following hospitals:

- Beachwood RH, LLC ("UH Rehabilitation Hospital")
- Southwest General Health Center
- St. Vincent Charity Medical Center
- The Parma Community General Hospital Association d/b/a University Hospitals Parma Medical Center
- University Hospitals Regional Hospitals ("UH Bedford Medical Center" and "UH Richmond Medical Center")
- University Hospitals Ahuja Medical Center
- University Hospitals Cleveland Medical Center
- University Hospitals Rainbow Babies & Children's Hospital
- University Hospitals St. John Medical Center

Note: MetroHealth is not required to conduct a CHNA for federal compliance purposes, but chose to be part of this collaborative CHNA given their strong commitment to community health improvement and addressing social determinants of health.

The 2019 Cuyahoga County Community Health Needs Assessment also serves as the CHA for the Cleveland Department of Public Health and the Cuyahoga County Board of Health.

Present Shift to Conducting Joint Health Assessments: Alignment with State Population Health Planning

* 501r-3(b)(6)(v)

The 2019 Assessment also aims to align local planning efforts with state population health planning efforts – as described more fully in *Improving Population Health Planning in Ohio: Guidance for Aligning State and Local Efforts*, released by the Ohio Department of Health. Under state guidance, local health departments and hospitals are required to move to the same health assessment and improvement planning cycle by 2020. To facilitate this alignment, related state regulatory language requires local health departments to shift from the current 5-year cycle to a 3-year assessment and improvement planning cycle.

In addition to aligning local planning cycles, state guidance encourages local health departments and hospitals to select at least two priority topic areas from the State Health Improvement Plan (SHIP) – i.e. chronic disease, maternal and infant health or mental health and addiction – to address in their collaborative improvement plan. Additionally, for each of the two priority topics selected, partners are encouraged to:

- select at least one priority outcome indicator (e.g. suicide rate, infant mortality, diabetes prevalence) to track; and
- select at least one cross-cutting strategy to implement and one related cross-cutting indicator to measure impact of the selected strategy.

Together, these significant policy changes are designed to positively bolster Ohio's population health outcomes.

Future Opportunities to Align Health Planning with Other Stakeholders

This shift in the way health assessments are conducted is a deliberate and strategic approach to working together more effectively and efficiently and demonstrates a clear commitment to gaining a deeper understanding of the health inequities that have plagued our county. The 2019 Cuyahoga County Community Health Needs Assessment also indicates the partners' desire to align health assessment planning among partners at the local and state levels. Notably, a United Way of Greater Cleveland representative joined the planning team to help align the 2019 Assessment with the work of the Accountable Health Communities (AHC) Advisory Board.

The 2019 Cuyahoga County Community Health Needs Assessment provides important information that will inform the development of strategies to address health inequities and improve the health of all Cuyahoga County residents. A more detailed supplemental data-focused report will also be released by the end of 2019 that will provide granular data that may be used for a wide range of purposes to improve community health. As efforts transition to working collectively on solutions that build on existing community strengths, we look forward to continuing to advance meaningful, effective partnerships with additional stakeholders as we strive to create a healthier Cuyahoga County.

Executive Summary

The opportunity for all in Cuyahoga County to achieve their full health potential depends upon long-term collaboration among individuals and organizations across sectors. Cuyahoga County is made up of 58 separate cities and townships, with Cleveland being the largest. There are two local health departments within the county, the Cleveland Department of Public Health and the Cuyahoga County Board of Health. Multiple hospital systems also have facilities in the county, including Cleveland Clinic, MetroHealth, Southwest General, St. Vincent Charity and University Hospitals, in addition to the Cleveland Veterans Affairs Medical Center.

Current differences in health outcomes across various neighborhoods within Cuyahoga County are the direct result of systems, structures, and policies, such as redlining, that over many decades have limited opportunities and impacted health for residents in those communities. The following collaborative community health needs assessment represents a new era in working across boundaries to build on community strengths to address the most pressing and challenging determinants of health for all who live, learn, work and play in Cuyahoga County. The people and organizations who have come together to gather and analyze the data contained in this report are committed to utilizing these findings to work together over the long-term in order to achieve equity and a healthier Cuyahoga County.

This 2019 collaborative community health assessment will be used to collectively design a community health improvement plan and implementation strategy for the next three years. This local plan aligns with the Ohio's State Health Improvement Plan[3], with a focus on an equity-grounded approach to addressing the most pressing health needs for Cuyahoga County. These results, which identify five prioritized areas of collaborative focus for the next three years, are the product of an in-depth, facilitated process of data gathering and analysis, as well as active engagement by community partners and residents through surveys, interviews, community meetings, and an inclusive prioritization process.

Five priority areas

- Eliminating structural racism*
- Enhancing trust and trustworthiness across sectors, people, communities*
- Addressing community conditions, such as reducing poverty and its effects
- Enhancing mental health and reducing substance abuse
- Reducing chronic illness and its effects

** Long-term, cross-cutting strategies that will be integrated into each of the other priority areas through an intentional plan to address these fundamental contributors to the health of both individuals and populations within Cuyahoga County.*

The findings in this report highlight the complex context that affects the health of individual people and populations within Cuyahoga County. As defined by the World Health Organization (WHO), health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity[4]. Health is therefore influenced by multiple determinants, which are not spread equally across the county with people of color disproportionately burdened with higher rates of disease and poor health. These results represent both numerical data about the frequency of health problems and outcomes, as well as qualitative insights about the strengths, challenges, and possible solutions that have the potential to create a community where all have an opportunity to reach their full potential.

The participating hospital systems and local health departments, as well as other key partners who conducted this assessment, recognize that achieving equity and a healthier community require a new way of doing business, working and learning alongside one another, that changes the context in which individuals and communities can thrive. This approach demands courage and creativity as no one organization in isolation can effectively tackle the most pressing issues of structural racism, poverty, trust and substantially improving the health of our community. Working together differently creates the possibility of developing a hopeful and healthy future that offers a fair opportunity and a healthy life for everyone in this community.

Description of Process and Methods

This report includes both qualitative and quantitative data to provide insights about the biggest and most pressing health needs affecting people in Cuyahoga County. Data were analyzed and integrated by many stakeholders whose qualifications are described in **Appendix C**.

Qualitative Data

Key Stakeholder Interviews

The 2019 Cuyahoga County Community Health Needs Assessment Steering Committee (comprised of representatives from the two local public health departments, hospitals, HIP-Cuyahoga, academia, philanthropy and others listed in the **Appendix D**) determined that interviews with leaders from organizations that provide unique perspectives on health needs in Cuyahoga County were an important part of the assessment process (listed in **Appendix E**). The majority of these organizations represent under-resourced, medically vulnerable, low-income, community members and populations of color in Cuyahoga County.

Key stakeholders were identified by the Steering Committee and semi-structured interviews were conducted from May to July 2019 with community leaders from 16 organizations (listed in **Appendix E** along with list of interview questions). Interviews were recorded, transcribed, coded, and analyzed by Dr. Paulette Sage resulting in a detailed thematic analysis with results integrated throughout the report.

Focus Group Data

Based on the recommendation of the Steering Committee's United Way of Greater Cleveland representative, a 1.5-hour focus group was held on May 24, 2019 with nine social service agencies (listed in **Appendix F** along with the questions posed) and moderated by a MetroHealth staff member. Participating organizations serve Cuyahoga County residents and address issues such as economic development, food and hunger, housing, rape and sexual abuse, aging and transportation. Focus group participants were selected based on their involvement in the Accountable Health Communities (AHC) Advisory Board in an effort to align the work of the AHC with the collaborative CHNA process. The Accountable Health Communities Advisory Board is seeking solutions to bridge the gap between health care and social services focused on the social determinants of health.

Focus group participants shared their perspectives regarding the biggest and most pressing issues facing the people they serve, factors impacting health disparities and the role hospitals and public health departments should play in addressing community health issues. Findings were analyzed by the moderator and a United Way of Greater Cleveland staff member and results are described throughout the report.

Quantitative Data

Primary Data Sources

Random Sample Survey

To further understand the health conditions, health needs, and barriers to health care among Cuyahoga County residents, randomized mail surveys of adults and parents of young children (ages 0 to 11) were conducted in collaboration with the Hospital Council of Northwest Ohio (HCNO). A total of 726 adult surveys were received and 113 child surveys were received. Oversampling of Black/African American and Hispanic residents was conducted to assure adequate representation of these communities of color to support subgroup analyses; City of Cleveland residents were oversampled to allow valid comparisons of city and county residents.

Survey data included in this 2019 Cuyahoga County Community Health Needs Assessment were based on the top health priority areas identified in the 2018 Cuyahoga County Community Health Needs Assessment. Additionally, data were also included if they related to the themes that were identified through the qualitative data from the community leader interviews and social service provider focus group. Unless otherwise specified, results that reference surveyed individuals are from the random sample. The full results of the 115-question adult survey and 75-question child survey will be made available in a detailed supplemental data-focused report to be released by the end of 2019.

Convenience Sample Survey

To supplement the random sample surveys, the same surveys were distributed through a collaboration with *A Vision of Change, Inc.,* a local non-profit, that hired certified community health workers trained in survey administration to disseminate and assist with survey completion in some of the county's most under-resourced neighborhoods. The surveys were made available in both English and Spanish.

These surveys were analyzed separately from the randomly collected surveys due to differences in sampling methodology, and the results will be made available in a detailed supplemental data focused report to be released by the end of the year that will help inform development of implementation strategies. Select preliminary results have been included where possible.

Responses differ between the random sample survey results and the preliminary convenience sample results. These differences can be expected for two reasons. First, methodological approaches used to select respondents from each sample were different. Second, for the convenience sample, intentional efforts were made to reach individuals who live in under-resourced areas of the community, including areas that were underrepresented in the random sample.

Secondary Data Sources

Public Health and Population Based Data Sources

The secondary data indicators included in this 2019 Cuyahoga County Community Health Needs Assessment were based on the top health priority areas identified in the 2018 Cuyahoga County Community Health Needs Assessment. Indicators were also included if they related to the themes that were identified through the qualitative data from the community leader interviews and social service provider focus group. Data representing the most recent year available are reported for all sources.

The original pool of potential indicators were selected from four primary sources: the Mobilizing for Action through Planning and Partnerships (MAPP) Core indicators, the MAPP Extended indicators,[5] the Robert Wood Johnson Foundation *County Health Rankings* initiative,[6] and an indicator list developed during the 2011 Ohio Department of Health's Statewide Health Assessment.[7] More information on the original selection process can be found in the *Methods* section of the 2013 CHSA.[8]

The data for the secondary indicators were collected and analyzed by Cuyahoga County Board of Health Epidemiology, Surveillance, and Informatics (ESI) staff.

Hospital Data

The 2019 Cuyahoga County Community Health Needs Assessment also includes hospital discharge data. The analysis of acute care hospital discharge data was completed using comprehensive, de-identified patient-level data from the Ohio Hospital Association. The dataset included discharge data from 2017 and was compared to previous years' data when available.

Analysis of this data by Cypress Research Group focused on describing hospital patient volume trends, the types of inpatient population groups, and the diagnostic patterns among hospital inpatients.

Overall patient groups were created for analysis in two main ways:

1. Hospital inpatients who were residents of Cuyahoga County, but were hospitalized anywhere inside or outside of Cuyahoga County; and
2. Inpatients in hospitals that are located in Cuyahoga County, regardless of their home county of residence.

There is considerable overlap between these two patient groups; however, patients from outside of Cuyahoga County were more likely to be hospitalized in Cuyahoga County than *vice versa*. Most of the analysis focused on the hospitalization patterns of Cuyahoga County residents and less on the patient population of Cuyahoga County hospitals. In the hospital evaluation of impact section, analysis of patients and interventions or strategies both within and outside of Cuyahoga County may be included.

Note that because the inpatient data have no patient identifying information, patients who were hospitalized multiple times cannot be accounted for. That is, each hospitalization is accounted for, regardless of whether or not that patient had been previously hospitalized. Population counts of people who were hospitalized at least once are not presented; instead counts of each hospitalization event are presented.

Future Data

As the collaborative community health needs assessment and improvement planning processes evolve in Cuyahoga County, future assessments will also include additional partners as well as expanded data sources, as indicated below. The most comprehensive understanding of the health of this community will result from analysis of even more types of data on health status and the environmental, economic and social conditions that produce health. Specifically, local federally qualified community health centers have contributed data included in the larger report and work on understanding multi-morbidity will also be included in future assessments. This has been explicitly discussed by the Steering Committee and will be an area of focus for the next cycle.

Information Gaps

To the best of the 2019 Steering Committee members' knowledge, no information gaps have affected the ability of the Cleveland Department of Public Health, the Cuyahoga County Board of Health, MetroHealth, Southwest General Health Center, St. Vincent Charity Medical Center, UH Ahuja Medical Center, Beachwood RH, LLC, UH Bedford Medical Center, UH Cleveland Medical Center, UH Parma Medical Center, UH Rainbow Babies & Children's Hospital, UH Richmond Medical Center, and UH St. John Medical Center to reach reasonable conclusions regarding community health needs.

The 2019 Assessment Steering Committee has identified opportunities for expansion of data sources from new stakeholders in the next collaborative assessment. These include partnerships with federally qualified community health centers, insurers, and other community organizations. Additional data such as uniform data sets, billing data, ambulatory and emergency department hospital data and other insights from structured community conversations will inform future collaborative assessments by identifying additional needs and strengths within Cuyahoga County.

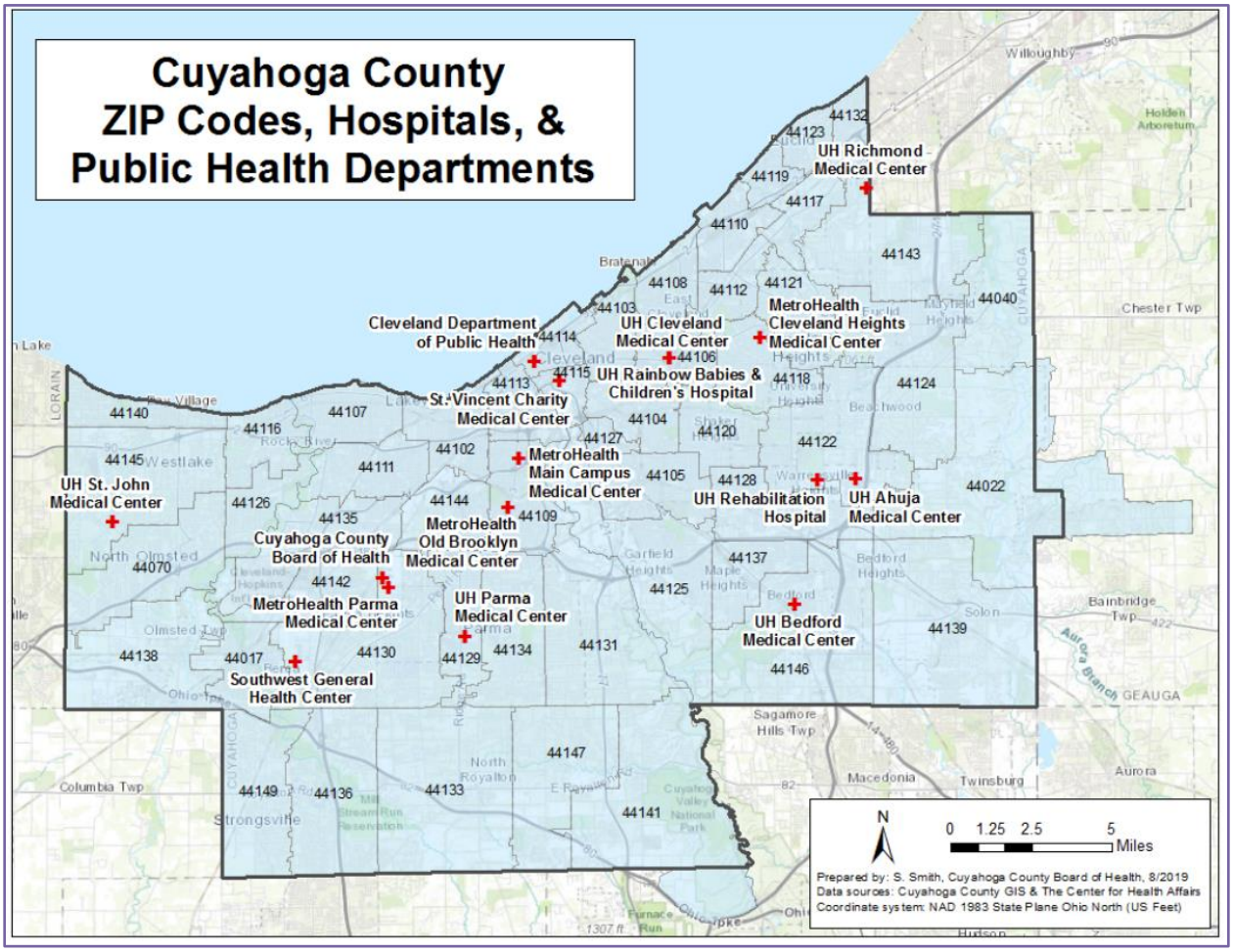
Funding Sources

This work was funded by a collaborative group of stakeholders committed to ensuring that a robust data set was collected and analyzed. The HealthComp Foundation provided significant funding to support surveys collected using both the random sample and convenience sample methodologies described above. The Cleveland Department of Public Health, Cuyahoga County Board of Health, MetroHealth, Southwest General Health Center, St. Vincent Charity Medical Center and University Hospitals also each contributed financial resources to support data collection and analysis. In-kind resources were provided by the organizations listed above, in addition to Case Western Reserve University School of Medicine, The Center for Health Affairs, Better Health Partnership, Cleveland Clinic, PolicyBridge and United Way of Greater Cleveland.

County Profile: Key Indicators

A. Description of Community

Cuyahoga County is one of Ohio's largest counties in terms of population. It sits within Northeast Ohio with a northern border of Lake Erie. It includes the City of Cleveland and 58 suburban communities. Two local public health departments are located within the county. Fourteen Cuyahoga County hospital facilities that are part of the 2019 Assessment are located throughout the county and define Cuyahoga County to be their community for the purpose of IRS compliance.



The following data provide an initial snapshot of the Cuyahoga County community and associated population health status. These key indicators provide a foundational narrative about the community captured in this assessment and will set the stage for advancing collaborative community health improvement planning efforts. Furthermore, data combined from sources available to the two local health departments and 14 hospital facilities provide a rich picture of the complexity of health outcomes and their associated determinants of health.

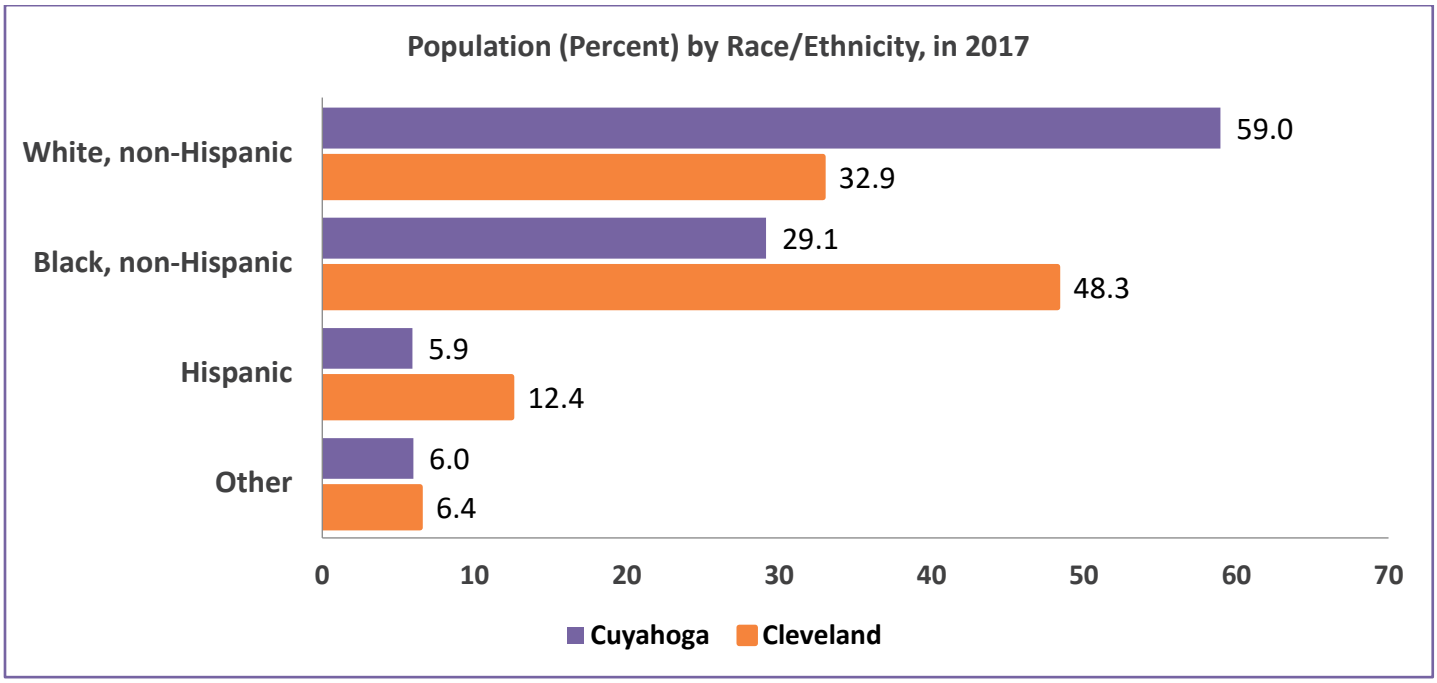
B. Demographic Characteristics: Age, Gender and Race / Ethnicity

Demographic information about Cuyahoga County residents is provided in this section of the report. Demographic characteristics include measures of the total population and the percent of the total population by certain characteristics such as age group, gender, and race/ethnicity.[5] Given that the City of Cleveland comprises approximately 31% of the County's population and experiences greater inequities and disparities in health outcomes, comparisons between the City and County will be used throughout this report.

Comparisons of Select Demographics, 2017 and 2010: Cuyahoga County and the City of Cleveland

Demographic[9-11]	Cuyahoga County				City of Cleveland			
	2017	Percent	2010	Percent	2017	Percent	2010	Percent
Total Population	1,248,514	100.0%	1,280,122	100.0%	385,552	100.0%	396,815	100.0%
Age Group								
< 18	260,986	20.9%	290,262	22.7%	88,316	22.9%	97,657	24.6%
18-34	283,642	22.7%	271,149	21.2%	97,840	25.4%	97,681	24.6%
35-49	219,230	17.6%	254,121	19.9%	67,828	17.6%	78,940	19.9%
50-64	262,809	21.0%	266,049	20.8%	78,635	20.4%	75,041	18.9%
65 and old	221,847	17.8%	198,541	15.5%	52,933	13.7%	47,496	12.0%
Gender								
Male	595,421	47.7%	607,362	47.4%	182,588	47.4%	190,285	48.0%
Female	653,093	52.3%	672,760	52.6%	202,964	52.6%	206,530	52.0%
Race/Ethnicity								
Other	74,626	6.0%	57,907	4.5%	24,803	6.4%	16,363	4.1%
Hispanic	73,990	5.9%	61,270	4.8%	47,962	12.4%	39,534	10.0%
Black, non-Hispanic	363,766	29.1%	374,968	29.3%	186,073	48.3%	208,208	52.5%
White, non-Hispanic	736,132	59.0%	785,977	61.4%	126,714	32.9%	132,710	33.4%

Note: 2010 data are presented since many of the indicators use 2010 for the denominator of the calculation. These data were generated during the last U.S. Census and were considered to be the most stable estimate for the population.



Summary

Cuyahoga County's population is growing older, on average. The 2017 population estimates indicate minor differences between Cuyahoga County overall and the City of Cleveland with respect to age groups and gender. Although small, the most notable differences include a greater percentage of persons 18 to 34 years of age living in the City of Cleveland compared to Cuyahoga County as a whole. Conversely, a greater percentage of individuals aged 65 and over are living in Cuyahoga County overall compared to the City of Cleveland.

There are significant racial/ethnic differences in population when comparing the City of Cleveland to Cuyahoga County as a whole. Specifically, the proportions of Black, non-Hispanic persons and Hispanic persons living in the City of Cleveland are nearly double those of Cuyahoga County overall. Additionally, when comparing the 2017 estimates to the 2010 census, there has been a population decline for both Cuyahoga County overall and the City of Cleveland. However, there has been an increase in the number of Hispanic persons living in both the City of Cleveland and Cuyahoga County as a whole.

C. Hospital Data

The following data identify the pattern of diagnoses for hospitalized residents in 2016 and 2017.

Cuyahoga County Residents | All Acute Care Hospitalizations Discharged in 2016 and 2017
Primary Diagnostic Category*

	2016		2017	
	Number	Percent	Number	Percent
Total	179,962	100.0%	178,738	100%
Diseases of the circulatory system	27,037	15.0%	27,119	15.2%
Diseases of the respiratory system	16,631	9.2%	17,193	9.6%
Childbirth and complications of pregnancy, childbirth, and the puerperium	15,673	8.7%	15,420	8.6%
Newborns (with no serious complications)	14,580	8.1%	14,461	8.1%
Mental and behavioral disorders	15,305	8.5%	15,022	8.4%
Diseases of the digestive system	15,247	8.5%	14,935	8.4%
Injury & Poisoning	8,411	4.6%	13,391	7.5%
Diseases of the musculoskeletal system and connective tissue	10,596	5.9%	10,640	6.0%
Infectious and parasitic diseases	9,551	5.3%	9,788	5.5%
Diseases of the genitourinary system	8,133	4.5%	8,236	4.6%
Endocrine, nutritional and metabolic diseases	6,976	3.9%	7,386	4.1%
Cancers (neoplasms)	6,212	3.5%	6,185	3.5%
Symptoms, signs, and ill-defined conditions	5,016	2.8%	4,344	2.4%
Diseases of the nervous system and sense organs	4,673	2.6%	4,612	2.6%
Diseases of the skin and subcutaneous tissue	4,056	2.3%	3,612	2.0%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	2,799	1.6%	2,826	1.6%
Certain conditions originating in the perinatal period	979	0.5%	918	0.5%
Congenital anomalies	424	0.2%	480	0.3%
Diseases of the ear and mastoid process	224	0.1%	225	0.1%
Diseases of the eye and adnexa	145	0.1%	143	0.1%
Other	7,108	4.0%	16,244	9.1%

*Primary diagnostic category is based on ICD-10 (billing) designations.

Of the 178,738 hospitalizations of Cuyahoga County residents in 2017, 27,119 (15.2%) of them were related to diseases of the circulatory (cardiovascular or heart and blood vessel) system. This category was, by far, the most common primary diagnosis related to hospitalizations. The second most common category was diseases of the respiratory system (9.6%). Other categories that were very close in terms of frequency include: mental and behavioral disorders (8.4%), and diseases of the digestive system (8.4%). While most of those hospitalized for childbirth had no pathology involved, childbirth and complications of pregnancy included 8.6% of all

hospitalizations; along with that, 8.1% of all hospitalizations were newborns with no serious complications. In total, roughly 17% of hospitalizations were related to childbirth (mothers and their newborns).

Note that while cancers (neoplasms) were primary diagnoses for 3.5% of the hospitalizations in 2017, this is not reflective of the relative incidence of cancers in our community compared to other disease states. This is because cancer is generally treated on an outpatient basis.

Hospitalization Levels, Trends

There was a significant reduction in the number of hospitalizations among Cuyahoga County residents over the past few years. The number of hospitalizations decreased by 8.8% from 2013 to 2016; that trend continued into 2017, with a 0.7% reduction in the number of hospitalizations. However, it is important to view that trend with a deeper understanding of which groups of residents are benefitting from reduced hospitalization numbers, and what the trends in hospitalization levels are in surrounding counties.

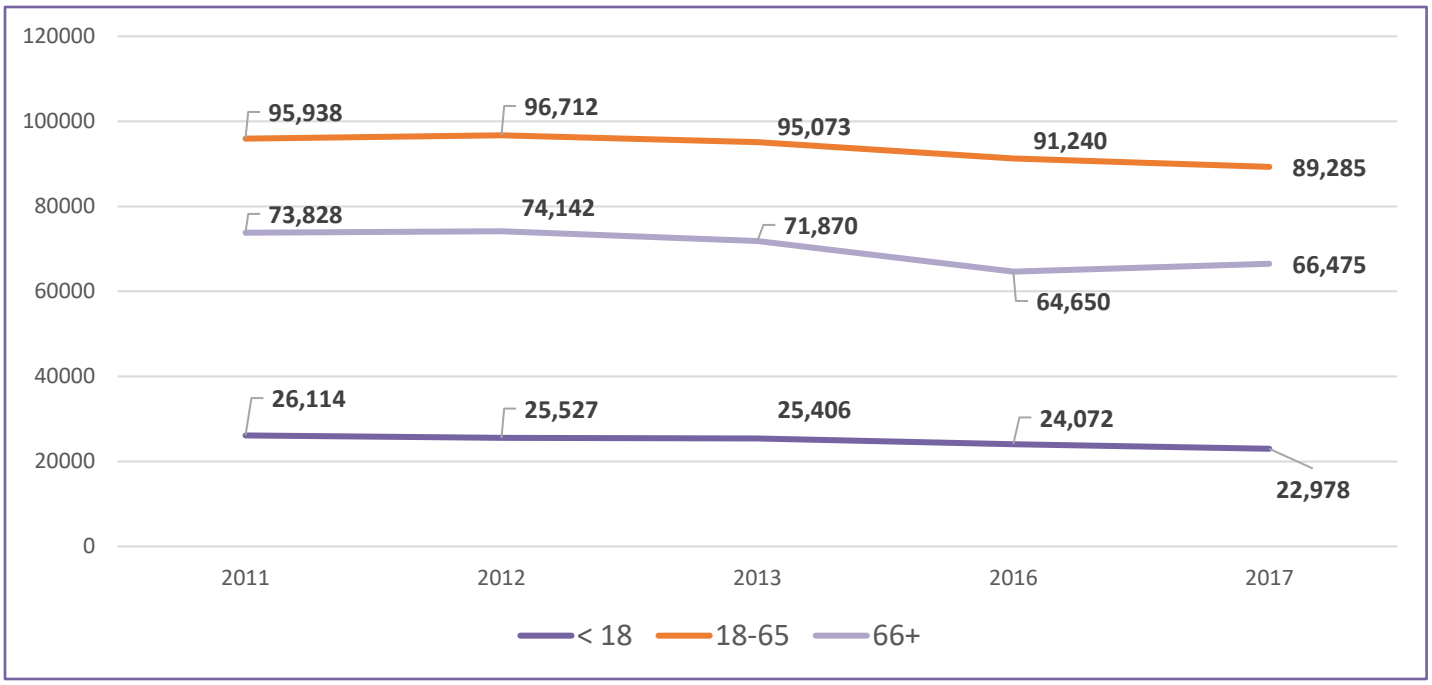
First, from 2016 to 2017, only two of the surrounding counties saw an overall decline in the number of hospitalizations: Summit and Stark counties. Therefore, three of the four counties which have a significant urban core community (Cleveland, Akron and Canton, but not Lorain) saw a decline. The other counties, most of which (except for Lorain County) are primarily suburban and rural, did not see a reduction in the number of hospitalizations.

Trends in Acute Care Hospital Inpatient Levels, NE Ohio Counties 2011 to 2017

	2011	2012	2013	2016	2017	Percent Change from 2016-2017	Percent Change from 2011-2017
Ashland County	4,865	4,768	4,781	5,574	5,611	+0.7%	+15.3%
Ashtabula County	15,170	13,889	14,069	15,000	15,687	+4.6%	+3.4%
Cuyahoga County	**195,880**	**196,381**	**192,349**	**179,962**	**178,738**	**-0.7%**	**-8.8%**
Erie County	11,655	11,303	11,189	11,571	11,770	+1.7%	+1.0%
Geauga County	9,750	10,045	9,379	9,057	9,533	+5.3%	-2.2%
Lake County	30,168	30,287	29,219	29,557	30,082	+1.8%	-0.3%
Lorain County	45,490	43,307	42,742	40,550	41,451	+2.2%	-8.9%
Medina County	18,357	18,308	18,199	17,797	18,432	+3.6%	+0.4%
Portage County	19,762	18,905	17,990	17,658	17,834	+1.0%	-9.8%
Stark County	49,553	48,517	48,447	48,322	47,202	**-2.3%**	-4.7%
Summit County	72,122	70,259	66,685	64,755	63,219	**-2.4%**	-12.3%
Trumbull County	32,682	30,789	29,278	28,467	29,129	+2.3%	-10.9%

In Cuyahoga County, this reduction in hospitalization levels over the past six years was driven mainly by lower hospitalization levels among those aged 66 and older and the reduction was most pronounced from 2013 to 2016. This is despite the number of senior citizens in Cuyahoga County increasing significantly during that same period. However, the trend reversed from 2016 to 2017 where we did see an increase in the number of hospitalizations for those aged 66 and above (64,650 to 66,475).

Trends in Inpatient Levels, Cuyahoga County Residents, By Age Group 2011 to 2017



Trends in Inpatient Levels of Cuyahoga County Residents Aged 66+ and Medicare Beneficiary Levels, 2011 to 2017

The distribution of payers for inpatients from 2011 to 2017 has changed over the past several years, most significantly related to the increase in the number of residents eligible for Medicaid in Cuyahoga County as a result of the Affordable Care Act. For those with Medicare, from 2013 to 2017, the reduction in the number of hospitalizations among county residents was mainly seen among senior citizens. However, by 2017 the number of Medicare beneficiary hospitalizations began to increase again. Unless hospitalization *rates* are impacted through various efforts inside and outside of the hospital system, the number of hospitalizations among those aged 66+ is expected to grow, as the numbers of residents in that age group are expected to grow for the next several years.

Trends in Sources of Insurance, Acute Care Hospital Inpatients, Cuyahoga County Resident, By Payer Type, 2011 to 2017

	2011	2012	2013	2016	2017	% Change from 2013 to 2017	% Change from 2016 to 2017
Medicare	88,049	85,867	86,374	78,997	80,474	-6.8%	**1.9%**
Medicaid	43,613	47,343	47,108	53,287	52,688	+11.9%	-1.1%
Commercial	47,704	44,435	44,242	38,981	37,785	-14.6%	-3.1%
Other	5,793	4,471	5,201	4,319	3,872	-25.6%	-10.3%
Self-Pay	10,644	11,167	8,033	3,674	3,408	-57.6%	-7.2%
Charity	77	3,098	1,391	704	511	-63.3%	-27.4%
Total	195,880	196,381	192,349	179,962	178,738	-7.1%	-0.7%

Proportionally, residents with commercial insurance are declining over time, and the proportion of those with Medicaid has increased from 2013 levels. The expected future trend is that the proportion of hospitalizations of Medicare beneficiaries will continue to grow relative to other payer-types given the country's shifting demographics fueled by an aging Baby Boom generation.

Health Resource Availability: Ambulatory Care Sensitive Discharges

Ambulatory care sensitive cases of hospitalized Cuyahoga County residents ("ACS" cases) for 2016 and 2017 are shown below. 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.

Ambulatory Care Sensitive Cases, Inpatients in Acute Care Facilities
Cuyahoga County Residents, 2016 and 2017

	Cuyahoga County Residents: All			
	2016		2017	
	Number	Percent	Number	Percent
Total Hospitalizations	179,962	100.0%	178,738	100%
Any ACS Condition	**25,646**	**14.3%**	**26,490**	**14.8%**
Chronic Obstructive Pulmonary Disease	5,709	3.2%	5,778	3.2%
Congestive Heart Failure	5,349	3.0%	3,233	1.8%
Diabetes	2,840	1.6%	2,992	1.7%
Hypertension	985	0.5%	2,616	1.5%
Bacterial Pneumonia	250	0.1%	2,765	1.5%
Cellulitis	2,131	1.2%	2,358	1.3%
Grand Mal Seizure and Other Convulsions	1,491	0.8%	1,469	0.8%
Hip/Femur Fracture (age 45 and older)	1,484	0.8%	1,455	0.8%
Asthma	1,298	0.7%	1,319	0.7%
Dehydration	715	0.4%	913	0.5%
Myocardial Infarction	159	0.1%	842	0.5%
Gastrointestinal Obstruction	1,441	0.8%	485	0.3%
Kidney/Urinary Tract Infection	512	0.3%	444	0.2%
Convulsions/epilepsy (age 6 and older)	349	0.2%	402	0.2%
Anemia	2	0.0%	268	0.1%
Severe Ear, Nose and Throat Infections	195	0.1%	94	0.1%
Dental Conditions	75	0.0%	173	0.1%
Pelvic Inflammatory Disease	117	0.1%	71	<0.1%
Angina	104	0.1%	69	<0.1%
Nutritional Deficiencies	68	0.0%	65	<0.1%
Hypoglycemia	46	0.0%	43	<0.1%
Failure To Thrive (Infants Only)	21	0.0%	38	<0.1%
Conditions Preventable Via Immunization	4	0.0%	6	<0.1%

In 2017, there were 178,738 Cuyahoga County residents who were discharged from an acute care hospital. Overall, 14.8% of the hospitalizations of Cuyahoga County residents, at any hospital, were due to an ACS condition. The most common ACS condition among those hospitalized was chronic obstructive pulmonary disease (COPD), which comprised 3.2% of all hospitalized Cuyahoga County residents. The second most common ACS condition was congestive heart failure (1.8% of all Cuyahoga County resident hospitalizations in 2017). Among other ACS conditions were diabetes (1.7%), hypertension (1.5%), bacterial pneumonia (1.5%) and cellulitis (1.3%). All other ACS conditions were the primary diagnosis for fewer than 1% of inpatient discharges.

Most Common (In Any Age Group) Ambulatory Care Sensitive* Cases, By Age Group
Inpatients in Acute Care Facilities, Cuyahoga County Residents, 2017

	Child / Youth (Under age 18)		Adult, Age 18-40		Adult, Age 40-65		Adult, Age 66+	
	#	%	#	%	#	%	#	%
Total:	22,978	100.0 %	34,833	100.0 %	54,452	100.0 %	66,475	100.0 %
Any ACS Condition	2,073	**9.00%**	**2,940**	**8.40%**	**9,667**	**17.80 %**	**12,825**	**19.3%**
Chronic Obstructive Pulmonary Disease	**6**	**<.1%**	80	0.2%	2,570	4.7%	3,123	4.7%
Congestive Heart Failure	3	**<.1%**	135	0.4%	1,043	1.9%	2,052	3.1%
Diabetes	171	0.7%	701	2.0%	1,327	2.4%	793	1.2%
Bacterial Pneumonia	168	0.7%	256	0.7%	822	1.5%	1,519	2.3%
Hypertension	2	**<.1%**	101	0.3%	900	1.7%	1,613	2.4%
Cellulitis	99	0.4%	342	1.0%	931	1.7%	986	1.5%
Grand Mal Seizure and Other Convulsions	332	1.4%	333	1.0%	509	0.4%	295	0.4%
Hip/Femur Fracture (age 45 and older)	0	0%	0	0%	192	0.4%	1,263	1.9%
Asthma	597	2.6%	250	0.7%	346	0.6%	126	0.2%
Dehydration	194	0.8%	72	0.2%	189	0.3%	458	0.7%
Myocardial Infarction	0	0%	9	**<.1%**	267	0.5%	566	0.9%
Gastrointestinal Obstruction	20	0.1%	80	0.2%	182	0.3%	203	0.3%
Kidney/Urinary Tract Infection	54	0.2%	148	0.4%	141	0.3%	101	0.2%
Convulsions/epilepsy (age 6 and older)	77	0.4%	90	0.4%	130	0.2%	105	0.2%
Anemia	9	**<.0%**	18	0.1%	79	0.1%	162	0.2%

The incidence of ACS conditions varies by age, as does the types of ACS cases. These differences can help us understand in which areas of primary care increased resources are needed.

- For youth and children, the incidence of ACS conditions was much lower than for older adults (9.0% vs. 17.8% for adults aged 40-65 and 19.3% for adults over age 65).
- For youth and children, the most common ACS conditions were Asthma (2.8%) and Grand Mal Seizures (1.4%).
- The ACS incidence for young adults (aged 18-40) was also lower than average (8.4%). Diabetes (2.0%), Grand Mal Seizures (1.0%) and Cellulitis (1.0%) were the most common ACS conditions for this age group.

- For older (non-senior) adults (age 40-65), the incidence of ACS conditions was higher (17.8%). Among this age group, Chronic Obstructive Pulmonary Disease (4.7%), Diabetes (2.3%), Hypertension (1.7%) and Cellulitis (1.7%) were the most common ACS conditions.
- Seniors had the highest level of ACS conditions (19.3%). They had some similar top ACS conditions as middle-aged adults (Chronic Obstructive Pulmonary Disease, 4.7%; Hypertension, 2.4%) but also Congestive Heart Failure, 4.7%; Bacterial Pneumonia, 2.3% and Hip/Femur Fracture (age 45 and older), 1.9%.

Ambulatory Care Sensitive Cases, Children (17 and younger) only
Versus Surrounding Counties, 2016 | Most Common ACS Diagnoses

	Cuyahoga County Resident		Lake County Resident		Geauga County Resident		Portage County Resident		Summit County Resident		Medina County Resident		Lorain County Resident	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Total Hospitalized Children:	22,978		3,273		1,268		2,207		8,827		2,403	4,938		
Total, Any ACS Condition:	**2,073**	**9.0%**	**257**	**7.9%**	**98**	**7.7%**	**130**	**5.9%**	**447**	**5. 1%**	**135**	**5.6%**	**512**	**10.4%**
Asthma	597	2.6%	30	0.9%	14	1.1%	7	0.3%	44	0.5%	13	0.5%	87	1. 8%
Grand Mal Seizure and Other Convulsions	332	1.4%	51	1.6%	21	1.7%	40	1.8%	83	0.9%	25	1.0%	102	2. 1%
Diabetes	171	0.7%	18	0.5%	7	0.6%	6	0.3%	59	0.7%	14	0.6%	26	0.5%
Dehydration	194	0.8%	26	0.8%	7	0.6%	0	0%	44	0.5%	18	0.7%	70	1.4%
Cellulitis	99	0.4%	18	0.5%	4	0.3%	14	0.6%	40	0.5%	5	0.2%	20	0.4%

Among hospitalized children, Cuyahoga and Lorain counties had the highest levels of ACS conditions in 2016 (9.0% and 10.4%, respectively). Summit County, the second most populous county in our region, and the only other county with a significant population living in an urban environment, had the lowest level of ACS cases for children (5.1%).

Asthma was the most common ACS condition for hospitalized children who live in Cuyahoga County (2.6%). For most of the other counties in the region, with the exception of Lorain County, the incidence of asthma as an ACS condition was at less than half Cuyahoga County's rate. Grand mal seizures/other convulsions were the second most common ACS conditions in Cuyahoga County (1.4%).

Related to ACS conditions, key stakeholder interviewees advocated for a community shift toward prioritizing primary care and preventing unnecessary emergency department visits and hospitalizations while recognizing the challenges hospitals face in assuring financial stability through providing care in acute settings. The following interview quotes illustrate various challenges: "Oh, I want to get folks out of the ED who are there for basic primary care, but then that same hospital system will say to the ED leader, 'Why are visits down?' So, when you get into trying to pay for gigantic buildings and tens of thousands of employees, any volume is good volume. So, until there's (sic) real penalties for over-utilization of services and treating people in the wrong place of care…"

D. Overarching Themes

Several overarching themes emerged upon reviewing the data sources. Focus group participants and interviewees noted that issues such as lack of trust, segregation and racism are present in our community and prevent necessities like employment, food, affordable housing, health care and transportation from being available to all. The following word cloud generated from key stakeholder interview data highlights many of these themes. The more frequently a word was mentioned during the interviews, the larger and bolder the word will appear in the word cloud.

Trust

From the viewpoint of social service agencies and key stakeholder interviewees, trust is a fundamental value that impacts the work between health care systems, public health departments and social service agencies. There is a strong desire for collaboration, a long-term focus and a need for strategic champions for any progress to be made addressing the social determinants of health.

Focus group participants noted that solutions are sometimes pursued that are then not sustained. These temporary fixes, along with unstable funding sources, exacerbate issues of trust and fear in the community, as illustrated in the following focus group quote: "There must be this commitment that this is going to be a knitting-together kind of thing." Partnership among social service agencies, hospitals, public health, and community is needed for success. Further, existing expertise in the community needs to be utilized in the search for permanent and effective solutions. "We don't need to start from scratch on many of these things."

Trust was highlighted as a major problem across numerous interviews. The following selection of quotes underscores some of the issues:

- *"But as a patient, when people come through the doors, they're kind of stripped of their identity. And people aren't really asked a lot about their life outside of their disease, and they're kind of given medical records numbers, and people refer to them by their-- the heart attack in bed 4B. That's not knowing a community. And so really understanding people's life (sic) and lived experience outside the hospital, I think is very difficult for hospitals to truly understand."*
- *"You have a lot of people who don't trust the doctors…"*
- *"Because the system has let them down, consistently let them down."*
- *"We get inquiries from medical institutions in Cleveland all the time about wanting to connect, wanting to learn. What gets hard for me is that they don't come with any money."*
- *"… Right now, I think there's a fundamental lack of trust in government."*
- *"… I also would love to remove the blinders off of the eyes of those individuals that sit at the top levels so they can see and feel the pain and suffering all of us has had."*

Structural Racism

Structural racism was also described by interviewees and social service agencies as limiting opportunity and preventing success in our community. Both racial and economic segregation stemming from historical policies, such as redlining, continue to create differences in opportunity for residents of color in Cuyahoga County that has directly resulted in poorer health outcomes. Daily stress, particularly among the African American population, was specifically mentioned by social service agencies and many interviewees as impacting health. This historical context also heavily impacts poverty which leads to health inequities related to housing, such as lead poisoning and respiratory illnesses affected by indoor air quality. Furthermore, survey respondents identified challenges with regard to diversity and inclusion within Cuyahoga County. Some of these data are presented below.

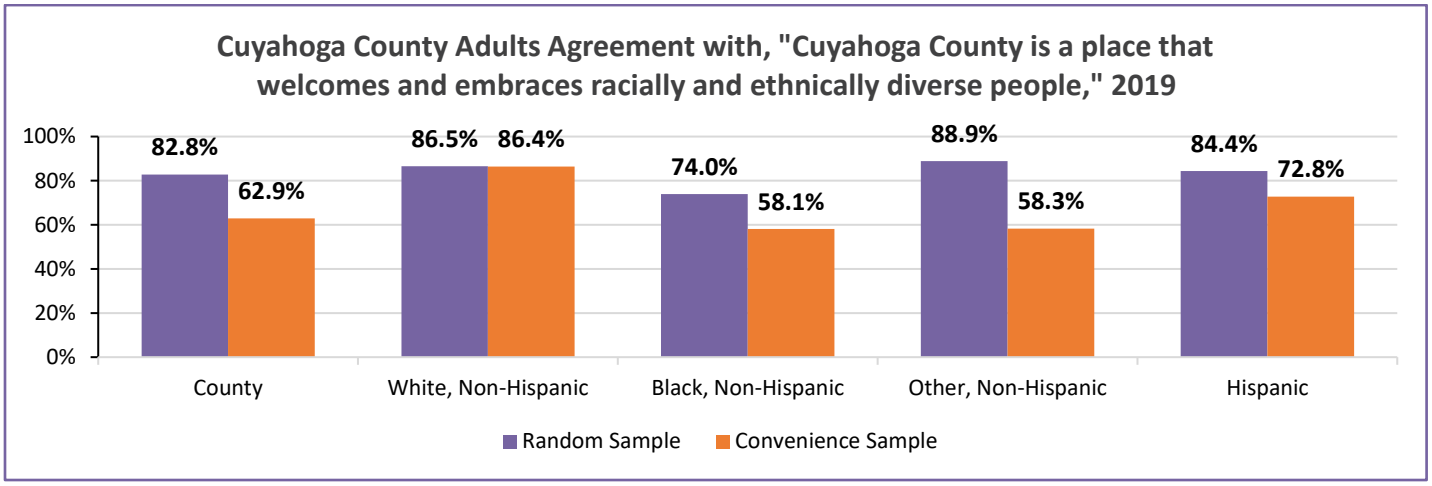
In addition, a key finding from the 2019 State Health Assessment[3] is that "historical and contemporary injustices compound over a lifetime, leading to higher rates of infant deaths, blood pressure, late-stage cancer diagnoses and shorter lives for some groups, particularly black/African-American Ohioans."

Issues of race as related to limited opportunities and inequitable health outcomes were highlighted in numerous forms of data collection for this assessment. Select quotes from interviewees also illustrate the major impact of race on the current context in Cuyahoga County.

- *"Racism plays itself out in the way the racism plays itself out in all it touches, all elements of who we are, what we do, and how we exist in community. It plays itself out in how we see people or don't see them and who and where the focus goes."*

- *"Everybody doesn't have access to be at the table and access to opportunity. I still in the 21st century in this city go into a meeting or room and frequently I'm the only one that looks like me."*
- *"Public policy has created what we have now. And some of that, at the behest of industry and people, and some of that because of pure outright racism. And it's an enormity. It's our ability to even create some trust within communities that have had such demoralizing policies bestowed upon them and they live with that (sic) you don't see if you go five miles in perhaps a different direction. I think recognizing that and admitting that is a really big deal. I think people are still very hesitant to do so. But it then requires another step to this. So what do we collectively do about that? How do we bring in the whole concept of equity? How do we operationalize some of these issues? How does that interface with the education system? Right? Or with opportunities, with jobs, with transportation, with any of our other social structures that we need to be in coordination with?"*
- *"If you look at where it's growing at an astronomical rate, it's in communities of color and underserved because we haven't moved past redlining. We don't call it that anymore but it's the same thing and you're going to put-- you look at the neighborhoods and you look at-- there are very few neighborhoods that are revitalizing themselves with a mind's eye of weaving into the existing fabric."*

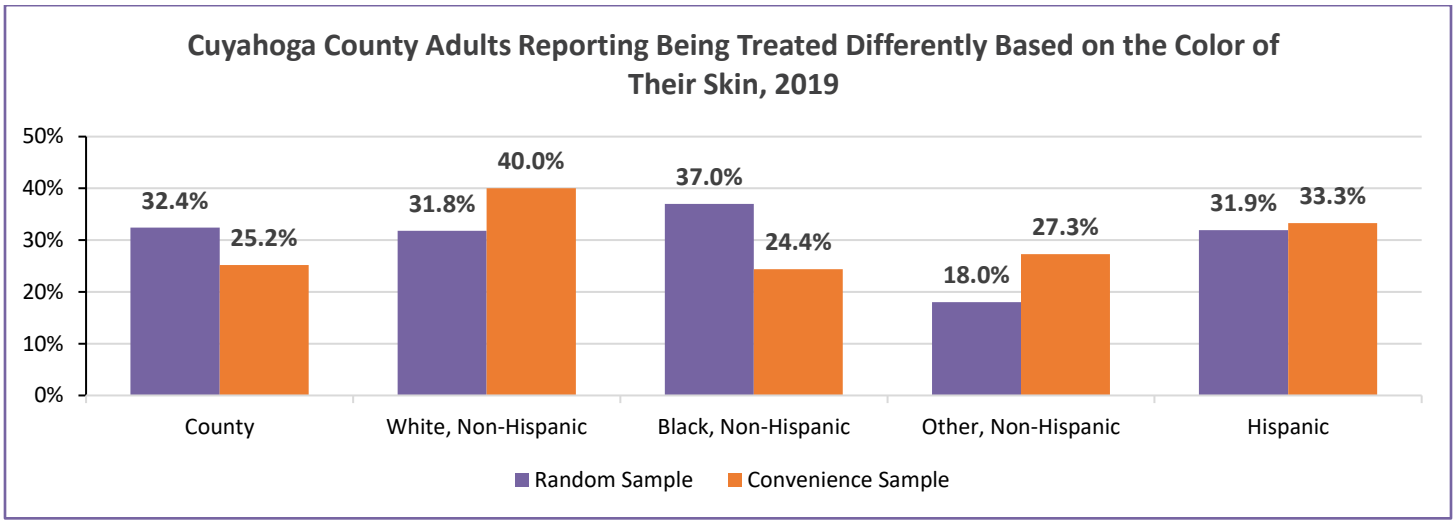
There was wide variation among survey responses to whether or not Cuyahoga County is a place that welcomes and embraces racially and ethnically diverse people.



Note: Convenience sample results are preliminary.[12,13]

Overall, random sample survey respondents were more likely to agree that Cuyahoga County is a place that welcomes and embraces racially and ethnically diverse people (82.8%) compared to convenience sample survey respondents (62.9%). Black, non-Hispanic respondents were less likely to agree that Cuyahoga County welcomes racially and ethnically diverse people compared to White, non-Hispanic respondents, regardless of how they were surveyed.

There were also differences by race when asking respondents if they have felt race-related emotional upset, as well as perceptions of safety and affordability of housing. This relates to issues of redlining as discussed above.



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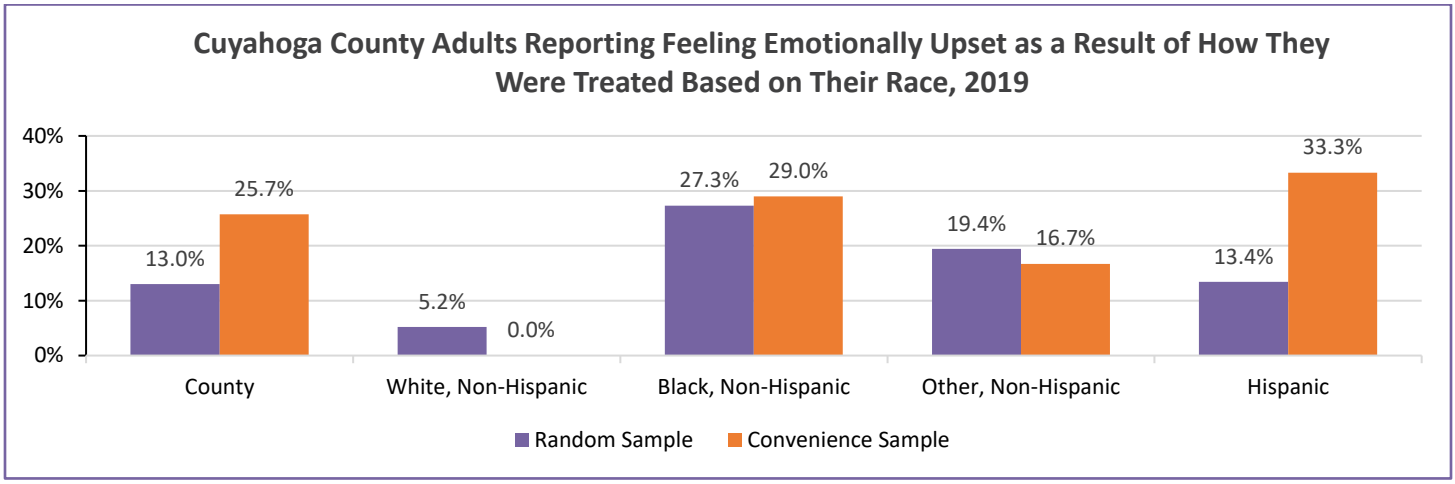

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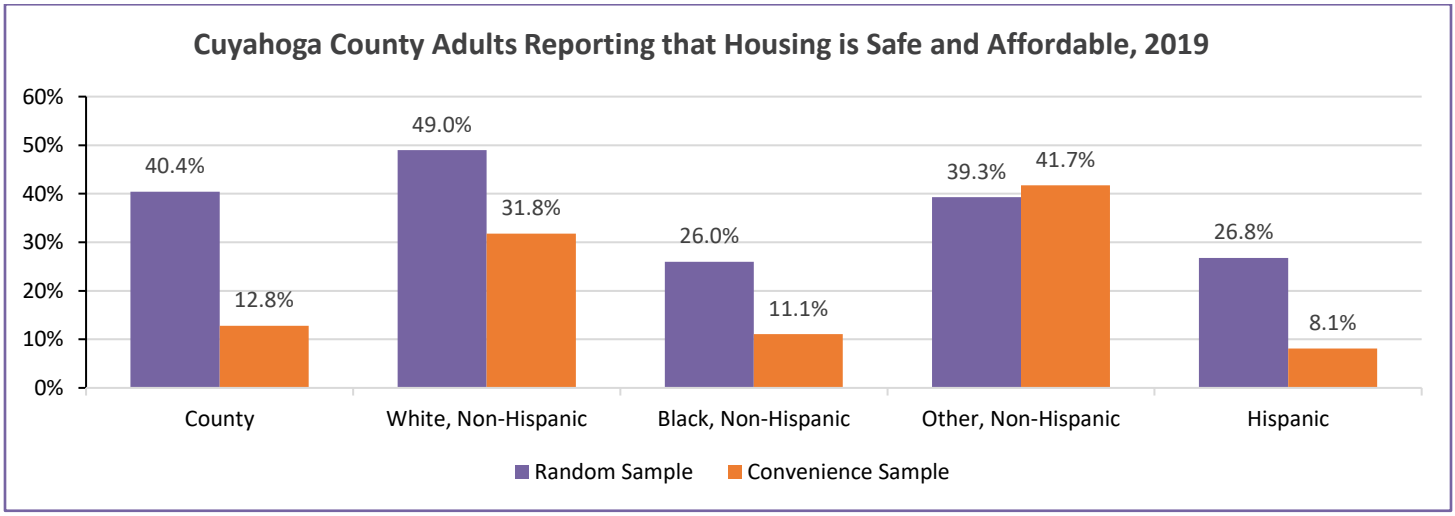


Note: Convenience sample results are preliminary.[12,13]

E. Quality of Life

Quality of Life (QOL) "connotes an overall sense of well-being when applied to an individual" and a "supportive environment when applied to a community"[14]. While some QOL dimensions can be quantified using indicators related to determinants of health and community well-being, other valid QOL dimensions include community residents' perceptions about aspects of their neighborhoods and communities that either enhance or diminish their quality of life. Currently available statistics tend to focus on the latter.

Poverty

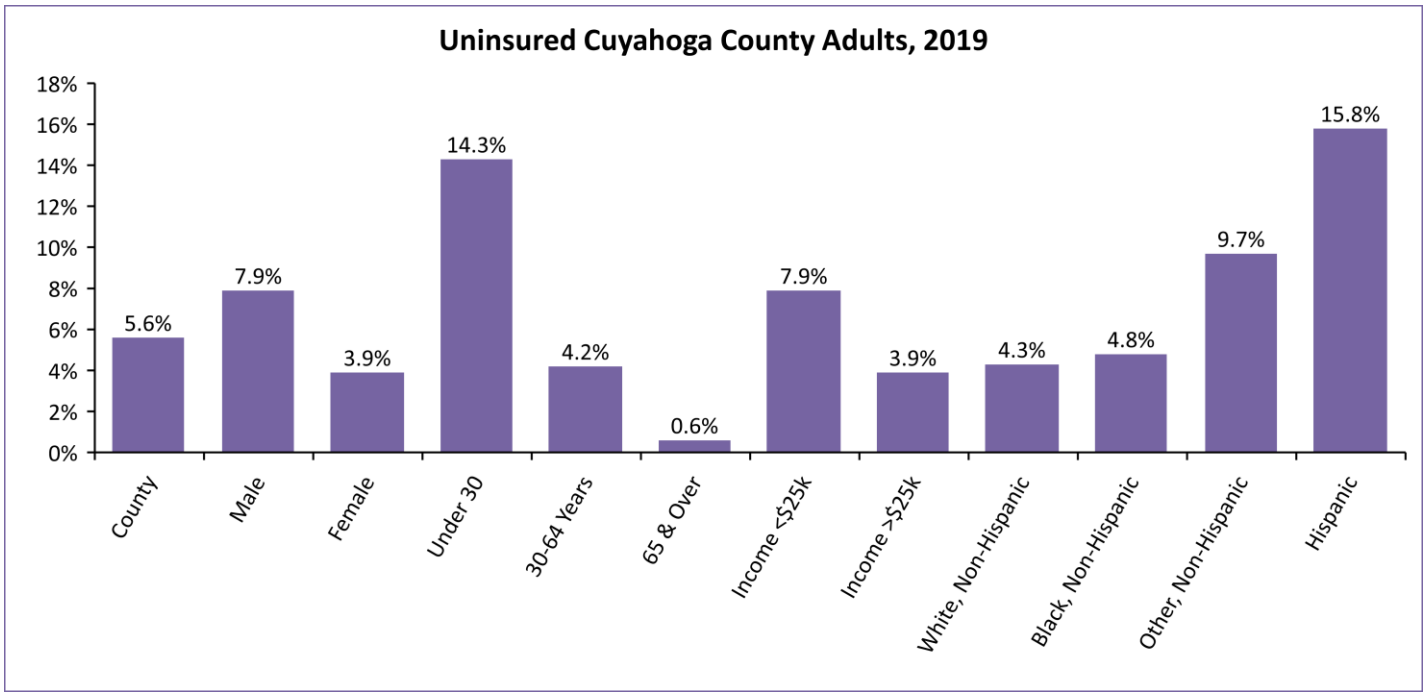
Poverty continues to be a critical issue that impacts Cuyahoga County residents. In 2017, the percent of the population living below the poverty level was higher for Cuyahoga County overall (18.0%) and the City of Cleveland (33.1%) compared to the state of Ohio and the nation (14.0% and 13.4%, respectively).[15] Certain population groups are impacted at higher rates. The percent of people living in poverty is greatest among: people less than 18 years old; females; and Hispanics and Blacks compared to Whites.

Random sample survey data suggest that many Cuyahoga County residents struggle with financial stability. In 2019, 17.2% of Cuyahoga County parents reported it being hard to get by on their family's income, since their child was born. Parents with children ages 6 to 11 and those with household incomes less than $25,000 were more likely to report this.

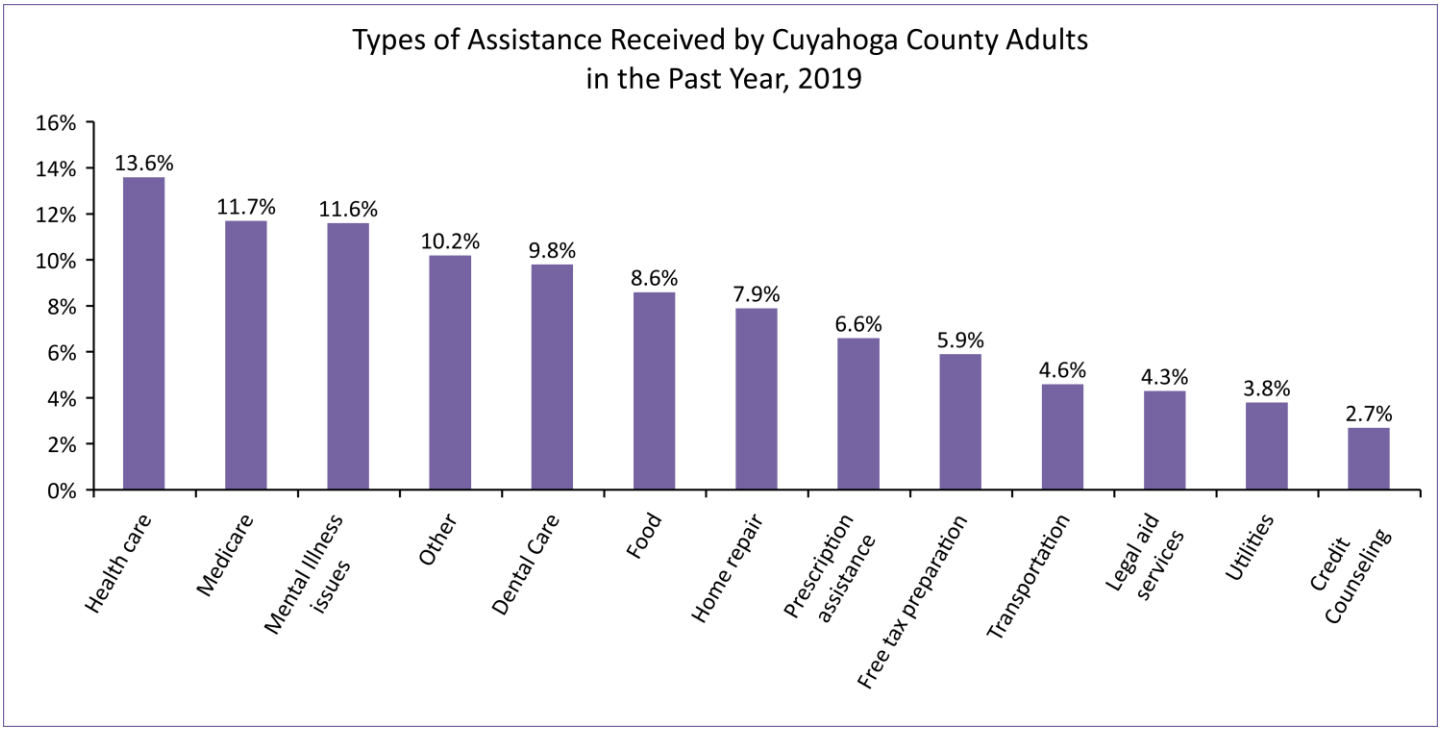
Employment challenges tie closely to poverty rates. In 2017, the unemployment rate was higher for Cuyahoga County overall (7.3%) and the City of Cleveland (12.5%) than both the state and national rates (5.2% and 5.3%, respectively).[16] Blacks and Hispanics are more likely to be unemployed compared to Whites in both the City of Cleveland and Cuyahoga County overall. Interestingly, the percent of the population having attained at least a high school degree is higher for Cuyahoga County (94.6%) when compared to the state (89.9%) and the nation (87.9%).[17] The following groups were less likely to have obtained at least a high school degree: individuals 65 years of age and older; females; and Blacks compared to Whites.

Social service agencies who participated in the focus group mentioned work challenges most frequently when describing issues impacting health. Specifically, poverty, unemployment, underemployment, residents struggling to earn a living wage, lack of economic mobility, insufficient wage progression and lack of time off were described by focus group participants as being an area to focus on. "You know, you pull yourself up by your bootstraps, when if people don't have boots they don't have straps."

Interviewees shared similar concerns repeatedly during individual interviews. "Poverty, environmental justice, and health inequities are I think three of our biggest challenges to overcome, to really be able to impact population health." Another interviewee noted, "Poverty caused by segregation, racial segregation, caused by the changing of the economy here. I think there's just-- the poverty is really stark. And from one spot to the next, it's really stark. So there's no generational wealth that kind of passes down. And so people are struggling and with that comes a lot of stress, right? And that stress leads to all kinds of health issues. Leads to violence, leads to unhealthy diets, leads to just stress that results in anxiety, depression, all that. I mean, those are the big-- I mean, I think toxic-- I would say toxic stress is the biggest issue caused by oppression." Another stated, "I think poverty is the primary issue, following pretty closely by race because they're so intertwined with each other. And then sort of off of that, issues that we focus on a lot are issues around food insecurity, health insurance, health coverage, particularly, through the Medicaid program. Issues related to older adults, in terms of neglect and abuse, hunger, transportation."



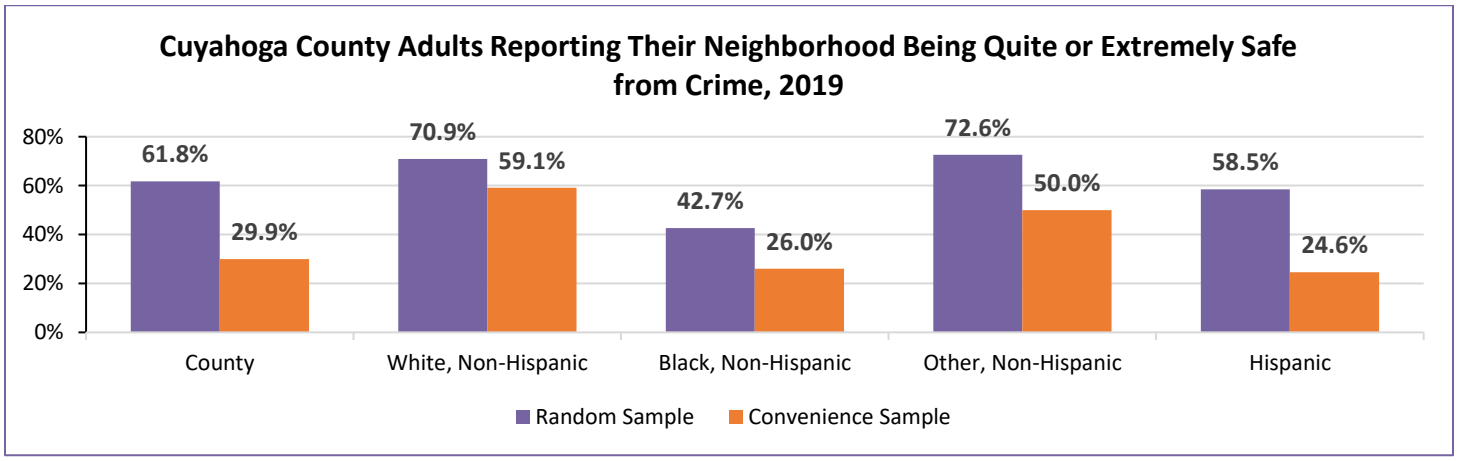
Job insecurity and cost also influence health insurance rates. The top reasons reported by surveyed Cuyahoga County adults for being without health insurance coverage were: lost job or changed employers (10.0%), and cost (high co-pays, premiums, deductibles; 6.1%).



Survey results show that the top three reasons Cuyahoga County adults received assistance in the past year related to health care (13.6%), Medicare (11.7%) and mental illness issues (11.6%).

Homicide / Violence / Safety

There was wide variation regarding perceptions of neighborhood safety among random sample survey respondents and convenience sample survey respondents. While 61.8% of random sample survey respondents reported that their neighborhood was quite or extremely safe from crime, just 29.9% of convenience sample survey respondents felt similarly. Black, non-Hispanics and Hispanics reported lower rates of neighborhood safety compared to White, non-Hispanics, regardless of how they were surveyed.



Note: Convenience sample results are preliminary.[12,13]

Safety was a theme mentioned consistently by social service agencies who participated in the focus group. They noted that feelings of being "unsafe" have many facets and levels ranging from crime and violence both in the community and inside the home to disrepair of sidewalks, streets and neighborhoods. Furthermore, access to affordable and safe housing is challenging in certain neighborhoods due to rates of crime and violence.

Random sample surveyed Cuyahoga County adults reported the following people threatened to abuse them in the past year:

- Spouse or partner (2.0%)
- Someone else (2.0%)
- Another person outside the home (1.4%)
- A parent (0.9%)
- A child (0.6%)
- Another family member living in the household (0.6%).

The violent crime rate for the City of Cleveland (1,850.1 per 100,000 population) and Cuyahoga County (646.0) were well above the rate for the state of Ohio (293.0) and significantly higher than the national benchmark (63.0) in 2017.[7,8] The domestic violence rate, which is not captured in the violent crime rate, in the City of Cleveland was 1,649.1 per 100,000 population in 2017.[9] Although Cuyahoga County and national benchmark data are unavailable, the domestic violence rate is considered an important indicator of the health of a community.

The rate of child abuse and neglect among children in the City of Cleveland (18.7) was higher than the overall County rate (9.1) and the national rate (9.1) per 1,000 children in 2016.[10,11]

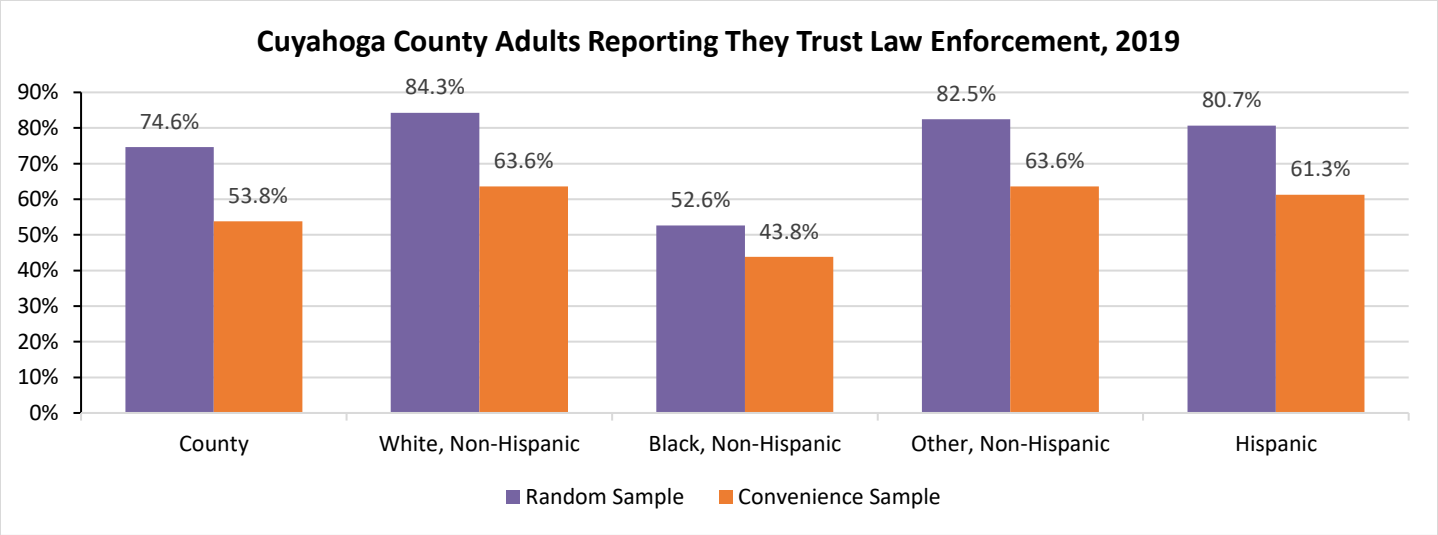
Homicide rates per 100,000 population for both Cuyahoga County overall (14.2) and the City of Cleveland (28.3) were significantly higher than the state of Ohio (7.5) and the nation (6.1) in 2017, and do not meet the national benchmark (5.5).[12,13,14] Homicide rates are highest among:

- 18-34 year olds
- Males (rate is approximately four times higher compared to females)
- Black, non-Hispanic residents

The 2017 firearm/gun-related death rates for both Cuyahoga County overall (18.3) and the City of Cleveland (29.8) were higher than the rate for the state of Ohio (12.0) and the national rate (13.7), which were all higher than the national benchmark of 9.3.[15-17]

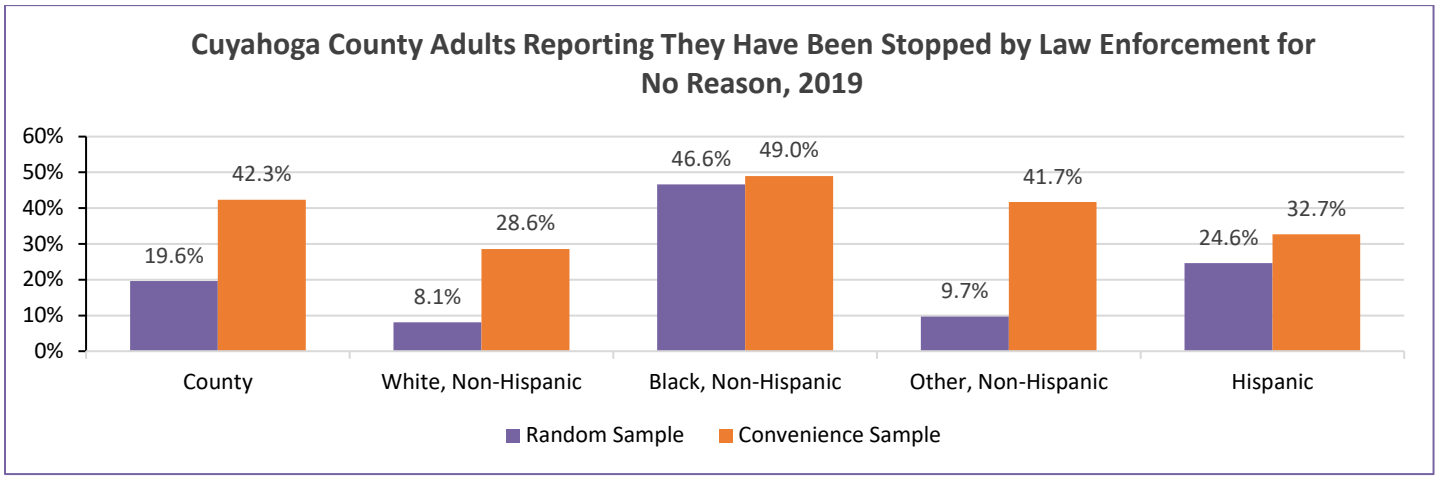
Cuyahoga County Adults Comparisons: Law Enforcement and Safety	Percent Agreement
Trust law enforcement	74.6%
Feel safe around law enforcement	80.5%
Believe that law enforcement is there to protect them	85.4%
Feel threatened by law enforcement	20.2%
Have been stopped by law enforcement for no reason	19.6%
Treated differently by law enforcement based on their race	24.8%

While 74.6% of random sample surveyed Cuyahoga County adults trust law enforcement, that percentage was only 53.8% among convenience sample survey respondents. The percent of Black, non-Hispanics who trust law enforcement is lower than White, non-Hispanics and Hispanics, regardless of how they were surveyed.



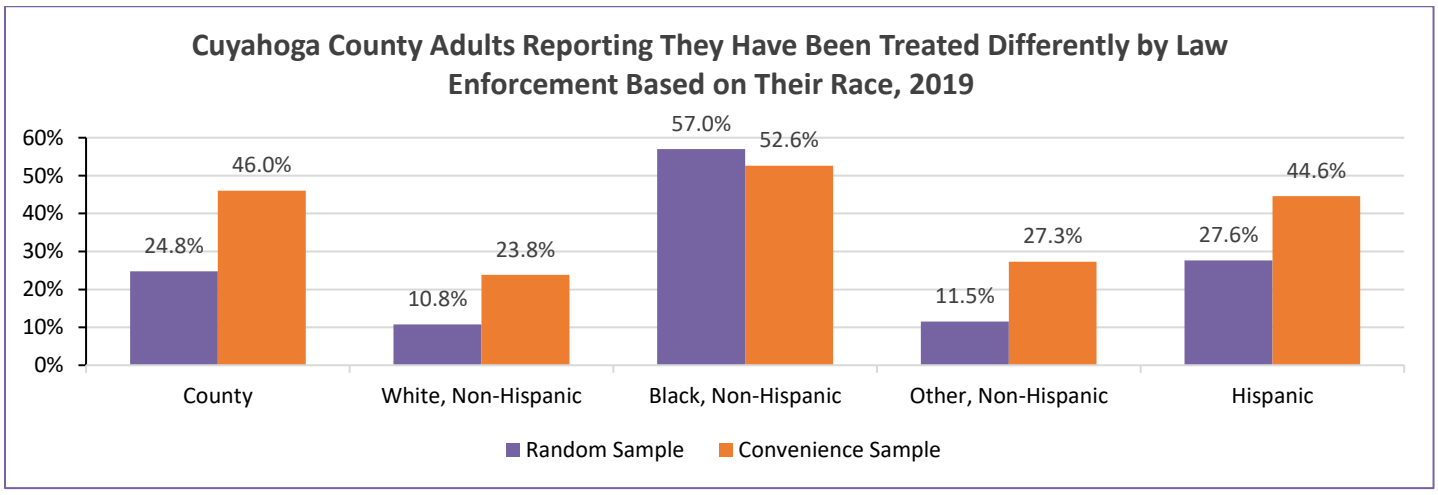
Note: Convenience sample results are preliminary.[12,13]

Compared to White, non-Hispanic adults, Black, non-Hispanic respondents in the random sample were nearly six times more likely to have been stopped by law enforcement for no reason. The results were also different when comparing the random and preliminary convenience samples.



Note: Convenience sample results are preliminary.[12,13]

Black, non-Hispanic adults were more likely to have reported being treated differently by law enforcement based on their race compared to White, non-Hispanics and Hispanics, regardless of how they were surveyed. Convenience sample survey respondents were more likely (46%) to report having been treated differently by law enforcement compared to random sample survey respondents (24.8%).



Note: Convenience sample results are preliminary.[12,13]

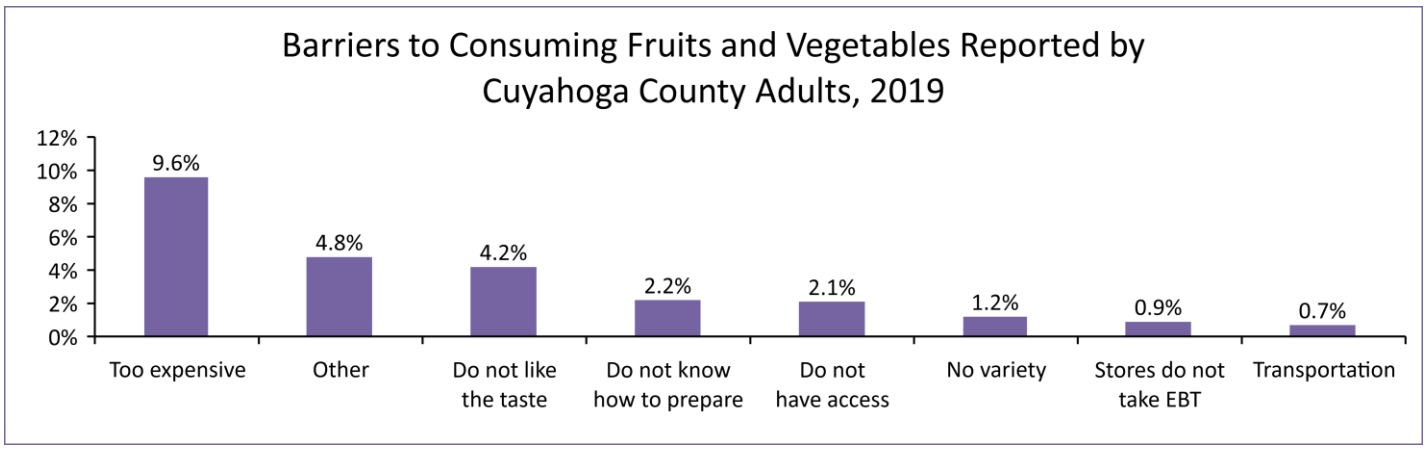
Food Insecurity

Food insecurity is an issue that impacts many Cuyahoga County residents. Social service agencies noted that food access, insufficiency, daily hunger and healthy food options are issues that many residents are grappling with. In the last year, 18.9% of surveyed Cuyahoga County adults worried about whether their food would run out before they had money to buy more. Also, 16.2% of Cuyahoga County adults reported running out of food and not having money to buy more. Food insecurity rates were greatest among females, those less than 30 years of age, those with incomes less than $25,000, African Americans and Hispanics. Also, 56.3% of Cuyahoga County adults reported that cost was a main factor in determining the types of food they eat.

Tied to the issue of food insecurity is how close a person lives to a grocery store. Approximately one out of three people in Cuyahoga County overall (34.6%) and nearly two out of three people in the City of Cleveland

(58.1%) live in a food desert – defined as areas that are more than a half a mile away from a supermarket or a grocery store.[18] In Cuyahoga County, 23.5% of Whites live in a food desert compared to 56.0% of Blacks.

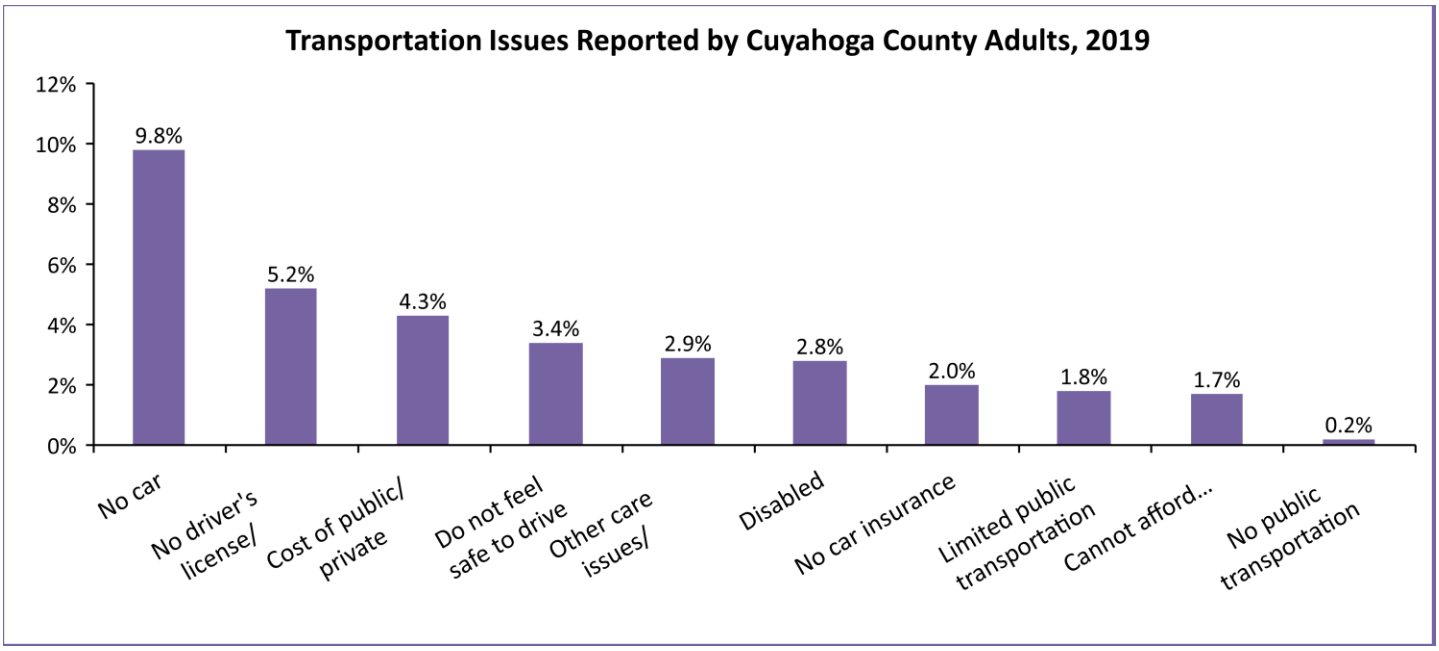
Focus group participants also mentioned that food access is a priority need that is influenced by safety concerns in neighborhoods.



Survey results provide insight into the top barriers to consuming fruits and vegetables in Cuyahoga County. Among adult survey respondents, cost (9.6%), taste (4.2%), and not knowing how to prepare fruits and vegetables (2.2%) ranked among the top barriers.

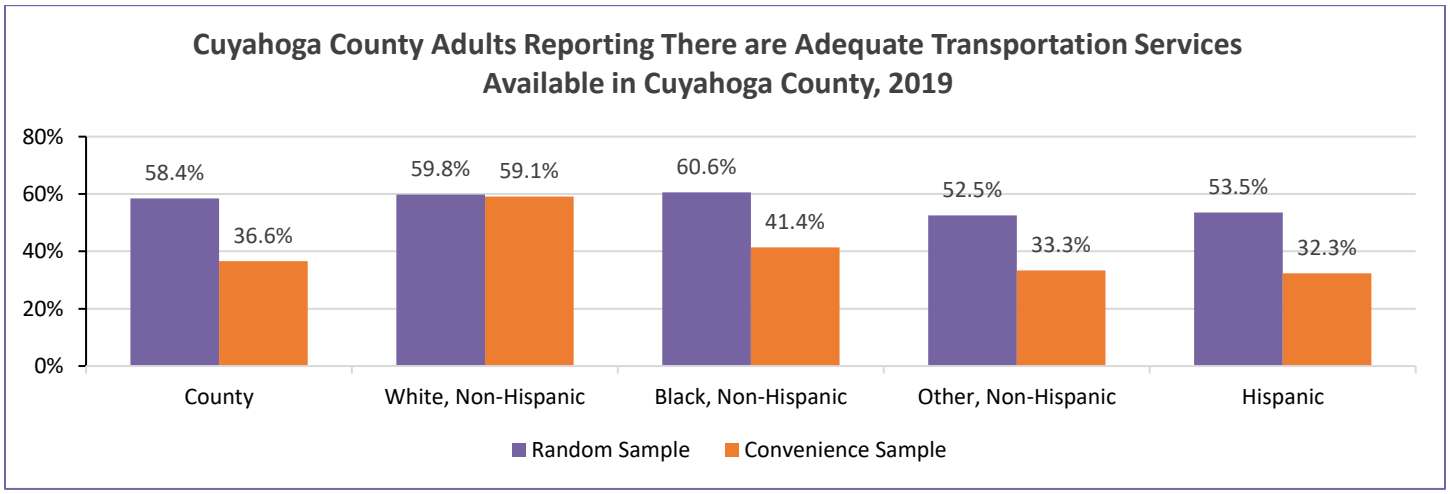
Transportation

Transportation was mentioned by social service agencies as a concern which impacts access to jobs, healthcare, school and ability to socialize. One-fifth of all Cuyahoga County households located in a food desert do not have a vehicle.[18]



Among the random sample survey respondents, 7.0% of surveyed Cuyahoga County adults reported having one transportation issue and 9.3% reported two or more transportation issues. The biggest transportation issue mentioned by Cuyahoga County adults was not having a car (9.8%). The highest percentages of Cuyahoga County adults who reported they did not have a car include:

- Those between the ages of 30 to 64 years of age
- Females
- African American, non-Hispanics
- Those with household incomes less than $25,000.



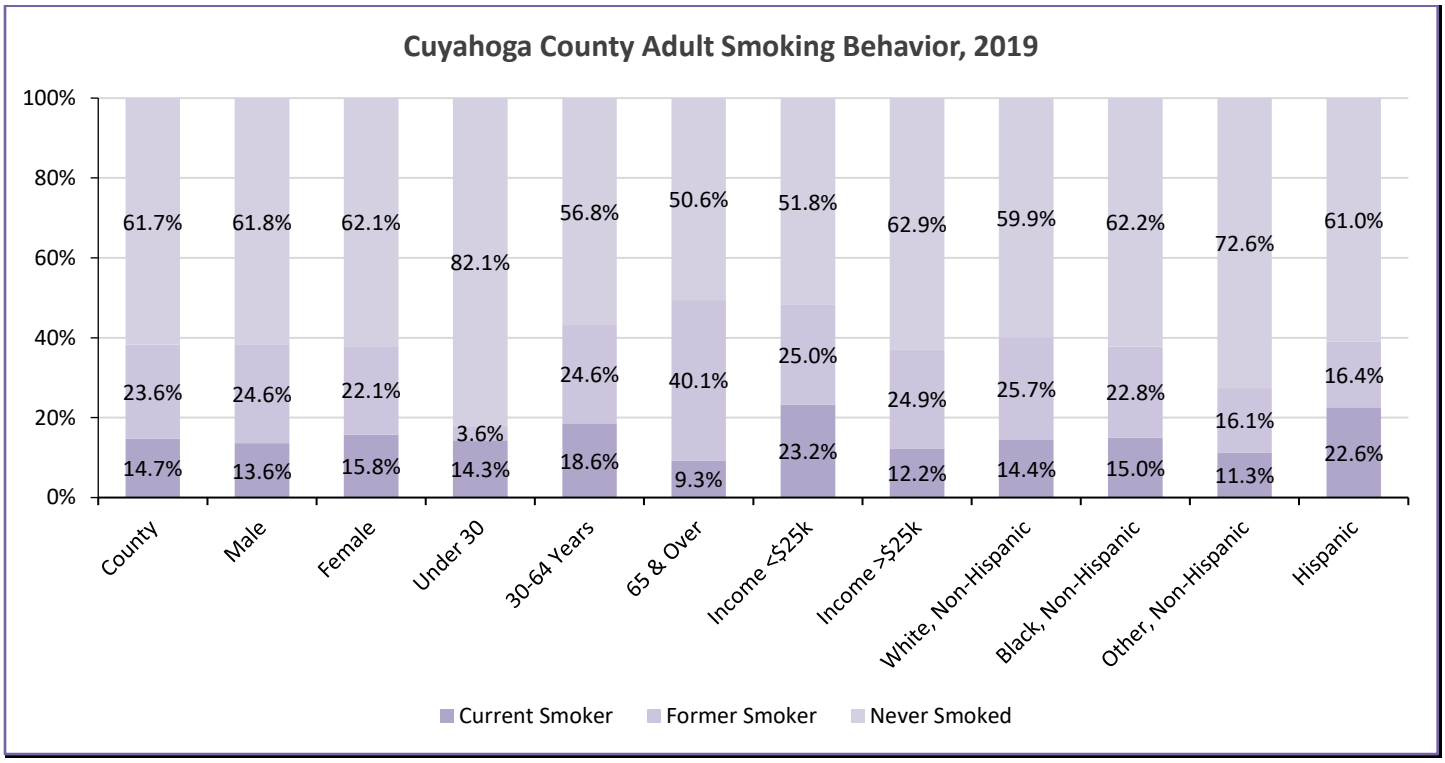
Note: Convenience sample results are preliminary.[12,13]

Approximately 60% of randomly sampled Cuyahoga County adults who were surveyed reported that there are adequate transportation services available in Cuyahoga County. However, the results differed when comparing the random and convenience samples with fewer than 40% of those sampled in the latter survey feeling transportation services were adequate.

F. Health Behaviors

Behaviors believed to cause or contribute to disease, injuries, or death during youth and adolescence, and significant morbidity and mortality in later life, are risk factors in this category.[19]

Tobacco use

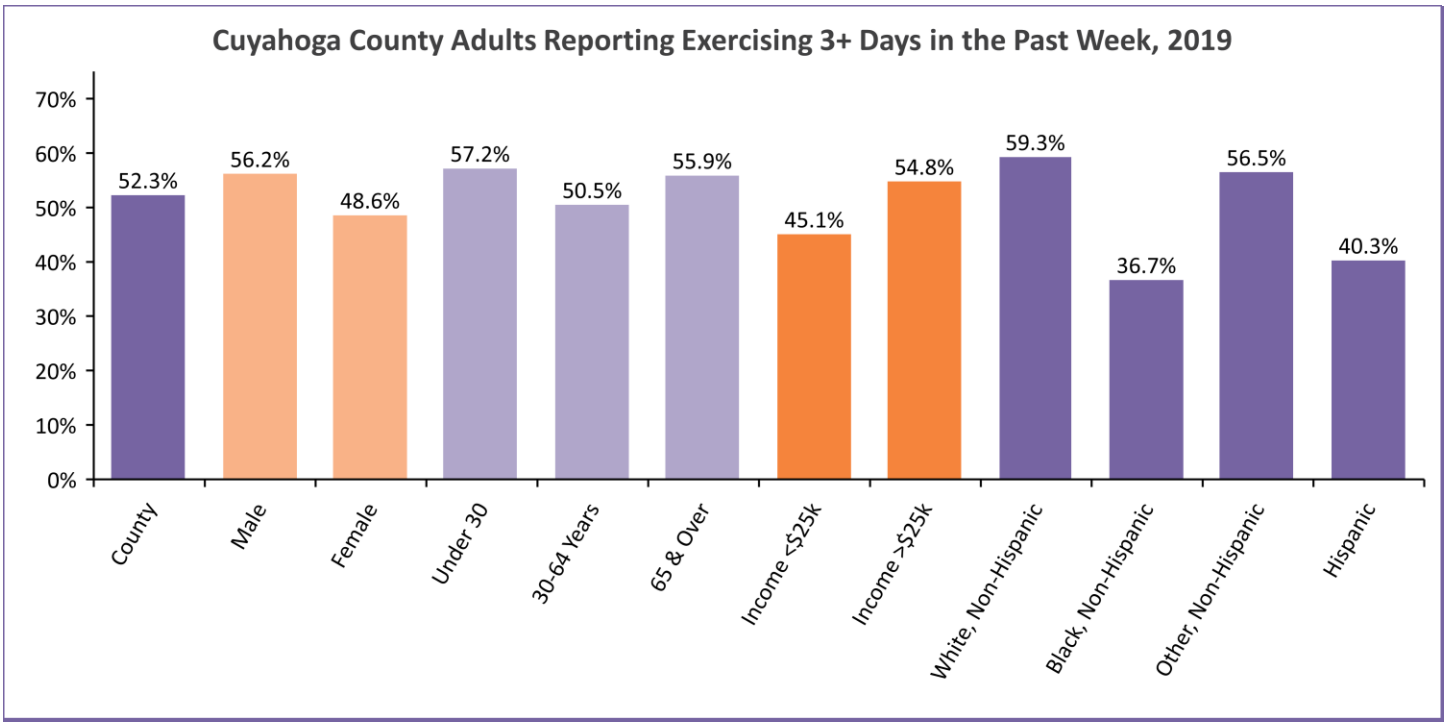


In 2019, 15% of surveyed Cuyahoga County adults reported as being current smokers, 24% identified as former smokers and 62% had never smoked. The top forms of tobacco that Cuyahoga County adults reported using included cigarettes (17.1%), e-cigarettes/other vaping products (7.2%), and cigars (6.3%). Only 2.7% of Cuyahoga County parents reported that smoking is allowed anywhere inside their home.

The percentage of adolescents in 9th to 12th grade who currently use cigarettes (as of 2017) was 6.2% for Cuyahoga County overall, which is less than the national benchmark (16.0%).[20] However, the percent of adolescents in the county who specified that they currently use cigars was 13.1%, which is higher than the national benchmark (8.0%).[20,21]

The percent of mothers who smoked during pregnancy in Cuyahoga County overall in 2017 (8.8%) is lower than the state of Ohio[22] (14.4% in 2016), but higher than the national rate (6.9% in 2017).[23] White, Non-Hispanic mothers in Cuyahoga County have the highest rate of smoking during pregnancy (10.3%) compared to other racial / ethnic groups.

Lack of Physical Activity



Approximately half (52.3%) of adults surveyed in Cuyahoga County reported exercising for at least 30 minutes, three or more days in the previous week. Adults aged 30 to 64 reported the lowest exercise rates (50.5%) compared to adults under age 30 (57.2%), and adults aged 65 and older (55.9%). Adults in Cuyahoga County with household incomes less than $25,000 per year had lower self-reported exercise rates (45.1%) than adults with household incomes above $25,000 per year (54.8%). White, Non-Hispanic adults in Cuyahoga County reported higher exercise rates (59.3%) compared to Black, Non-Hispanic (36.7%) and Hispanic (40.3%).

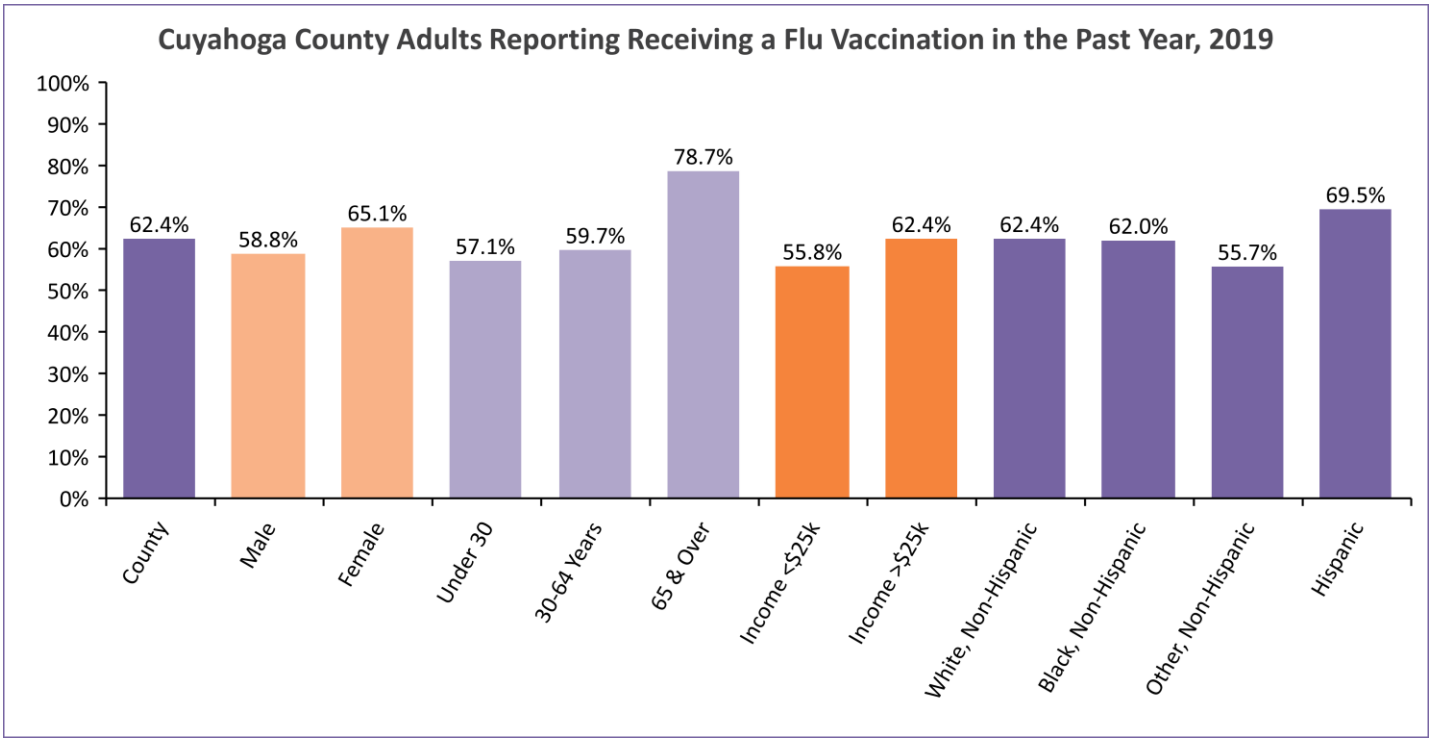
The percentage of people with access to exercise opportunities in Cuyahoga County was higher (97.0%) than the national benchmark of 91.0%, and the overall state of Ohio (84.0%) in 2018.[24]

However, nearly one quarter of adults surveyed in Cuyahoga County reported not participating in any physical activity in the previous seven days (22.6%). The top four reasons for not exercising in the past week as reported by Cuyahoga County adults included:

- Not having time (23.2%)
- Lacking self-motivation or will power (20.2%)
- Feeling lazy (19.7%)
- Being too tired (19.3%)

As reported by surveyed parents, on average, Cuyahoga County children ages 0 to 11 spend 1.7 hours on screen time and 1.4 hours playing outside per day. Focus group participants mentioned that in certain communities where residents feel unsafe based on disrepair of neighborhoods or crime and violence, physical activity is impeded. In 2015, the percentage of adults not getting the recommended amount of physical activity in Cuyahoga County (23.0%) exceeded the national benchmark (32.6%) and the state of Ohio (25.0%).[24]

Flu vaccination rates



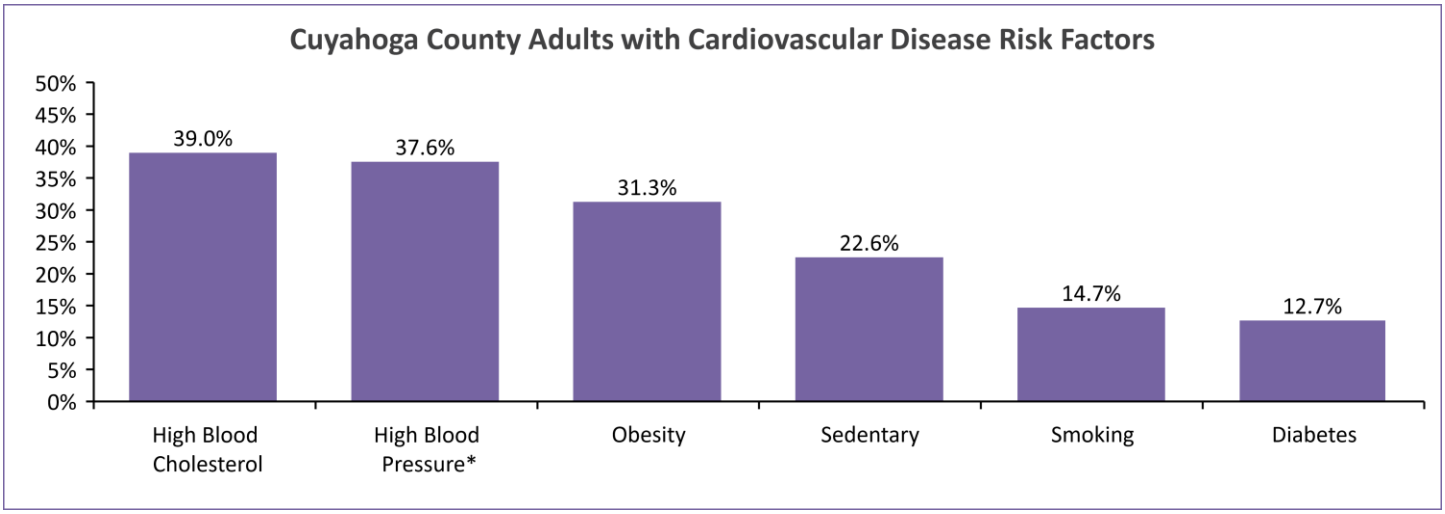
62.4% of surveyed Cuyahoga County adults reported receiving a flu vaccination in the past year. Cuyahoga County parents surveyed reported that 72.5% of children ages 0 to 11 received a flu vaccination within the previous year.

From 2018 to 2019, Cuyahoga County Medicare beneficiaries' claims data showed that rates of influenza vaccination (48.9%) were comparable to the state of Ohio (48.8%) and the nation (46.0%).[25]

G. Chronic Disease

According to the Centers for Disease Control and Prevention, chronic diseases are broadly defined as conditions lasting one year or longer, limit activities of daily living or require ongoing medical attention or both.[26]

Cardiovascular disease



A significant number of Cuyahoga County adults surveyed were told by a doctor, nurse or other healthcare professional that they display risk factors associated with cardiovascular disease. The top three risk factors stated include high blood cholesterol (39%), high blood pressure (37.6%) and obesity (31.3%).

Cuyahoga County adults surveyed reported receiving the following diagnoses:

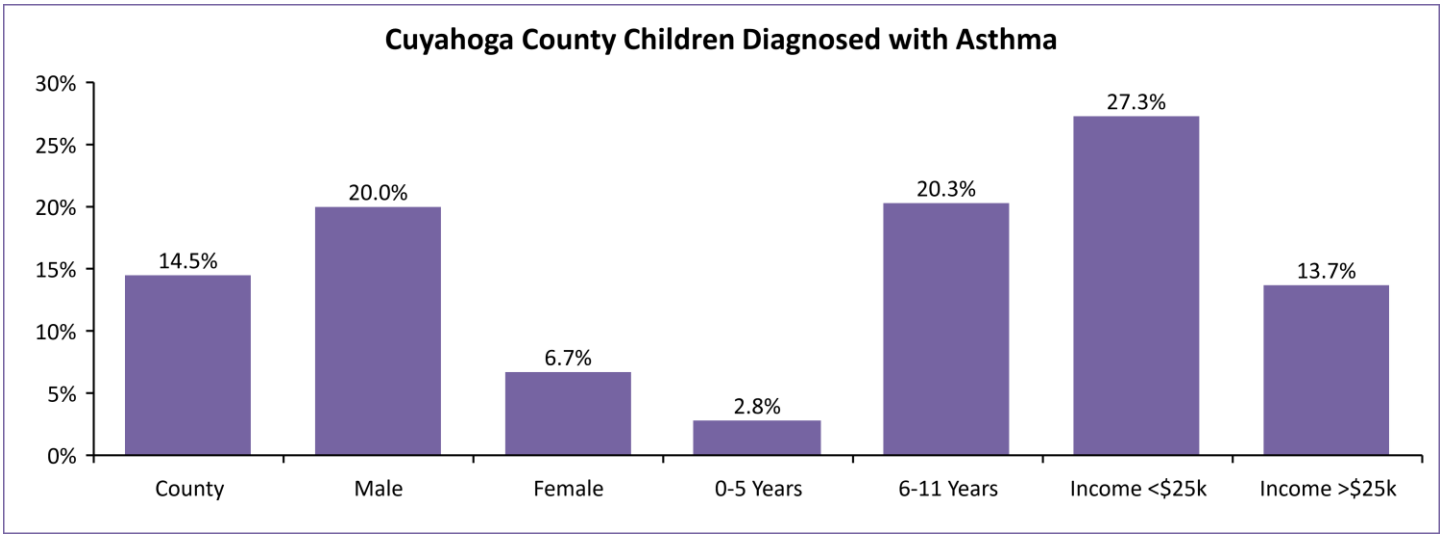
- Heart attack or myocardial infarction (2.9%)
- Angina or coronary heart disease (4.4%)
- Stroke (3.1%)
- Congestive heart failure (1.8%)

While only 0.9% of Cuyahoga County parents surveyed reported having children who had been diagnosed with hypertension that percentage increased to 9.1% of children with household incomes less than $25,000.

According to 2017 death data, Cuyahoga County (204.4 per 100,000 population) and the City of Cleveland (246.3) both had higher mortality rates for cardiovascular disease compared to the state of Ohio (186.2)[27] and the nation (165.0).[28] The cardiovascular mortality rate was much higher among males (260.5) compared to females (162.7) in Cuyahoga County overall. African Americans had the highest cardiovascular mortality rate among all racial/ethnic groups in Cuyahoga County overall (254.8).*

* All rates are per 100,000 population

Childhood asthma



Survey results suggest that Cuyahoga County families with incomes below $25,000 have higher rates of children diagnosed with asthma (27.3%), compared to those with incomes above $25,000 (13.7%). Male children are more likely (20.0%) to be diagnosed with asthma compared to female children (6.7%).

In the past 12 months, 7.4% of Cuyahoga County children had an asthma attack, according to parents surveyed. Cuyahoga County parents reported that 7.4% of children received treatment for an asthma attack at home and 1.1% were treated at a doctor's office.

In addition to survey data, Better Health Partnership data provided additional information to inform our understanding of childhood asthma in Cuyahoga County. Of the 264,550 children whose data (electronic medical record) was reported to Better Health Partnership for 2018, 95,884 lived in Cuyahoga County.

- 15.7% (15,043) of children in Cuyahoga County have an asthma diagnosis, with higher rates (19.3%) among those who live in the City of Cleveland.
- African American and Latino/Latina children have higher rates of asthma (21.0% and 24.5%, respectively) than White children (10.3%) do.
- Other equity-related attributes show that 10.8% of children covered by commercial or private insurance have asthma versus 20.2% covered by Medicaid. Over one in five low-income children (20.8%) have asthma compared to 10.1% of high-income children.

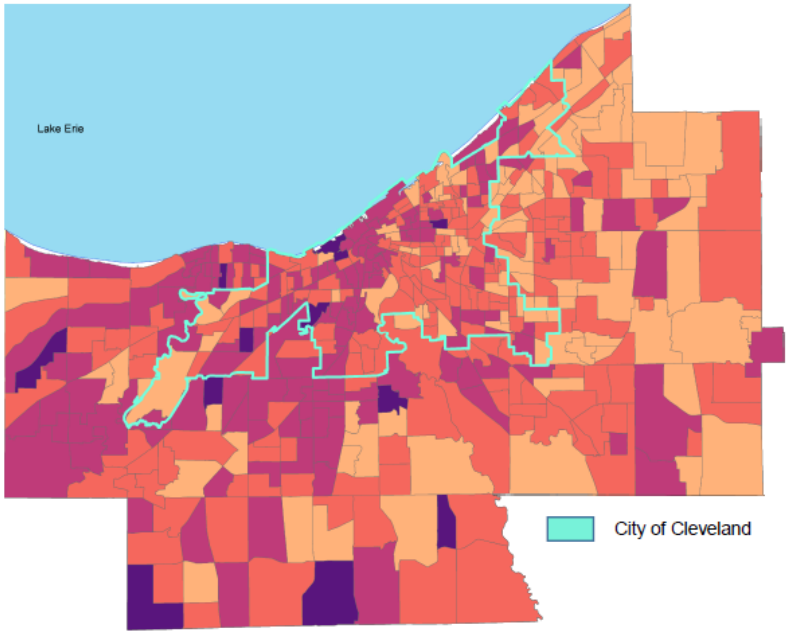
Children in Cuyahoga County with an Asthma Diagnosis

Time Frame	1/18 – 12/18
Ages	2 - 17
No. of Providers	579
No. of Practices	129
No. of Children *	95,884
% with Asthma	15.7%

Rates of Asthma Diagnosis

- 0 - 10%
- 10 - 20%
- 20 - 30%
- 30% +
- Insufficient Data

Rates by Census Tract

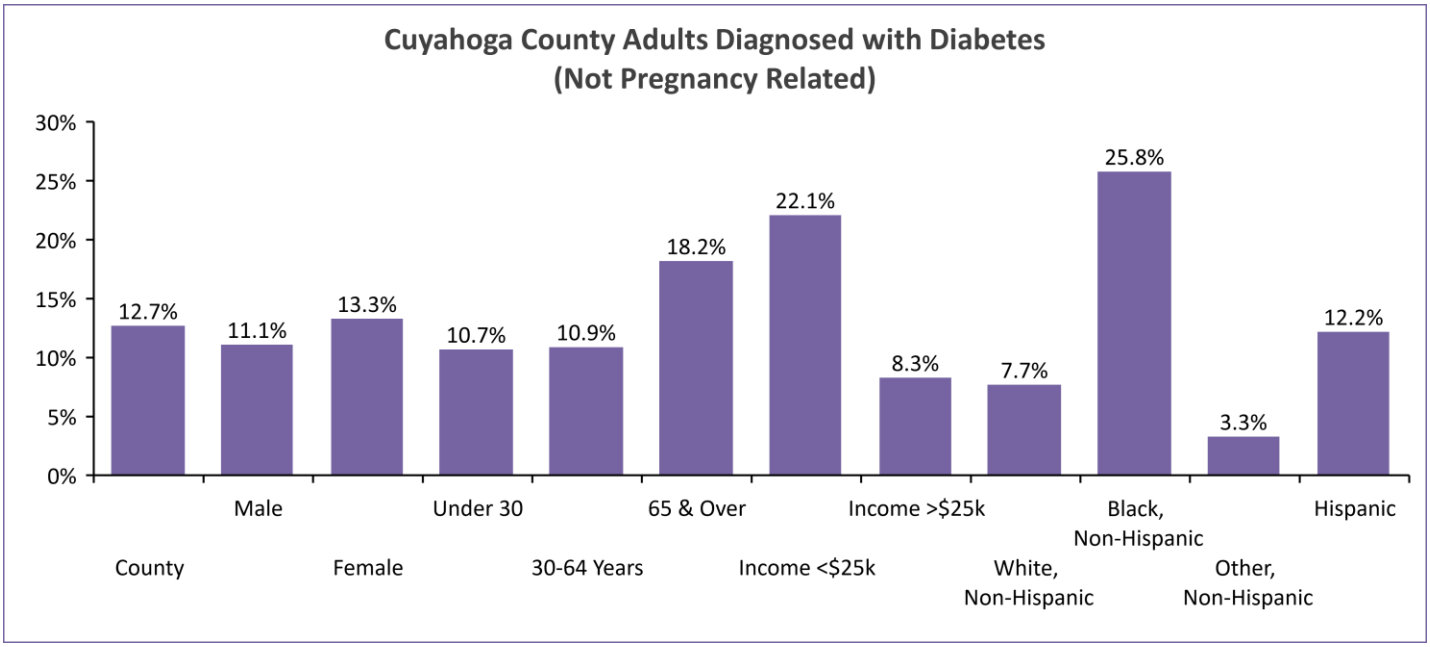


* The number of children that live in Cuyahoga County reported to Better Health Partnership from Primary Care Practices

Better Health Partnership also tracks data on asthma exacerbations, which includes hospitalizations, emergency department visits and observation stays to help identify subpopulations and/or neighborhoods to improve asthma outcomes. Exacerbation data are available for 13,718 children with asthma in Cuyahoga County, where 652 children (4.8%) experienced an exacerbation in 2018.

- Racial disparities for exacerbations are found, with 6.5% of Black children with asthma experiencing exacerbations versus 2.0% in White children.
- Three times as many children with Medicaid had an exacerbation compared to patients with commercial insurance (6.0% vs. 2.4%).
- Most children with an exacerbation are 2-3 years old (11.3%).

Diabetes



Of survey respondents, 12.7% of Cuyahoga County adults have been told by a medical professional that they have diabetes. Rates are significantly higher among Black non-Hispanic residents (25.8%) compared to White non-Hispanic residents (7.7%). While only 1.9% of Cuyahoga County parents reported that their child had been diagnosed with diabetes, that rate increased to 18.2% of children with household incomes less than $25,000.

Surveyed Cuyahoga County adults reported using the following methods to manage pre-diabetes or diabetes:

- Checking blood sugar
- Getting a dental exam at least once per year
- Getting an eye exam at least every two years
- Seeing their provider at least every 6 months
- Having an A1C test at least once per year
- Getting a flu shot every year
- Using insulin
- Using an injectable diabetes medication

H. Mental Health and Addiction

Mental health conditions and substance use disorders directly and indirectly influence overall health status and individual and community quality of life.

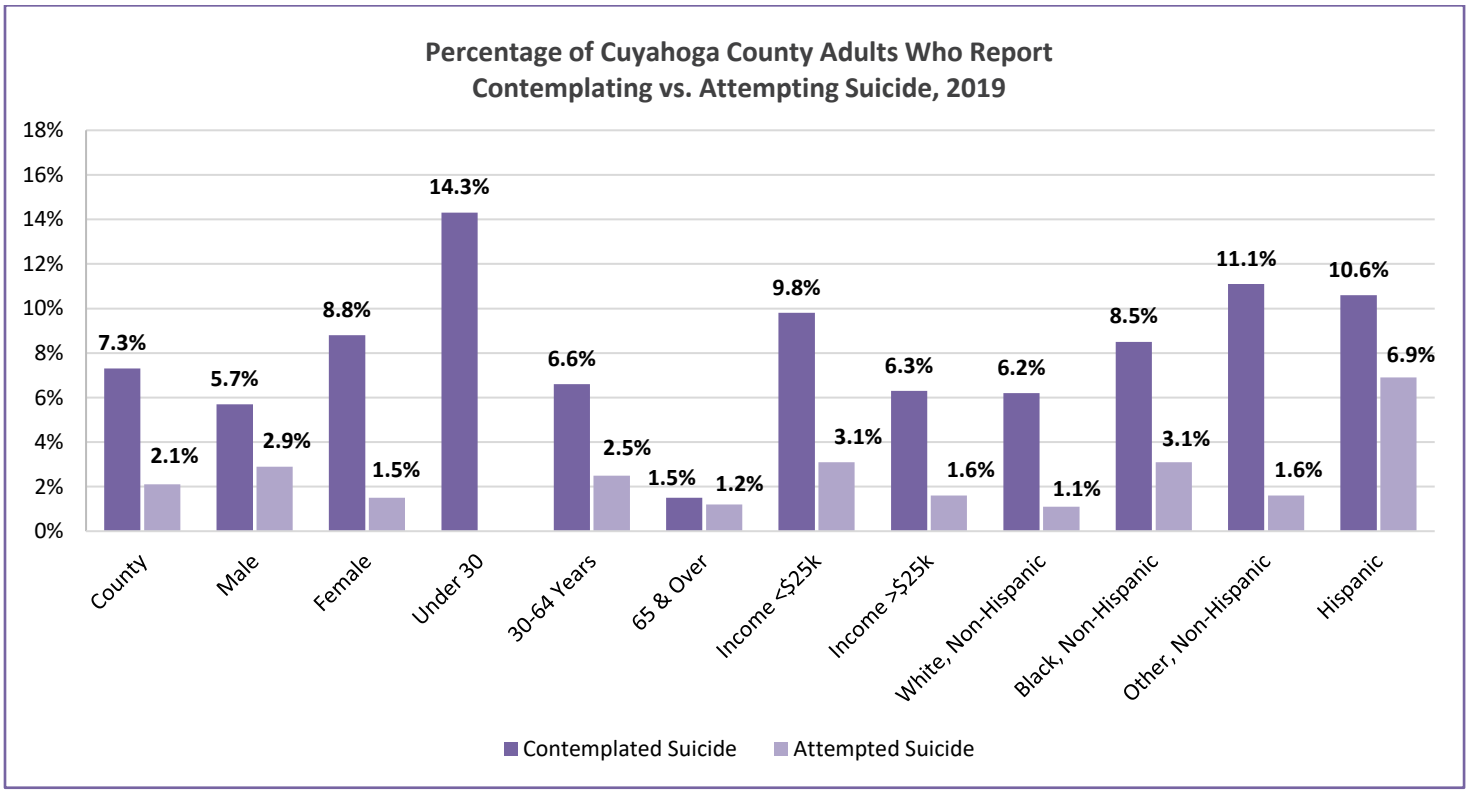
Mental Health / Suicide

Approximately one out of three adults surveyed in Cuyahoga County reported that their mental health was not good on four or more days in the past month. The number of poor mental health days in the past 30 days reported by people living in Cuyahoga County (3.7) was higher than the national benchmark of 3.1 days, but less than the rate for the state of Ohio (4.3 days).[24,29]

The three most commonly reported mental health diagnoses among Cuyahoga County adults who were surveyed include:

- Depression (6.4%)
- Anxiety or emotional problems (5.1%)
- Post-traumatic stress disorder (2.8%)

In the last 12 months, 14.4% of Cuyahoga County children have received treatment or counseling from a mental health professional according to surveyed parents. This percentage increases to 16.9% for males and 27.3% of those with household incomes less than $25,000.

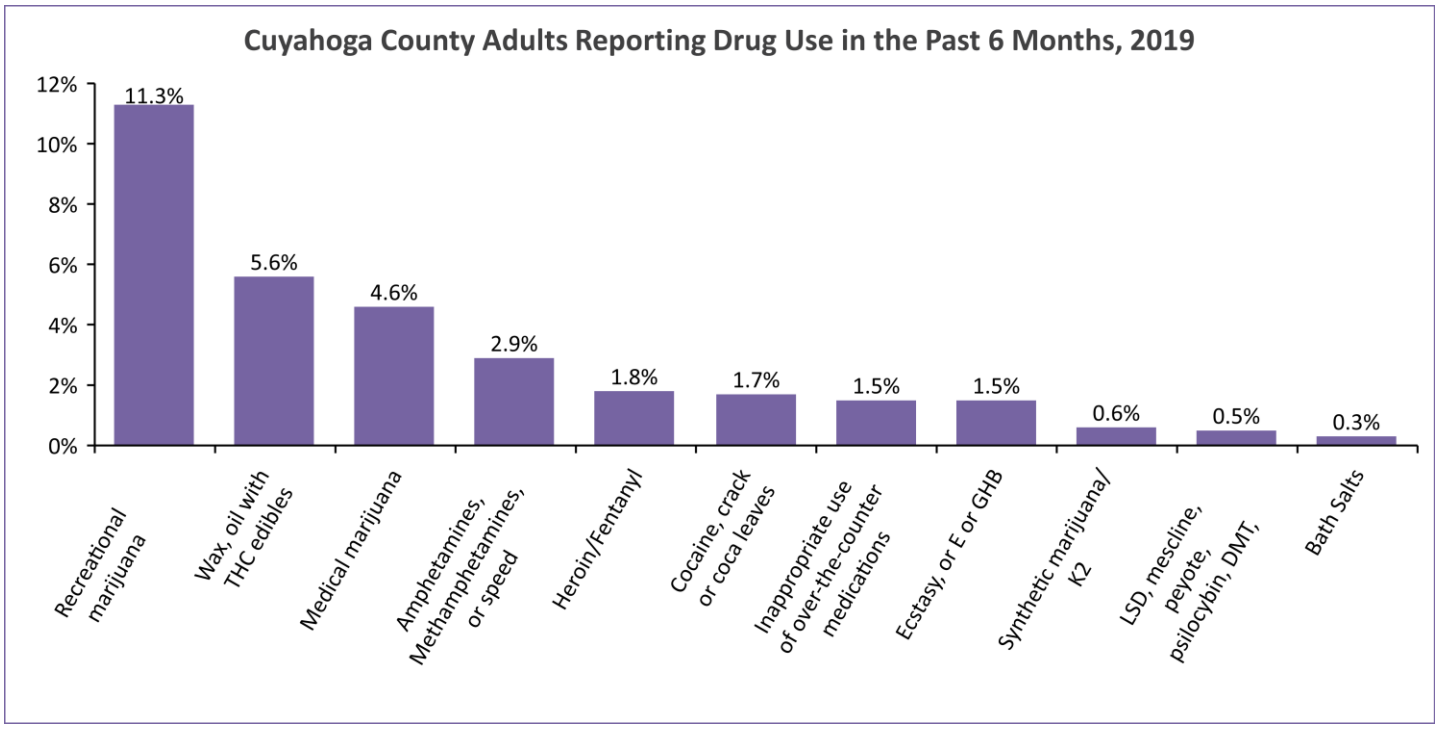


In the previous 12 months, 7.3% of Cuyahoga County adults surveyed reported that they had contemplated suicide Rates were highest among adults under age 30 (14.3%) compared to adults 30 to 64 years of age (6.6%) or adults aged 65 and older (1.5%).

Rates of attempted suicide were highest among Hispanic adults in Cuyahoga County (6.9%) compared to White adults (1.1%) or Black adults (3.1%), according to survey results. The 2017 overall suicide rate for Cuyahoga County per 100,000 population (12.1) exceeded the national benchmark (10.2), but was lower than the state of Ohio (14.8) and the nation (14.0).[30-33]

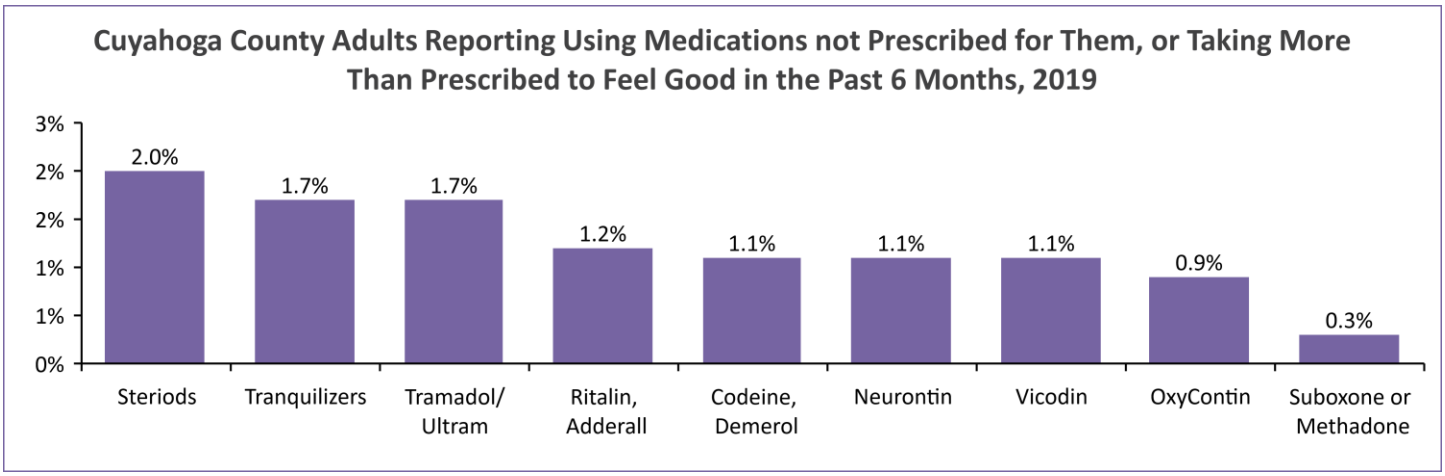
Opioids / Substance Use Disorders

According to survey results, 70.5% of Cuyahoga County adults reported drinking at least one alcoholic beverage on one or more days in the past month. Nearly half of all Cuyahoga County adults (45.3%) reported binge drinking at least one day in the past 30 days and 12.3% of Cuyahoga County adults reported driving after having perhaps too much to drink. The survey defines binge drinking as having five or more drinks on an occasion (males) or four or more drinks on an occasion (females).



Cuyahoga County adults surveyed reported the following as the most commonly used drugs in the past six months:

- Recreational marijuana (11.3%)
- Wax, oil with THC edibles (5.6%)
- Medical marijuana (4.6%)



Among Cuyahoga County adults surveyed, the most common misused medications (either not prescribed or used more than prescribed to feel good) include steroids (2.0%), tranquilizers (1.7%) and tramadol/Ultram (1.7%).

The rate of arrest for illegal drug use in 2017 was 481.0 per 100,000 population in the City of Cleveland.[34]

In 2017, the drug-induced death rates per 100,000 population in both Cuyahoga County overall (47.4) and the City of Cleveland (86.7) were higher than the national benchmark (11.3).[30,31] The highest rates of drug-induced deaths were among:

- Males
- Hispanics

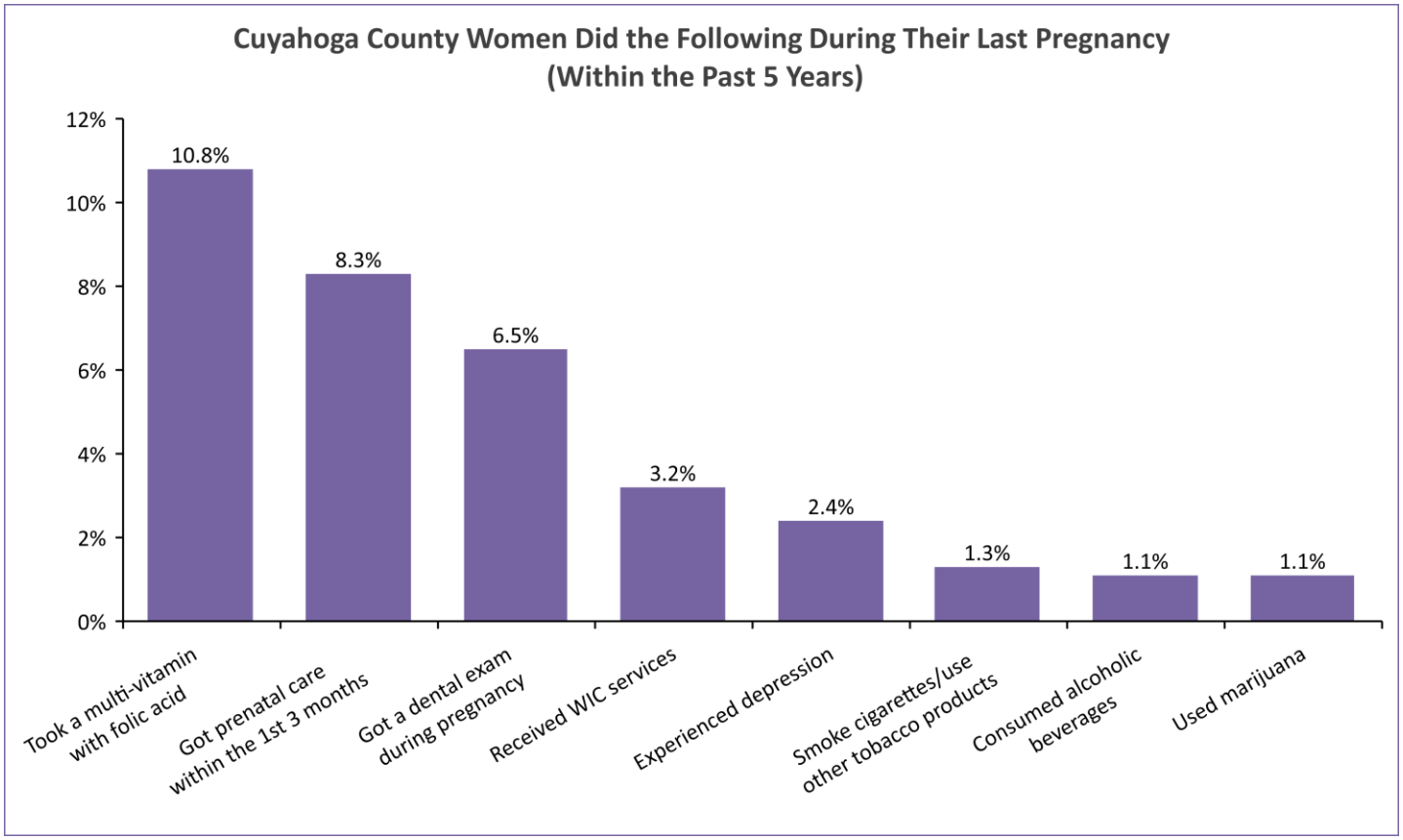
The City of Cleveland unintentional opioid-related mortality rate per 100,000 population (72.5) was almost twice as high as the Cuyahoga County (37.8) and State of Ohio (39.2) rates, all of which were significantly higher than the national rate (14.5) in 2017.[21,22] White, Non-Hispanics had rates that were approximately two times higher than Black, Non-Hispanics. In addition, the unintentional opioid-related mortality rate for males was approximately two times higher than for females.

Northeast Ohio and Ohio as a whole have been particularly hard hit by the opioid epidemic and new health concerns have emerged because of the addiction crisis. The 2019 State Health Assessment points to rising rates of hepatitis C and children in foster care because of drug use.[23]

I. Maternal and Child Health

The health of infants and children, a known vulnerable population, is a significant area for monitoring and comparison. Birth data and outcomes, and morbidity and mortality data for infants and children are included in this category.

Infant Mortality



Among Cuyahoga County women surveyed, 10.8% took a multi-vitamin with folic acid during their last pregnancy, 8.3% received prenatal care within the first three months of their pregnancy and 6.5% received a dental exam. Publicly available data sources show higher rates of prenatal care during the first trimester in Cuyahoga County than survey results. However, rates of women receiving prenatal care in the first trimester for Cuyahoga County overall (70.7%)[35] and the City of Cleveland (62.6%) are lower than the state of Ohio (75.4% in 2016)[31] and the nation (77.3% in 2017).[36] Black, Non-Hispanic women have lower rates of prenatal care in the first trimester compared to all other racial/ethnic groups.

Nearly one-fifth of Cuyahoga County parents who were surveyed report that their child was breastfed for more than one year (28.9% of children ages 0-5; 14.7% of children ages 6-11). This percentage nearly doubles for parents with incomes greater than $25,000, compared to those whose incomes are less than $25,000.

Cuyahoga County parents surveyed reported putting their child to sleep:

- On his or her back (91.2%)
- On his or her side (2.9%)
- In bed with them or another person (2.9%)

Parents with incomes of $25,000 or more were nearly twice as likely to report putting their child to sleep on his or her back, compared to parents with incomes less than $25,000.

10.8% of surveyed parents reported that their child was born more than 3 weeks before his or her due date.

The infant mortality and neonatal mortality rates (8.1 and 6.0, respectively) for Cuyahoga County overall are higher than the rates for the state of Ohio (7.2 and 5.0, respectively), and do not meet the *Healthy People 2020* Goals (6.0 and 4.1, respectively).[31,37,38] Of particular concern are the significantly higher infant mortality (16.1) and neonatal mortality rates (12.0) among Black, non-Hispanic babies compared to White, Non-Hispanic babies.

Lead poisoning

Children with lead poisoning often have no obvious symptoms, but lead poisoning affects nearly every system in the body. There is no safe level of lead exposure.[39] Exposure to lead can result in slower cognitive development, stunted growth, hearing loss, toxic effects on kidneys, vitamin D metabolism damage, and impaired blood production.[40]

In 2017, the percentage of Cuyahoga County children with blood lead levels exceeding 5 ug/dl (8.4%) and 10 ug/dl (2.8%) were higher than the 2016 rates for the state of Ohio (2.8% and 0.8%, respectively)[41] and nation (3.5% and 0.5%, respectively).[42] In the City of Cleveland, 12.9% of children have blood lead levels exceeding 5 ug/dl and 4.3% have blood lead levels exceeding 10 ug/dl.

According to 2019 survey results, 45.4% of Cuyahoga County parents reported that their child was tested for lead poisoning. Of those tested, 1.8% had elevated results but required no medical follow-up, increasing to 10.0% of children with household incomes less than $25,000.

The age of the housing stock in a community affects lead poisoning rates. In 2017, the percent of houses built prior to 1950 in Cuyahoga County overall (38.6%) and the City of Cleveland (63.3%) was higher than the state of Ohio (26.2%) and the nation (17.6%).[43]

Community Health Priorities

Top Health Needs

Community voice, community stakeholder, hospital, and secondary data provided throughout this report help paint a picture of the health status of Cuyahoga County residents and areas that should be the focus of improvement in the upcoming community health improvement plan. The list that follows illustrates the 16 critical health issues that were identified by the data subcommittee upon reviewing all data sources that comprised the 2019 Cuyahoga County Community Health Needs Assessment. These issues were then further prioritized using a highly participatory collaborative process described below to identify the five highest priority issues to be addressed in the 2020-2022 Collaborative Implementation Strategy / Community Health Improvement Plan.

Overarching

- Trust
- Structural racism

Quality of Life

- Poverty
- Food insecurity
- Transportation

Health Behaviors

- Tobacco use
- Lack of physical activity
- Flu vaccine rates

Chronic Disease

- Cardiovascular disease
- Childhood asthma
- Diabetes

Mental Health and Addiction

- Mental health / suicide
- Opioids / substance use disorders
- Homicide / violence / safety

Maternal / Child Health

- Infant mortality
- Lead poisoning

Many of the top health and safety concerns for Cuyahoga County were selected based on Cuyahoga County comparing unfavorably to the state and national benchmarks, such as cardiovascular disease and homicide / violent crime rates. Some of the top health needs were chosen because certain population groups in Cuyahoga County experience these conditions at high rates, such as higher rates of infant mortality among Black, non-

Hispanic individuals, for example. Poverty was selected given that many inequities in access to care and health outcomes are based on socioeconomic status.

Prioritization Process

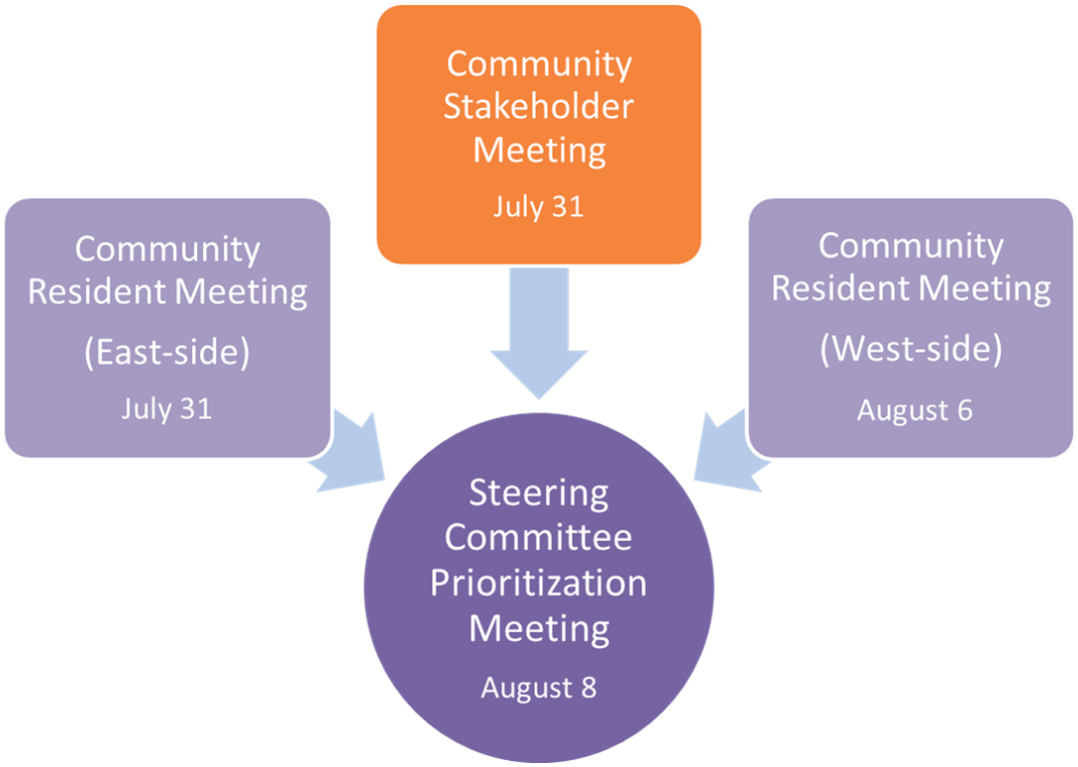
The process of prioritizing the top health needs that will be the focus of the community health improvement plan involved several layers. Steering Committee members first suggested a list of essential considerations that should be taken into account. Then, Steering Committee members were asked to review potential prioritization criteria from the following sources: 2018 Cuyahoga County Community Health Needs Assessment; 2019 State Health Assessment; and the Association for Community Health Improvement. Steering Committee members met by conference call in July 2019 and arrived at a consensus on using the following six criteria to guide the selection of priority health needs:

- Magnitude of the Problem → how many people are affected?
- Severity of the Problem → how likely is it to limit length and quality of life?
- Inequity / Social Determinants of Health → does it affect some populations more than others?
- Magnitude of Health Disparity → how much of each population group is affected and are there differences?
- Priorities Determined by Community → how highly was the health topic rated by community stakeholders or residents?
- SHA/SHIP Alignment → does it align with health priorities in the 2020-2022 SHIP?

A survey was sent to Steering Committee members to finalize how votes on the top health issues would be weighted among the various stakeholder groups. Steering Committee members came to consensus on using the following weighting process to determine the 3-5 health priorities that will be the focus of the 2020-2022 Cuyahoga County Community Health Implementation Strategy:

- 20% community voice
    - Community stakeholders (10%)
        - *Vote cast by United Way of Greater Cleveland*
    - Community residents (10%)
        - *Vote cast by community health workers*
- 40% hospitals
    - Southwest General Health Center (10%)
    - St. Vincent Charity Medical Center (10%)
    - MetroHealth (10%)
    - University Hospitals (10%)
- 40% local health departments
    - Cleveland Department of Public Health (20%)
    - Cuyahoga County Board of Health (20%)

Three community meetings were held on July 31 and August 6 to share context and data themes from the 2019 Cuyahoga County Community Health Needs Assessment and gather feedback on which health issues should be prioritized. This information was used to inform Steering Committee voting on August 8. Meetings were held with community stakeholders (i.e. social service agencies, local government, law enforcement) and community residents from the East side and West side of Cleveland.



Each meeting attendee identified their top three health priorities from among the 16 potential health issues. The following represents the health priorities identified from the three community meetings:

	Stakeholder Meeting	Resident 7/31 Meeting	Resident 8/6 Meeting	TOTAL
Poverty	14	10	5	29
Mental health / suicide	11	6	9	26
Structural racism	10	14	2	26
Homicides/violence/safety	3	4	8	15
Trust	1	6	4	11
Food insecurity	5	5	0	10
Transportation	1	8	0	9
Infant mortality	8	0	0	8
Opioids/substance use disorders	2	1	5	8
Diabetes	4	2	1	7
Childhood asthma	0	1	4	5
Tobacco use	1	3	1	5
Cardiovascular disease	2	2	0	4
Lead poisoning	1	2	0	3
Lack of physical activity	0	2	0	2
Flu vaccine rates	0	0	0	0
Number of Votes Cast	63	66	39	168
Number of People Voting	21	22	13	56

Prioritized List of Health Needs

At the August 8 meeting, Steering Committee members, community health workers, and hospital community outreach staff gathered to inform stakeholder voting on the top 3-5 health priorities. Stakeholders receiving 10% of the vote received three dots and stakeholders receiving 20% of the vote received six dots. Five health priorities that will guide the focus of the 2020-2022 Cuyahoga County Community Health Implementation Strategy were selected. There is strong alignment between the selected health priorities (shown below) and state population health priorities:

- Eliminating structural racism*
- Enhancing trust and trustworthiness across sectors, people, communities*

    → between Hospital/Public Health Systems and Residents
    → between Clinicians and Patients
    → between Social Service Agencies / Community Stakeholders and Hospitals

- Addressing community conditions, such as reducing poverty and its effects, including transportation and homicides / violence / safety
- Enhancing mental health and reducing substance abuse
- Reducing chronic illness and its effects

*Eliminating structural racism and enhancing trust on multiple levels are long-term, crosscutting strategies that will be integrated into each of the other priority areas through an intentional plan to address these fundamental contributors to the health of both individuals and populations within Cuyahoga County. A comprehensive plan to eliminate structural racism has been part of the Cuyahoga County Community Health Improvement Plan, operationalized by HIP-Cuyahoga since 2015. This early work, in conjunction with the priority to enhance trust on multiple levels within the community, will serve as a foundation for the new community health improvement plan.

Ohio's State Health Improvement Plan (SHIP), forming out of the 2019 State Health Assessment is currently in development. Several Cuyahoga County Steering Committee members serve in formal roles as part of the State process. The current draft SHIP framework (as of 7/18/19), identifies community conditions (including poverty), mental health and addiction, and chronic disease as key priority areas, thus providing excellent alignment with the Cuyahoga County priorities. Furthermore, the SHIP employs an equity-grounded overarching approach for all identified priorities, thus interfacing well with the equity approach identified above with the goal of eliminating structural racism.

Existing Programs and Resources Potentially Available to Meet Significant Health Needs

Below is the list of community-based resources, organized by the five prioritized health needs that Health Assessment Stakeholders collaborate with to respond to identified priority health needs.

Please see **Appendix G** for a detailed description of the priorities and potential resources available for each of the eight University Hospitals facilities.

1. Structural Racism

Burton, Bell, Carr Development, Inc.
Case Western Reserve University
Cleveland Neighborhood Progress
Cuyahoga County Board Of Health - Creating Health Communities Program, Supermarket Access
Cuyahoga County Board Of Health - Maternal and Child Health
Cuyahoga County Board of Health - Racial and Ethnic Approaches to Community Health
East End Neighborhood House
First Year Cleveland
Goodrich-Gannett Neighborhood Center
Health Improvement Partnership (HIP) Cuyahoga – Eliminating Structural Racism Subcommittee
Mt. Pleasant NOW Development Corporation
Murtis Taylor Multi-Service Center
Neighborhood Connections, Inc.
Neighborhood Leadership Institute
Northeast Ohio Alliance for Hope (NOAH)
PolicyBridge
The Friendly Inn Settlement
United Way of Greater Cleveland
University Hospitals
University Settlement
West Side Community House
YWCA Greater Cleveland

2. Trust

Case Western Reserve University
Cuyahoga County Board Of Health - Breast and Cervical Cancer Prevention Program
Cuyahoga County Board Of Health - Creating Health Communities Program, Supermarket Access
HIP-Cuyahoga – Linking Clinical and Public Health Subcommittee
St. Vincent Charity Medical Center - Community Outreach – health screenings/education in the community
St. Vincent Charity Medical Center - Health Literacy Institute
The Center for Health Affairs
United Way of Greater Cleveland

3. Community Conditions (poverty, transportation, homicide / violence / safety)

Poverty

Antioch Baptist Church Cleveland
Boys & Girls Clubs of Cleveland
Breakthrough Schools
Case Western Reserve University
The Centers for Families and Children
Children's Museum of Cleveland
Citizens Leadership Academy
Cuyahoga County Board of Health - Racial and Ethnic Approaches to Community Health
Cuyahoga County Board of Health - Ryan White HIV / Aids Part A
Cuyahoga County Board of Health- Creating Healthy Communities
Cuyahoga County Board of Health- Farm to School
Cuyahoga County Board of Health- Healthy Homes Program
Cuyahoga County - Fatherhood Initiative
Cuyahoga County - Invest in Children
Cuyahoga County - Jobs and Family Services
Cuyahoga County - Juvenile Court
Cuyahoga Metropolitan Housing Authority
Environmental Health Watch
Fairhill Partners
Fatima Family Center
Friendly Inn Settlement
Greater Cleveland Food Bank
Greater Cleveland Neighborhood Centers Association
Health Improvement Partnership (HIP) - Cuyahoga
Healthy Fathering Collaborative of Greater Cleveland
HUD Office of Lead Hazard Control and Healthy Homes
Hunger Network
Lexington-Bell Community Center
LGBT Center of Greater Cleveland
Lutheran Metropolitan Ministries
MetroHealth System - Open Table Program
MidTown Cleveland Inc.
Mt. Zion Fellowship, Church of the Resurrection, Hunger Network of Greater Cleveland – South Haven Church
Neighborhood Connection, Inc.
Neighborhood Progress Inc.
Northeast Ohio Alliance for Hope (NOAH)
Ohio State University - Extension Program
Parma Area Family Collaborative
Parma City School District
Parma Community / Business/Schools
Rainey Institute
Sodexo
St. Aloysius Church
St. Clair Superior Development Corporation Ag/re/culture Initiative
St. Vincent De Paul Society of Christ
St. Vincent Medical Legal Partnership with Legal Aid Society

Towards Employment
United Way 211
United Way of Greater Cleveland
University Hospitals
Vel's Purple Oasis

Transportation
Benjamin Rose Institute on Aging
Better Health Partnership - Pathways Community HUB
Cuyahoga County Board of Health - Racial and Ethnic Approaches to Community Health
Cuyahoga County Board of Health - Ryan White HIV / Aids Part A
Cuyahoga County Board of Health - Safe Routes to School
Cuyahoga County Division of Senior and Adults Services
Fairhill Partners
Greater Cleveland Regional Transit Authority (GCRTA)
MetroHealth System - Various transportation options for patients including van service and Lyft vouchers
Northeast Ohio Areawide Coordinating Agency (NOACA)
Senior Transportation Connection
Southwest General Van service- No charge for residents in service area for Doctor Appointments, Test, and Non-Emergency Medical Services
St. Vincent Charity Program to provide transportation to / from medical appointments
Western Reserve Area Agency on Aging

Homicide / Violence / Safety
Applewood Centers, Inc.
Beech Brook
Begun Center for Violence Prevention at Case Western Reserve University
Bellflower Center of Prevention of Child Abuse
Boys & Girls Club of Cleveland - Cleveland Peacemakers Alliance
Bright Beginnings of Cuyahoga County
Carrington's Mission
City of Bedford Police & Fire Department
City of Richmond Heights Police & Fire Department
Cleveland Mayor’s Office on Youth Opportunity, Prevention & Intervention
Cleveland Police Department
Cleveland Rape Crisis Center
Cuyahoga County Division of Child and Family Services
Cuyahoga County Division of Senior and Adult Services
Domestic Violence and Child Advocacy Center
Educational Service Center of Northeast Ohio
Lutheran Metropolitan Ministries, Adult Guardianship Program
MetroHealth Trauma Recovery Center
Northern Ohio Trauma Systems (NOTS) - Violence Interrupters
Partnership for Safer Cleveland
The City of Cleveland
University Hospitals
U.S. Attorney’s Office - STANCE Program
YWCA of Greater Cleveland

4. Chronic Disease (Cardiovascular Disease and Diabetes)

American Diabetes Association
Better Health Partnership - Data and Maps for Chronic Diseases
Better Health Partnership - Education and Quality Improvement
Better Health Partnership - Pathways Community HUB
Carmella Rose Health Foundation
Cuyahoga County Board of Health - Creating Healthy Communities
Cuyahoga County Board of Health - Farm to School
Cuyahoga County Board of Health - Ohio Healthy Program
Cuyahoga County Board of Health - Racial & Ethnic Approaches to Community Health
Cuyahoga County Board of Health - Tobacco 21
Early Ages Health Stages
Evi-Base: Evidence-Based Community-delivered Health Education
Hunger Network of Greater Cleveland
Medical Access Clinic
MetroHealth - Community Clinical Linkages (via Better Health Partnerships)
MetroHealth - Diabetes Self-Management Education
MetroHealth - Food as Medicine Program
MetroHealth - Mobile pantry (fresh produce distribution)
MetroHealth - Smoking Cessation
MetroHealth - VIDA
Southwest General - Community Outreach Nurse Program community based health screenings and educational programs in senior centers, libraries, recreation centers, civic groups meetings
Southwest General - Community STEMI receiving Center for emergency intervention and treatment of Acute Myocardial Infarctions
Southwest General - Outpatient clinic specializing in congestive heart failure
Southwest General - Patient Navigators for patients with Primary Care Providers within Southwest General Physician Group
Southwest General - Telehealth program for patients with heart failure after hospital discharge
Southwest General - Transition Nurse Program provides home visit within 72 hours of discharge and 30 days of follow up phone calls, provides weight scale
Southwest General - 24 hour phone line 1-877-SWG-BEAT, which connects community members to crucial care nurses and nurse practitioners who specialize in cardiovascular, conditions.
Southwest General - Cardiovascular screening programs: Healthy Heart, Grey Matters, and Circulation Circuit
Southwest General - Outpatient Diabetes Education Program led by Certified Diabetes Educator (RN)
St. Vincent - Center for Bariatric Surgery
St. Vincent Community Outreach – health screenings/education in the community
St. Vincent Diabetes Education Program and Diabetes Support Group
United Way 211
University Hospitals

5. Mental Health and Addiction (Mental Health / Suicide and Opioid Use Disorder / Substance Use Disorder)

Mental Health / Suicide

Better Health Partnership - Pathways Community HUB
Cuyahoga County Board of Health - Cuyahoga County Overdose Data to Action (OD2A) Initiative
Early Ages Healthy Stages – Social Emotional Health - ACE's
MetroHealth - Mental Health First Aid Trainers
MetroHealth - SAFE (Students are Free to Express)
National Alliance on Mental Illness (NAMI)
Southwest General - Adult inpatient Psychiatric unit
Southwest General - Geriatric inpatient Psychiatric unit
Southwest General - IOP mental health services for Adolescents
Southwest General - Partial hospitalization (PHP) and Intensive Outpatient (IOP) programming for adults with mental health disorders
St. Vincent - Electroconvulsive therapy (ECT)
St. Vincent - Inpatient Behavioral Health Unit (Adult and Geropsychiatry)
St. Vincent - Psychiatric Emergency Department
University Hospitals

Opioid Use Disorder/Substance Use Disorder

Alcohol, Drug Addiction and Mental Health Services (ADAMHS) Board of Cuyahoga County
Berea Police Department - Safe Passages Initiative
Better Health Partnership - Pathways Community HUB
City of Lakewood - Project SOAR (Supporting Opiate Addiction Recovery)
City of Westlake Police & Fire Department
Cleveland Department of Public Health - CenterPoint Treatment Program
Cleveland Department of Public Health - Project DAWN, McCafferty Health Center
Cleveland Department of Public Health - This is Not About Drugs (TINAD) Youth Awareness Program
Cleveland Suboxone Clinic
Community Action Against Addiction
Cuyahoga County Board of Health - Cuyahoga County Overdose Data to Action (OD2A) Initiative
Cuyahoga County Division of Child and Family Services
Cuyahoga County Division of Senior and Adult Services
Cuyahoga County Health and Human Services
Cuyahoga County Jobs and Family Services
Cuyahoga County Opiate Task Force
Front Steps Housing and Services
FrontLine Services
Greater Cleveland Drug Court
Lakewood Elks Lodge - Drug Awareness Program
Matt Talbot Inn
Mental Health and Addiction Advocacy Coalition
MetroHealth - Office of Opioid Safety - Ascent ED Peer Support Program
MetroHealth - Office of Opioid Safety - Medication Assisted Treatment Program
MetroHealth - Office of Opioid Safety - Project DAWN (Deaths Avoided With Naloxone)
MetroHealth - Office of Opioid Safety - Quick Response Teams

Moore Counseling and Meditation Services
Mt. Sinai Health Care Foundation
Narcotics Anonymous
Northeast Ohio Hospital Opioid Consortium
Oakview Behavioral Health Center
Oakview Facility for Resident Inpatient Services
Police and fire departments of cities under UH medical direction
Recovery Resources
Signature Health
Smart Recovery
Southwest General - Ambulatory/Office Based Outpatient Behavioral Health Services
Southwest General - Inpatient Medical Withdrawal Management Program (BreakThru)
Southwest General - IOP Services for Adults Facing Addiction
Southwest General - Safe Passages Program
Southwest General - Speakers Program on Addiction, Opioids, and Mental Health
St. Luke's Foundation
St. Vincent Door to Door transportation program for outpatient Rosary Hall patients
St. Vincent Rosary Hall/Psychiatric ED/Behavioral Health Inpatient/Research
Stella Maris
The Bruening Foundation
The Centers for Families and Children
The Cleveland Foundation
The George Gund Foundation
The LCADA Way
The Woodruff Foundation
University Hospitals
U.S. Attorney's Office Northern District Heroin and Opioid Task Force
United Way of Greater Cleveland
Westshore Enforcement Bureau

Next steps

The priorities identified in this multiparty assessment will be the focus of community health improvement efforts over the next three years. Collaboratively, strategies will be developed, refined and executed to improve the health of the community and drive the next unified Community Health Needs Assessment in 2022.

Hospital Evaluation of Impact

Hospital inpatient data for MetroHealth, Southwest General Health Center, St. Vincent Charity and the eight University Hospitals facilities that are located within Cuyahoga County are presented in this section. Further, for those hospitals required per 501(r) federal compliance, an evaluation of the impact of the strategies each hospital has been developing to address their identified priority health needs is also provided.

Evaluation of Impact

MetroHealth

The MetroHealth System, Cuyahoga County's public health system, is honoring its commitment to create a healthier community by building a new hospital on its main campus in Cleveland. The building and the 25 acres of green space around it are catalyzing the revitalization of MetroHealth's West Side neighborhood.

MetroHealth broke ground on its new hospital in 2019. The project is being financed with nearly $1 billion the system borrowed on its own credit after dramatically improving its finances. In the past five years, MetroHealth's operating revenue has increased by 40 percent and its number of employees by 21 percent. Today, its staff of 8,000 provides care at MetroHealth's four hospitals, four emergency departments and more than 20 health centers and 40 additional sites throughout Cuyahoga County. In the past year, MetroHealth has served 300,000 patients at more than 1.4 million visits in its hospitals and health centers, 75 percent of whom are uninsured or covered by Medicare or Medicaid.

The health system is home to Cuyahoga County's most experienced Level I Adult Trauma Center, verified since 1992, and Ohio's only adult and pediatric trauma and burn center.
As an academic medical center, MetroHealth is committed to teaching and research. Each active staff physician holds a faculty appointment at Case Western Reserve University School of Medicine. Its main campus hospital houses a Cleveland Metropolitan School District high school of science and health. For more information, visit metrohealth.org.

MetroHealth Medical Center
Inpatient Discharges, 2017
By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row
Cuyahoga County Resident	3,700	17.9%	4,054	19.6%	2,956	14.3%	5,174	25.0%	4,831	23.3%	20,715	100.0%
Non-Resident of Cuyahoga County	446	14.1%	728	23.0%	543	17.1%	684	21.6%	767	24.2%	3,168	100.0%
Total 2017 Discharges	4,146	17.4%	4,782	20.0%	3,499	14.7%	5,858	24.5%	5,598	23.4%	23,883	100.0%

- In 2017, MetroHealth Medical Center's inpatient population included those in all age groups. However, almost half (48.3%) were age 50 and older.
- Of the 23,883 discharges in 2017, 86.7% were Cuyahoga County residents.

MetroHealth Medical Center
Inpatient Discharges, 2017, All Ages by Residential Zip Code

Zip	Dominant Municipality / Neighborhood	Number of Discharges, 2017	Percent of Total Discharges
44109	Cleveland - Clark-Fulton and Old Brooklyn	2,833	11.9%
44102	Cleveland - Detroit-Shoreway and Cudell	2,303	9.6%
44105	Cleveland-Kinsman	1,421	6.0%
44111	Cleveland-Lorain & W. 130th	997	4.2%
44144	Cleveland-Brooklyn	838	3.5%
44113	Cleveland- Ohio City	787	3.3%
44104	Cleveland-Central	696	2.9%
44135	Cleveland-Riverside	690	2.9%
44120	Cleveland-Buckeye-Shaker	477	2.0%
44103	Cleveland-Hough	408	1.7%
44108	Cleveland-Glenville	370	1.5%
44115	Cleveland-Central	338	1.4%
44110	Cleveland-Collinwood	278	1.2%
44127	Cleveland-North Broadway	272	1.1%
44118	Cleveland Heights/University Heights	266	1.1%
44106	Cleveland-University Circle	205	0.9%
44114	Cleveland-Asiatown	203	0.9%
44001	Cleveland-Central	56	0.2%
	Subtotal: Cleveland / Partial Cleveland	**13,438**	**56.3%**
44130	Middleburg Heights	745	3.1%
44134	Parma	635	2.7%
44129	Parma	490	2.1%
44107	Lakewood	466	2.0%
44128	Warrensville Heights	457	1.9%
44125	Garfield Heights	405	1.7%
44121	South Euclid	309	1.3%
44137	Maple Heights	301	1.3%
44133	North Royalton	299	1.3%
44142	Brook Park	277	1.2%
44146	Bedford	248	1.0%
44112	East Cleveland	246	1.0%
44131	Independence	228	1.0%
44035	Elyria	218	0.9%
44147	Broadview Heights	212	0.9%
44070	North Olmsted	200	0.8%
44212	Brunswick	199	0.8%
44052	Lorain	159	0.7%
44122	Shaker Heights/Beachwood	159	0.7%
44136	Strongsville	157	0.7%

44017	Berea	145	0.6%
44077	Painesville	133	0.6%
44138	Olmsted Falls	127	0.5%
44123	Euclid	123	0.5%
44145	Westlake	122	0.5%
44060	Mentor	120	0.5%
44094	Willoughby	108	0.5%
44132	Euclid	106	0.4%
44256	Medina	106	0.4%
44039	North Ridgeville	101	0.4%
44143	Highland Heights	100	0.4%
44117	Euclid	94	0.4%
44119	Cleveland-Pawnee &E. 185th	93	0.4%
44116	Rocky River	91	0.4%
44124	Mayfield Heights-Pepper Pike	91	0.4%
44095	Willowick/Eastlake	90	0.4%
44141	Brecksville	89	0.4%
44149	Strongsville	84	0.4%
44055	Lorain	80	0.3%
44053	Lorain	79	0.3%
44126	Fairview Park	71	0.3%
44004	Ashtabula	69	0.3%
44140	Bay Village	62	0.3%
44067	Northfield/Sagamore Hills	54	0.2%
44044	Grafton	53	0.2%
	Rest of Ohio	1430	6.0%
	Outside Ohio	213	0.9%

- Discharged patients from MetroHealth Medical Center were mostly (56.2%) residents of zip codes within the city of Cleveland or in zip codes which cross the border of the city of Cleveland.

- Just over one-in-five inpatients were residents of two zip codes: 44109 (Tremont neighborhood) and 44102 (Ohio City).

MetroHealth Medical Center
Inpatient Discharges, 2017, All Ages
Cuyahoga County Residents
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Pregnancy, childbirth and the puerperium	3,482	14.6%
Injury, poisoning and certain other consequences of external causes	3,075	12.9%
Diseases of the circulatory system	3,048	12.8%
Diseases of the digestive system	1,691	7.1%
Diseases of the respiratory system	1,616	6.8%
Diseases of the musculoskeletal system and connective tissue	1,267	5.3%
Mental and behavioral disorders	1,088	4.6%
Certain infectious and parasitic diseases	1,039	4.4%
Endocrine, nutritional and metabolic diseases	968	4.1%
Malignant neoplasms (cancers)	827	3.5%
Diseases of the genitourinary system	639	2.7%
Diseases of the nervous system	528	2.2%
Diseases of the skin and subcutaneous tissue	462	1.9%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	259	1.1%
Certain conditions originating in the perinatal period	52	0.2%
Congenital malformations, deformations and chromosomal abnormalities	46	0.2%
Diseases of the eye and adnexa	22	0.1%
Diseases of the ear and mastoid process	18	0.1%

- MetroHealth Medical Center maintains one of the busiest Labor and Delivery units in Cuyahoga County. In 2017, the most common reason to be an inpatient at MetroHealth was for childbirth (14.6%).

- The second and third most common reasons for hospitalization were injury or poisoning (12.9%) and diseases of the circulatory system (12.8%). MetroHealth Medical Center operates a Level I Trauma Center, which accounts for the large percentage of inpatients admitted due to injury or poisoning compared to all other hospitals in the county.

Evaluation of Impact

Southwest General Health Center

Southwest General Health Center is a 350-bed, non-profit acute care facility located in southwestern Cuyahoga County, Ohio. It serves cities in southwestern Cuyahoga, northern Medina and eastern Lorain counties. The Health Center has a rich history of community partnership and a deep commitment to providing a healthy future for the patients, families and communities it serves. It offers comprehensive medical, surgical and emergency care as well as numerous outreach programs to support community health and well-being. Southwest General offers convenient access to care through a network of facilities distributed across its service areas. These include outpatient medical centers, physician practices, a residential hospice, an inpatient mental health facility, freestanding surgery centers, a health and fitness center and more.

Behavioral health programs are prominent in the organization and include inpatient adult and geriatric psychiatry units, outpatient behavioral health programs (mental health, substance use and addiction services), ambulatory psychiatric services, crisis workers in the Emergency Department and an inpatient medical withdrawal management program called Break Thru®. Additionally, Southwest General provides robust services across the post-acute care continuum, from inpatient acute rehabilitation to home health and home infusion services to a full-service hospice program for end-of-life care.

Southwest General's main campus is in Middleburg Heights, Ohio. Middleburg Heights is a relatively affluent suburb of Cleveland, Ohio. Its population is about 16,000. The median household income is about $65,000, which is higher than average in Cuyahoga County. Few (about 4%) Middleburg Heights residents live below the poverty line. However, the population's age demographics suggest a higher-than-average need for health care services — about one in four residents is aged 65 or older.

Southwest General Health Center
Inpatient Discharges, 2017 by Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row
Cuyahoga County Resident	729	6.2%	1,213	10.3%	1,171	9.9%	2,324	19.7%	6,366	53.9%	11,803	100%
Non-Resident of Cuyahoga County	405	10.1%	568	14.1%	431	10.7%	764	19.0%	1,860	46.2%	4,028	100.0%
Total 2017 Discharges	1,134	7.2%	1,781	11.3%	1,602	10.1%	3,088	19.5%	8,226	52.0%	15,831	100.0%

Source: Ohio Hospital Association, analysis of 2017 discharged inpatients

- Southwest General operates a labor and delivery unit; 7.2% of inpatients are under aged 18 (all newborns). Of Southwest General's patients less than 18 years of age, more are non-residents of Cuyahoga County (10.1%) than Cuyahoga County residents (6.2%).
- Approximately one in ten discharged patients in 2017 was between the ages of 18 and 34.
- The majority of inpatients were aged 50 and older. One in five was aged 50-64, and more than half (52%) were aged 65 and older.
- Southwest General's location is very close to the boundaries of Lorain County and Medina County. Roughly one-fourth of inpatients in 2017 were from outside of Cuyahoga County.

Southwest General Health Center
Inpatient Discharges, 2017, All Ages by Residential Zip Code

Zip Code	Dominant Municipality	Number of Discharges, 2017	Percent of Total Discharges
44130	Middleburg Heights	2,300	14.5%
44212	Brunswick	1,726	10.9%
44136	Strongsville	1,462	9.2%
44142	Brook Park	1,456	9.2%
44017	Berea	1,279	8.1%
44149	Strongsville	984	6.2%
44138	Olmsted Falls	875	5.5%
44133	North Royalton	838	5.3%
44256	Medina	528	3.3%
44028	Columbia Station	446	2.8%
44134	Parma	441	2.8%
44129	Parma	386	2.4%
44135	Cleveland-Riverside/West Park	255	1.6%
44109	Cleveland-Tremont	192	1.2%
44144	Cleveland-Brooklyn	190	1.2%
44111	Cleveland-Linndale	169	1.1%
44233	Hinckley	166	1.0%
44070	North Olmsted	163	1.0%
44147	Broadview Heights	134	0.8%
44280	Valley City	133	0.8%
44131	Independence	124	0.8%
44039	North Ridgeville	120	0.8%
44107	Lakewood	88	0.6%
44102	Cleveland- Ohio City	77	0.5%
44044	Grafton	69	0.4%
44035	Elyria	61	0.4%
44145	Westlake	48	0.3%
44126	Wadsworth	45	0.3%
44281	Fairview Park	45	0.3%
44141	Brecksville	39	0.2%
44254	Lodi	36	0.2%
44125	Garfield Heights	30	0.2%
44253	Litchfield	27	0.2%
44273	Seville	26	0.2%
44050	LaGrange	25	0.2%
	Other Ohio Zips Predominantly cities in northern Medina and eastern Lorain	701	4.4%
	Outside Ohio / Unknown	141	0.9%
	Total	**15,831**	**100.00%**

Source: Ohio Hospital Association, analysis of 2017 discharged inpatients

- Southwest General provides acute care inpatient services to residents of a wide variety of surrounding communities. The largest proportion in 2017 were residents of zip code 44130 (Middleburg Heights, 14.5%), followed by 44212 (Brunswick, 10.2%), 44136 (Strongsville, 9.2%), 44142 (Brook Park, 9.2%), and 44017 (Berea, 8.1%). These five zip codes accounted for more than half (52.2%) of Southwest General's inpatients in 2017.
- Inpatient care was provided mainly to those who lived in the surrounding area in 2017; only 4.4% were residents of zip codes at least 30 miles away. Few (0.9%) were residents of zip codes outside of Ohio.

Southwest General Health Center | Inpatient Discharges, 2017, All Ages
Primary Diagnosis: Major Disease Categories, By County of Residence

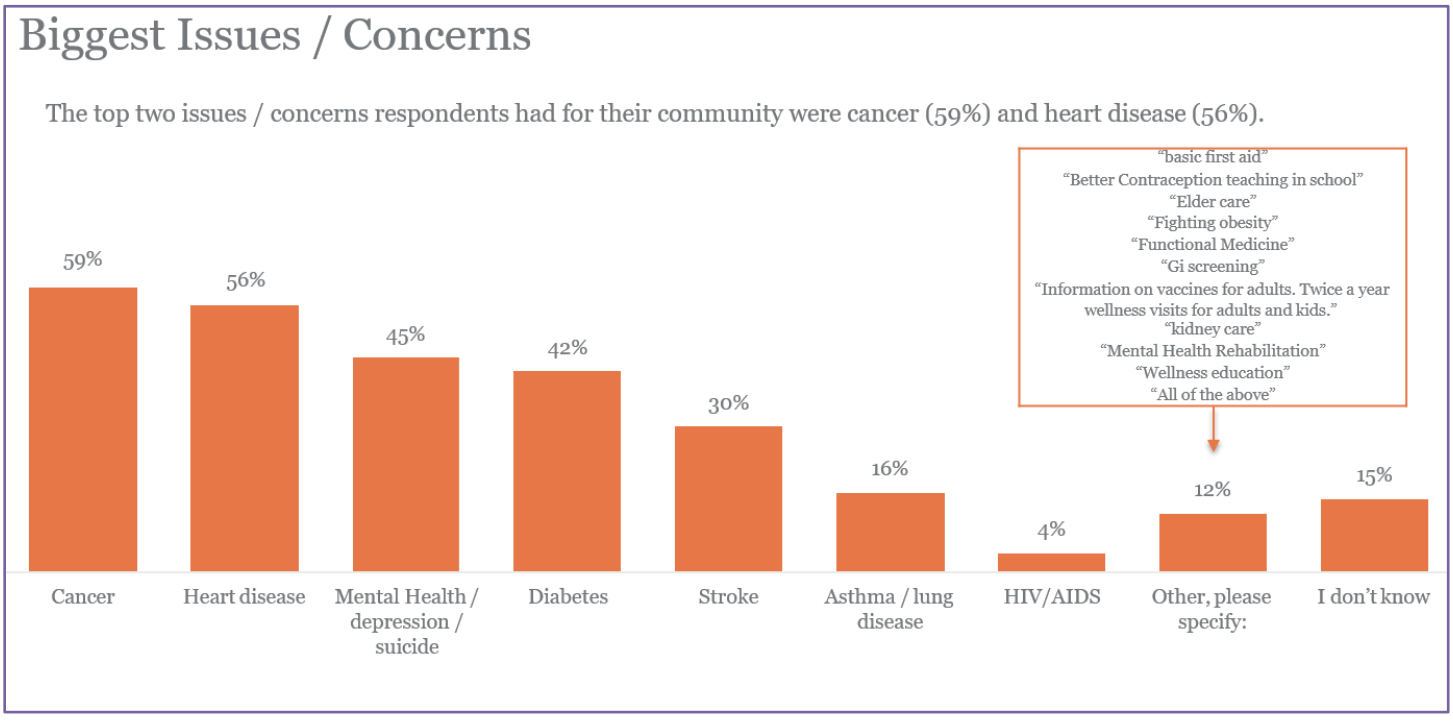
	Cuyahoga County Residents		Lorain County Residents		Medina County Residents	
Health Condition General Categories	#	%	#	%	#	%
Diseases of the circulatory system	1,615	13.7%	91	10.8%	399	14.6%
Diseases of the respiratory system	1,358	11.5%	79	9.4%	245	8.9%
Diseases of the digestive system	1,241	10.5%	108	12.9%	260	9.5%
Mental and behavioral disorders	1,092	9.3%	85	10.1%	178	6.5%
Certain infectious and parasitic diseases	1,017	8.6%	66	7.9%	180	6.6%
Diseases of the musculoskeletal system and connective tissue	929	7.9%	116	13.8%	229	8.4%
Other Factors influencing health status and contact with health services	816	6.9%	64	7.6%	334	12.2%
Pregnancy, childbirth and the puerperium	728	6.2%	59	7.0%	313	11.4%
Injury, poisoning and certain other consequences of external causes	702	5.9%	44	5.2%	132	4.8%
Diseases of the genitourinary system	567	4.8%	29	3.5%	117	4.3%
Diseases of the skin and subcutaneous tissue	368	3.1%	22	2.6%	66	2.4%
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified	340	2.9%	14	1.7%	71	2.6%
Endocrine, nutritional and metabolic diseases	338	2.9%	15	1.8%	70	2.6%
Neoplasms	305	2.6%	19	2.3%	71	2.6%
Diseases of the nervous system	238	2.0%	16	1.9%	52	1.9%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	117	1.0%	9	1.1%	19	0.7%
Diseases of the ear and mastoid process	21	0.2%	1	0.1%	1	0.0%
Congenital malformations, deformations and chromosomal abnormalities	5	0.0%	1	0.1%	0	0.0%
Diseases of the eye and adnexa	3	0.0%	1	0.1%	1	0.0%
Certain conditions originating in the perinatal period	3	0.0%	0	0.0%	1	0.0%
	11803	100.0%	839	100.0%	2739	100.0%

- This table shows the major disease categories associated with the primary diagnoses for all discharged patients in 2017 (for patients of all ages, from Cuyahoga, Lorain and Medina counties). For Cuyahoga County residents, diseases of the circulatory system were the most common (13.7%) and the second most common (11.5%) disease state responsible for hospitalization was diseases of the respiratory system (most commonly Chronic Pulmonary Obstructive Disease, COPD). For Lorain County residents, diseases of the musculoskeletal system and connective tissue (13.8%) and diseases of the digestive system (12.9%) were the most common primary diagnostic categories. For Medina County residents, diseases of the circulatory system were the most common (14.6%).
- Southwest General is one of the few hospitals in the region that operates an inpatient mental health unit. In 2017, 9.3% of Cuyahoga County resident inpatients received services for mental health issues.

Additionally, to gauge community members' perceptions of the Health Center's response to their needs, Southwest General distributed an electronic survey to the 1,800 members of the Community Insight Advisory Group from July 25 to August 1, 2019. This group is comprised of current and former patients who provide ongoing feedback on Southwest General's programs and services. The group also provides input to help address community concerns and facilitate communication between the hospital and the community.

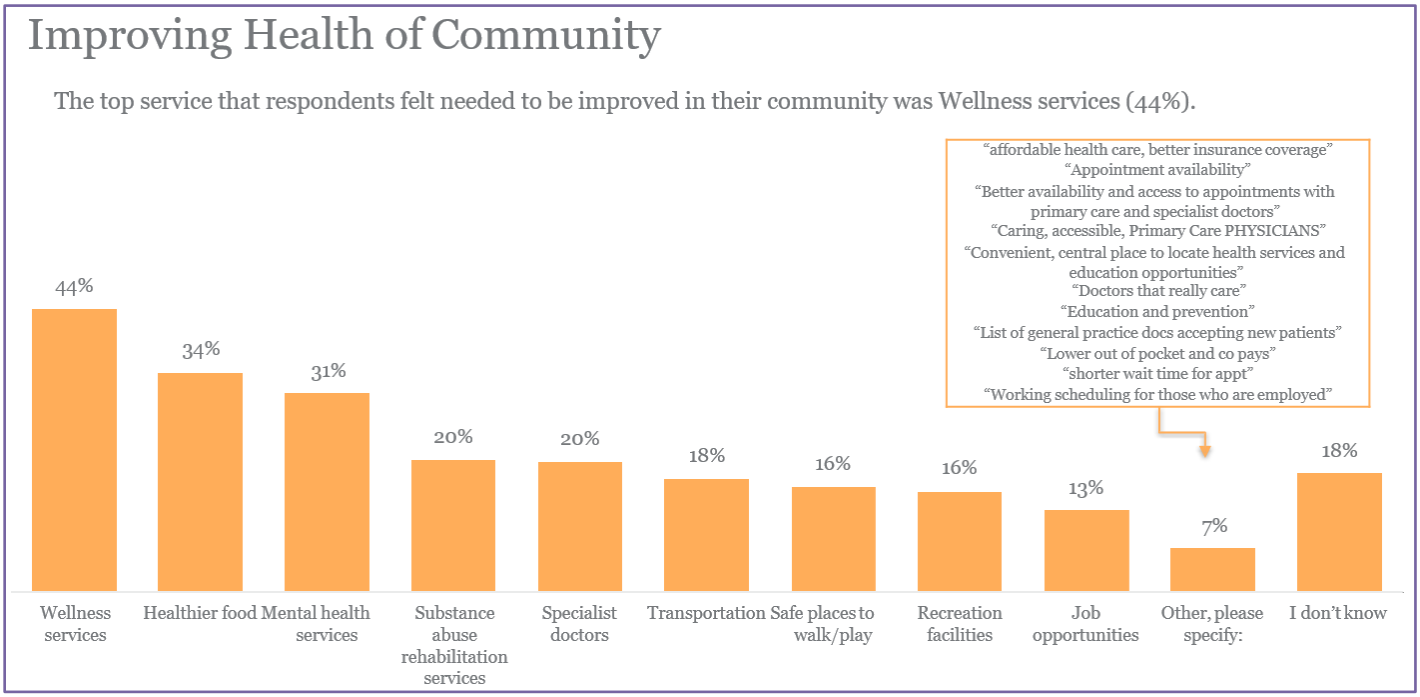
Overall results of this survey, completed by 571 respondents, further support the selection of the top five health priorities that will be the focus of the implementation strategies and plans developed from 2020-2022 in Cuyahoga County. For example, three of the four biggest issues that respondents mentioned were a concern for the community, align with priorities in the 2019 Assessment:

- Heart disease (56%) and diabetes (42%) fall under the chronic disease priority.
- Mental health / depression / suicide (45%) are captured under the mental health and addiction priority.



The top services that online survey respondents felt needed to be improved in the community also align well with identified priorities and the overall approach to addressing those priorities described in the 2019 Assessment:

- Wellness services (#1) relate strongly to the overall focus on addressing social determinants of health and looking upstream to prevention.
- Healthier food (#2) aligns well with an upstream approach to addressing many of the top five priorities including community conditions and chronic disease prevention.
- Mental health services (#3) and substance abuse rehabilitative services (#4) could be addressed as part of the mental health and addiction priority.



The full results from this survey are available at the end of this hospital chapter.

Evaluation of Impact: Southwest General Health Center Community Health Improvement Efforts

In response to their 2016 Community Health Improvement Assessment, Southwest General leadership focused on three major areas to have the largest impact on community members' health and well-being:

1. **Improving Chronic Disease Management**
2. **Cardiovascular Health (Obesity and Healthy Choices)**
3. **Behavioral Health (Mental Health & Addictions)**

The goal was to leverage hospital staff expertise, resources and standing in the community--in partnership with other organizations--to tackle issues that have proven to be barriers to optimal health status for the community as a whole.

Each of Southwest General's focus areas in response to the 2016 Assessment included several approaches or tactics that are listed below along with a description of the success of each over the past three years.

1. Improving Chronic Disease Management

Improved Outcomes through Heightened Knowledge

Southwest General's overall approach focused on enhancing patients' ability to improve their health through better self-management of disease. First, the hospital took advantage of its Community Outreach Nurse Program to identify community members who could benefit from various community-based services to monitor and enhance their health. In 2018, the Community Outreach nurses served 26,412 community members and identified 3,464 people who required follow-up medical or other services due to a chronic disease. Also in 2018, the Health Center hosted a variety of free events to identify community members with health issues or those at-risk for developing health issues. Activities included a Stroke Awareness and Prevention event, which offered free screenings and education, as well as lung and diabetes screening and education events. Plus, Southwest General enhanced its initiative for early detection of colorectal cancer through improved access to colonoscopies. The hospital now allows direct scheduling of a screening colonoscopy without a physician's referral; reminders about the need for a screening are sent to patients as they turn 50 years old; and patient education on the need for screening is shared via dozens of community events the hospital participates in annually. The number of colorectal screenings completed increased by 62% from 2014 to 2016 (to 1,740 annual screenings).

Second, the hospital created numerous educational print publications and other collateral material for distribution by community agencies and hospital staff at community-based events. At the same time, Southwest General maintained a consistent social media presence to promote disease management services available in the community and to share general health and wellness information. Additionally, the hospital's website outlines all disease management services available to community members from Southwest General as well as services offered by other community organizations.

Third, the hospital has a 24-hour telephone line, 1-877-SWG-BEAT, which connects community members to critical care nurses and nurse practitioners who specialize in cardiovascular, pulmonary and neurological care as well as chronic conditions, such as diabetes. In 2018, more than 400 community members used the telephone line to access a critical care nurse or nurse practitioner for screening appointments (for cardiac, stroke, circulatory and pulmonary conditions) or to ask a question. Of these callers, more than 150 were referred after their screening appointments, and 25 after the phone call, to appropriate physicians and hospital and community services for follow up care.

Improved Outcomes through Immediate Access to Care

Chronic obstructive pulmonary disease (COPD) and congestive heart failure (CHF) are two common health problems in the community that lead to a large number of hospitalizations. Both conditions are complex, and lack of sufficient patient education can result in delays in accessing care and/or in disease mismanagement. Southwest General has applied its telehealth technology specifically for COPD and CHF patients with the aim of minimizing readmissions. This program has shown very promising results. In 2018, the all cause 30-day readmission rate for telehealth patients was 2.7%, compared to 16.7% for patients who did not use the telehealth service. This successful program is growing, and 154 new patients were enrolled in 2018.

In addition to telehealth monitoring, Southwest General patients with COPD, CHF and many other chronic conditions attend appointments in the hospital's Chronic Care Services Center. The Center provides evaluation and care management services, medication reconciliation and patient education, which reinforces self-care for patients and their primary caregivers. Additionally, these patients attend Cardiopulmonary Rehabilitation for COPD and CHF, Diabetes Outpatient Education and regularly scheduled community support group meetings such as Amputation, Pulmonary Hypertension, Heart Failure and Stroke.

The hospital's Wound Care Center is included under the Chronic Care umbrella. In 2018, the outpatient Wound Care Center expanded its physical space and hired additional wound care providers, which resulted in improved patient access to this service. Plus, the Wound Care Center opened a Hyperbaric Oxygen Therapy Center, providing state-of-the-art medical treatment for healing or reducing the severity of wounds.

Additionally, a hospital-based Sleep Lab is available for patients to help resolve sleep disorders related to multiple morbidity and/or behavioral health challenges.

Improved Outcomes through Minimizing Financial Barriers to Care and Services

Low-income individuals often have difficulty accessing care for a variety of reasons, including cost and access issues among others. Southwest General has responded to this issue by expanding its basic health screenings to seven locations that were previously underserved. Annual screening events are now held at 35 different sites within the hospital's footprint. More than 15,000 screenings were completed in 2018 and 4,301 abnormal results triggered referrals for follow-up care.

For patients in the hospital's primary service area who are not able to provide their own transportation to receive care, the hospital provided free van transportation to and from doctor appointments, tests and other non-emergency medical services at Southwest General.

Medication costs also are frequently an issue for patients, particularly the cost of medications used in cancer treatment. Southwest General provides a Medication Assistance Program for patients receiving treatment in

its cancer center. Through the program, a Pharmacy employee works with pharmaceutical companies and disease-specific foundations to help patients with the cost of their medications. This assistance may include receiving medication at no cost or receiving co-pay assistance.

To further assist patients, the hospital increased its education of primary care network staff members to improve their ability to inform patients about available low-cost or no-cost community services. Each primary care practice receives a bi-monthly publication highlighting available services and ways for patients to connect to these services.

Improved Care and Reduction of Disparities through Understanding the Patient

Southwest General has a Transition Nurse Program that provides a safety net of care for patients recently discharged from the hospital with a CHF or COPD diagnosis. Through the program, registered nurses provide a home visit within 72 hours of discharge and follow up phone calls for 30 days post discharge. Since January 2017, the readmission rate for patients in this program was 0% within 30 days.

Additionally, Southwest General provides comprehensive Home Health Services that can help with in-home support for patients managing chronic conditions or those requiring additional care to recuperate from illness or injury. Home Health Services includes a telehealth program to help patients manage their health by using wireless devices to track vital signs and submit data to their Southwest General care providers and receive alerts/reminders to improve medication compliance. Since the program's inception, 403 new patients have been enrolled in telehealth.

The most recent initiative that Southwest General has developed to improve community health was in response to an internal study of both inpatients and outpatients. The study found that a large number of patients had multiple health issues, all of which were being managed separately with no centralized view of *all* of a patient's needs. To address this, Southwest General created a centralized scheduling system, which has greatly improved patients' ability to coordinate multiple health care services. The greatest impact has been on reducing the self-management burden for the most vulnerable patients – those with the greatest number of comorbidities.

Concurrent with this scheduling change, the hospital began an internal Population Health specialty, designed to build upon the hospital's commitment to delivering patient-centered care. With a strong understanding of how patients can best access medical care and support self-management of medical issues, Southwest General hopes to minimize the financial and human suffering that patients experience, particularly those with multiple comorbidities. To this end, as part of its Population Health strategy, Southwest General launched Chronic Care Services in early 2018 to help stabilize patients with multiple chronic conditions through a variety of coordinated treatments, patient education and support for self-care. Chronic Care Services is an extension of physician office appointments and provides additional support to patients and families for overall quality of life improvement and avoidance of unnecessary hospitalization.

In 2018, Southwest General created a navigator role within Chronic Care Services to provide a concierge service for patients attributed to primary care providers within the Southwest General Medical Group, a multi-specialty group practice owned by Southwest General. The complimentary service helps patients with a chronic condition navigate the health care system and coordinate and schedule care. The navigator also is

responsible for outreach on an individual patient level to identify preventive screenings or other care opportunities due and to ensure an annual wellness visit is scheduled with the primary care provider. Since January 2018, more than 2,500 letters and postcards have been mailed and more than 580 calls made by the navigator.

Additionally, for patients at high risk for hospital readmissions, a special navigator team composed of a Pharmacist and Registered Nurse provide focused care coordination services and monthly follow-up in collaboration with the primary care provider. A comprehensive care plan is created around all of the patient's conditions, and the navigator team works closely with the primary care provider for condition management. Follow-up phone calls occur following a hospital admission to review the discharge instructions with the patient and ensure a follow-up visit is scheduled for a smooth transition from the acute care setting to the home environment.

2. Cardiovascular Health (Obesity and Healthy Choices)

Diseases of the circulatory system are by far the most common reason for hospitalizations. In 2017, Southwest General's top two inpatient discharge categories were diseases of the circulatory system (13.6%) and diseases of the respiratory system (10.8%). Southwest General took a multi-pronged approach to this issue with a focus on cardiovascular health that includes the stroke/neuro and pulmonary populations, providing patient education, improving access to services and offering programs that support nutrition and physical activity.

Additionally, Southwest General supported these patient populations through its Chronic Care Services program for patients requiring complex specialty and subspecialty health care for multiple co-morbidities. Chronic Care Services aim to improve stabilization of chronic health conditions through improved patient education, self-monitoring, nutrition management, social support and management of multiple pharmaceuticals. A focus on pre-diabetes, diabetes and basic nutrition is integrated into Chronic Care Services. The following activities were accomplished by the end of 2018:

a) Promoted national and regional programs that encourage physical activity through routine general communications to the community. In 2018, four separate walks/runs were organized in partnership with the American Heart Association, American Stroke Association, American Cancer Society and the National Alliance for Mental Health. Also, 411 hospital staff members participated in nine community parades to promote health activities and services. Additionally, the Health Center operates LifeWorks of Southwest General, a health and fitness facility. LifeWorks offers community members a range of affordable membership options that it promotes throughout the year. Members have access to personal trainers, a wide variety of exercise programs and educational programming to help improve their health status.
b) Promoted annual screening programs specifically focused on cardiovascular health, i.e., Healthy Heart, Grey Matters, Circulation Circuit. A total of 360 community members received full cardiovascular screenings, resulting in 150 referrals to specialist physicians for follow-up care.
c) Expanded healthy eating education efforts to include churches and senior communities. Ten different churches were the sites for senior programs and events that promoted heart-healthy knowledge and activities, reaching 1,097 people.
d) Expanded efforts to increase participation by employees and their families in fitness programs via internal communications.

e) Operated outpatient clinics specifically for COPD, CHF and wound care along with a hyperbaric oxygen therapy program for patients.
f) Earned recognition as a Community STEMI Receiving Center for the emergency intervention and treatment of Acute Myocardial Infarctions (heart attacks) with a full-service cardiac catheterization and electrophysiology lab and cardiac surgery program.
g) Worked with specialist and sub-specialist providers and other members of the health care team to provide regularly scheduled community education programs.
h) Served approximately 2,000 patients annually through Southwest General's Home Health Services and Home Infusion Program following standardized clinical care paths for cardiovascular and respiratory diseases.

3. Behavioral Health (Mental Health and Substance Abuse)

Southwest General is one of the few acute-care facilities in Cuyahoga County that provides comprehensive inpatient and outpatient services for those with mental health and/or substance abuse issues, including services for adolescents. All portions of the behavioral health service line are intended to help patients transition back to the community. Southwest General has been offering mental health and addiction services since the mid-1980s and today has the following specialty areas on campus:

a) Adult inpatient psychiatric unit
b) Geriatric inpatient psychiatric unit
c) Intake/Assessment team in the Emergency Department
d) Partial Hospitalization (PHP) & Intensive Outpatient (IOP) programming for adults with mental health disorders
e) IOP mental health services for adolescents
f) IOP services for adults facing the disease of addiction
g) Inpatient medical withdrawal management program (BreakThru®)
h) Ambulatory/office-based outpatient behavioral health services

Improving Continuity of Care and Access to Mental Health Services

The following improvement / expansion efforts were underway from 2016 to 2018 to improve continuity of care and access to mental health services:

a) The Brunswick area was targeted as an underserved area in terms of outpatient mental health services. Southwest General partnered with University Hospitals to provide outpatient mental health services, which led to the opening of an outpatient behavioral health practice in Southwest General's Brunswick Medical Center and Emergency Room.
b) The hospital conducted numerous mental health educational sessions for students within local school districts, including Columbia Station and Strongsville. The goal is to continue offering these programs to all of the local school districts on an ongoing basis.
c) One barrier to care for patients with mental health issues is finding local services when needed. Southwest General strengthened relationships with local community-based mental health agencies to

provide more reliable referrals to community-based care. The goal is to forge a formal relationship with one or more agencies to provide a completely seamless transition to community-based care.

Improving Access to Care for Substance Abuse

To improve access to care for those struggling with substance use and addiction issues, Southwest General has focused on the following:

a) Expanding both Medical Staff and community awareness of, and knowledge about, prescription drug practices, prescription drug misuse and overuse and their relationship to the risk of addiction. This effort is part of a larger, county-wide effort focused on prescribing practices for pain management by medical professionals.
b) Participating in the Safe Passages program with various local police departments. Safe Passages encourages people struggling with addiction to reach out through local law enforcement who will try to link them with treatment as opposed to criminal prosecution.
c) Providing educational programs on preventing addiction to students, community members, county leadership and opinion leaders. In 2018, Southwest General addiction experts presented at local conferences and leadership seminars, reaching several thousand professionals and community members. Southwest General has built internal capacity and expertise—and a success story—to become a "go-to" behavioral health source to bring state-of-the-art information and best practices to partnering organizations, governments and other community agencies and initiatives.
d) Meeting the demand for outpatient addiction services. To better meet this need, the hospital expanded its outpatient treatment program and increased its service load by 2% in 2018. This service is expected to grow again in 2019. Additionally, in April of 2017, the hospital initiated an inpatient medical withdrawal management program called BreakThru® which has successfully treated hundreds of patients suffering with addictions to start them on the long term road to recovery.

In addition to the above activities, Southwest General committed a large capital campaign in 2019 to its Oakview Inpatient Adult Psychiatric Unit to support significant new construction and a complete renovation of the current building space. This project will result in increased capacity (18 beds previously, 20 beds in the future) and an improved environment for patients.

Beyond the expansion on its main campus, Southwest General also has extended its Behavioral Health service line by providing psychiatric services to Baldwin Wallace University, in Berea, Ohio, along with two large local counseling agencies. Southwest General partnered with these organizations to provide them with the psychiatric service providers that they were unable to secure themselves. This partnership extends the Behavioral Health service line deeper into the community and better serves our local population.

Future endeavors for Behavioral Health at Southwest General include evaluating the possibility of offering residential addictions services, hiring peer support workers and partnering with other agencies to provide the complete continuum of care.

Addressing the Opioid Epidemic

Southwest General has taken an active role in developing clinical tactics to address the issues faced with Ohio being one of the top states impacted by the opioid crisis. These tactics include:

Non-opioid surgical methods

- Pain blocks prior to surgery being used to lessen pain after surgery, which results in reduced need for post-operative medicine
- Using medications like Tylenol and Ibuprofen before surgery along with other non-opioid medications to lessen pain after surgery
- Encouraging patients to drink clear liquids up to two hours before arrival to surgery

Emergency Department Initiatives

- Adopted all Ohio Guidelines for Opioid & Other Controlled Substances (OOCS) Prescribing
- No replacement for lost opioid prescriptions
- Use of Ohio Automated Rx Reporting System (OAARRS) database
- Contacting primary care provider before ordering OOCS
- Limit the length of all opioid prescriptions

One of Southwest General's most significant initiatives to address the opioid epidemic has been opening the BreakThru® Medical Withdrawal Management program in April 2017. This program has enhanced the addiction service line that has existed at Southwest General since the mid-1980s, allowing the first stages of treatment to happen at the facility where so many patients then complete their outpatient programs. This service recently celebrated its second year at Southwest General and has served hundreds of patients in our community.

Next Steps

There are five 2019 Cuyahoga County Community Health Needs Assessment prioritized health needs identified by the collaborative group led by Case Western Reserve University and The Center for Health Affairs, that align with the State Health Improvement Plan (SHIP):

1. Structural Racism
2. Trust
3. Community Conditions
4. Chronic Disease
5. Mental Health and Addiction

Southwest General has coupled the priorities identified above with the feedback from the Community Insights Group survey, to focus on the following priority areas moving forward:

1. Community Conditions
2. Chronic Disease
3. Mental Health and Addiction

Southwest General
CHNA Supplement

July - August 2019

Southwest General

Research Objectives

- Understand respondents' perceptions of their community's health needs.
- Research what is preventing respondents and/or the community from receiving healthcare.

Southwest General 2

Study Design

Background

- NRC Health conducted an online survey of Southwest General's patients who opted-in to the system's community insights survey panel
- Fielded July 25 – August 1, 2019
- All email recipients were given the option to opt out of the study

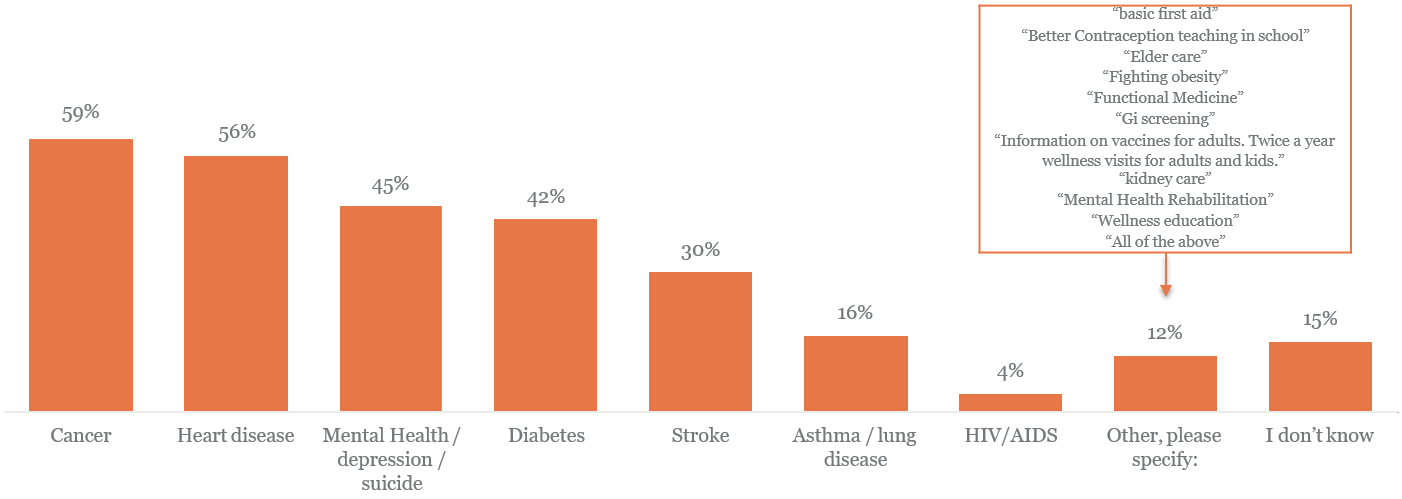
Methodology

- 571 respondents completed the survey
- Standard error range at 95% confidence level ± 4.1%
  - Average Length of Involvement – 7 minutes, 6 seconds
  - Email Open Rate – 69%
  - Click-Through Rate – 48%
  - Response Rate – 32%

Southwest General 3

Biggest Issues / Concerns

The top two issues / concerns respondents had for their community were cancer (59%) and heart disease (56%).

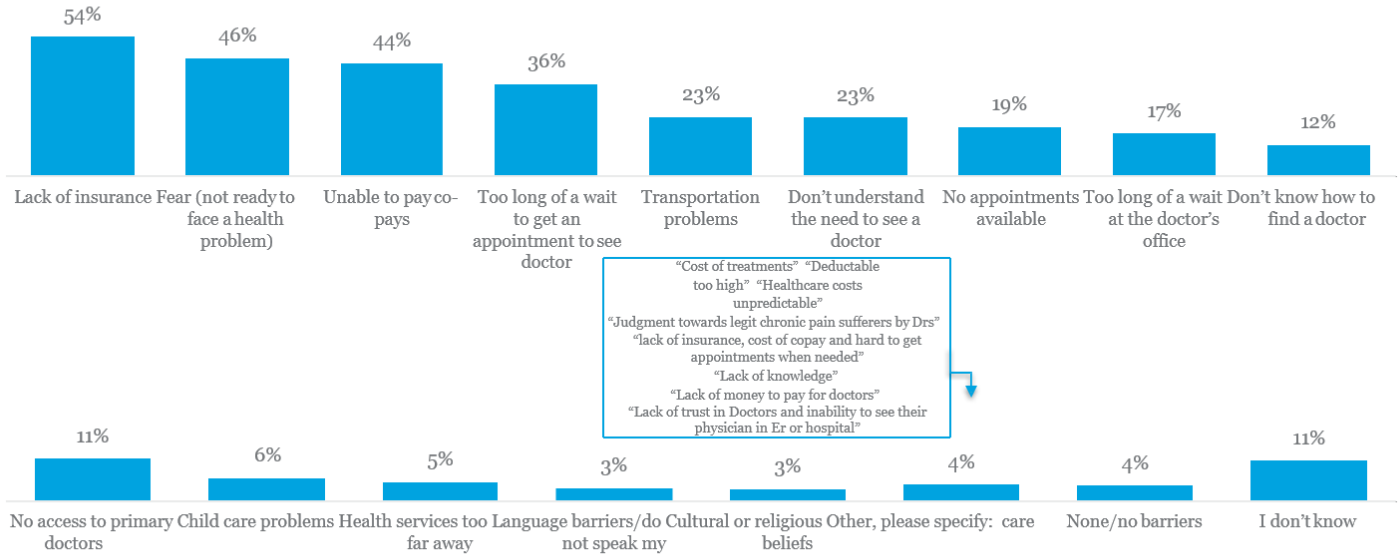


Q) What are the biggest health issues or concerns in the community?

Southwest General 4

Barriers to Seeking Medical Treatment

Respondents most often selected that lack of insurance (54%) was what prevents people in their community from seeking medical treatment.



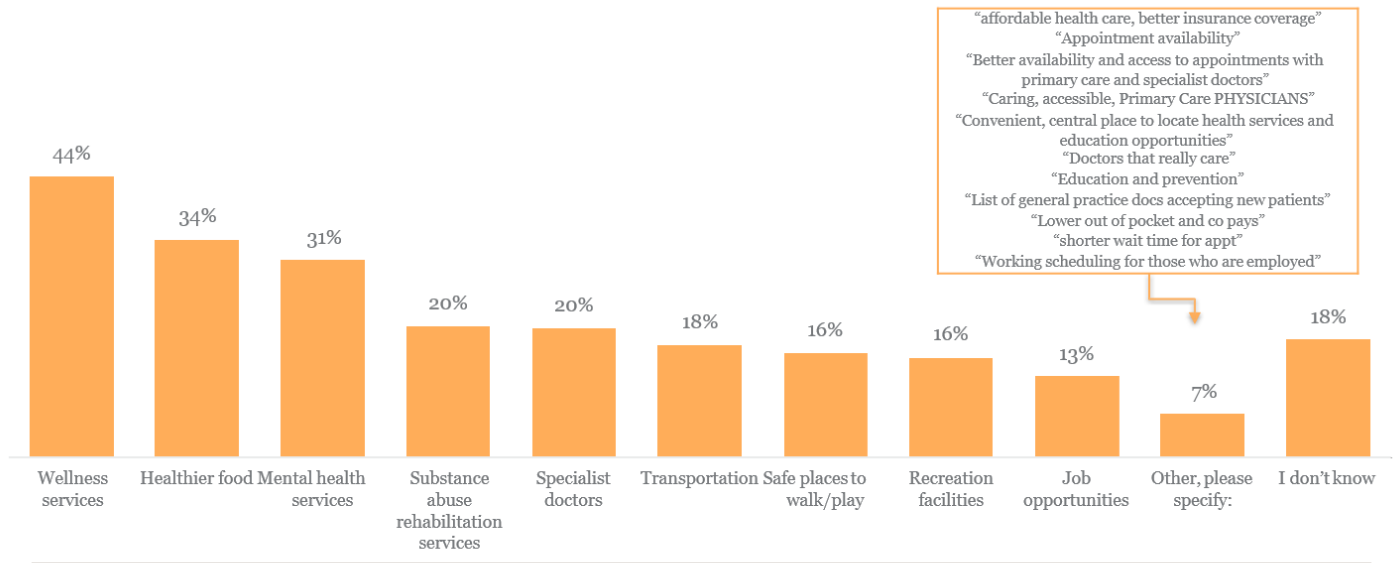
Q) What keeps people in your community from seeking medical treatment?

Southwest General

5

Improving Health of Community

The top service that respondents felt needed to be improved in their community was Wellness services (44%).



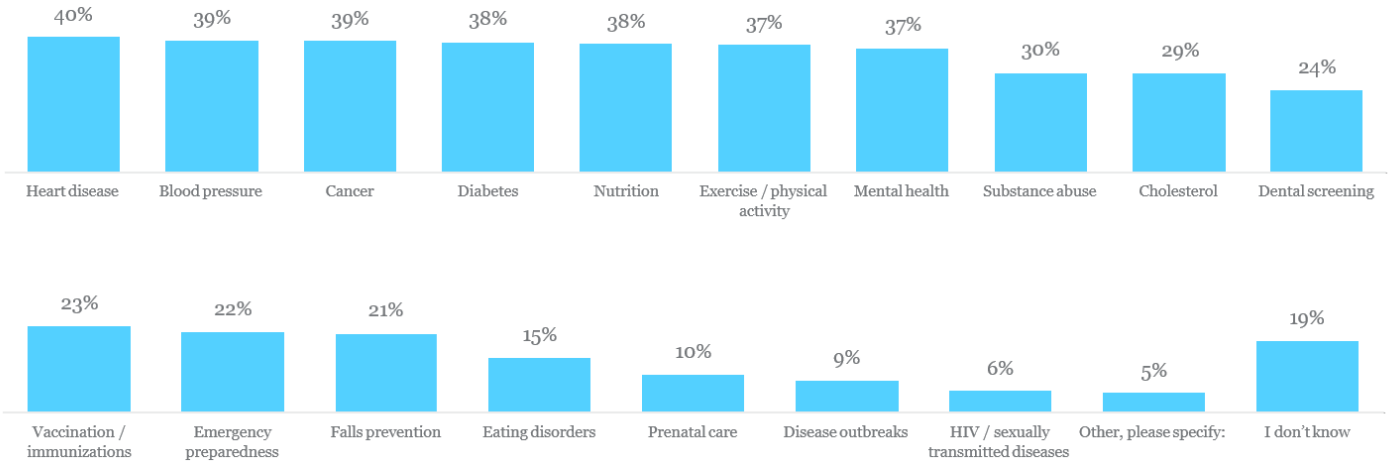
Q) What is needed to improve the health of your family and neighbors?

Southwest General

6

Services Needed in Community

Heart disease (40%), blood pressure (39%), and cancer (39%) were the top three educational services needed in the community.



Q) What health screenings or educational/informational services are needed in your community?

Southwest General 7

Where Respondents Would Go for Care

Respondents were most likely to go to their doctor's office for allergies, frequent or painful urination, back pain, eye irritation, rash/hives, and cold/flu symptoms. They were most likely to utilize an ER for burns, chest pain, and broken bones.

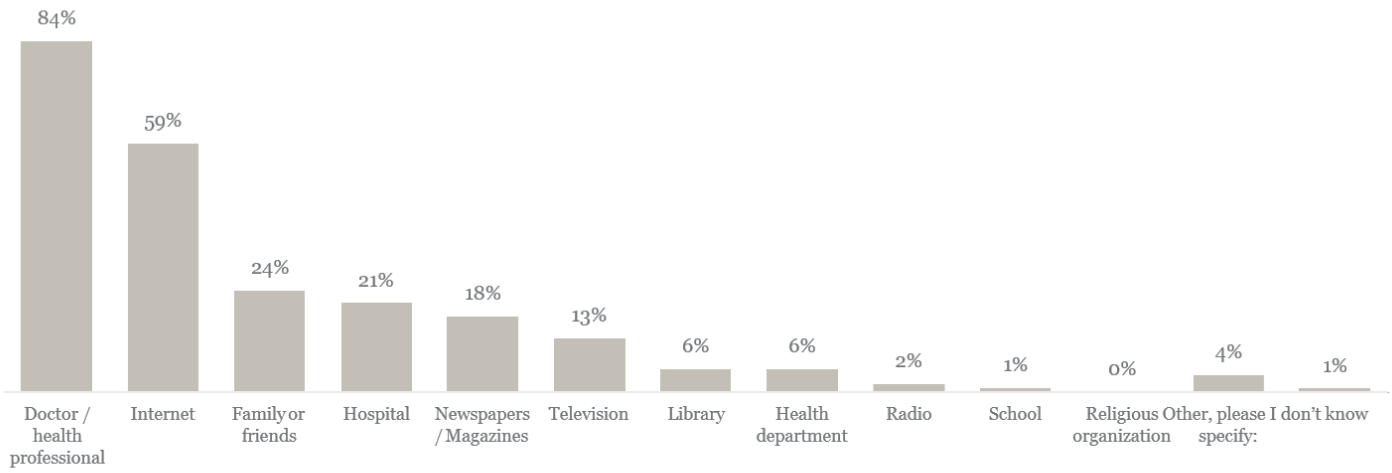
	Doctor's office	Clinic	Hospital emergency department	Walk-in/urgent care center	Health department	None of these	Would not seek care for this	I don't know
Allergies	81%	2%	1%	5%	0%	1%	8%	2%
Frequent or painful urination	81%	2%	3%	12%	0%	1%	1%	1%
Back pain	80%	1%	3%	5%	0%	4%	5%	2%
Eye irritation/pink eye symptoms	65%	4%	3%	25%	0%	1%	1%	1%
Rash or hives	60%	3%	4%	22%	0%	2%	7%	2%
Cold/flu symptoms	52%	2%	0%	21%	0%	3%	20%	1%
Burns	11%	1%	61%	22%	0%	1%	3%	2%
Chest pain	6%	0%	89%	3%	0%	1%	0%	1%
Broken bone	5%	0%	85%	8%	0%	0%	0%	0%

Q) If you or someone in your family had the following conditions/ailments, where would you go for care?

Southwest General 8

Health Information

Respondents and their families mostly received health information from their doctor / health professional (84%).



Q) Where do you and your family get most of your health information?

Southwest General

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Comments on Community's Health & Wellness

Support Groups, Affordable Healthcare / Prescriptions, Senior Services, Transportation

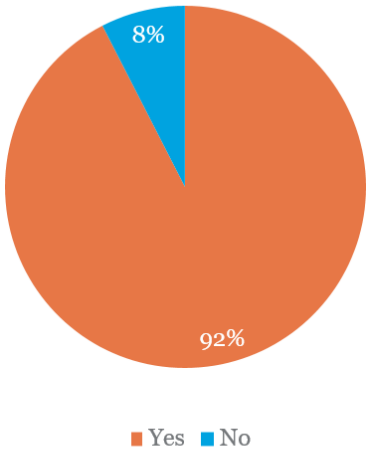
- "24-hour healthcare access that is affordable. Not everyone works a 9-5 job, and health concerns don't just happen during the day. When the only option for middle of the night is emergency room, but insurance won't pay for it, it's no wonder that many people won't seek help."
- "A good place to practice exercise and walking that is easily accessible and low cost."
- "A hands on nurse or other qualified individual would be nice in a senior community. Someone who you could get in touch with immediately."
- "Ability to pay for medication & treatments prescribed without having to forgo other basic needs for self or family members."
- "Access to affordable health care"
- "Access to my X-rays. Online."
- "Affordable health care"
- "Affordable memberships for exercise and fitness facilities."
- "As someone on disability with genetic autoimmune diseases, transportation would help, more access to a pool would be awesome, and help with healthier foods and vegetables would be fantastic!"
- "Awareness and education about ALL cancers not just breast cancer. Programs for all cancer patients. Not to be told it is ONLY available to breast cancer patients."
- "Basic first aid knowledge - how to treat every day cuts. what leads to infection. Foot care - cuts, blisters"
- "Better insured and coverage for preventative care. Dental is not covered on many policies and it is beyond what most people can pay out of pocket when the high deductibles and copays are needed to be saved for and covered."
- "Families and friends who are living/caring for individuals with heart disease, cancer, COPD etc need to have a source for information and answers to specific questions. Many support groups involve fees and large groups of people and provide only the most basic information."
- "Free screenings"
- "Help for the elderly"
- "I think it would be helpful to see some community outreach in exercise/nutrition to battle obesity and teach healthy habits."
- "More convenient hours at doctor's offices. Most people work 8-5. Most doctor's close before that time."
- "Senior citizen exercise programs"
- "Seniors need to know how much treatments will cost before they see doctors."
- "Transportation and long waits for appointments and in the waiting rooms"
- "Transportation seems to be the limiting factor here in our county. There is virtually no useful public transportation."

Q) Please list anything else that you think your community needs when it comes to healthcare or any other comments you have about your community's health and wellness.

August 13, 2019 10

Routine Physical Exam

92% have had a routine physical exam within the past two years.



Q) Have you had a routine physical exam in the past two years?

Southwest General 11

Key Takeaways

1. The top two issues / concerns respondents had for their community were cancer (59%) and heart disease (56%). These issues were similar to the topics respondents selected for educational services they wish were in their community: heart disease (40%), blood pressure (39%), and cancer (39%).

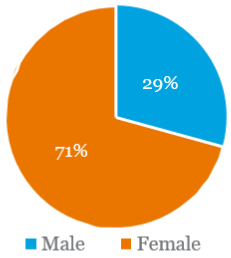
2. Respondents stated that lack of insurance (54%), fear (46%), and the inability to pay co-pays (44%) were preventing people in their community from seeking medical treatment.

3. Respondents were most likely to go to the doctor's office for allergies (81%), frequent or painful urination (81%), and back pain (80%). They would be most likely to use the hospital emergency department for chest pains (89%) and broken bones (85%).

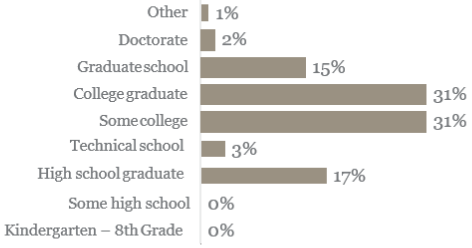
Southwest General 12

Demographics

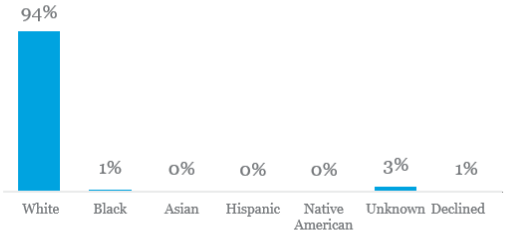
Gender



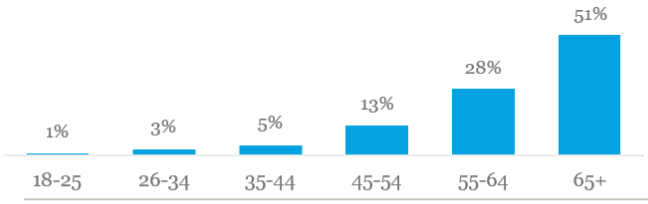
Educational Attainment



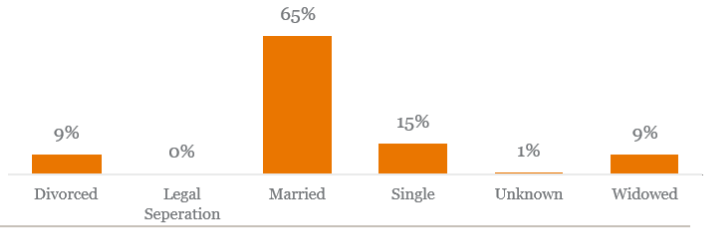
Race



Age

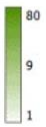


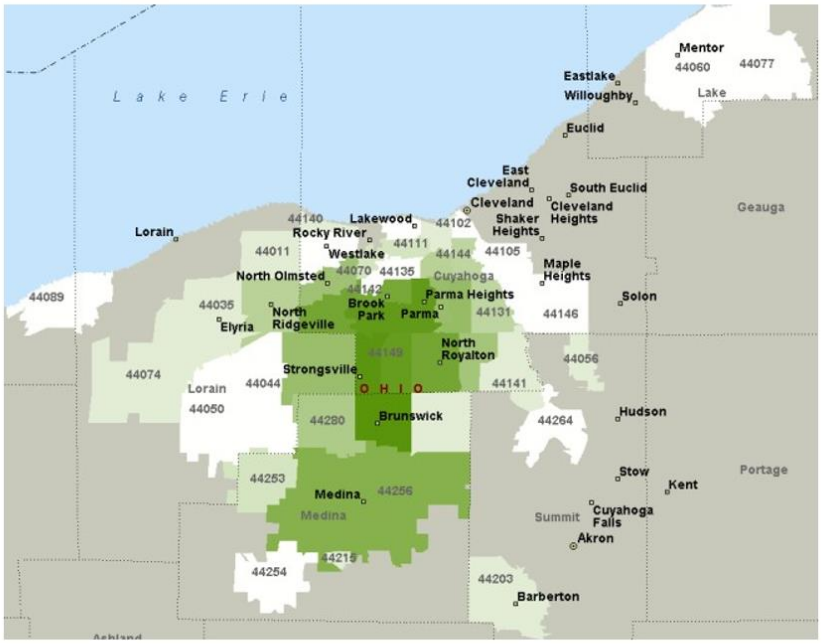
Marital Status



Geography

Number of Respondents





Responses by Zip Code

Zip Code	Count	Percentage	Zip Code	Count	Percentage
Not Available	1	0%	44131	5	1%
44011	2	0%	44133	36	6%
44017	57	10%	44134	14	2%
44028	13	2%	44135	1	0%
44035	2	0%	44136	53	9%
44039	6	1%	44137	1	0%
44044	1	0%	44138	35	6%
44050	1	0%	44140	2	0%
44056	2	0%	44141	2	0%
44060	1	0%	44142	32	6%
44070	11	2%	44144	6	1%
44074	2	0%	44145	1	0%
44077	1	0%	44146	1	0%
44089	1	0%	44147	10	2%
44102	2	0%	44149	68	12%
44105	1	0%	44203	2	0%
44107	1	0%	44212	74	13%
44109	5	1%	44215	2	0%
44111	3	1%	44233	2	0%
44113	1	0%	44253	3	1%
44125	1	0%	44254	1	0%
44126	3	1%	44256	22	4%
44129	13	2%	44264	1	0%
44130	58	10%	44280	8	1%

Southwest General

Southwest General
Partnering with University Hospitals

Southwest General Hospital
18697 Bagley Road
Middleburg Hts., OH 44130

ST. VINCENT CHARITY MEDICAL CENTER

A Ministry of the Sisters of Charity Health System

Evaluation of Impact

St. Vincent Charity Medical Center

Located in the Central neighborhood, one of Cleveland's most economically disadvantaged areas, St. Vincent Charity Medical Center is the City's only faith-based, acute-care teaching hospital, caring for the community since 1865. Faithful to the philosophy and heritage of the Sisters of Charity of St. Augustine, St. Vincent Charity Medical Center is committed to the healing mission of Jesus, serving with a deep respect for the dignity and value of all persons, practicing with quality care, a dedication to the poor and a commitment to education.

St. Vincent Charity is renowned for its practices in specialty care: including Behavioral Health and Addiction Medicine (Rosary Hall), the Spine and Orthopedic Institute, the Center for Bariatric Surgery and the Health Literacy Institute. Additionally, St. Vincent Charity provides comprehensive services in emergency medicine, primary care, wound care, pain management, radiology, occupational health, pulmonary medicine and oncology. St. Vincent Charity also operates one of only two 24/7 mental health emergency departments in the State of Ohio and has the largest dedicated hospital based detox facility in Northeast Ohio.

St. Vincent Charity Medical Center
Inpatient Discharges, 2017 by Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row
Resident of Cuyahoga County	1	0.0%	1,102	16.7%	1,650	25.0%	2,221	33.6%	1,631	24.7%	6,604	100.0%
Non-Resident of Cuyahoga County	2	0.1%	311	18.5%	472	28.0%	494	29.3%	405	24.0%	1,682	100.0%
Total 2017 Discharges	3	0.0%	1,413	17.0%	2,122	25.6%	2,715	32.8%	2,036	24.6%	8,286	100.0%

Source: Ohio Hospital Association, analysis of 2017 discharged inpatients

- St. Vincent Charity is an adult acute care hospital and with only limited exception does not treat patients within the pediatric age range of 0-17, with the exception of emergency care and urgent orthopedic care. The 8,286 adults served in 2017 were from all age groups, with no age group dominating. While in most hospitals, those aged 65 and older tend to be the largest age group of inpatient discharges, only one-in-four (24.6%) inpatients at St. Vincent Charity were seniors in 2017. This is likely because St. Vincent's services are heavily focused on behavioral health and addiction medicine, which tends to draw patients from a younger demographic.

- The majority of patients discharged from St. Vincent Charity were Cuyahoga County residents; 20.3% were from outside of the county.

St. Vincent Charity Medical Center
Inpatient Discharges, 2013 vs. 2017, All Ages by Residential Zip Code

Zip	Dominant Municipality/Neighborhood	Number of Discharges 2017	Percent of Total Discharges 2017	Number of Discharges 2013	Percent of Total Discharges 2013
44115	Cleveland-Central	532	6.4%	436	5.8%
44105	Cleveland-Kinsman	518	6.3%	490	6.5%
44103	Cleveland-Hough	463	5.6%	488	6.5%
44104	Cleveland-Central	461	5.6%	524	6.9%
44102	Cleveland- Ohio City	378	4.6%	360	4.8%
44109	Cleveland-Tremont	338	4.1%	289	3.8%
44120	Cleveland-Buckeye-Shaker	317	3.8%	272	3.6%
44106	Cleveland-University Circle	241	2.9%	283	3.7%
44111	Cleveland-Lorain & W. 130th	180	2.2%	150	2.0%
44108	Cleveland-Glenville	177	2.1%	207	2.7%
44113	Cleveland-Ohio City	166	2.0%	184	2.4%
44114	Cleveland-Asiatown	163	2.0%	189	2.5%
44112	East Cleveland	180	2.2%	192	2.5%
44110	Cleveland-Collinwood	143	1.7%	135	1.8%
44127	Cleveland- North Broadway	139	1.7%	154	2.0%
44135	Cleveland-Riverside	120	1.5%	119	1.6%
44144	Cleveland-Brooklyn	76	0.9%	59	0.8%
44119	Cleveland-Pawnee &E. 185th	39	0.5%	28	0.4%
	City of Cleveland Total	**4,631**	**56.1%**	**4,559**	**60.3%**
44128	Warrensville Heights	158	1.9%	187	2.5%
44107	Lakewood	141	1.7%	139	1.8%
44125	Garfield Heights	121	1.5%	93	1.2%
44130	Middleburg Heights	121	1.5%	89	1.2%
44134	Parma	111	1.3%	108	1.4%
44146	Bedford	102	1.2%	102	1.3%
44121	South Euclid	87	1.1%	73	1.0%
44124	Mayfield Heights-Pepper Pike	79	1.0%	35	0.5%
44129	Parma	72	0.9%	91	1.2%
44118	Cleveland Hts/University Hts	68	0.8%	62	0.8%
44060	Mentor	66	0.8%	27	0.4%
44052	Lorain	65	0.8%	40	0.5%
44070	North Olmsted	65	0.8%	53	0.7%
44077	Painesville	65	0.8%	45	0.6%
44122	Shaker Heights/Beachwood	65	0.8%	87	1.2%
44133	North Royalton	62	0.7%	30	0.4%
44145	Westlake	62	0.7%	45	0.6%
44017	Berea	60	0.7%	38	0.5%
44095	Willowick/Eastlake	58	0.7%	38	0.5%

44256	Medina	58	0.7%	38	0.5%
44035	Elyria	56	0.7%	45	0.6%
44137	Maple Heights	55	0.7%	59	0.8%
44131	Independence	53	0.6%	44	0.6%
44212	Brunswick	50	0.6%	35	0.5%
44132	Euclid	48	0.6%	25	0.3%
44136	Strongsville	48	0.6%	31	0.4%
44117	Euclid	47	0.6%	56	0.7%
44142	Brook Park	47	0.6%	37	0.5%
44094	Willoughby	44	0.5%	26	0.3%
44123	Euclid	40	0.5%	55	0.7%
44055	Lorain	37	0.4%	14	0.2%
44143	Highland Heights	36	0.4%	32	0.4%
44024	Chardon	35	0.4%	15	0.2%
44039	North Ridgeville	35	0.4%	28	0.4%
44149	Strongsville	35	0.4%	25	0.3%
44116	Rocky River	32	0.4%	30	0.4%
44138	Olmsted Falls	31	0.4%	29	0.4%
44286	Richfield	30	0.4%	39	0.5%
44126	Fairview Park	28	0.3%	26	0.3%
44147	Broadview Heights	24	0.3%	26	0.3%
44053	Lorain	23	0.3%	18	0.2%
44139	Solon	23	0.3%	22	0.3%
44870	Sandusky	23	0.3%	37	0.5%
44004	Ashtabula	22	0.3%	55	0.7%
44012	Avon Lake	22	0.3%	12	0.2%
44057	Madison	22	0.3%	24	0.3%
44067	Northfield / Sagamore Hills	22	0.3%	29	0.4%
44092	Wickliffe	22	0.3%	17	0.2%
44141	Brecksville	22	0.3%	21	0.3%
	Rest of Ohio	804	9.7%	672	8.9%
	Outside of Ohio	136	1.6%	2	0.0%
Total		**8,269**	**100.0%**	**7,565**	**100.0%**

Source: Ohio Hospital Association, analysis of 2017 discharged inpatients

- While zip codes are not precisely aligned with municipal boundaries, in 2017, over half (56.1%) of discharged inpatients from St. Vincent Charity were from zip codes within or on the boundary of the City of Cleveland. Proportionately, this is a decrease from 2013 levels, when 60.3% of discharges were residents of those same City of Cleveland zip codes.

- In 2017, outside of the City of Cleveland, the most common zip codes from which St. Vincent Charity drew inpatients in 2017 were Warrensville Heights (1.9%), Lakewood (1.7%), Garfield Heights (1.5%), Middleburg Heights (1.5%) and Parma (1.3%).

St. Vincent Charity Medical Center | Inpatient Discharges, 2017, All Ages
Primary Diagnosis: Major Disease Categories

Health Condition General Categories	Count	Column Percent
Mental and behavioral disorders (i.e., SUD)	3,582	43.2%
Diseases of the musculoskeletal system and connective tissue	1,235	14.9%
Diseases of the circulatory system	782	9.4%
Injury, poisoning and certain other consequences of external causes	471	5.7%
Endocrine, nutritional and metabolic diseases	435	5.2%
Diseases of the digestive system	398	4.8%
Diseases of the respiratory system	390	4.7%
Certain infectious and parasitic diseases	205	2.5%
Diseases of the genitourinary system	193	2.3%
Diseases of the skin and subcutaneous tissue	181	2.2%
Diseases of the nervous system	95	1.1%
Malignant neoplasms (cancers)	82	1.0%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	55	0.7%
Pregnancy, childbirth and the puerperium	6	0.1%
Diseases of the ear and mastoid process	5	0.1%
Congenital malformations, deformations and chromosomal abnormalities	2	0.0%

- A total of 3,582 patients were admitted to St. Vincent Charity in 2017 for mental and / or behavioral health disorders, representing 43.2% of all admissions. This positions the hospital as the largest inpatient care provider for mental health disorders in Cuyahoga County.
- The second most common diagnostic category for which patients were admitted to St. Vincent Charity in 2017 were diseases of the musculoskeletal system and connective tissue.
- Approximately 10% of patients were admitted to St. Vincent Charity due to circulatory system diseases. All other acute care hospitals in Cuyahoga County have a significantly higher proportion of patients admitted for circulatory system diseases.
- In an effort to increase awareness and knowledge, health screenings were provided at a minimum of once per week at locations including churches, food distribution sites, public housing, health fairs, community meetings and school events. The screenings were focused in the Central neighborhood and surrounding low-income areas. They included blood pressure and blood glucose along with education and resources to address health and social needs. In 2017, 2,332 individual screenings were performed. In addition, another 350 community residents attended education programs focused on hypertension and diabetes prevention and management, along with healthy eating. Health screenings in 2018 touched 2,232 people and another 417 attended educational programs.

St. Vincent Charity Medical Center
Cuyahoga County and non-Cuyahoga County Resident Patient Discharges by Payer Type, 2013 vs. 2017

	Cuyahoga County Residents		Non-Cuyahoga County Residents	
	2013	2017	2013	2017
Medicare	43.8%	35.6%	39.2%	31.6%
Medicaid	30.5%	47.6%	14.9%	39.8%
Commercial	10.6%	12.5%	36.8%	24.5%
Other	14.0%	2.8%	7.0%	3%
Self-Pay	1.1%	1.3%	2.1%	1.2%

- In both 2013 and 2017, the majority of Cuyahoga County patients were a mix of Medicare and Medicaid beneficiaries.
- The proportion of Medicaid beneficiaries discharged from the hospital increased from 2013 to 2017, for both Cuyahoga County residents and non-Cuyahoga County residents.

Evaluation of Impact: St. Vincent Charity Medical Center Community Health Improvement Efforts

2016 Assessment of Impact from Implementation Plan

Upon review of St. Vincent's 2016 Community Health Needs Assessment, hospital leadership identified three top priority community health needs:

1. Obesity / Nutrition
2. Quality of Care
3. Addiction Services

Each focus area included several tactics that are described below along with a description of the success of each over the past three years.

1. Obesity / Nutrition

Medical Weight Loss

Along with its bariatric surgery specialty, St. Vincent Charity continuously seeks innovative solutions to treat obesity.

In 2018, St. Vincent continued to offer a medically supervised weight loss program as a refined continuation of a program also offered in 2017. From 2017 to 2018, there was a 67% increase in the number of participants. The hallmarks of this program were medical supervision, with most patients prescribed Adipex-P (phentermine) and nutrition counseling. In 2018, 57% of the 174 participants had achieved some weight loss. On average, participants remained in the program for 13 weeks, with 58% receiving nutrition counseling. The average (median) weekly weight loss among those who lost weight was .64 pounds.

Regional Initiative – Celebrate Your Plate

In partnership with the Ohio Supplemental Nutrition Assistance Program – Education (SNAP-Ed), St. Vincent Charity is one of the Northeast Ohio hospitals that supported the Celebrate Your Plate social marketing campaign. Celebrate Your Plate focused on increasing fruit and vegetable consumption among low-income Ohioans.

The Celebrate Your Plate website includes shopping, cooking, gardening and kitchen tips; healthy, easy-to-make recipes that are inexpensive; information on local farmer's markets, food banks, food pantries, community gardens, and senior meal sites.

Paid media was used to promote the campaign throughout the state. In Northeast Ohio, paid media ran from June through August 2018 in low-income Northeast Ohio communities and included:

- Materials provided in convenience stores (225 in Cuyahoga County) and check-cashing facilities (28 in Cuyahoga County).
- Online advertisements directing people to the Celebrate Your Plate website.

- Results of the campaign for the Northeast Ohio region, which included Cuyahoga County, found that:
    - One in seven (15%) of low-income Ohioans residing within the Northeast Ohio region recalled seeing the Celebrate Your Plate campaign.

St. Vincent Charity supported the Celebrate Your Plate campaign by:

- Purchasing cutting boards with the Celebrate Your Logo and distributing them at health screenings.
- Distributing informational fliers to patients and in the community.
- Educating the physicians via attendance at the Greater Cleveland Food Bank event in November 2018 concerning food insecurity, chronic disease and population health. This program took place prior to food insecurity questions being added to the intake assessment for patients in the Internal Medicine Clinic at the St. Vincent Health Care Center. This is the first step in the process of providing patients with access to food distribution at the hospital.
- Linking to the Celebrate Your Plate website from the hospital's website.
- Promoting the campaign through various social media channels including Twitter and Facebook.

Cooking Classes

Due to an existing program at CornUcopia Place, a community facility providing nutrition education, cooking demonstrations, an open multi-purpose space serving the Central and Kinsman neighborhoods, we did not pursue our own cooking classes in the community. We are collaborating with OSU Extension to provide cooking demonstrations for the diabetes support group with the first one scheduled for December 2019.

Wellness Committee

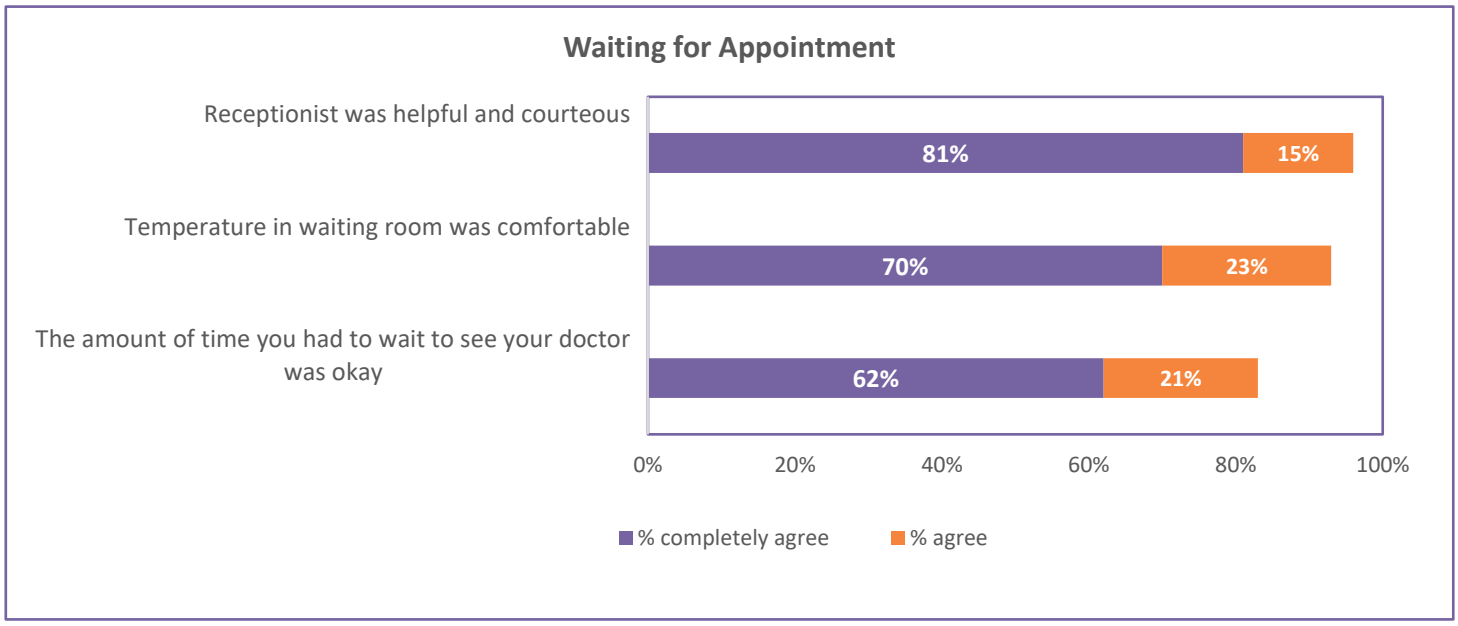
The St. Vincent Charity Wellness Committee provided education to employees and visitors to the hospital by making available nutrition and health materials in the education kiosk. Local farmers markets, recipes and bike maps were just a few of the resources.

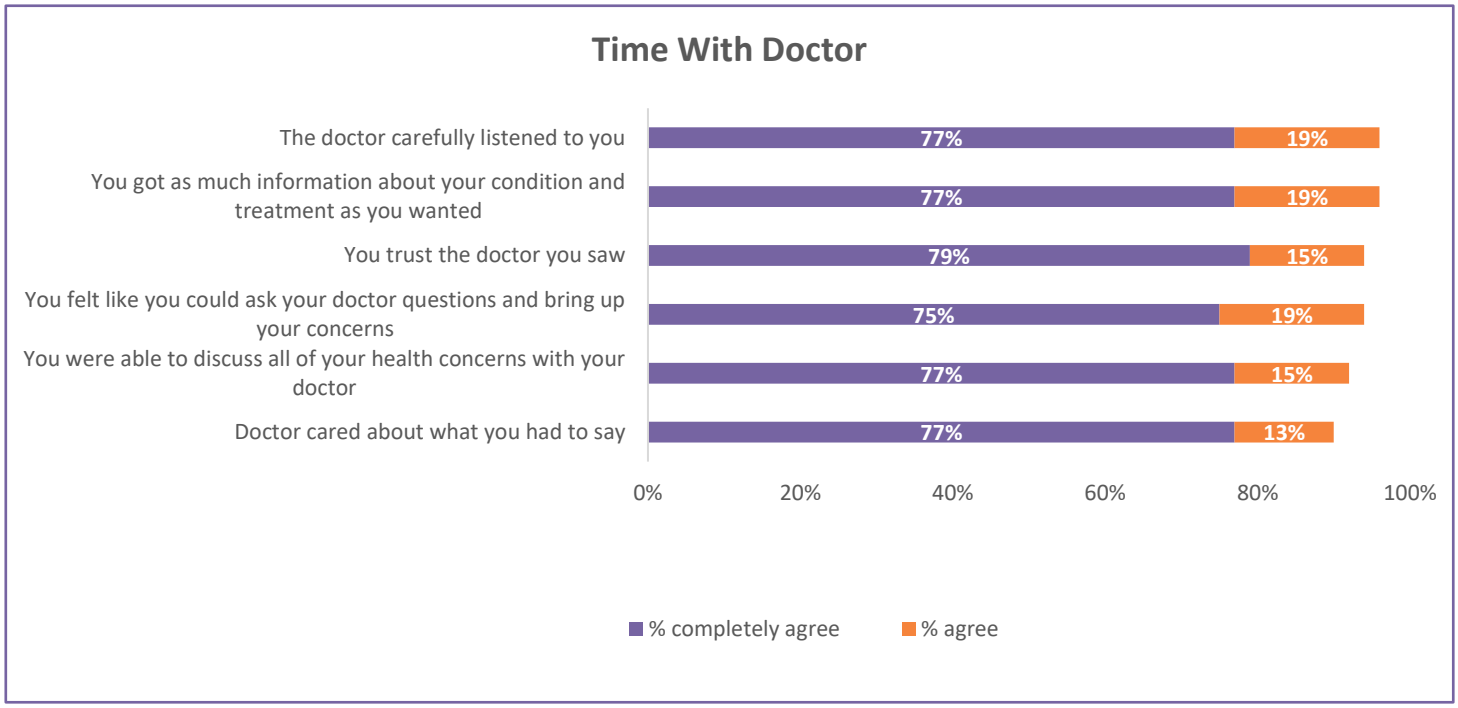
2. Quality of Care

Access to Primary Care

As part of its commitment to the Central neighborhood and surrounding area, St. Vincent Charity provides primary/preventative services on-site at its HealthCare Center. Patients are referred to the HealthCare Center via numerous channels, most frequently from the St. Vincent Charity Emergency Department where patients who are under- or uninsured often utilize emergency departments for primary care services.

Hospital staff conducted surveys of patients to ensure that the patients were receiving the highest quality of care and to identify potential areas for improvement. Results are shown below:





Patients reported high levels of satisfaction related to their physician visit at the HealthCare Center, both in terms of the service they received while waiting for their appointment and the care they received from their physician. A minimum of 83% of patients were satisfied with each aspect of their visit. Results will be shared with the HealthCare Center and doctors to build off the successes and identify areas for improvement.

Structural Barriers to Care - Transportation

Many municipalities, including the City of Cleveland, have public transportation systems; however, for people who are ill, public transportation can be difficult to use. Lack of reliable and predictable transportation to and

from medical care often negatively affects the patient and the caregiver. For those with chronic illnesses, lack of routine care often exacerbates an existing condition and can lead to higher hospitalization rates.

In 2017, St. Vincent Charity continued a program to provide transportation to/from medical appointments for the most economically and physically vulnerable community members. The amount of transportation services provided increased significantly from 2017 to 2018.

- The number of rides provided in the fourth quarter of 2017 was 2,022; this increased to 10,077 in 2018 (which averages 2,519 rides per quarter in 2018).
- St. Vincent Charity continues to provide bus tickets to those who arrive at the hospital without transportation to home. In 2016, 540 bus tickets were distributed to patients, increasing to 707 in 2017 and dropping to 668 in 2018. St. Vincent Charity obtains grant funding to purchase the bus tickets for patients.

Structural Barriers to Care – Food Insecurity

The Internal Medicine Clinic in the HealthCare Center added two food insecurity questions to the intake assessment beginning in February 2019. Patients screening positive are provided with Greater Cleveland Food Bank contact information. The Greater Cleveland Food Bank can provide the patient with food distribution/community meals in their area along with ensuring that they are receiving appropriate SNAP benefits. In the first four months of 2019, 827 patients received a screening and 11% screened positive.

Structural Barriers to Care – Health Literacy

St. Vincent Charity has been a leader in health literacy, adopting the "Universal Precautions" approach recommended by the Agency for Healthcare Research and Quality. Our mission is to provide easy-to-understand information for all patients and to utilize the five steps for improving health literacy with all patients. The five steps include speaking slowly, using teach-back, encouraging questions, using plain language, and showing examples.

To accomplish this, all patient education is reviewed by the Health Literacy Committee and clinical and nonclinical caregivers are trained on how to incorporate health literacy into their patient interactions. A quality study on the use of teach-back was recently completed using caregiver and patient surveys, which showed that 96% of caregivers thought that teach-back, should be used frequently or always, and 80% stated they used the teach-back method with patients. Caregiver barriers included time and language. Interventions to address both barriers are underway including a new video interpreter-on-demand program and caregiver trainings.

Caregivers have multiple trainings focused on health literacy at orientation, annual nursing competencies, resident conferences, and Caregiver online competencies.

St. Vincent Charity is the lead organization of Ohio Health Literacy Partners, a statewide non-profit organization dedicated to empowering Ohioans to make informed health choices through improved health literacy. An inaugural conference, *Building Health Literacy* will be held in October 2019.

Legal Challenges

In October of 2017, St. Vincent Charity established a program providing patients with free legal services to address non-criminal social and environmental legal issues, Many of these issues fall within the category referred to as social determinants of health. Non-mitigated Social Determinants of Health have been proven detrimental to a person's overall health. In partnership with the Legal Aid Society of Cleveland, two attorneys are on-site at the hospital four days a week to consult with patients, identify their legal needs and create plans to remediate issues. All beneficiaries of the program meet the federal poverty guideline criteria established by Legal Aid to qualify for legal services. In 2018, a total of 213 cases were opened, affecting 230 adults and 68 children.

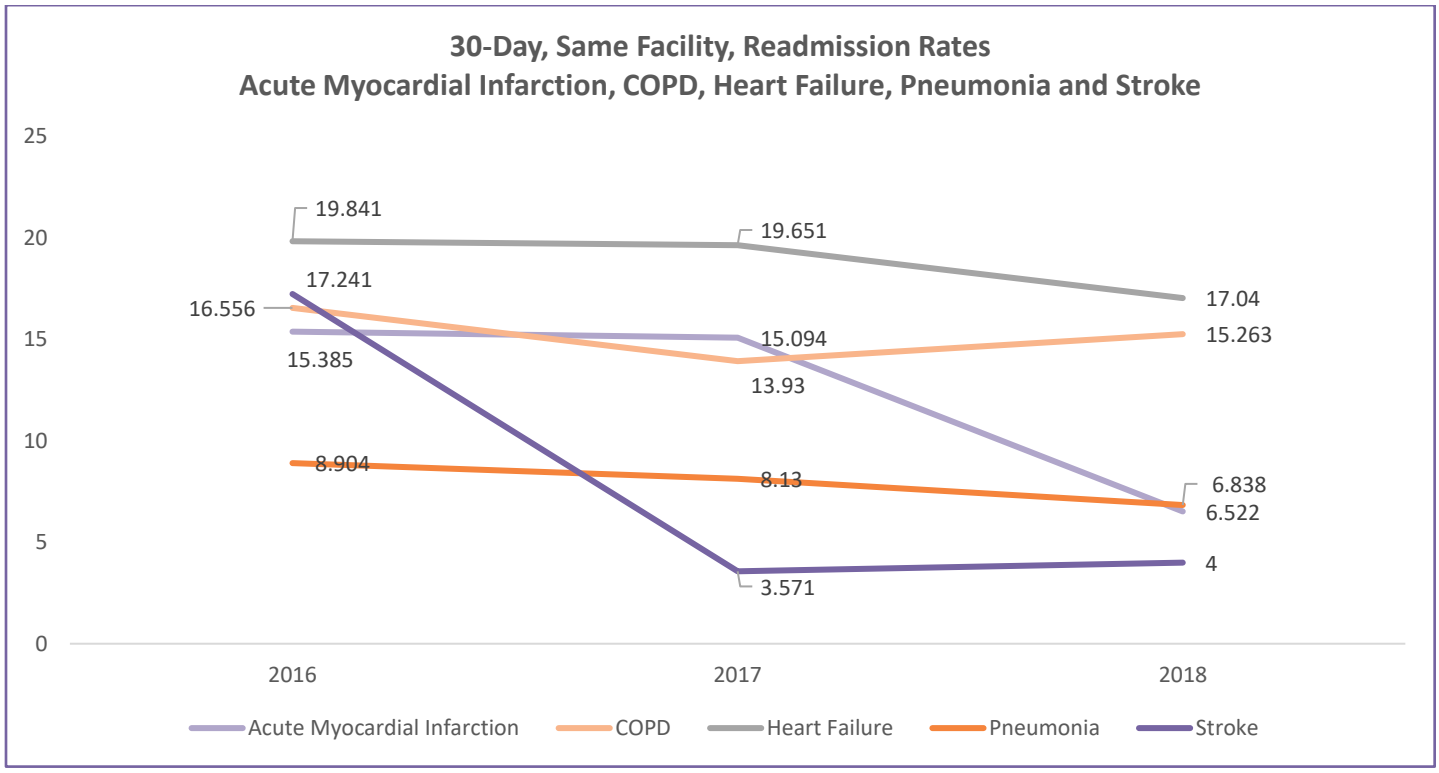
Resident and Caregiver Communication

To maintain the highest quality of patient care, Patient Advocates presented "Compassion Fatigue Training" to caregivers in the fall of 2017. Topics focused on identifying symptoms related to compassion fatigue and the necessary tools to address the problem. As part of their training, Medical residents, participate in multiple conferences related to providing culturally appropriate care with a distinct focus on communication skills. An initiative is underway for residents to participate in the Revere Ride-Along through the Sisters of Charity Foundation in 2019, which is a community-based initiative intent on building networks of trust and collaboration between organizations and the constituents they serve. The intent is to provide the residents with an understanding of assets and barriers by taking them into the community, to not only see the Central neighborhood but to speak with residents about health through an open and honest discussion.

St. Vincent Charity Caregivers participated in equity, diversity, and inclusion training in the summer of 2019. The training spoke to how initiatives are developed at the hospital using the lens of EDI, and genuine community engagement to reach improvements in health for all residents.

Reduce High Readmission Rates

Throughout 2017 and 2018, St. Vincent Charity continued to provide a dedicated patient navigator for discharged patients diagnosed with acute myocardial infarction, chronic obstructive pulmonary disease (COPD), heart failure, pneumonia and stroke. The figure below shows 30-day readmission rates for patients with each of those conditions. Readmission rates decreased in 2018 for all the conditions except COPD. As a group, stroke patients utilizing the navigator services showed the greatest improvement in readmission rates. In 2017, 583 patients were within the diagnostic categories of acute myocardial infarction (73 discharges), heart failure (233), COPD (187), pneumonia (80) and stroke (10) and would have received access to the patient navigator services.



3. Addiction Services

St. Vincent Charity recognized that a lack of transportation was a significant barrier to patients' ability to attend and complete outpatient treatment for substance use disorders. Completion of outpatient treatment has proven to be a critical factor in successful outcomes for patients struggling with the disease of addiction.

- In 2017, St. Vincent Charity developed the first ride share program for its patients seeking outpatient treatment for substance use disorder. Outcomes data shows that patients utilizing the program since its inception have a significantly higher treatment completion success rates than those patients not utilizing the program.
- In 2018, patients utilizing the transportation services had a treatment program completion rate of ~79%. Those patients that did not utilize the transportation services had a treatment program completion rate of ~ 39%.
- There is no cost to the patient for this service.
- Given its community leadership role in providing behavioral health and addiction services, St. Vincent Charity is an important collaborator in several research studies with Cleveland State University's Center for the Behavioral Health Sciences as well as other universities. Faculty researchers conduct a broad spectrum of applied research with a heavy focus on behavioral health and addiction.

Evaluation of Impact

University Hospitals Ahuja Medical Center

UH Ahuja Medical Center

UH Ahuja Medical Center, an acute care hospital, opened in 2011 and operates 144 inpatient and 22 emergency department beds. A large medical services outpatient facility also exists at this location. UH Ahuja Medical Center is located in Beachwood, Ohio, very close to a heavily travelled state highway as well as numerous commercial establishments (retail and office) and their employees. Beachwood has 12,000 residents, and 15,000 people work in that community. The residential communities surrounding UH Ahuja Medical Center are primarily middle and working class.

Inpatient Discharges, 2017, All Ages, UH Ahuja Medical Center
By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row
Cuyahoga County Residents	1	0.0%	284	5.4%	478	9.1%	1,132	21.6%	3,342	63.8%	5,237 (63% of total)	100%
Non-Residents of Cuyahoga County	4	0.0%	122	3.9%	279	8.5%	838	25.5%	2,041	62.1%	3,289	100%
Total Discharges 2017	5	0.0%	411	4.8%	757	8.9%	1,970	23.1%	5,383	63.1%	8,526	100%

- In 2017, 63% of all inpatients discharged from UH Ahuja Medical Center were residents of Cuyahoga County. UH Ahuja Medical Center inpatients who were not residents of Cuyahoga County were mostly residents of neighboring Summit and Portage counties.

- UH Ahuja Medical Center's patient population in 2017 was heavily dominated by those aged 50 years and over: 23.1% were 50 to 64 years old and 63.1% were aged 65 and over.

Inpatient Discharges, 2017, All Ages, UH Ahuja Medical Center
By Residential Zip Code

Zip Code	Municipality	Number	Percent
44122	Shaker Heights/Beachwood	785	9.2%
44128	Warrensville Heights	616	7.0%
44146	Bedford	494	5.8%
44124	Mayfield Heights-Pepper Pike	418	4.9%
44087	Twinsburg	366	4.3%
44139	Solon	308	3.6%
44120	Cleveland-Buckeye-Shaker	305	3.6%
44118	Cleveland Hts. / University Hts.	289	3.4%
44202	Reminderville/Aurora	262	3.1%
44067	Northfield/Sagamore Hills	262	3.1%
44121	South Euclid	230	2.7%
44143	Highland Heights	210	2.5%
44236	Hudson	214	2.5%
44137	Maple Heights	203	2.4%
44105	Cleveland-Garfield Hts.	195	2.3%
44022	Chagrin Falls	198	2.3%
44023	Bainbridge/Auburn	174	2.0%
44056	Macedonia	165	1.9%
44241	Streetsboro	161	1.9%
44125	Garfield Heights	142	1.7%
44060	Mentor	119	1.4%
44266	Ravenna	93	1.1%
44112	East Cleveland	78	0.9%
44095	Willowick / Eastlake	67	0.8%
44077	Painesville	69	0.8%
44094	Willoughby	67	0.8%
44224	Stow	63	0.7%
44108	Cleveland-Glenville	58	0.7%
44104	Cleveland-Kinsman	47	0.6%
44106	Cleveland-University Circle	52	0.6%
44132	Euclid	42	0.6%
44024	Chardon	54	0.6%
44240	Kent	44	0.5%
44117	Euclid	42	0.5%
44092	Wickliffe	41	0.5%
44123	Euclid	41	0.5%
44110	Cleveland-Collinwood	40	0.5%
44141	Brecksville	41	0.5%
All Other Zips		1,462	17.1%
	Total:	**8,526**	**100%**

- Roughly 50% of all inpatient admissions at UH Ahuja Medical Center were for those who lived in Beachwood and the immediately surrounding communities of Shaker Heights, Warrensville Heights, Bedford, Mayfield Heights, Pepper Pike, Twinsburg, Solon, the Cleveland neighborhood of Buckeye/Shaker, Cleveland Heights, University Heights, Reminderville/Aurora, Northfield and Sagamore Hills.

Inpatient Discharges, 2017, All Ages, UH Ahuja Medical Center
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total Number of Inpatients:	**8,526**	
Diseases of the circulatory system	1,909	22.5%
Diseases of the musculoskeletal system and connective tissue	1,263	14.8%
Diseases of the digestive system	1,113	13.1%
Diseases of the respiratory system	789	9.3%
Infectious and parasitic diseases	777	9.1%
Diseases of the genitourinary system	556	6.5%
Endocrine, nutritional and metabolic diseases	360	4.2%
Symptoms, signs and ill-defined conditions	240	2.8%
Cancers (neoplasms)	250	2.9%
Injury / poisoning	600	7.0%
Diseases of the skin and subcutaneous tissue	192	2.3%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	180	2.1%
Diseases of the nervous system and sense organs	173	2.0%
Mental and behavioral disorders	72	0.8%
Other	52	0.6%

- In the table above, we show the major disease categories associated with the primary diagnoses for all discharged patients in 2017 (for patients of all ages). Diseases of the circulatory system were the most common diagnosis (22.5%), and as such, UH Ahuja Medical Center is similar to other UH community hospitals. What is unique about UH Ahuja Medical Center, though, is its large proportion of patients in 2017 with diseases of the musculoskeletal system and connective tissue (14.8%). These conditions were almost exclusively arthritis (osteoarthritis).

- UH Ahuja Medical Center does not offer maternity services currently, although a pending expansion of the hospital will add a labor and delivery unit and a Level II neonatal intensive care unit.

Evaluation of Impact: UH Ahuja Medical Center Community Health Improvement Efforts

The last assessment conducted by UH Ahuja Medical Center was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019 while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State-of-Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Upon review of UH Ahuja Medical Center's 2018 Community Health Needs Assessment, hospital leadership isolated two top priority community health needs:

1. **Chronic disease management and prevention**
2. **Poverty**

In the first two quarters of 2019, UH Ahuja Medical Center staff hosted or participated in 76 educational and/or screening events in the community. Their goal was to increase knowledge of prevention and disease management strategies, and to increase the early detection of disease in general. As a result, 5,292 community members have participated in education talks, support groups and similar events, and 3,814 have received free health screenings.

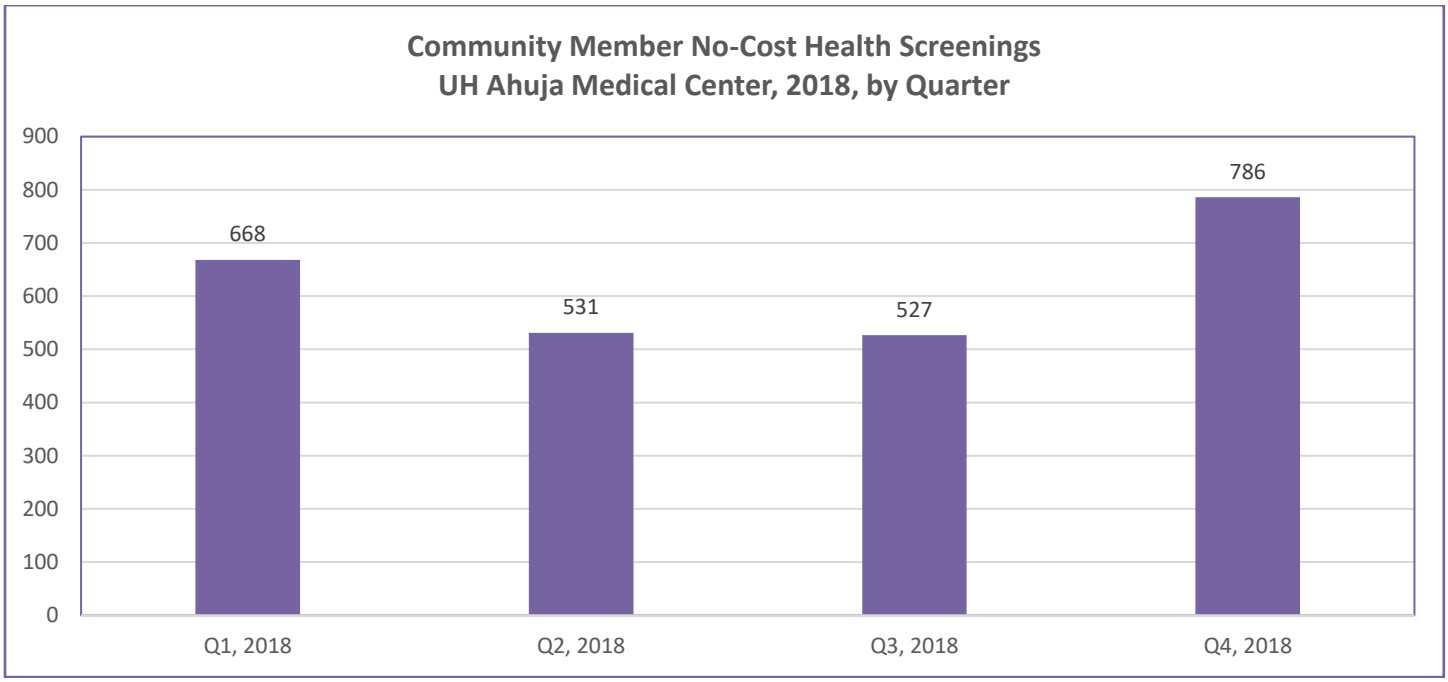
To address poverty, UH Ahuja Medical Center began planning for a Breakfast with Santa event which will take place in December 2019 in collaboration with Warrensville Heights YMCA. This event is expected to provide information and resources to 250 under-resourced families. Additionally, the hospital provided 500 meals to children through the USDA Summer Lunch Program in conjunction with Sodexo.

This built upon their existing priorities the previous year: **diabetes**, **cardiovascular disease** and **respiratory disease**.

After pinpointing the top priorities, strategies and tactics were created, applying the hospital's staff expertise and resources to combat each community health issue. UH Ahuja Medical Center's multi-pronged approach and outcomes are outlined below.

1. Decrease hospitalization and improve self-management for diabetes.

The overarching approach for this objective was to increase patients' understanding of diabetes, how they can improve their health through consistent self-management, and their awareness of additional community services available to help them (including financial support).



More than 9,000 community members attended events throughout the year focused on increasing patients' understanding of diabetes, cardiovascular and other chronic diseases, and what they can do to manage their disease and improve their overall health. These events also focused on teaching community members what financial and support services are available. The events were held in myriad locations and consisted of several different types: health expos and fairs, health screening events, diabetes education classes and health topic community presentations. In 2018, more than 2,500 community members obtained no-cost basic health screenings (blood pressure, glucose, cholesterol, etc.).

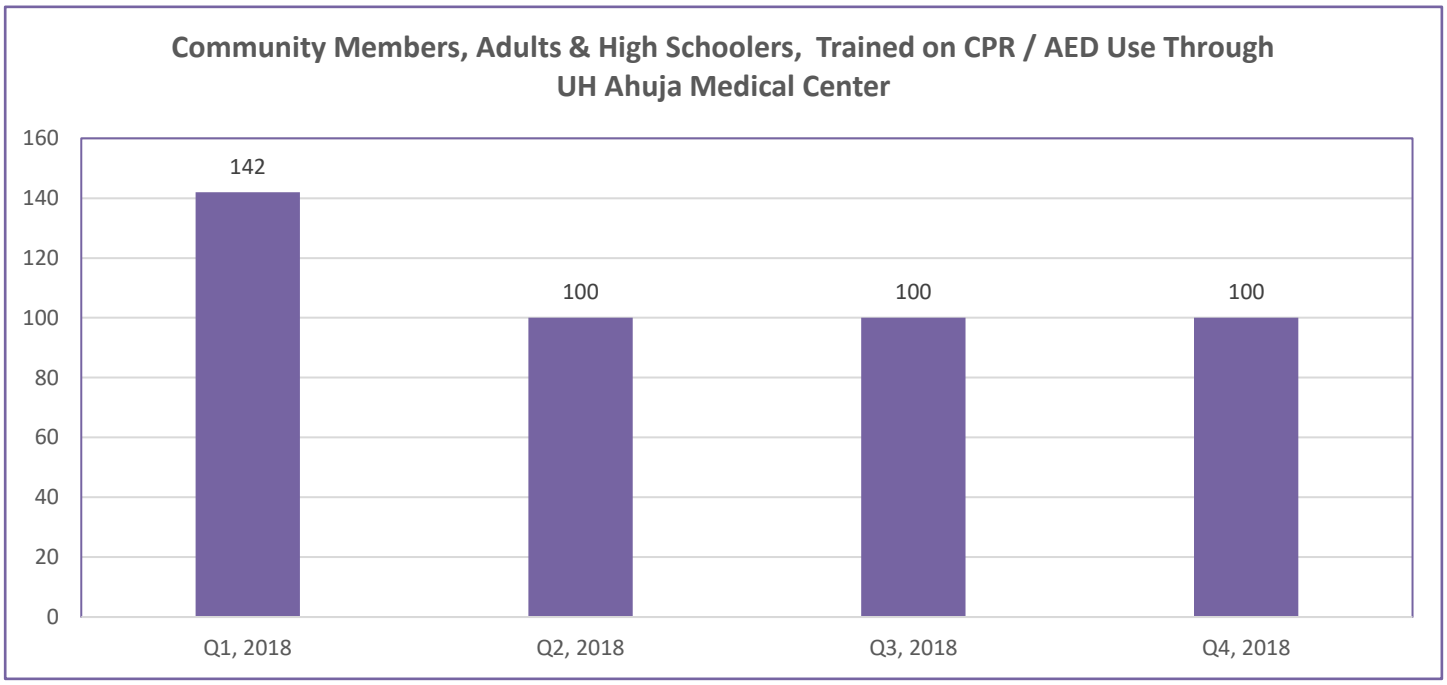
The cornerstone of UH Ahuja Medical Center's community outreach success has been its development of relationships with community partners who desire to host events to benefit their employees or constituents. Locations added in 2018 included community centers, recreation centers, employer locations, faith-based institutions and schools. Eight additional organizations were added as partners in 2018.

2. Decrease hospital readmission and length-of-stay for patients with cardiovascular disease.

Cardiovascular disease was the most common reason for hospitalization at UH Ahuja Medical Center. Improved understanding of the causes of cardiovascular disease, disease self-management tactics, and support and financial services available for patients lead to a more educated and prepared patient population.

UH Ahuja Medical Center staff members reached 3,812 community members in the 2018 community outreach efforts focused on preventive health, healthy lifestyle habits and cardiovascular disease self-management. More than 1,600 community members received cardiovascular disease-specific screenings at dozens of community-based events.

Sixty UH Ahuja Medical Center inpatients were targeted for cardiovascular disease patient education upon discharge. This type of effort is being refined and is expected to grow in use in 2019 and beyond.



Each year, several community members' deaths are avoided because of life-saving CPR/AED use at the scene by fellow community members. UH Ahuja Medical Center staff members provided CPR/AED training for 442 community members, including some high school seniors.

3. Reduce hospitalization rates of adults with respiratory diseases (below the national benchmark) for 30-day readmission rates for COPD / pneumonia.

Respiratory disease was one of the most prevalent reasons for hospitalization at UH Ahuja Medical Center. In 2018, efforts were underway to modify existing computer systems and build internal processes to properly measure patients with specific chronic respiratory diagnoses so education efforts were properly matched with patients upon discharge. These patient education efforts will be implemented more fully in 2019 and 2020.

In the second quarter of 2018, UH Ahuja Medical Center added respiratory disease screenings to its battery of tests used in community outreach efforts. A total of 134 community members were screened using the respiratory (lung capacity) tests.

Beachwood RH, LLC (University Hospitals Rehabilitation Hospital, a Joint Venture with Kindred Healthcare)

Beachwood RH, LLC (UH Rehabilitation Hospital)

UH Rehabilitation Hospital, in Beachwood, is located one mile from UH Ahuja Medical Center. With a heavy focus on the treatment of stroke patients, this specialty hospital works very closely with UH Ahuja Medical Center in its outreach efforts, lending its expertise in stroke prevention, treatment, and patient and caregiver support services.

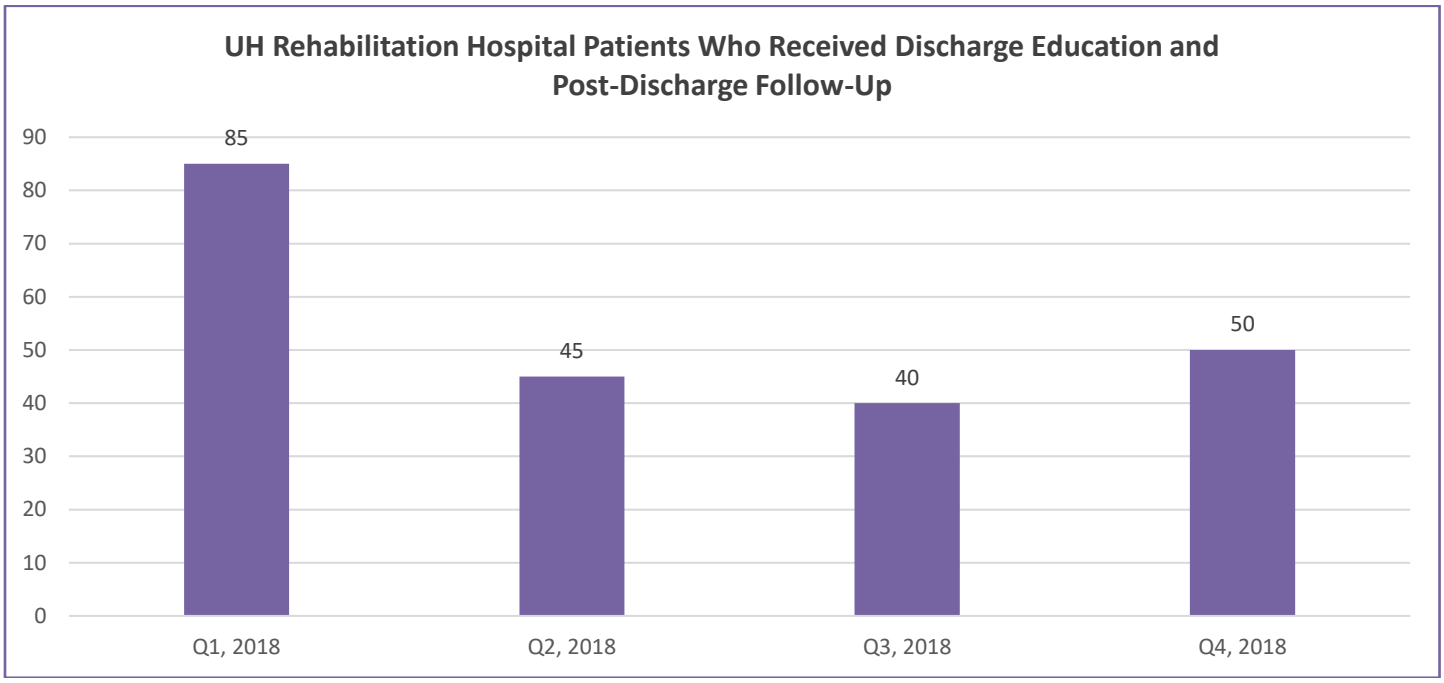
The last assessment conducted by UH Rehabilitation Hospital was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019 while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Upon review of UH Rehabilitation Hospital's 2018 Community Health Needs Assessment, hospital leadership isolated one priority: Chronic disease management and prevention.

In the first two quarters of 2019, a total of six stroke support groups were hosted at UH Rehabilitation Hospital. Additionally, health education and training were provided at the UH Connecting the Dots forum and annual Family Health and Safety Day in collaboration with UH Ahuja Medical Center.

This built upon their existing priorities the previous year: **diabetes** and **cardiovascular disease**.

Evaluation of Impact: UH Rehabilitation Hospital Community Health Improvement Efforts



UH Rehabilitation Hospital staff recognized the need for one-on-one patient education upon discharge. This targeted both patients and their family members. The focus of this information was on both the medical and psychosocial needs of the patient after leaving the rehabilitation facility. Social workers and/or nurses conducted post-discharge follow-up phone calls to ensure patients' ongoing needs were met.

A total of 550 community members participated in outreach events geared towards health education and screenings. These were tied to general cardiovascular or diabetes community education and screening events, but focused specifically on early signs of vascular disease as a stroke risk.

Related to that effort, UH Rehabilitation Hospital staff members recognized that, even with a fair amount of follow-up, discharged patients were not always receiving the kind of ongoing medical and psychosocial support needed. Often, the barrier to receipt of these services was financial; many patients did not have insurance coverage for services. However, the hospital needed to improve its connections to post-discharge-support service providers in order to facilitate access to them for patients immediately upon discharge. In 2018, UH Rehabilitation Hospital increased its referral partners by 50. New partners/relationships included:

- Neurologists
- Cardiologists
- Trauma surgeons
- Outpatient therapy providers
- Acute rehabilitation providers

UH Rehabilitation Hospital staff were guests at numerous community-based meetings in order to reach group members on the topic of cardiovascular disease and diabetes, in particular as they relate to stroke. Through this series of meetings throughout the year, a total of 470 community members benefitted from this health information. The current plan is to add an on-site support group for patients and their caregivers in 2019.

Evaluation of Impact

UH Bedford Medical Center

UH Bedford Medical Center, located in Bedford, Ohio, primarily serves both Bedford and neighboring Maple Heights. The majority of residents of both of these communities are African-American, but Bedford has a larger White population (42%) than Maple Heights (25%). Few residents are foreign-born (3%) and English is spoken by the majority.

Bedford has a median income of $41,000 per year, slightly higher than that of Maple Heights at $38,000. Half (51%) of homes are owned in Bedford, and 63% are owned in Maple Heights. In Bedford (2016 rates), 10.6% of the residents were below the poverty line. Poverty is almost twice that (21.1%) in Maple Heights. Similar to Cuyahoga County overall, 14.2% of Bedford's residents are over age 65, and slightly more (17.1%) are seniors in Maple Heights.

Inpatient Discharges, 2017, All Ages, UH Bedford Medical Center
By Age Group and County of Residence

	Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row	#	% of Row	#	% of Row	#	% of Row	#	% of Row
Cuyahoga County Residents	97	6.0%	210	12.9%	432	26.5%	891	54.7%	1,630 (77.7% of total)	100%
Non-Residents of Cuyahoga County	33	7.0%	46	9.8%	98	20.9%	292	62.3%	469	100%
Total Discharges 2017	130	6.2%	256	12.2%	530	25.3%	1,183	56.4%	2,099	100%

- In 2017, 77.7% of all inpatients discharged from UH Bedford Medical Center were Cuyahoga County residents.
- UH Bedford Medical Center's inpatients in 2017 included adults of all ages, but were concentrated among those aged 50-64 (25.3%) and 65 and older (56.4%).

Inpatient Discharges, 2017, All Ages, UH Bedford Medical Center
By Residential Zip Code

Zip Code	Municipality	Number	Percent
44146	Bedford	825	39.3%
44137	Maple Heights	275	13.1%
44067	Northfield / Sagamore Hills	163	7.8%
44087	Twinsburg	89	4.2%
44128	Warrensville Heights	85	4.0%
44139	Solon	88	3.9%
44125	Garfield Heights	80	3.5%
44105	Cleveland-Garfield Hts.	63	3.0%
44056	Macedonia	48	2.3%
44120	Cleveland-Buckeye-Shaker	39	1.9%
44202	Aurora / Reminderville	28	1.3%
44241	Streetsboro	26	1.2%
44122	Shaker Heights / Beachwood	24	1.1%
44108	Bratenahl	20	1.0%
44118	Cleveland Hts. / University Hts.	20	1.0%
44106	Cleveland-University Circle	17	0.8%
44103	Cleveland – Hough	14	0.7%
44121	South Euclid	14	0.7%
44104	Cleveland - Woodland Hills	13	0.6%
44112	East Cleveland	10	0.5%
44266	Ravenna	10	0.5%
All Other Zips		148	7.1%
	Total:	**2,099**	**100%**

- Eighty percent of UH Bedford Medical Center's inpatient admissions in 2017 were residents of nine communities either adjacent to or nearby Bedford: Maple Heights, Northfield, Sagamore Hills, Warrensville Heights, Solon, Garfield Heights, Twinsburg, Cuyahoga Heights/Newburgh Heights and Macedonia.

Inpatient Discharges, 2017, All Ages, UH Bedford Medical Center
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total	**2,099**	
Diseases of the circulatory system	432	20.6%
Diseases of the respiratory system	329	15.7%
Infectious and parasitic diseases	256	12.2%
Diseases of the digestive system	193	9.2%
Injury/poisoning	161	7.7%
Endocrine, nutritional and metabolic diseases	156	7.4%
Diseases of the genitourinary system	151	7.2%
Diseases of the musculoskeletal system and connective tissue	79	3.8%
Diseases of the nervous system and sense organs	78	3.7%
Symptoms, signs and ill-defined conditions	75	3.6%
Diseases of the skin and subcutaneous tissue	59	2.8%
Cancers (neoplasms)	52	2.5%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	35	1.7%
Mental and behavioral disorders	32	1.5%
Other	11	0.1%

- The data shown in the table above are the major disease categories associated with the primary diagnoses for all discharged patients in 2017 (for patients of all ages). Diseases of the circulatory system were the most common (20.6%), followed by 15.7% with respiratory system diagnoses. In this way, UH Bedford Medical Center is similar to other UH community hospitals. A major difference for UH Bedford Medical Center is the high proportion of hospitalizations due to infectious diseases (12.2%), the third most common primary diagnosis. Closer examination of the data shows that the great majority of those cases (10.9% of the 12.2%) were sepsis cases. Sepsis is a medical emergency, which is defined by a large immune system response to an infection.

Evaluation of Impact: UH Bedford Medical Center Community Health Improvement Efforts

The last assessment conducted by UH Bedford Medical Center was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Upon review of the 2018 UH Bedford Medical Center community health needs assessment, hospital leadership isolated two top priority community health needs:

1. **Chronic disease management and prevention**
2. **Poverty**

As it relates to chronic disease management and prevention, UH Bedford Medical Center's goal was to reduce the incidence of chronic disease, hospitalization rates, and mortality due to chronic disease. As a result, in the first two quarters in 2019, 205 community members participated in education talks, support groups and similar events and 285 people received free health screenings.

To address poverty, the goal was to educate community members on financial assistance programs offered at the hospital, to increase appropriate access to care. Planning is underway and materials are being designed to begin this effort in the third quarter of 2019.

This built upon their existing priorities the previous year: **diabetes**, **cardiovascular disease** and **respiratory disease**.

Within those areas, in consideration of UH Bedford Medical Center's expertise and its being a community-based hospital, the following goals were established:

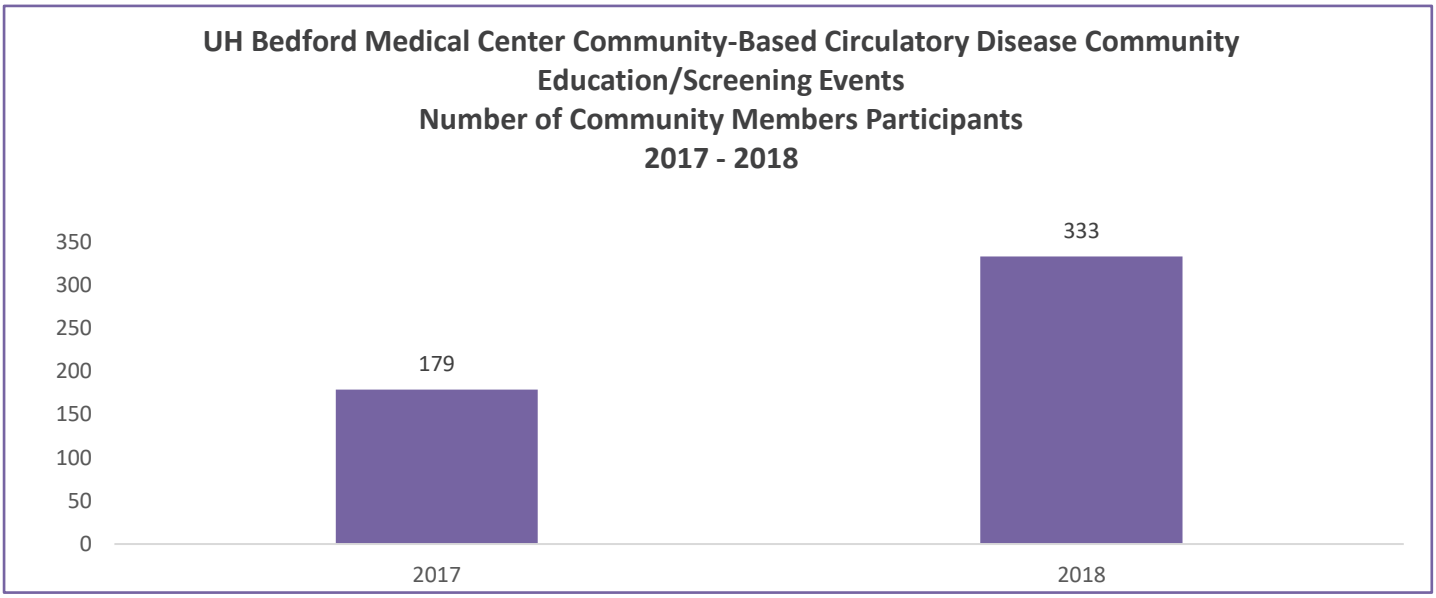
- Heart: Improve cardiac health; reduce the prevalence of heart disease, including acute myocardial infarction and heart failure; improve the quality of life in those living with the disease.
- Respiratory: Reduce the prevalence of respiratory disease and improve the quality of life of patients living with respiratory diseases.
- Diabetes: Reduce Hemoglobin A1c (HbA1c) scores among program participants.

With these goals in hand, action plans were created to lend the hospital's staff expertise and resources to combatting each community health issue. The overall approach was early detection through free screenings, accompanied by health education regarding chronic disease management. Below we outline what actions were taken and provide an assessment of the impact of those actions.

1. Heart Disease

Increased Number of and Breadth of Topics for Community-Based Health Seminars

Improved community-member awareness of the signs and risks of circulatory disease continued to be a focus for UH Bedford Medical Center in 2018. UH Bedford Medical Center is a community-based hospital, and both its reputation as health care experts and its geographic proximity to community members create the perfect opportunity to directly educate community members on how they can minimize the impact of circulatory disease on their well-being. In 2018, health care professionals brought these important messages directly to community members through numerous community-based presentations and seminars. Often these events also included screening services.



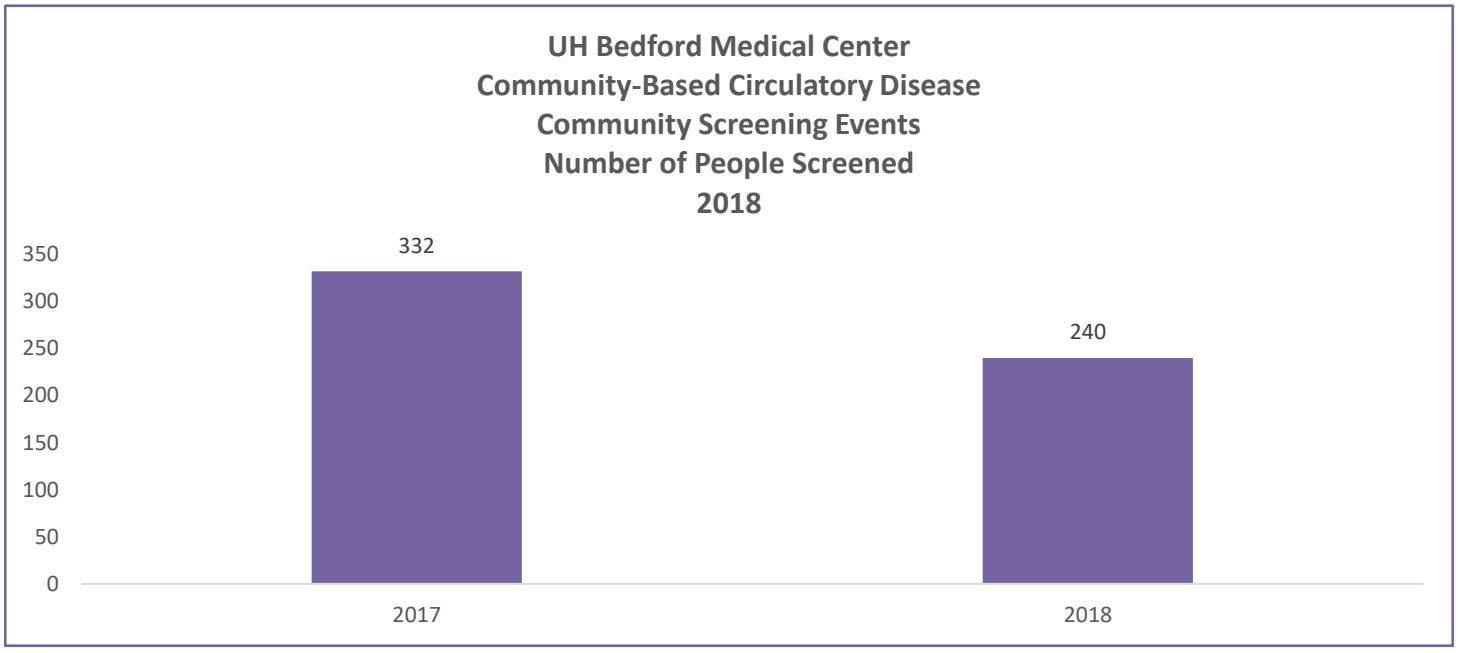
As shown above, these events are proving to be popular as the number of program participants almost doubled (increased by 86%) from 2017 to 2018. The hospital plans to continue building on this successful strategy to bring information and self-help tools to community members to minimize the impact of circulatory disease on community members' well-being.

Broaden Outreach for Screenings

UH Bedford Medical Center began outreach services for screening and early detection of heart disease in early 2017 (in reaction to the hospital's previous health needs assessment). Throughout that year, the hospital built its capacity to provide community-based screening services and its ability to properly connect community members to needed follow-up health services.

In 2018, attention was directed towards broadening the UH Bedford Medical Center's reach into the community and providing screening services to those who most need them. This involved targeting efforts to develop partnerships with community employers, local governments, faith-based organizations and other organizations that have strong relationships and easy access to many of the more vulnerable community

members. The goal was to not only identify community members who needed further health care services in order to prevent more serious disease, it was also to establish trust with community members, normalize basic preventive procedures and remove financial and/or convenience barriers to care for those most in need. Finally, the breadth of screenings used in community-based events increased to include not only basic screenings (blood pressure, cholesterol, etc.), but also carotid ultrasounds, stroke risk assessments and lower extremity vascular screenings.



This strategy of bringing access to community members where they work, play and pray has proven to be successful. While the number of screenings decreased in 2018, this is because a more targeted approach was used to find the most vulnerable community members and to provide more extensive screening services during the events. The hospital continues to add community partners to its mix of locations where screenings are held. The ultimate goal is to remove any financial or convenience barriers to basic screenings for the most vulnerable and/or those who are not otherwise routinely accessing basic preventive care.

2. Respiratory Disease

In 2017, a pulmonologist was added to hospital staff. At two community events in 2018, through a partnership with a local church with a large membership of potentially high-risk community members, educational material about pulmonology screening (targeting those at high risk for COPD) was shared along with information on improved access to financial services to assist with needed care.

In the 2017 CHNA, asthma was identified as a common and very debilitating condition for community members, especially younger ones. In 2018, screening for pulmonary function and asthma was included in the community screening events.

3. Diabetes

Support groups and diabetic discharge patient education continued through 2018. The support program for diabetics was expanded in 2018 to include more activity-based experiences (walks, exercise groups, etc.) and nutrition-based education. The hospital continues to seek new ways to engage diabetic patients and their families in programs to help patients self-manage their chronic disease and minimize hospitalizations. Sixty additional diabetic patients received diabetes management or nutritional educational services in 2018.

Evaluation of Impact

UH Cleveland Medical Center

UH Cleveland Medical Center is located in the University Circle neighborhood of Cleveland, Ohio. University Circle is the medical, arts and culture, and higher education hub of Cleveland. UH Cleveland Medical Center has more than 1,000 registered beds, and provides comprehensive medical care including emergency, surgical and cancer care.

Inpatient Discharges, 2017, All Ages, UH Cleveland Medical Center
By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total
Cuyahoga County Residents	3,561	15.1%	5,441	23.1%	3,055	13.0%	4,700	20.0%	6,799	28.9%	23,556 (63.4% of total)	100%
Non-Residents of Cuyahoga County	703	5.2%	1,887	13.9%	1,948	14.3%	3,577	26.3%	5,461	40.2%	13,576	100%
Total Discharges, 2017	4,264	11.5%	7,328	19.7%	5,003	13.5%	8,277	22.3%	12,260	33.0%	37,132	100%

- In 2017, 63.4% of all inpatients discharged from UH Cleveland Medical Center were residents of Cuyahoga County. This medical center draws patients, likely for specialty care, from outside of Cuyahoga County. In 2017, almost one in five (18.1%) admissions were for those who lived a considerable distance from Cuyahoga County and its contiguous counties.

Inpatient Discharges, 2017, All Ages, UH Cleveland Medical Center
By Residential Zip Code

Zip Code		Number of Discharges	Percent of All Discharges
44108	Cleveland-Glenville	1,676	4.5%
44106	Cleveland-University Circle	1,388	3.7%
44118	Cleveland Hts. / University Hts.	1,341	3.6%
44120	Cleveland-Buckeye-Shaker	1,280	3.4%
44104	Cleveland-Kinsman	1,054	2.8%
44105	Cleveland-Garfield Hts.	1,024	2.8%
44110	Cleveland-Collinwood	970	2.6%
44103	Cleveland-Hough	932	2.5%
44102	Cleveland- Ohio City	368	1.0%
44115	Cleveland-Central	318	0.9%
44119	Cleveland-Pawnee &E. 185th	287	0.8%
	Cleveland Subtotal:	**10,638**	**28.60%**
44112	East Cleveland	1,738	4.7%

44121	South Euclid	970	2.6%
44128	Warrensville Heights	853	2.3%
44122	Shaker Heights / Beachwood	691	1.9%
44146	Bedford	653	1.8%
44035	Elyria	618	1.7%
44137	Maple Heights	561	1.5%
44143	Highland Heights	519	1.4%
44124	Mayfield Heights-Pepper Pike	513	1.4%
44060	Mentor	496	1.3%
44077	Painesville	475	1.3%
44125	Garfield Heights	451	1.2%
44117	Euclid	437	1.2%
44123	Euclid	430	1.2%
44132	Euclid	397	1.1%
44130	Middleburg Heights	383	1.0%
44094	Willoughby	383	1.0%
44266	Chesterland / Gates Mills	365	1.0%
44134	Parma	311	0.8%
44095	Willowick / Eastlake	308	0.8%
44041	Geneva	288	0.8%
44129	Parma	283	0.8%
44024	Chardon	267	0.7%
44087	Twinsburg	263	0.7%
44805	Ashland	258	0.7%
44004	Ashtabula	253	0.7%
44109	Cleveland-Tremont	252	0.7%
44133	North Royalton	239	0.6%
44057	Madison	227	0.6%
44067	Northfield / Sagamore Hills	226	0.6%
44107	Lakewood	223	0.6%
44241	Streetsboro	214	0.6%
44145	Westlake	212	0.6%
44030	Conneaut	207	0.6%
44111	Cleveland	205	0.6%
44092	Wickliffe	202	0.5%
44039	North Ridgeville	199	0.5%
44052	Lorain	199	0.5%
44212	Brunswick	198	0.5%
44240	Kent	194	0.5%
44139	Solon	192	0.5%
44202	Reminderville / Aurora	187	0.5%
44022	Chagrin Falls	186	0.5%
44256	Medina	184	0.5%

44131	Seven Hills / Independence	178	0.5%
44236	Hudson	168	0.5%
All other zips		9,180	24.7%
	Total:	**37,132**	**100%**

- In the table shown above, we cite the zip codes (and their main municipality) with at least 0.5% of discharges in 2017. The most common zip codes for discharged patients were 44112 (East Cleveland, 4.7%); 44108 (Glenville in Cleveland, 4.5%); 44106 (University Circle in Cleveland, 3.7%); 44118 (Cleveland Heights/University Heights, 3.6%), and 44120 (Cleveland-Buckeye-Shaker in Cleveland, 3.4%). Note that no zip code was the home of more than 5% of 2017 discharged patients.
- 28.6% of inpatients in 2017 were residents of the City of Cleveland.

Inpatient Discharges, 2017, All Ages, UH Cleveland Medical Center
Primary Diagnosis: Major Disease Categories

	Count	Col %
Total	**37,132**	
Diseases of the circulatory system	5,535	14.9%
Injury/Poisoning	3,471	9.3%
Cancers (neoplasms)	3,180	8.6%
Diseases of the digestive system	2,906	7.8%
Diseases of the musculoskeletal system and connective tissue	2,081	5.6%
Diseases of the respiratory system	1,725	4.6%
Mental and behavioral disorders	1,468	4.0%
Diseases of the nervous system and sense organs	1,382	3.7%
Diseases of the genitourinary system	1,210	3.3%
Endocrine, nutritional and metabolic diseases	1,142	3.1%
Infectious and parasitic diseases	1,136	3.1%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	1054	2.8%
Symptoms, signs, and ill-defined conditions	866	2.3%
Diseases of the skin and subcutaneous tissue	424	1.1%
Congenital anomalies	83	0.2%
Diseases of the eye and adnexa	60	0.2%
Diseases of the ear and mastoid process	48	0.1%
Certain conditions originating in the perinatal period	34	0.1%
Other factors influencing health status (mostly healthy, newborn infants)	4,846	13.1%
Childbirth / complications of pregnancy, childbirth, and the puerperium	4,480	12.1%

- In the table above, we show the major disease categories associated with the primary diagnoses for all discharged patients in 2017 (for patients of all ages). Discounting issues related to childbirth, diseases of the circulatory system were the most common (14.9%), followed by injury / poisoning (9.3%). Note that most poisoning agents were drugs (over-the-counter, prescription and illicit).

- Almost one in ten (8.6%) of those patients discharged from UH Cleveland Medical Center in 2017 were hospitalized due to a cancer (or benign neoplasm) diagnosis. Almost as many (7.8%) were hospitalized due to a digestive system issue.

Evaluation of Impact: UH Cleveland Medical Center Community Health Improvement Efforts

The last assessment conducted by UH Cleveland was the collaborative 2018 Cuyahoga Community Health Needs Assessment adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

UH Cleveland Medical Center is the largest medical center in the UH system. Located in the region's urban core, with its focus on advanced and specialized care, it has a very large service area, spanning all of Northeast Ohio. Its location is very near the neighborhoods that contain many of the city's most vulnerable residents. Hence, many of UH Cleveland Medical Center's initiatives centered on place-based programs that bring novel approaches to improving the health status of the community members. UH's approach to its strategies was to bring its services, in a targeted and direct way, directly to those who most need them.

Upon review of the 2018 UH Cleveland Community Health Needs Assessment, leadership isolated three top priority community health needs:

1. **Chronic disease management and prevention**
2. **Homicides / violence / safety**
3. **Poverty**

In the first two quarters of 2019, the following activities were implemented in pursuit of the goal to increase knowledge, shift behaviors and increase early detection for cancer and cardiovascular disease; reduce incidence rates for these diseases; and increase access to care:

- 1,750 community members participated in the American Heart Association Go Red for Women event. This is an annual event co-hosted by the UH Harrington Heart and Vascular Institute that provides education regarding vascular disease, cardiovascular risk factors and lifestyle decision-making, medication adherence, cardiopulmonary resuscitation (CPR) and automated external defibrillator (AED) training, smoking/vaping cessation education and raising awareness regarding stroke symptoms and risk factors.
- 373 people received free blood pressure, Body Mass Index (BMI) and body fat analysis screenings.
- 385 youth received education regarding sudden cardiac arrest and heart failure, Ask the Doc sessions and information regarding STEM-related/health professions and healthy lifestyle choices.
- 206 community members received information on cancer prevention.
- 219 people visited the UH Seidman Cancer Center library.
- 5 new publications were developed with health literacy principles, making it easier for patients to understand their diagnosis and treatment.

In response to high homicide rates in Cleveland and East Cleveland, UH Cleveland Medical Center's Adult Trauma Department launched the Violence Interrupters Program. This is a hospital-community-based

partnership with Peacemakers Alliance in an attempt reduce gun-related violence in the target population. Peacemakers Alliance employs community-based outreach workers to provide mediation, conflict resolution, case management, family services and hospital-based intervention following violent incidents. In the first two quarters of 2019, 39 patients were informed about program services and 10 suitable patients were referred to outpatient community services, education and job placement at the time of discharge.

Additionally, as it pertains to safety, the Stop the Bleed program was implemented in 10% of the schools located in Cuyahoga County. Stop the Bleed is a national awareness campaign intended to cultivate grassroots efforts that encourage bystanders to become trained, equipped and empowered to help in a bleeding emergency before professional help arrives.

Lastly, several efforts were added to UH Cleveland Medical Center's implementation strategy in 2019 to address poverty:

- Three cohorts of the Step Up to UH program were conducted. Step Up to UH is a job pipeline program designed to increase employment options among community members residing in neighborhoods surrounding UH Cleveland Medical Center. More specifically, the program aims to decrease unemployment in an under-resourced community, increase financial stability, and increase access to health care for under-resourced populations. Fifty-two (52) people received soft skill training and 34 were hired by UH.
- Forty-five high school students received weekly hands-on training and learning experiences during the school year through the Health Scholars internship program. This program is designed to build and develop social/emotional learning and functioning skills, and to aid in the development of an academic profile in preparation for post-secondary education/training to become physicians. Additionally, two cohorts of 8th and 11th graders, 45 students in total, participated in a summer session consisting of seven weeks of an intense 50-hour per week curriculum and college tours.

Lastly 272 households (771 individuals) received food through the Food for Life market. The market is located in the UH Otis Moss Jr. Health Center, and is designed to address food insecurity in one of Cleveland's food deserts.

This built upon their existing priorities the previous year: **chronic disease prevention and management**, specifically the **reduction of high cancer mortality rates and high incidences of cardiovascular disease** as well as **inappropriate emergency room use**.

1. High Cancer Mortality Rates

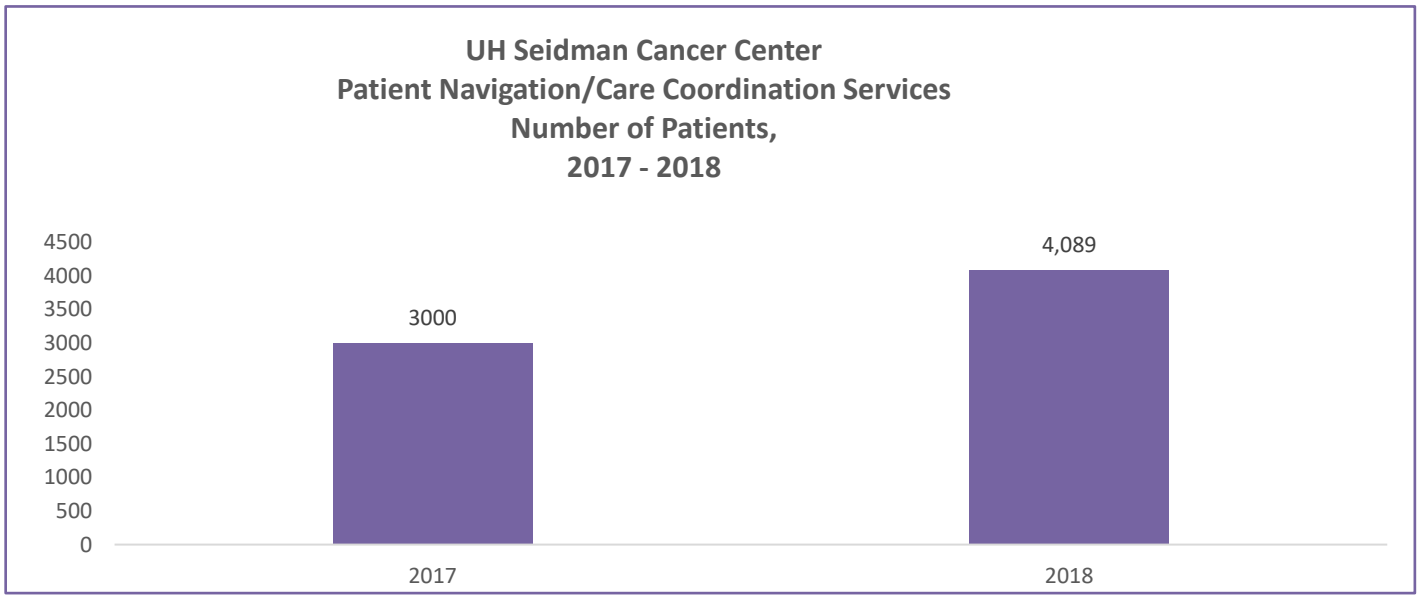
Located at UH Cleveland Medical Center, one hallmark of UH Seidman Cancer Center's improvement plan was a cross-functional examination of the barriers to preventive care and treatment among community members and its cancer patients. Provider team members examined how they provided care "through the eyes of the patients" and determined barriers to access and optimal patient outcomes. Their strategies and actions are outlined below:

a. It was determined in 2017 that certain geographic areas within the City of Cleveland (zip codes) had unusually high mortality rates for certain cancers. Screening events for those cancers were deployed in 2018 in those targeted areas. Sixty-seven high risk (no previous screenings) community members received vital screenings at several community-based events.

b. UH Seidman Cancer Center teams determined in 2017 that patients often turn to cancer care providers for information on support services not directly related to their medical needs (but which can act as a barrier to care). Caretaker knowledge of and access to an inventory of services to help patients with these parallel needs were found to be lacking. In 2018, 113 caregiving employees were trained on the types of peripheral services available to patients and how to help them access this support.

2. Reduce Barriers to Cancer Care

The impact of social factors on cancer patients successfully completing treatments was examined in 2017 by cross-functional teams. This sparked the launch of a navigation/care coordination service as a way to improve more vulnerable patients' adherence to treatment protocols and follow-up monitoring. Nurse patient navigators were added to all ambulatory care sites.



From 2017 to 2018, the number of cancer patients who received navigation services increased by 33% (3,000 to 4,089).

A large improvement in patient navigation came in 2018 when the patient navigation process was integrated into UH Seidman Cancer Center's electronic medical record (EMR). The need for this investment was driven by the increasing number and diversity of providers involved in cancer patients' treatment and ongoing care. With the integration of the process into the EMRs, navigators were able to more easily expand the types of support they provide to include transportation, child care, co-pay assistance, etc.

Having information centralized within the EMR also allows a holistic view of all of the patients' various needs, and resources can be "pooled" to provide needed services in a cost-effective and efficient way. For example, transportation services can be provided more consistently and efficiently if a single service is acquired to take care of multiple patients' needs in parallel. Armed with this type of demand and specifics regarding needs, UH Seidman Cancer Center is also able to secure outside funding for services that meet the mission of other nonprofit agencies in Cuyahoga County. The investment in an integrated system allows the hospital and cancer center to understand the full breadth of services needed by cancer patients and identify services that are large enough in scale to warrant funding of specific ongoing services. Here

UH Seidman Cancer Center is using its size, resources and position in the community to secure financing for vulnerable community members, which benefits them in multiple ways.

This increase in internal capacity to overlay patient navigation services on cancer treatment is one example of how the University Hospitals system is improving care through a better understanding of the impact of the social factors on health and well-being and the benefits of population health approaches to improving health outcomes.

3. Tobacco Use

a. The impact of the level of smoking on the health of Clevelanders is tremendous. One in five of those admitted to an acute care hospital in 2017 in Cuyahoga County for a primary diagnosis of cancer had a cancer type highly related to smoking (lung, bronchus, esophagus, etc.). The most recent 2015 Behavioral Risk Factor Surveillance System survey of adults in the City of Cleveland showed that 35.2% of adults smoked cigarettes. Rates were highest among those with annual incomes below $25,000 (40%) and no higher education (44%).

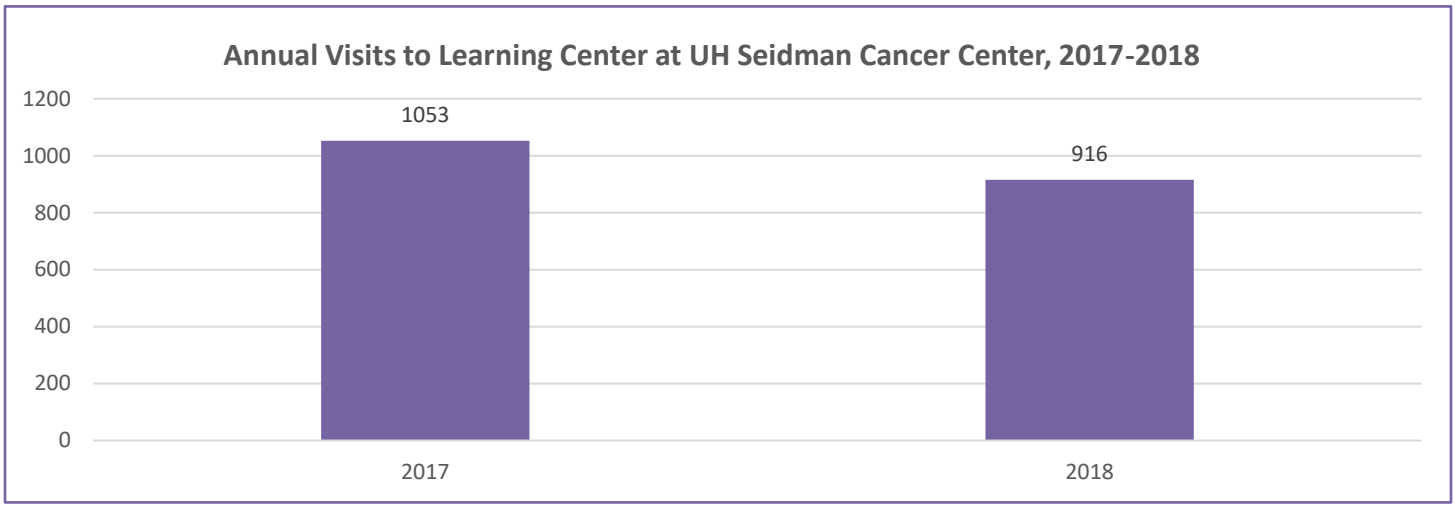
   While over half "plan to quit smoking," few succeed as the rates of adult smoking in the City of Cleveland have shown no decline in the past several years, and most begin smoking as teens or young adults. UH Seidman Cancer Center changed tactics in combating cigarette smoking among cancer patients. Now, all cancer patients are screened for smoking and within the continuum of care and treatment, patients are presented with the option of a smoking cessation program multiple times. The goal is to inject smoking cessation interventions when they can be most effective.

b. The TIPS Smoking Cessation Program was integrated into cancer case management options in 2017 and 2018. Participant success levels are tracked and monitored and continuously reviewed to improve the timing of interventions. In 2018, 44 patients completed the TIPS program.

Source: Prevention Research Center at Case Western Reserve University; BRFSS, 2015.

4. Poor Health Literacy Rates among Cancer Patients

Cancer patients benefit from access to health and treatment information. Recognizing that cancer patients are often overwhelmed upon learning of their diagnosis and information regarding cancer treatments is varied depending on types of cancer and patient circumstances, University Hospitals built its Learning Resource Center, located in the main lobby of UH Seidman Cancer Center. This dedicated, inviting and comfortable space is open to the public and staffed with a health librarian. In the Learning Center, cancer patients, family members and any member of the community can obtain information (from basic to scientific literature) on cancer treatments, coping with the disease and caring for those with cancer. Use of this unique Learning Center was high in 2017 (1,053 visits) and continues at the same level in 2018 (916 visits). Approximately three people per day are assisted by the Learning Center and the health librarian.

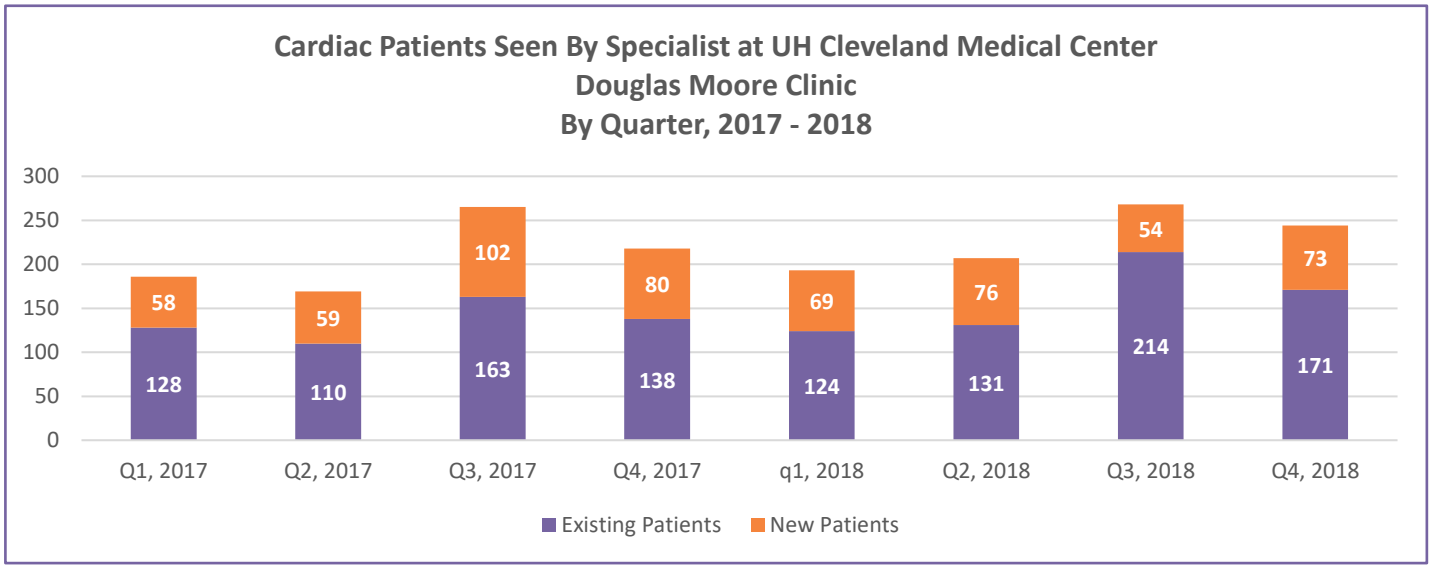


a. As part of its focus on improved communications, in 2018 all written patient communications were examined to ensure culturally appropriate language and a more patient-centered approach.

5. High Rates of Cardiovascular Disease

Cardiovascular disease continued to be the most common primary diagnosis for hospital admissions in Cuyahoga County in 2018. UH Cleveland Medical Center focused on this issue by improving access to specialist care for vulnerable populations. The UH Cleveland Medical Center Douglas Moore Clinic is a resident physician clinic with a cardiology/heart failure specialist.

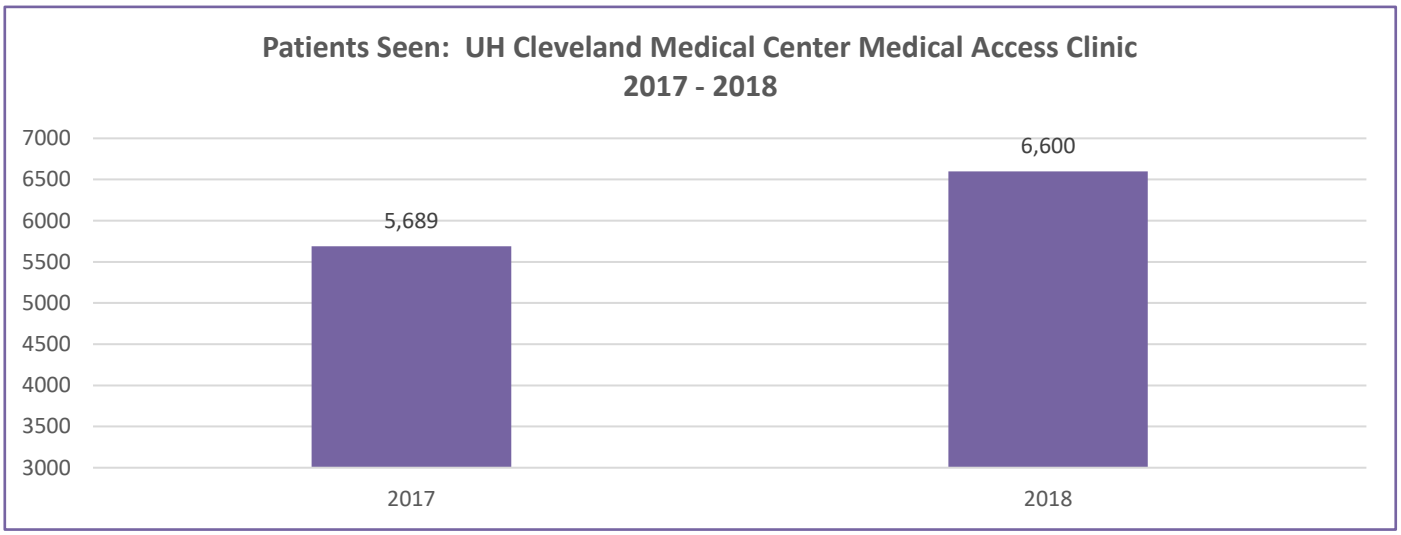
This part of the clinic started with a patient population of 86 in the first quarter. Over the eight quarters of 2017 to 2018, the clinic has seen a slow but steady increase in the number of cardiac patients served.



a. UH Harrington Heart and Vascular Institute at UH Cleveland Medical Center pursued targeted outreach efforts to proactively educate community members on heart disease prevention, detection and response. This is a continuing program from 2016 and 2017. In 2018, the strong focus was on developing cardiac event response skills for high school students (at John Hay High School), and screening and educational events for women (American Heart Association's Go Red for Women event) and low-income public housing residents. In 2017, about 900 community members participated in similar events. In 2018, this increased to 1,400 participants.

b. UH Neurological Institute conducted 250 stroke screenings in 2018.

6. High Frequency of Inappropriate Emergency Department Use



In 2017, ongoing primary care was offered to patients at the UH Cleveland Medical Center Medical Access Clinic who presented to the emergency department with a non-emergent issue(s). All patients were given initial or reinforcing health education by a nurse and often mental health assessments were conducted to identify patients who needed mental/behavioral health care in parallel with medical care. The capacity to provide this service to patients in the emergency department grew, allowing a 16% increase in the number of patients afforded this service.

Evaluation of Impact

UH Parma Medical Center

Parma, with a population of about 79,000, is Ohio's seventh largest municipality. For more than 55 years, UH Parma Medical Center has served the southwestern suburbs of Cleveland. UH Parma Medical Center – designated with Five Stars for Quality by the Centers for Medicare & Medicaid Services – provides acute and subacute care, with 332 beds and specialty centers for stroke, cardiac, cancer, orthopedics, pain management, acute rehabilitation and bariatric care.

Parma's median annual income is $52,000, and it has a relatively low poverty rate of 9.3%. Almost one in five of its residents (18%) are over age 65.

Inpatient Discharges, 2017, All Ages, UH Parma Medical Center
By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% Row Total	#	% Row Total	#	% Row Total	#	% Row Total	#	% Row Total	#	% Row Total
Cuyahoga County Residents	346	3.7%	595	6.4%	625	6.7%	1,854	19.8%	5,934	63.4%	9,354 (91.5% of total)	100%
Non-Residents of Cuyahoga County	39	4.5%	68	7.8%	98	11.2	229	26.3%	438	50.2%	872	100%
Total Discharges 2017	385	3.8%	663	6.5%	723	7.1%	2,083	20.4%	6,372	62.3%	10,226	100%

- In 2017, 91.5% of all inpatients discharged from UH Parma Medical Center were residents of Cuyahoga County.
- UH Parma Medical Center inpatients in 2017 encompassed all age groups, including children. However, most (82.7%) were aged 50 and older. Almost two-thirds (62.3%) of inpatient admissions were aged 65 and older.

Inpatient Discharges, 2017, All Ages, UH Parma Medical Center
By Residential Zip Code

Zip Code	Municipality	Number	Percent
44134	Parma	1,933	18.9%
44129	Parma	1,704	16.7%
44130	Middleburg Heights	1,592	15.6%
44133	North Royalton	873	8.5%
44131	Independence	693	6.8%
44144	Cleveland-Brooklyn	464	4.5%
44147	Broadview Heights	414	4.0%
44109	Cleveland-Tremont	368	3.6%
44141	Brecksville	248	2.4%
44142	Brook Park	152	1.5%
44212	Brunswick	113	1.1%
44136	Strongsville	103	1.0%
44067	Northfield/Sagamore Hills	100	1.0%
44102	Cleveland- Ohio City	80	0.8%
44125	Garfield Heights	75	0.7%
44135	Cleveland-Riverside	68	0.7%
44105	Cleveland-Garfield Hts.	62	0.6%
44805	Ashland	60	0.6%
44256	Medina	57	0.6%
44111	Cleveland-Lorain & W. 130th	53	0.5%
44149	Strongsville	45	0.4%
44233	Hinckley	40	0.4%
44137	Maple Heights	33	0.3%
44107	Lakewood	32	0.3%
44138	North Olmsted	32	0.3%
44039	North Ridgeville	31	0.3%
44070	North Olmsted	29	0.3%
44017	Middleburg Heights	28	0.3%
44146	Oakwood Village	28	0.3%
44035	Elyria	24	0.2%
44056	Macedonia	19	0.2%
44108	East Cleveland	18	0.2%
44124	Mayfield Heights	17	0.2%
All Other Zips		557	5.4%
	Total:	**10,218**	**100%**

- While UH Parma Medical Center inpatients in 2017 were residents of a large number of communities (mostly in Cuyahoga County), three zip codes were the source of 51% of admissions: 44134 and 44129 (both Parma) as well as 44130 (Middleburg Heights).

Inpatient Discharges, 2017, All Ages, UH Parma Medical Center
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total	10,226	
Diseases of the circulatory system	2,238	21.9%
Diseases of the respiratory system	1,303	12.7%
Diseases of the digestive system	1,103	10.8%
Infectious and parasitic diseases	790	7.7%
Diseases of the musculoskeletal system and connective tissue	757	7.4%
Injury / poisoning	707	6.9%
Diseases of the genitourinary system	587	5.7%
Endocrine, nutritional and metabolic diseases	499	4.9%
Complications of pregnancy, childbirth and the puerperium	401	3.9%
Mental and behavioral disorders	340	3.3%
Diseases of the skin and subcutaneous tissue	271	2.7%
Cancers (neoplasms)	240	2.3%
Symptoms, signs, and ill-defined conditions	205	2.0%
Diseases of the nervous system and sense organs	188	1.8%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	129	1.3%
Diseases of the ear and mastoid process	9	0.1%
Other	459	4.4%

- Major disease categories associated with primary diagnoses for all discharged patients in 2017 (for patients of all ages) are shown above. Diseases of the circulatory (21.9%), respiratory (12.7%) and digestive (10.8%) systems make up almost half of the reasons for the hospitalizations (45.4%).

Evaluation of Impact: UH Parma Medical Center Community Health Improvement Efforts

The last assessment conducted by UH Parma Medical Center was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Upon review of the 2018 UH Parma Medical Center Community Health Needs Assessment, hospital leadership isolated two top priority community health needs:

1. **Chronic disease management and prevention**
2. **Poverty**

In the first two quarters of 2019, UH Parma Medical Center staff hosted or participated in 129 educational and/or screening events in the community. Their goal was to increase awareness of support programs, screenings and understanding of chronic disease, and provide navigation services. As a result, 3,957 community members received free health screenings and education. Additionally, over 800 people participated in wellness classes including yoga, support groups, the Parkinson's Exercise Program and a smoking cessation program.

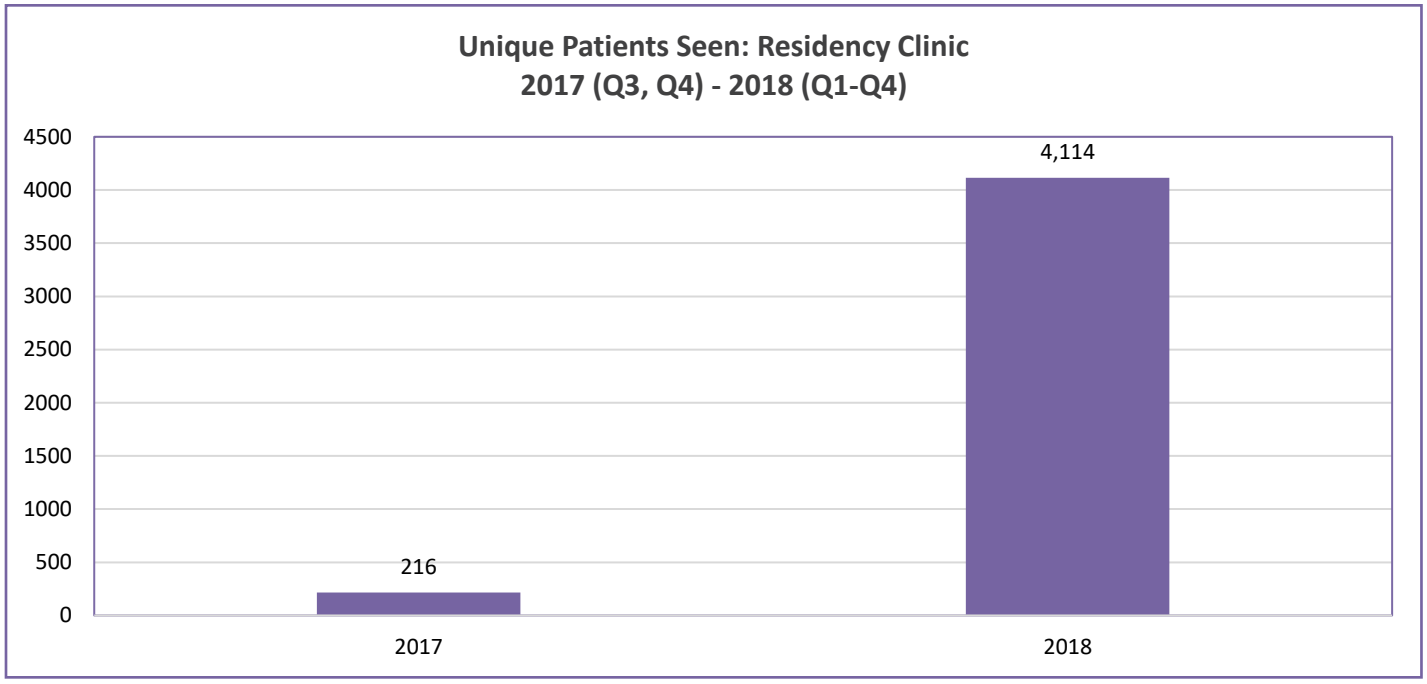
To address poverty, 837 people received meal assistance in medically underserved areas and/or with persons experiencing food insecurities through a partnership with Meals on Wheels.

This built upon their existing priorities the previous year: **increasing access to primary care, reducing chronic disease** in the hospital's service areas, **reducing obesity** in the hospital's primary service area and addressing **access-to-care barriers**.

After pinpointing the top priorities, strategies and tactics were created, lending the hospital's staff expertise and resources to combatting each community health issue. UH Parma Medical Center's approach to these issues included changes in hospital-based programs and outreach efforts. Their efforts, progress and outcomes are outlined below.

1. Increase Access to Primary Care

UH Parma Medical Center instituted a residency in family medicine in 2017, linking residency staff with the hospital's primary care/family medicine clinic in order to increase capacity to provide more open access to primary care for residents who traditionally received none. The clinic allows walk-in patients similar to an emergency department. Although the Residency Clinic closed in 2018, it is now a Community Care Clinic.



In its first two quarters of operation (in 2017), a total of 216 patients received primary care services. With improved promotion of the service in the community and improved internal patient referral processes, this grew dramatically in 2018 to 4,114 unique patients.

2. Reduce Chronic Disease Incidence

UH Parma Medical Center's efforts to reduce the incidence of chronic disease continued to rely on aggressive community-based programs. The focus was on senior citizens, who are most impacted by chronic disease and who make up 20% of Parma's residents.

Through dozens of partnerships (locations where events were held), more than 300 different events were held throughout 2018 as they were in 2017. In 2018, about 8,000 community members received basic chronic disease prevention and management information, counseling (through literature and one-on-one discussions with health care providers) and screenings for multiple health conditions. As this program matures, clinicians are participating in the events at higher levels to bring state-of-the art information regarding chronic disease prevention and treatment directly to community members.

Patient adherence to the control and treatment of chronic disease is critical for optimal patient outcomes. Most of this lies in the hands of the patients and their caretakers. Improved understanding of the dynamics of their chronic disease, and how important self-management is to patients' long-term well-being leads to improved patient compliance. In 2018, UH Parma Medical Center attracted an average of 225 participants a month in their monthly stroke and arthritis support group, Parkinson's support group, Alzheimer's support group and weekly Parkinson's exercise group. These regular interactions with the patients with chronic diseases directly impact patient and family members' understanding of the conditions and act as a portal of information to the rest of the community.

3. Reduce Obesity

The health care community is gaining a better understanding of the relationship between a diet high in sugar consumption and obesity. This understanding is not widespread in the general community. In 2018, UH Parma Medical Center deployed nutritionists and dieticians to community-based programs to introduce the importance of limiting sugars in the diet and how to prepare foods lower in sugar. A total of 53 community members participated in 2018. A quarterly bariatrics support group provided group support services to 30 patients in 2018.

4. Address Access-to-Care Barriers

Hospital staff identified areas to focus on to reduce barriers to care in 2018. The hospital continued to strongly support Parma's Meals on Wheels program. Hospital staff and facilities were used to prepare and deliver almost 2,800 meals to community members throughout 2018. This important program provides nutritious food to those who otherwise would not regularly receive it and provides a way for community members to check in on the most vulnerable disabled and elderly community members.

Evaluation of Impact

UH Rainbow Babies & Children's Hospital

Inpatient Discharges, 2017, All Ages, UH Cleveland Rainbow Babies & Children's Hospital By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35+		Total	
	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total
Cuyahoga County Residents	5,029	95.8%	194	3.7%	26	0.5%	5,249 (54.5% of total)	100%
Non-Residents of Cuyahoga County	3,988	91.1%	350	8.0%	26	0.9%	4,380	100%
Total Discharges, 2017	9,017	93.6%	544	5.6%	52	0.7%	9,629	100%

- In 2017, 54.5% of all inpatients discharged from UH Rainbow Babies & Children's Hospital were residents of Cuyahoga County. Like UH Cleveland Medical Center, UH Rainbow Babies & Children's Hospital draws patients from surrounding counties and beyond seeking specialty care
- As expected, since this is a pediatric hospital, a great majority of discharges from UH Rainbow Babies & Children's Hospital in 2017 were patients under age 18 (93.6%).

Inpatient Discharges, 2017, UH Rainbow Babies & Children's Hospital By Residential Zip Code

Zip Code	Municipality	Number	Percent
Cleveland Zip Codes			
44104	Cleveland-Kinsman	288	3.0%
44105	Cleveland-Garfield Hts.	275	2.9%
44108	Cleveland-Glenville	243	2.5%
44118	Cleveland Hts / University Hts	234	2.4%
44112	East Cleveland	196	2.0%
44120	Cleveland-Buckeye-Shaker	195	2.0%
44110	Cleveland-Collinwood	193	2.0%
44106	Cleveland-University Circle	163	1.7%
44103	Cleveland-Hough	144	1.5%
44115	Cleveland-Central	129	1.3%
44109	Cleveland-Tremont	108	1.1%
44102	Cleveland–Detroit Shoreway	86	0.9%
44111	Cleveland-Lorain & W. 130th	72	0.7%
44001	Cleveland-Central	62	0.6%
44135	Cleveland-Riverside	55	0.6%
44119	Cleveland-Pawnee & E. 185th	52	0.5%
44127	Cleveland	48	0.5%

44113	Ohio City / Tremont	23	0.2%
Zip Codes Outside of Cleveland			
44035	Elyria	362	3.8%
44077	Painesville	247	2.6%
44128	Warrensville Heights	216	2.2%
44121	South Euclid	199	2.1%
44052	Lorain	190	2.0%
44055	Lorain	182	1.9%
44137	Maple Heights	177	1.8%
44125	Garfield Heights	161	1.7%
44130	Middleburg Heights	146	1.5%
44004	Ashtabula	145	1.5%
44146	Bedford	145	1.5%
44060	Mentor	142	1.5%
44122	Shaker Heights / Beachwood	134	1.4%
44123	Euclid	123	1.3%
44053	Lorain	121	1.3%
44062	Middlefield	120	1.2%
44134	Parma	112	1.2%
44094	Willoughby	106	1.1%
44132	Euclid	105	1.1%
44057	Madison	104	1.1%
44129	Parma	103	1.1%
44212	Brunswick	100	1.0%
All Other Zips		3,617	37.3%
	Total:	**9,184**	**100%**

- UH Rainbow Babies & Children's Hospital patients in 2017 were residents of a very wide variety of communities throughout Northeast Ohio. At most, any zip code was the home area for 3.8% of patients.
- About one in four (26.4%) of admissions in 2017 in UH Rainbow Babies & Children's Hospital were residents of Cleveland.

Inpatient Discharges, 2017, All Ages, UH Rainbow Babies & Children's Hospital
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total	**9,629**	
Diseases of the respiratory system	1,979	20.6%
Certain conditions originating in the perinatal period	1,215	12.6%
Diseases of the digestive system	960	10.0%
Injury/poisoning	845	8.8%
Endocrine, nutritional and metabolic diseases	688	7.1%
Diseases of the nervous system and sense organs	688	7.1%
Mental and behavioral disorders	584	6.1%
Symptoms, signs, and ill-defined conditions	443	4.6%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	364	3.8%
Infectious and parasitic diseases	347	3.6%
Congenital anomalies	292	3.0%
Diseases of the genitourinary system	221	2.3%
Diseases of the musculoskeletal system and connective tissue	217	2.3%
Diseases of the skin and subcutaneous tissue	216	2.2%
Diseases of the circulatory system	111	1.2%
Cancers (neoplasms)	78	0.8%
Diseases of the ear and mastoid process	51	0.5%
Diseases of the eye and adnexa	21	0.2%
Complications of pregnancy, childbirth, and the puerperium	12	0.1%
Other	297	3.0%

- Although the types of conditions that lead to the hospitalization of children at UH Rainbow Babies & Children's Hospital are very different than what we see among adults, there is an equally full array of medical conditions associated with hospitalizations for children. Diseases of the respiratory system and conditions associated with the perinatal period were the most common diagnoses (20.6% and 12.6%, respectively).

Evaluation of Impact: UH Rainbow Babies & Children's Hospital Community Health Improvement Efforts

The last assessment conducted by UH Rainbow Babies & Children's Hospital was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September 2018. The corresponding Implementation Strategy was adopted in March 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical since there has historically been a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Review of the 2018 UH Rainbow Babies & Children's Hospital community health needs assessment revealed several community health needs that this children's hospital was particularly well-equipped to help address. Hospital leadership isolated two top priority community pediatric health needs:

1. **Chronic disease management and prevention**
2. **Infant mortality**

In the first two quarters of 2019, UH Rainbow Babies & Children's Hospital staff reached 5,715 underserved pediatric dental patients and provided 25 hours of nutrition outreach programs. Their goal was to provide dental services to children in a 20-county area, deliver interactive nutrition education and family-centered cooking instruction and address food insecurity. In addition, the nutrition education outreach program launched a "Healthy Harvest" program that provides a bag of fruits and vegetables - along with recipes, demos and tastings - to low-income families free of charge. 160 bags Healthy Harvest bags were distributed - along with demos and recipes - in the second quarter of 2019.

UH Rainbow Babies & Children's Hospital continues to address infant mortality through its Centering Pregnancy program, a national group prenatal care model. 224 women enrolled in the first half of 2019. UH has been operating the program since 2010.

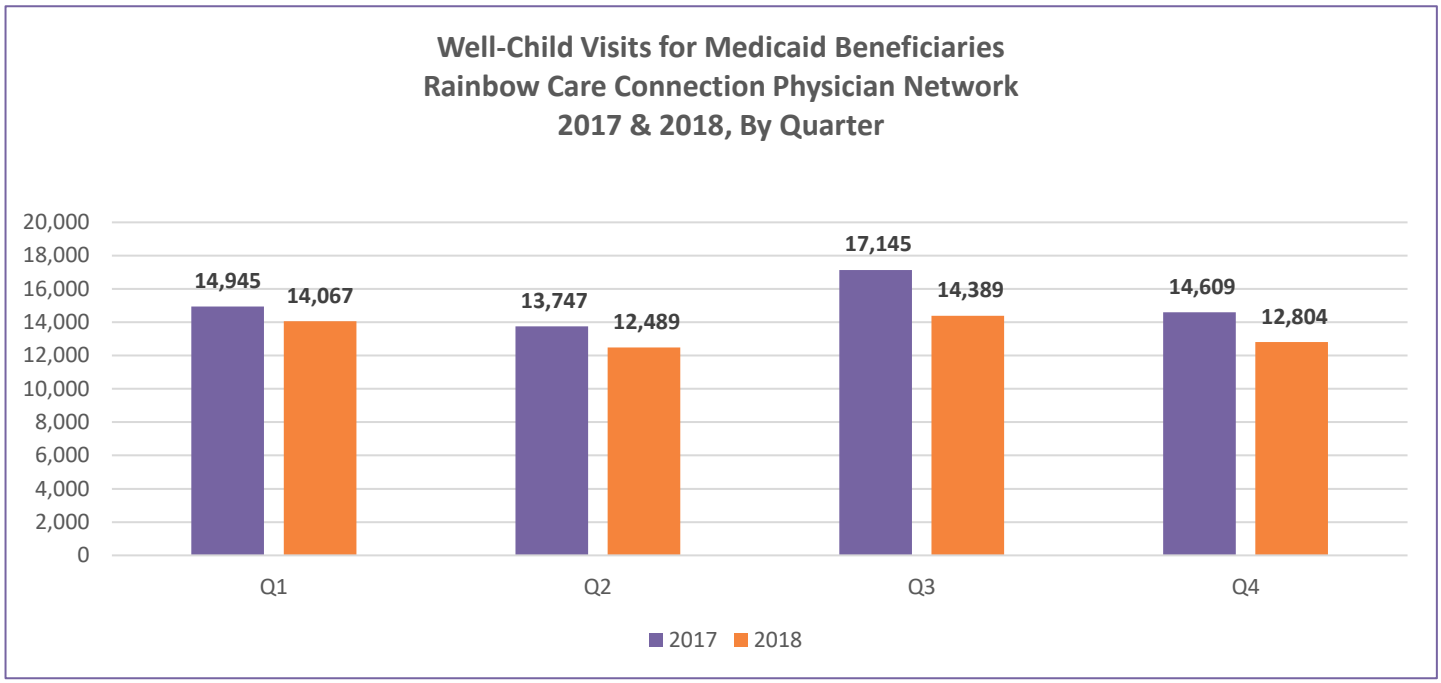
This built upon their existing priorities the previous year: **increasing access to primary care**, **increasing access to dental care**, and **high infant mortality and poor infant health**.

After pinpointing the top priorities, action plans were created, lending hospital staff expertise and resources to combatting the more vexing health issues facing families in our community. Actions taken and an assessment of the success of those actions are outlined below:

1. Access to primary care

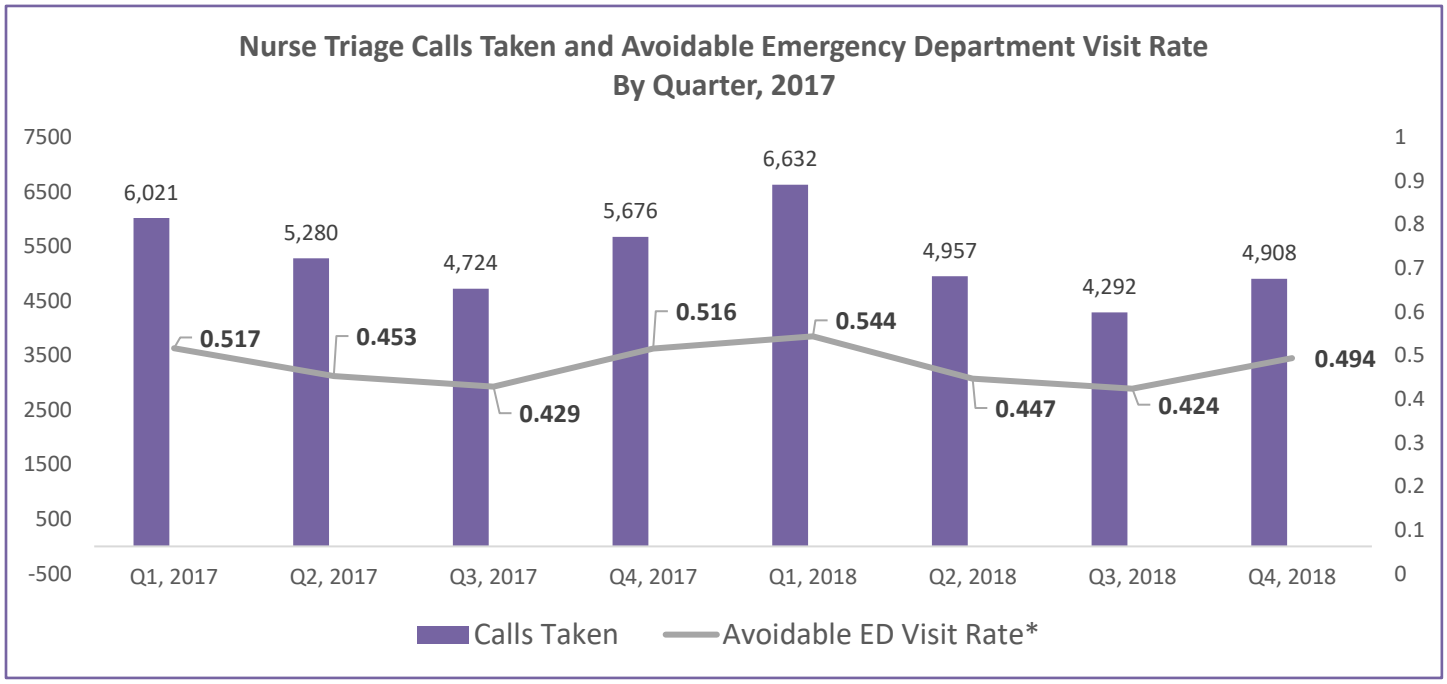
a. The hospital focused its resources and attention on Medicaid beneficiaries without a primary care physician. In 2017, more than 60,000 well-child visits were provided to Medicaid beneficiaries within the Rainbow Care Connection Physician Network. This number decreased to 53,749 in 2018. This would

indicate the program is having its intended effect. The program seeks children who are Medicaid beneficiaries who do not have a primary care physician. As more and more children are integrated into this network of care, the number of child Medicaid beneficiaries without ongoing preventive care decreased. Eventually, when this is fully realized in the community, Rainbow will re-assess this goal to see where different or additional outreach efforts are required.



b. The 2016 CHNA highlighted the need for more pediatric primary care practices located in low socioeconomic neighborhoods of the hospital's primary and secondary market areas. In 2018, the hospital set out to increase the number of those providers, which grew from 126 in Q1, 2018 to 132 providers.

c. Telehealth services improve access to care for non-emergent conditions. In order to maximize the appropriate use of telehealth services (and minimize use of services like the emergency department for non-emergent issues), UH Rainbow Babies & Children's Hospital provided a nurse triage service to divert patents to a telehealth visit when an in-person visit was not clinically necessary.

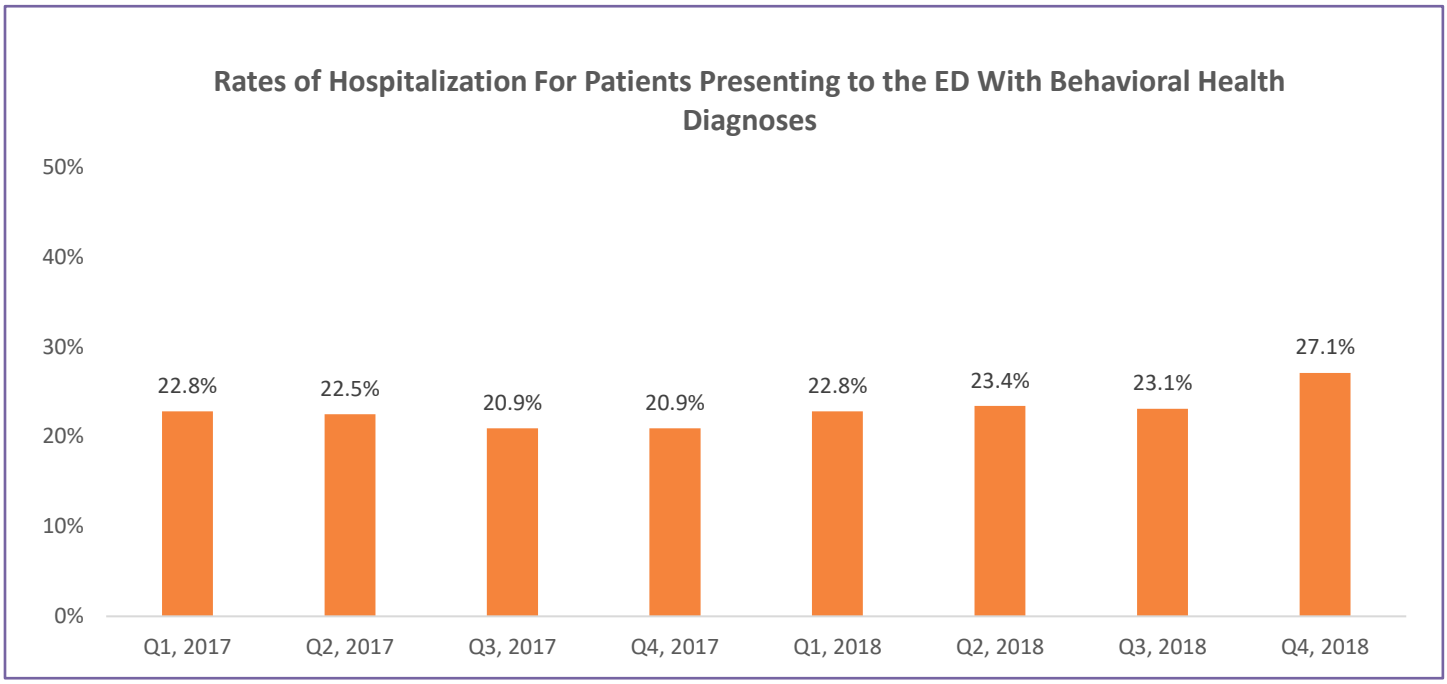


*Number of Avoidable ED Visits/1,000; Based on MCP ICD10 Criteria

As shown above, in 2017, 21,701 calls were fielded by nurses. This decreased by about 5% in 2018 (20,789). Here we also show the avoidable emergency department visit rate (expressed as a ratio per 1,000 patients). These mirrored each other and non-emergent emergency department visits and nurse triage calls both peaked during the colder months (Q1).

d. In recognition of the need for *integrated* medical and mental health care, UH Rainbow Babies & Children's Hospital set a goal to increase the number of patients receiving integrated behavioral health services. In 2017, a total of 1,963 unique patients received integrated care, but this number declined in 2018 to 1,626 unique pediatric patients served.

e. UH Rainbow Babies & Children's Hospital also set a goal to decrease hospitalizations of patients presenting to the Marcy R. Horvitz Pediatric Emergency Center with behavioral health diagnoses through the improved utilization of integrated health care.
While the change is modest, we see an upward trend of hospitalization rates for patients with a behavioral health diagnosis presenting to the Pediatric Emergency Center in 2018.



f. To maximize awareness and understanding of the integrated medical/behavioral health program, the Health Leads program was launched in late 2016 in response to an identified gap in awareness and understanding among primary care physicians of the benefits of an integrated medical/behavioral health program. Its success has been measured by the number of patients screened for the need for an integrated approach. In 2017, there were 2,191 patients screened (increasing from Q1, 2017 to Q4, 2017 by 172%). In Q1 of 2018, the number of screenings hit its maximum number of screenings of 741. In Q2 of 2018, the scope of this program was changed to include only internal Rainbow primary care practices. In Q2, Q3 and Q4, a combined total of 688 pediatric patients were screened. In 2018, Health Leads transitioned into Rainbow Connect using the WellOp screening tool to better assess and address the social determinants of health.

2. Access to Dental Care for Children

Lack of access to dental care for low-income children is an endemic problem in our community. Although poor dental care is often a precursor to serious medical conditions, many adults do not have dental insurance and hence many do not have an established relationship for themselves or their families with a dental care provider. However, dental issues can develop very early in life and have lifelong consequences. UH Rainbow Babies & Children's Hospital addressed this large gap in care in our community through targeted dental services.

a. Located on UH Rainbow Babies & Children's Hospital's campus, the Irving and Jeanne Tapper Dental Center is staffed with pediatric dentists, residents, and other staff trained to work exclusively with children. Staff also provide dental care for children with special health care or behavioral issues. UH Rainbow Babies & Children's Hospital also operates a mobile dental unit (the

Ronald McDonald Care Mobile), which brings dental care directly into communities to meet the dental health needs of children in areas with limited access to pediatric dental practices, or with a limited number of providers that will accept children with Medicaid insurance. In 2018, the number of pediatric patients who benefitted from this dental care increased by 8%, to 6,460.

b. To ensure the focus remains on patients who are members of vulnerable populations, Tapper Dental Center set a goal of maintaining a minimum of 80% of patients being Medicaid beneficiaries. This goal was met in each quarter of 2017.

c. Through the pediatric mobile dental unit (the Ronald McDonald Care Mobile), UH Rainbow Babies & Children's Hospital ensures its connection to the most vulnerable members of our community through its partnership with targeted schools, preschools, and community agencies. In 2018, a total of 37 new organizations were added as partners.

d. Pediatric medical practices (Rainbow Primary Care Institute) were also engaged in improving the dental health of their patients. A goal was set to increase the proportion of patients who received at least two preventative fluoride varnish applications before their third birthday. However, efforts to increase this did not have its intended impact, and the proportion of patients receiving these treatments remained stable at about 40% throughout 2017 and 2018.

3. Reduce Infant Mortality and Improve Infant Health

Almost all infant mortalities are the result of one of three events: 1) extreme prematurity (less than 27 weeks gestation age at birth); 2) birth defects or other severe medical conditions; 3) sleep-related deaths. Over time, extreme prematurity is consistently the largest cause of infant mortality (about 50% of all mortalities). There is a very large racial gap in both prematurity and infant mortality rates throughout the United States (and in Cuyahoga County). A large-scale, multi-pronged initiative to reduce infant mortalities in Cuyahoga County was launched in 2017. UH Rainbow Babies & Children's Hospital Babies & Children's Hospital's leadership has taken a central role in guiding and resourcing this initiative, named First Year Cleveland. All programs designed by this innovative community-based team are due to be in full operation by 2020.

a. UH McDonald Women's Hospital, which is adjacent to UH Rainbow Babies & Children's Hospital, is a key partner in the First Year Cleveland initiative. Its focus is on increasing the number of prenatal care visits among high-risk pregnant women who benefit from a Centering Pregnancy approach. This type of care engages pregnant women in their own prenatal care by providing visits in a group setting, establishing a natural support group among the new mothers. The efficacy of Centering Pregnancy programs in impacting the causes of infant mortality has been demonstrated in peer review studies. During each quarter of 2017, the number of pregnant moms using a Centering approach increased. By the end of 2017, 340 moms participated in this program with 900 prenatal visits accomplished using the Centering approach. In 2018 there were 348 participants. This program will be examined in the long term to determine if it is associated with reduced infant mortality rates in 2020.

b. Encouraging safe sleep is another tool to reduce infant mortality. A goal for 2017 was to design a clinically-based safe sleep education program, including results measurement within the electronic medical records system. Infrastructure for this was completed in 2017 and this service was launched in 2018. It included 25 practices, and anywhere from 109 to 118 providers, depending on the quarter in 2018, providing safe sleep screening for new moms (with babies aged 0-6 months). Providers were diligent in their documentation of their screening practice, with 83% of patient records including screening documentation.

Evaluation of Impact

UH Richmond Medical Center

Richmond is a suburb of Cleveland that lies in the far northeast corner of Cuyahoga County, with a population of about 10,000 residents. Richmond Heights' population on the whole is middle class, with a median income of $51,000 and with one-third of the adult population college educated. It is racially balanced between primarily White and African Americans and its residents are slightly older than the rest of Ohio, with just over one in five residents aged 65 or older. About one in nine (12.6%) of Richmond Heights' residents live under the poverty line.

UH Richmond Medical Center is a community-based hospital with 59 staffed beds for acute inpatient care.

Inpatient Discharges, 2017, All Ages,
UH Richmond Medical Center
By Age Group and County of Residence

	Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	% of Row Total	#	% of Row Total	#	% of Row Total	%	% of Row Total	#	% of Row Total
Cuyahoga County Residents	120	5.9%	241	11.8%	580	28.3%	1,106	54.0%	2,047 (81.1% of total)	100%
Non-Residents of Cuyahoga County	27	5.7%	53	11.2%	121	25.5%	274	57.7%	475	100%
Total Discharges, 2017	147	5.8%	294	11.7%	701	27.8%	1,380	54.7%	2,522	100%

- In 2017, 81.1% of all inpatients discharged from UH Richmond Medical Center were residents of Cuyahoga County. The great majority of the remaining patients reside in Lake County. For the most part, the hospital serves a fairly contained geography.

- A majority of discharges from UH Richmond Medical Center in 2017 were aged 65 and older (54.7%). Few patients discharged from the hospital (5.8%) were younger adults (aged 18-34).

Inpatient Discharges, 2017, All Ages,
UH Richmond Medical Center
By Residential Zip Code

Zip Code	Municipality	Number	Percent
44143	Richmond Heights / Highland Heights	493	19.5%
44117	Euclid	304	12.1%
44132	Euclid	248	9.8%
44123	Euclid	158	6.3%
44092	Wickliffe	147	5.8%
44112	East Cleveland	144	5.7%
44110	Cleveland-Collinwood	126	5.0%
44121	South Euclid	109	4.3%
44119	Cleveland-Pawnee & E. 185th	100	4.0%
44094	Willoughby	81	3.2%
44095	Willowick/Eastlake	72	2.9%
44060	Mentor	60	2.4%
44108	Cleveland-Glenville	57	2.3%
44124	Mayfield Heights-Pepper Pike	46	1.8%
44106	Cleveland-University Circle	30	1.2%
44118	Cleveland Hts/University Hts	29	1.1%
44120	Cleveland-Buckeye-Shaker	29	1.1%
44077	Painesville	28	1.1%
44103	Cleveland-Hough	20	0.8%
44122	Shaker Heights/Beachwood	14	0.6%
44105	Garfield Heights	14	0.6%
44137	Maple Heights	14	0.6%
44146	Bedford	13	0.5%
44128	Warrensville Heights	10	0.4%
44113	Cleveland/Ohio City	10	0.4%
44104	Cleveland/Kinsman	9	0.4%
44102	Cleveland/Detroit-Shoreway	8	0.3%
44125	Garfield Heights	8	0.3%
44145	Westlake	7	0.3%
All Other Zips		130	5.1%
	Total:	**2,522**	**100%**

- UH Richmond Medical Center serves residents from a large variety of communities; however, almost 48% of its inpatient admissions in 2017 were for those who live in either Richmond Heights/Highland Heights (44143) or Euclid (zip codes 44117, 44132, and 44123). There are several zip codes, however, that house residents served by UH Richmond and are home to a large proportion of economically disadvantaged adults. These zip codes contain 13.2% of 2017 UH Richmond inpatients.

Inpatient Discharges, 2017, All Ages,
UH Richmond Medical Center
Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total	**2,522**	
Diseases of the circulatory system	554	22.0%
Diseases of the respiratory system	407	16.1%
Infectious and parasitic diseases	325	12.9%
Diseases of the digestive system	237	9.4%
Endocrine, nutritional and metabolic diseases	202	8.0%
Injury/poisoning	181	7.2%
Diseases of the genitourinary system	178	7.1%
Diseases of the musculoskeletal system and connective tissue	118	4.7%
Symptoms, signs, and ill-defined conditions	83	3.3%
Diseases of the nervous system and sense organs	73	2.9%
Diseases of the skin and subcutaneous tissue	57	2.3%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	47	1.9%
Mental and behavioral disorders	29	1.1%
Cancers (neoplasms)	24	1.0%
Other	7	0.2%

- Above are the major disease categories associated with the primary diagnoses for all patients discharged from UH Richmond Medical Center in 2017 (for patients of all ages, but recall that the majority of patients were over age 50). Diseases of the circulatory system were the most common (22.0%), and diseases of the respiratory system were the second most common (16.1%).
- The third most common category for hospitalization was infectious and parasitic diseases (12.9%). The great majority of those cases were related to sepsis (11.8% points of the 12.9%).

Evaluation of Impact: UH Richmond Medical Center Community Health Improvement Efforts

The last assessment conducted by UH Richmond Medical Center was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September, 2018. The corresponding Implementation Strategy was adopted in March, 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical, in that there is usually a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.
UH Richmond Medical Center is closely aligned with UH Bedford Medical Center, a similarly sized community hospital. Most of their CHNA efforts are either aligned or joint efforts.

Upon review of the 2018 UH Richmond Medical Center Community Health Needs Assessment, hospital leadership isolated two top priority community health needs:

1. **Chronic disease management and prevention**
2. **Poverty**

As it relates to chronic disease management and prevention, UH Richmond Medical Center's goal was to reduce the incidence of chronic disease, hospitalization rates, and mortality due to chronic disease. As a result, in the first two quarters in 2019, 127 community members participated in education talks, support groups and similar events and 412 people received free health screenings.

Similar to UH Bedford Medical Center, to address poverty, the goal was to educate community members on financial assistance programs offered at the hospital, to increase appropriate access to care. Planning is underway and materials are being designed to begin this effort in the third quarter of 2019.

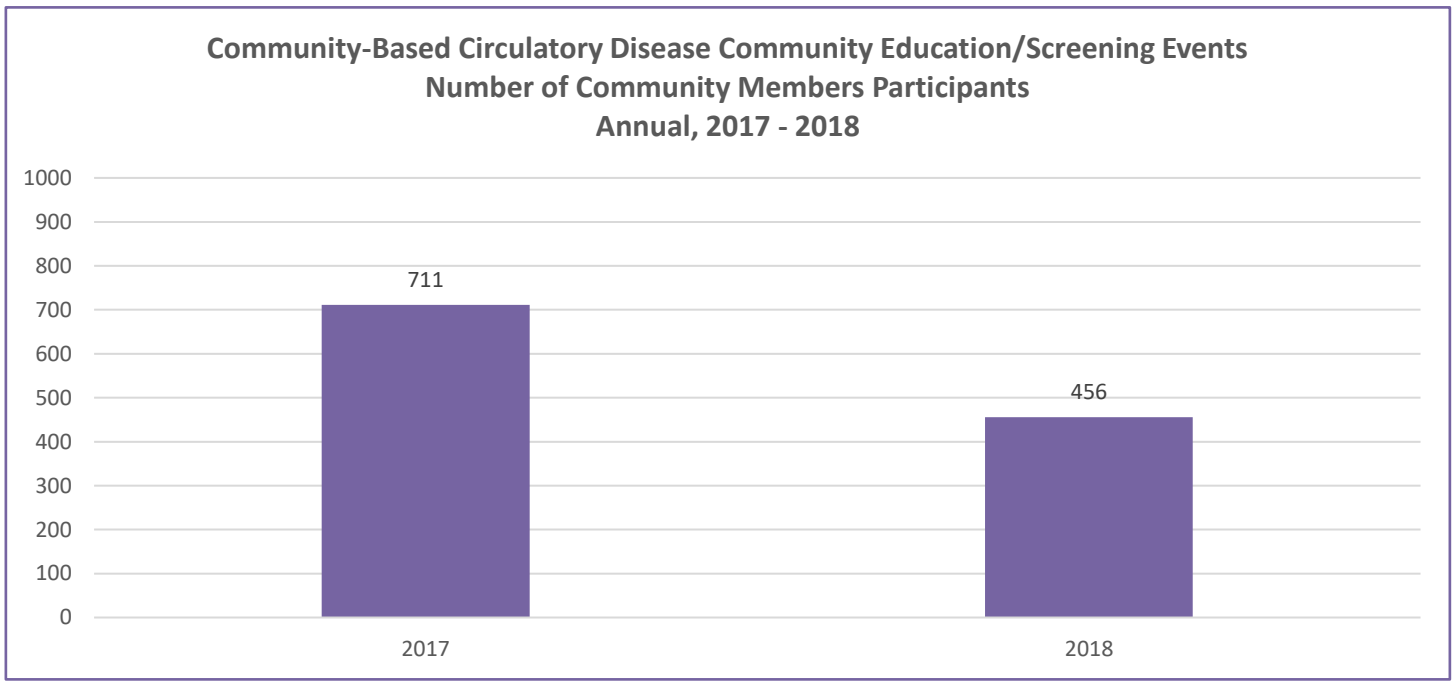
This built upon their existing priorities the previous year: **heart disease, respiratory disease, and diabetes**.

After pinpointing the top priorities, action plans were created, applying the hospital's staff expertise and resources to combatting each community health issue. Efforts emphasized early detection through free screenings, accompanied by health education to enhance chronic disease management.

1. Improve cardiac health: reduce prevalence of heart disease, including acute myocardial infarction (AMI) and heart failure; and improve the quality of life in those already living with the disease

The most common disease category for this hospital, diseases of the circulatory system, are chronic illnesses highly impacted by lifestyle. Hence, UH Richmond Medical Center's focus on combating heart disease was centered around increasing community member awareness of the high incidence of heart disease in the community, how important lifestyle choices are in minimizing risk of heart disease, and most ardently, increasing direct community outreach in terms of screening for early signs of heart disease. UH Richmond did this in a very strategic and targeted way. The community outreach health care professionals focused on

partnering with community-based organizations and local employers to maximize the hospital's resources and reach as many people as possible, especially more vulnerable community members.



The hospital hosted several health fairs, seminars given by hospital staff, and "Heart Day" events, and improved targeted communications for those events. Medical screenings included glucose levels, blood pressure, cholesterol levels and carotid ultrasound screens. While the number of people screened in 2018 was a decrease from 2017 levels, this is due to improved targeting of the more vulnerable and an expanded battery of screenings each community member received.

2. Respiratory: reduce the prevalence of the disease and improve quality of life of patients with respiratory diseases

Chronic respiratory disease, in particular COPD, was also found to results in high hospitalization rates. COPD and pneumonia were very common secondary diagnoses for inpatients in 2014 and 2017 assessments. Deeper investigation into this issue identified the need for additional pulmonology specialist care. Hence, in 2017 a pulmonologist was added and was included as part of services hospital inpatients and outpatients with severe respiratory diseases received. In 2018, the pulmonology information was pushed into the communities and awareness and use of the service increased.

Early detection of chronic respiratory disease is important in establishing a habit of self-care that improves quality of life, minimizes hospitalizations and increases life span. During the third and fourth quarters of 2017 and through 2018, the hospital deployed a program of no-cost, community-based screenings targeting populations most likely to be at high risk. In 2017, 48 high-risk community members were screened and referred to a specialist when appropriate; in 2018, the number of screenings doubled to 96.

3. Diabetes

As diabetes is among the chronic diseases most likely to result in frequent hospitalizations, an increased focus in 2016 on community education and support for diabetic patients and their family members began. Support groups met regularly and were led by a diabetes education specialist who focuses on disease management, diet, and the importance of careful, regular monitoring of the disease. A total of 108 diabetic patients benefitted from this program in 2017. By late 2017, this program was being examined for a redesign to be more accessible (no-cost) to community members and focus on those activities that have been shown to improve patient disease stabilization.

Evaluation of Impact

UH St. John Medical Center

UH St. John Medical Center is located in Westlake, Ohio, near the western border of Cuyahoga County, with Lorain County to the immediate west. Westlake's population is, on average, older than most Ohio communities, with an average age of 47 (compared to 39 in Ohio overall). With a median annual household income of about $83,000, Westlake is the most affluent community in which a University Hospitals acute care facility operates. Westlake lacks racial diversity, as 90% of its residents are White. Only 5.4% of its residents live below the poverty line. Westlake has a relatively high proportion of senior citizens, with 21.6% being age 65 and older. Despite its relative affluence, this hospital's staff has played a key leadership role in responding to Cuyahoga County's more vexing health problems.

UH St. John Medical Center serves the community with an emergency department, maternity/labor and delivery unit, full-service medical and surgical assets, and a total of 204 acute care inpatient beds.

Inpatient Discharges, 2017, All Ages,
UH St. John Medical Center
By Age Group and County of Residence

	Age 0-17		Age 18-34		Age 35-49		Age 50-64		Age 65+		Total	
	#	%of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total	#	% of Row Total
Cuyahoga County Residents	443	7.7%	505	8.8%	496	8.6%	1,123	19.6%	3,170	55.3%	5,737 (58.4% of total)	100%
Non-Residents of Cuyahoga County	428	10.5%	553	13.6%	389	9.5%	802	19.7%	1,909	46.8%	4,081	100%
Total Discharges, 2017	871	8.9%	1,058	10.8%	885	9.0%	1,925	19.6%	5,079	51.7%	9,818	100%

- In 2017, 58.4% of all inpatients discharged from UH St. John Medical Center were residents of Cuyahoga County. Almost all of the remaining inpatient admissions were of those who live in adjacent Lorain County.
- Patients spanned all age groups, but a slight majority were aged 65 and over (51.7%).

UH St. John Medical Center | Inpatient Discharges, 2017, All Ages, By Residential Zip Code

Zip Code	Municipality	Number	Percent
44145	Westlake	1,813	18.8%
44070	North Olmsted	1,210	12.3%
44039	North Ridgeville	1,158	11.8%
44011	Avon	495	5.0%
44035	Elyria	468	4.8%
44138	Olmsted Falls	468	4.8%
44012	Avon Lake	457	4.7%
44140	Bay Village	371	3.8%
44116	Rocky River	355	3.6%
44107	Lakewood	296	3.0%
44054	Sheffield Lake	259	2.6%
44126	Cleveland-Fairview Park	234	2.4%
44111	Cleveland-Lorain & W. 130th	166	1.7%
44052	Lorain	163	1.7%
44044	Grafton	124	1.3%
44055	Lorain	119	1.2%
44135	Cleveland-Riverside	108	1.1%
44001	Amherst	89	0.9%
44053	Lorain	84	0.9%
44102	Cleveland- Ohio City	77	0.8%
44028	Columbia Station / Grafton	72	0.7%
44130	Middleburg Heights	70	0.7%
44074	Jefferson	70	0.7%
44089	Vermilion	54	0.6%
44017	Berea	50	0.5%
44109	Cleveland-Tremont	50	0.5%
44142	Brook Park	50	0.5%
44090	Wellington	46	0.5%
44129	Parma	43	0.4%
44134	Parma	42	0.4%
44050	LaGrange	38	0.4%
44144	Brooklyn	38	0.4%
44136	Strongsville	34	0.3%
44125	Garfield Heights	33	0.3%
44212	Brunswick	27	0.3%
44149	Strongsville	24	0.2%
44256	Medina	24	0.2%
44133	North Royalton	23	0.2%
44113	Ohio City / Tremont	22	0.2%
44889	Wakeman	22	0.2%
44118	Cleveland Heights	17	0.2%

All other Zips		451	4.6%
	Total:	**9,818**	**100%**

- Although UH St. John's Medical Center draws from more than two dozen different communities, two-thirds of its inpatients in 2017 were residents of eight communities/zip codes: Westlake, North Olmsted, North Ridgeville, Avon, Elyria, Olmsted Falls, Avon Lake and Bay Village.

UH St. John Medical Center
Inpatient Discharges, 2017, All Ages, Primary Diagnosis: Major Disease Categories

	Count	Column Percent
Total	**10,713**	
Diseases of the circulatory system	1,739	17.7%
Diseases of the digestive system	955	9.7%
Diseases of the respiratory system	935	9.5%
Complications of pregnancy, childbirth, and the puerperium	875	8.9%
Infectious and parasitic diseases	858	8.7%
Diseases of the musculoskeletal system and connective tissue	781	8.0%
Injury/poisoning	760	7.7%
Diseases of the genitourinary system	508	5.2%
Endocrine, nutritional and metabolic diseases	338	3.4%
Symptoms, signs, and ill-defined conditions	261	2.7%
Diseases of the skin and subcutaneous tissue	238	2.4%
Cancers (neoplasms)	201	2.0%
Diseases of the nervous system and sense organs	191	1.9%
Mental and behavioral disorders	158	1.6%
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism	97	1.0%
Diseases of the ear and mastoid process	18	0.2%
Congenital anomalies	5	0.1%
Other (includes healthy newborns and their mothers)	909	9.2%

- Above we show the major disease categories associated with the primary diagnoses for all discharged patients in 2017 (for patients of all ages). Diseases of the circulatory (17.7%), digestive (9.7%) and respiratory (9.5%) systems were the most common.

Evaluation of Impact: UH St. John Medical Center Community Health Improvement Efforts

The last assessment conducted by UH St. John Medical Center was the collaborative 2018 Cuyahoga Community Health Needs Assessment, adopted by University Hospitals in September, 2018. The corresponding Implementation Strategy was adopted in March, 2019, while simultaneously conducting the 2019 joint CHNA. This one-year consecutive process is atypical, in that there is usually a three-year period between assessments. This was done to fulfill State of Ohio requirements to align hospitals and public health departments on the same three-year planning cycle by 2020. As such, the reporting period covers 2018 and the first two quarters of 2019.

Upon review of the 2018 UH St. John Medical Center community health needs assessment, hospital leadership isolated two top priority community health needs:

1. **Chronic disease management and prevention**
2. **Opioids / substance use disorders / mental and behavioral health**

In the first two quarters of 2019, UH St. John Medical Center screened 2,875 individuals to prevent and/or assist with managing a chronic disease. Their goals were to increase awareness and education of chronic disease self-management skills and promote healthy lifestyle behaviors. An extensive resource guide was mailed to over 32,000 households located near the hospital to raise awareness about health events, including mental health and substance use and addiction prevention.

UH St. John Medical Center staff will be hosting various events to increase awareness regarding the use of non-pharmacological pain management as a safe alternative to curb opiate abuse in the next quarter.

This built upon their existing priorities the previous year: **diabetes and heroin/opiate use and abuse.**

After pinpointing the top priorities, action plans were created to lend hospital staff expertise and resources to combat each community health issue. Below we outline the actions taken and an assessment of their impact.

1. Reduce diabetic patient readmissions

a. The hospital has had a focus on improving outcomes for diabetic patients for several years. Prior programs have proven unsuccessful for various reasons. For 2018, the goal was to link diabetic patients, after discharge, to community-based programs designed for diabetic patients. It was discovered, however, that UH St. John Medical Center inpatient population with diabetes generally has multiple debilitating co-morbidities or cognitive deficits and thus cannot fully benefit from any patient education or lifestyle modification efforts. However, the hospital's information technology department created a system to identify those patients who were good candidates for community-based programs. These patients were targeted to receive diabetes education materials and invitations to community-based diet, exercise and glucose-reduction activities. The numbers were small in 2018 and are expected to remain so.

   To better address diabetic health issues, the hospital instead used its resources and expertise to partner with a large community-based primary care provider practice and provided patient literature on diabetes self-management, support programs and other community resources.

b. A second initiative to combat diabetes in the community focused on increasing awareness of all diabetes-related services through a comprehensive community outreach strategy. The 2018 initiative was a continuation of plans initiated in 2017. Printed communications were sent to households in the communities UH St. John Medical Center serves. A resource guide for diabetic patient and families was sent to 35,000 households; this guide also included diabetic education articles. In addition, a program listing (wellness programs that improve diabetic status and prevention) was sent to 22,000 households. Diet and nutrition experts presented at the annual community safety fair, and two community-based health talks focused on diet/nutrition/exercise and their role in preventing diabetes were given by hospital staff.

c. Screening is seen by the hospital as the most impactful on diabetes' patient well-being. Events were continued in 2018 for early detection of diabetes. On pace with efforts in 2017, in 2018 about 1,000 community members were screened during 21 community-based events. Sixteen percent (11%) were deemed at-risk for diabetes and were referred for follow-up care. A registered nurse was present at all screenings to review results with participants and extend diabetes education to all.

d. To target the most vulnerable low-income community members, the hospital provided diabetes and healthy diet information to the West Shore Food Bank for distribution to community members receiving food assistance.

e. Improved behavioral lifestyle choices was a focus for diabetic community members through 2017 and 2018. The hospital resourced and promoted several community-based walking programs. A total of 548 community members in 2017, and 902 in 2018, participated in the group exercise and wellness education activities.

The overall strategy for UH St. John Medical Center as it relates to diabetes is the recognition that the condition is widespread, but that its impact is especially acute in certain populations. The hospital continuously seeks community partners; especially those who wish to bring diabetes (and other lifestyle / wellness / health issues) information and activities to their constituents. The hospital has a strong focus on linking these wellness services with those in the area's seven senior citizen centers and ethnicity-based organizations (e.g. El Centro, a service agency which focuses on the needs of Latino families).

2. Heroin and Opiate Use & Abuse

In 2006, there were 250 deaths caused by a drug overdose in Cuyahoga County. This increased slowly but steadily to 370 deaths in 2015. In 2016, however, the number of drug overdose deaths almost doubled, to 666, and then increased again to 727 in 2017. Most overdoses are related to either cocaine, heroin or fentanyl use. These three drugs are often used in combination. Almost all overdoses were linked to fentanyl use, either alone or in combination with cocaine or heroin.

UH St. John Medical Center has focused its community health improvement initiatives on the opioid crisis through several mechanisms.

a. Early on, the hospital very rigorously examined its own role in addressing the community opioid crisis. It created a multi-disciplinary team, which meets monthly, to examine internal hospital practices and to identify ways the hospital can lend its expertise to community-based initiatives. In 2018, addiction therapy team members brought an improved understanding of alternative pain management approaches to the team.

b. Throughout 2018, UH St. John Medical Center convened several community-based events where both community members and health care providers could increase their understanding of the scope and nature of heroin/opiate addiction. Education focused on state-of-the art treatments for addiction, prevention of addiction and prevention of overdose deaths (Narcan training). Events were held at area schools, community centers, health care sites, and local employers. They included experts on addiction and opioid abuse treatment and overdose prevention, emergency first responders, and treatment facility/recovery house staff members. All other hospital-sponsored events (screening events, chronic disease support groups, etc.) managed by the hospital now also include materials on heroin/opiate abuse education. In 2018, a total of 2,456 people participated in these events.

c. Hospital staff members obtained training on the use of OARRS (Ohio Automated Rx Reporting System) to identify opioid overuse (given to medical residents) and on non-opioid pain management (200 members of the nursing staff). All medical residents and nurse practitioners are required to be trained on and use OARRS in the emergency department. The hospital electronic medical record was modified so that the OARRS system is easily accessed on all hospital computers.

d. A social worker meets with all emergency department patients who present with an addiction. Available treatment resources are identified for such patients and referrals are given. The hospital focused on developing stronger relationships with area treatment providers in order to facilitate patient placement along with the ability to track patients' entry into treatment. In 2018, 27 emergency department patients were identified as needing addiction treatment. The social worker was able to place and confirm treatment for 12 of those patients.

e. Hospital staff sought information from UH Geauga Medical Center on establishing a detoxification program at UH St. John Medical Center, which is planned for implementation in 2019. Suboxone certification for an additional internal medicine physician was obtained (grown to three physicians).

f. Internal training to increase staff's ability to recognize opioid abuse in patients, properly address an opioid overdose, and understand available treatment options and programs was provided. Part of that effort resulted in an increase in the number of staff authorized to prescribe Suboxone. Overdose patients began meeting with a social worker to review treatment options upon discharge. With that, a database of overdose patients was developed to track patient outcomes.

g. Finally, UH St. John Medical Center is extremely active in the Cuyahoga County Opiate Task Force. This task force includes active partners in healthcare (hospitals and independent providers); pharmacies; mental health / addiction; primary, secondary and higher education; law enforcement and other first responders; and the media. UH St. John lends its resources and expertise to the efforts of the task force, and takes what it learns to examine and change its internal practices to do its part in reducing addiction and overdose deaths.

Appendices

A. Key Terms

Bias - Prejudice in favor of or against one thing, person, or group compared with another, usually in a way that is unfair.

Community Engagement - Building trusting relationships with people for the exchange of ideas and resources to improve the health and well-being of all.

Collective Impact - A structured form of collaboration that embraces continuous improvement and rigorous data for driving social change.

Diversity - The collective mixture of differences and similarities that includes individual and organizational characteristics, values, beliefs, experiences, backgrounds, and behaviors. It encompasses our personal and professional histories that frame how we see the world, collaborate with colleagues and stakeholders, and serve communities.

Equality - The quality or state of being equal and refers to the identical distribution of resources, decision making and outcomes regardless of level of need.

Equity - Just and fair inclusion into a society in which everyone can participate, prosper, and reach their full potential.

- Working toward equity is to promote justice and fairness within the procedures, processes, and distribution of resources by institutions and/or systems.
- Addressing equity requires an understanding of the underlying or root causes of outcome disparities within society.

Equitable – Fair and impartial.

Equity Lens - The viewpoint through which you view conditions and circumstances to understand who receives the benefits and who bears the burdens of any given program, policy, or practice.

Health - A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

Health Disparities - Differences in health status among different populations including differences that occur by gender, race or ethnicity, education or income, disability, or living in various geographic locations. Health disparities will be eliminated when equity is achieved.

Health Inequity - Systematic differences in the health status of different population groups arising from the social conditions in which people are born, grow, live, work and age.

Inclusion - Active, intentional, and ongoing engagement with diversity, including intentional policies and practices that promote the full participation and sense of belonging of every employee, customer, or client.

Inequity - Differences in well-being between and within communities that are systematic, patterned, unfair, and can be changed. They are not random, as they are caused by our past and current decisions, systems of power and privilege, policies and the implementation of those policies.

Life Expectancy - The average number of years a population of a certain age is expected to live, given a set of age-specific death rates in a given year.

People of Color - Any group of people not considered white such as African Americans, Asian & Pacific Islanders, Native Americans, and Hispanics.

Perspective Transformation - The process of becoming critically aware of how and why people's assumptions limit the way they perceive, understand, and feel about the world and how they act on this understanding. Within the context of HIP-Cuyahoga, this means building capacity to think, understand, and act differently to make equity and racial inclusion a shared value.

Population Health - The distribution of health outcomes across a geographically-defined group which result from the interaction between individual biology and behaviors; the social, familial, cultural, economic and physical environments that support or hinder wellbeing; and the effectiveness of the public health and healthcare systems.

Redlining - Housing policies supported by the Federal Housing Administration (FHA) and carried out by private banks beginning in the 1930's shaped racial segregation, the racial wealth gap and health inequities across the country. The FHA created a handbook that instructed banks on the security of making loans to cities across the country, including Cleveland. This handbook developed maps which color coded neighborhoods and sections of the city that were "safe" or "unsafe" for giving a loan. Areas that were populated by people of color were almost always designated with red and referred to as "redlined" areas, meaning banks would not give loans to people in those areas.

Segregation - The separation or isolation of a race, class, or ethnic group.

Social Determinants of Health - The circumstances, in which people are born, grow up, live, work, and age. These circumstances are, in turn, shaped by a wider set of forces - distribution of money, power and resources.

State Health Assessment - A comprehensive review of available health data, as well as collection of new information to create an understanding of the health status of populations throughout Ohio.

State Health Improvement Plan - A three-year plan led by the Ohio Department of Health to improve the health of Ohioans which is based upon the state health assessment. Local health departments and hospitals in

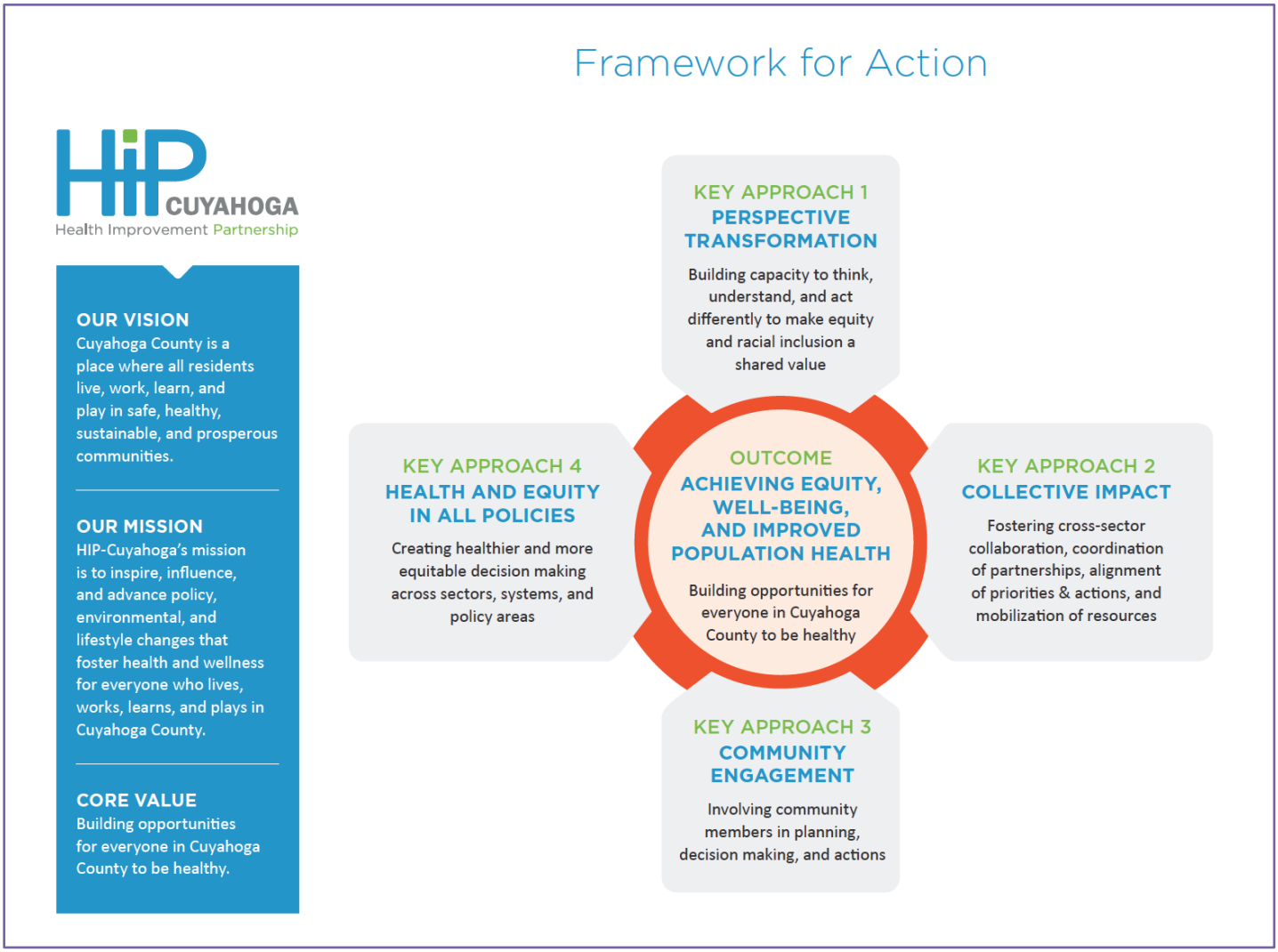
Ohio must align their local community health improvement priorities and plans with the state health improvement plan.

Structural Racism - Racial bias across and within society. It's the cumulative and compounded effects of a range of factors such as public policies, institutional practices, cultural representations, and other norms that work in various, often reinforcing ways to maintain racial inequity.

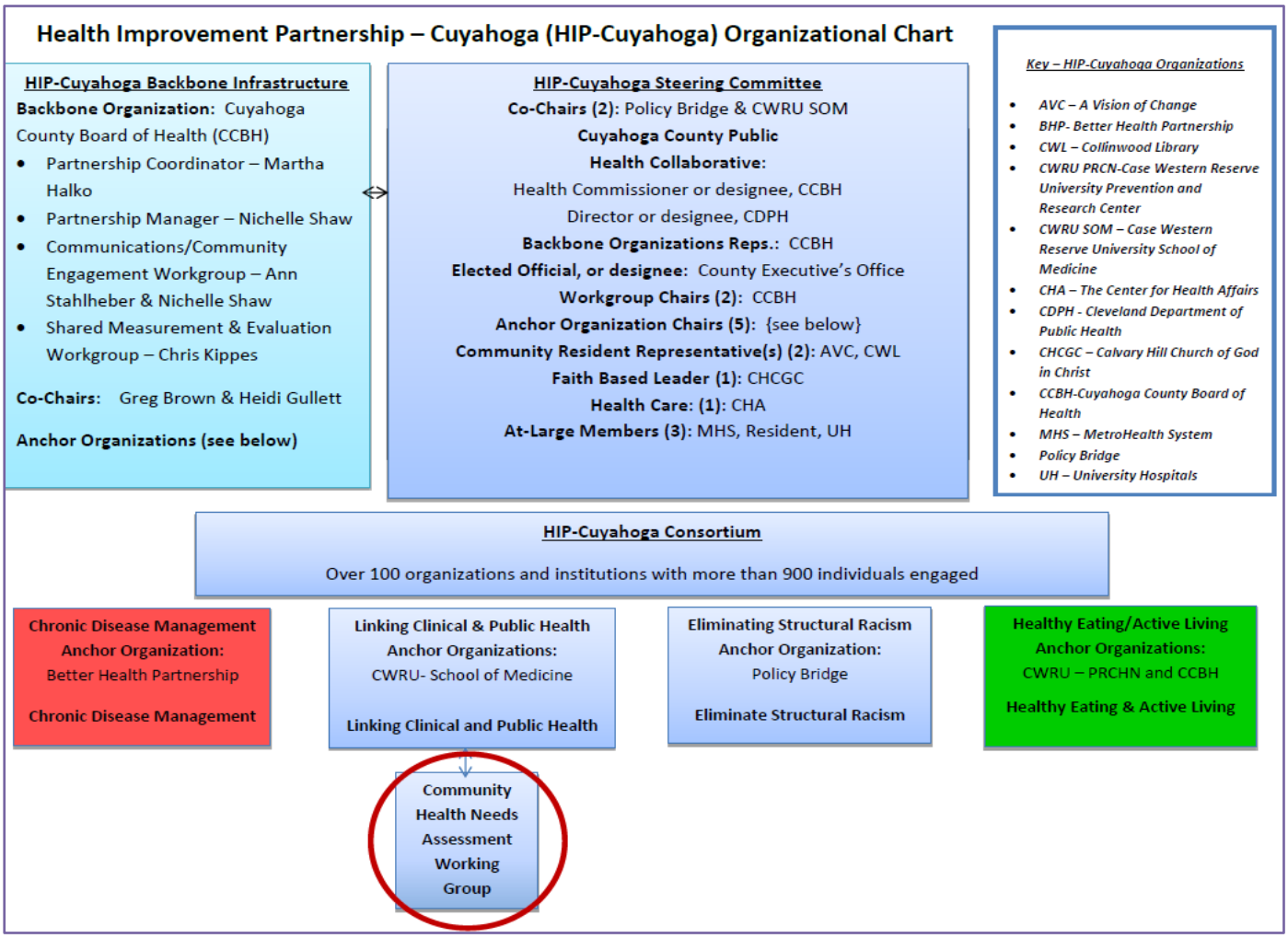
Sources for Definitions of Key Terms:

CommonHealth ACTION: https://www.aamc.org/download/442880/data/chahandout2.pdf
FSG, Reimagining Social Change: https://www.fsg.org/publications/collective-impact
Health Policy Institute of Ohio: https://www.healthpolicyohio.org/
HIP-Cuyahoga: https://hipcuyahoga.org/key-terms/
D5 Coalition: http://www.d5coalition.org/tools/dei/
Regional Equity Atlas: http://regionalequityatlas.org/toolkit/definitions-of-equity
World Health Organization: http://www.who.int/social_determinants/en/

B. HIP-Cuyahoga Framework for Action and Infrastructure



B. HIP Cuyahoga Framework for Action and Infrastructure, continued



C. Qualifications of Non-Steering Committee Consultants

A Vision of Change Inc. (AVOC)

For 23 years, A Vision of Change Inc. (AVOC), an Ohio-based 501 (c)(3) not for profit organization, has provided academic empowerment, intervention, and prevention services in many communities throughout Ohio with the largest target areas being the City of Cleveland with a focus on the Glenville and Central neighborhoods. The mission is to assist in breaking the cycles of illiteracy, poor health, teen dropout, youth imprisonment and poverty. The organization's programs and services target youth and families and are held within a variety of community locations including churches, schools, hospitals, health clinics and family engagement events or gatherings.

The Hospital Council of Northwest Ohio (HCNO)

The Hospital Council of Northwest Ohio (HCNO) is a 501 (c)(3) non-profit regional hospital association located in Toledo, Ohio representing hospitals throughout Northwest Ohio. HCNO is dedicated to bringing together health care leaders, providing collaborative opportunities to address health care providers' shared concerns, and develop creative health-related initiatives to measure and improve the region's health status. HCNO provides numerous services for our member hospitals including community health assessments (CHAs), shared purchasing services, evaluation services, trauma registry, disaster preparedness coordination, Carenet, Pathways, grant writing and evaluation, and other services in Northwest Ohio.

HCNO has six staff members dedicated full time to health assessments, all of which hold a Master's degree in Public Health (MPH). HCNO has been doing health assessments since 1999 and has completed assessments in 54 counties, with additional counties in progress with completion dates in 2019. In addition to the 20 years of completing community health needs assessments and planning processes, the Health Policy Institute of Ohio (HPIO) subcontracted with HCNO to collect the data for the 2016 State Health Assessment (SHA) as well as facilitate five regional forums throughout the state. In addition, HCNO also worked on the 2017 State Health Improvement Plan (SHIP). The Ohio Department of Health has recently contracted with HPIO and HCNO to complete the regional SHA forums in fall 2018 for the upcoming 2019 SHA and SHIP.

HCNO has published numerous articles on various health-related data and wrote two chapters in the 2017 Society for Public Health Education (SOPHE) text book "Health Promotion Programs: From Theory to Practice" on health assessments and secondary data. Health assessment staff have presented at national, state, and regional conferences including the Association for Community Health Improvement (ACHI), the Ohio Hospital Association, the Ohio Association of Health Commissioners (AOHC), and many others.

Paulette Sage, MA, PhD

Paulette is presently self-employed as an Independent Social Scientist. After an extensive career in the private sector working in advertising and marketing research, she earned a Master's degree at Cleveland State University and completed her PhD sociology studies at Case Western Reserve University. She has spent the last several years working with numerous Cleveland-area clinicians and social scientists on projects exploring the relationships between health/health self-management and the social environmental determinants of health. She specializes in qualitative research, from study inception and planning through interviewing, coding, analysis, and presentation of results.

Most recently she has worked on grant-funded studies exploring such issues as the delivery of primary care at VA clinics; diabetes care at inner-city, safety-net health clinics; older adult cancer survivors' experiences; and the personal and professional consequences of sleep loss and fatigue on medical residents representing five nationally prominent medical schools. She has also worked on several research projects evaluating the effectiveness of community-based intervention programs for at risk youth and teens.

D. 2019 Assessment Steering Committee

Assim Alabdulkader, MD, MPH Preventive Medicine Resident, Case Western Reserve University and University Hospitals
Terry Allan, Cuyahoga County Board of Health
Leslie Andrews, St. Vincent Charity Medical Center
Elyse Bierut, University Hospitals
Debbie Borowske, Southwest General Health Center
Greg Brown, Policy Bridge
Patricia Cirillo, PhD, Cypress Research Group
Karen Cook, MetroHealth
Kirstin Craciun, The Center for Health Affairs – *Co-Chair*
Adeola Fakolade, MD - Preventive Medicine Resident, Case Western Reserve University and University Hospitals
Elizabeth Fiordalis, Cleveland Clinic
Merle Gordon, Cleveland Department of Public Health
Heidi Gullett, MD, MPH, Case Western Reserve University School of Medicine – *Co-Chair*
Martha Halko, Cuyahoga County Board of Health
Chris Kippes, Cuyahoga County Board of Health
Candice Kortyka, The Center for Health Affairs
Jonathan Lever, Better Health Partnership
Benjamin Miladin, United Way of Greater Cleveland
Frances Mills, Cleveland Department of Public Health
Adam Nation, Cleveland Department of Public Health
Thom Olmstead, St. Vincent Charity Medical Center
Danielle Price, University Hospitals
Nichelle Shaw, Cuyahoga County Board of Health
Kurt Stange, MD, PhD, Case Western Reserve University School of Medicine
Andrea Szabo, Case Western Reserve University School of Medicine
Patricia Terstenyak, The Center for Health Affairs

E. Key Stakeholder Interviewees and Semi-Structured Interview Protocol

Individuals from the following organizations were interviewed:

A Vision of Change
Alcohol, Drug Addiction and Mental Health Services (ADAMHS) Board of Cuyahoga County
Benjamin Rose Institute on Aging
Calvary Hill Church of God in Christ
Cleveland City Planning Commission
Cleveland Department of Public Health
Cuyahoga County Board of Health
Cuyahoga County Department of Health and Human Services
Cuyahoga County Medical Examiner
LGBT Community Center
Neighborhood Connections
Neighborhood Family Practice
The Center for Community Solutions
The MetroHealth System
St. Vincent Charity Medical Center
United Way of Greater Cleveland

The following is the list of semi-structured interview 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?
    a. Why do you use your particular service area? Geographical or otherwise?
3. Is there capacity within your organization to serve additional clients? If not, what are the biggest barrier(s) impacting your ability to increase capacity?
4. In your opinion, what is the biggest issue or concern facing the people *served by your agency*?
5. In surrounding counties? Particular age groups (0 – 17, 18 – 44, 45 – 65, 65+)?
6. (Note: If not health care related, what is biggest health care related issue or concern?)
7. 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?
8. *(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; If necessary, probe for specifics as much as possible)*
9. Please share any trends seen in the following areas (and where, geographically they are occurring):
    a. Demographic – changes in the size, age, racial/ethnic diversity, or other characteristics of the population (particularly those who are "vulnerable")
    b. Economic variables – their impact on health

c. Provider community – public health, FQHCs, physicians, hospitals (who is taking care of the poor?)
d. Health status/public health indicators (what illnesses/needs/issues are getting worse or better? Why?)
e. Access to care – why?
f. Specifically, access to preventive care

10. If you were to prioritize, what would you say are the top 3 issues *impacting your community* in order of greatest need?
11. What are the community organizations/assets that are or could be working to address these needs?
12. 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?
13. What role do you think the hospitals in your area should play?
14. What role do you see public health departments currently playing to help address the community health issues faced by the low-income people who live here?
15. What role do you think public health should play?
16. From your perspective, what are the assets in Greater Cleveland/Cuyahoga County?
17. If you had a magic wand and unlimited resources to make the city/county healthier, what specific initiative(s) would you recommend to address the most pressing access or health status problems in the community? Why?
18. Does your agency or organization create or support greater equity in Cuyahoga? If yes, how? Equity being defined as providing all people w/ fair opportunities to achieve their full potential.
19. Our health outcomes data show large disparities for those based on their race or where they live. It suggests there is a large difference in access to quality healthcare depending on your race or where you live. From where you sit in your organization, what is feeding these inequities? *(Probe for specifics about actions/inactions/policies/erroneous beliefs, etc., that lead to inequities)*
20. Do you think structural racism impacts populations in Cuyahoga County? If so, how? Structural racism being defined as racial bias across and within society. The cumulative and compounded effects of an array of factors such as public policies, institutional practices, cultural representations, and other norms that work in various, often reinforcing ways, to perpetuate racial inequity.

F. Social Service Provider Focus Group Participant Agencies and Questions

Individuals representing the following organizations participated in the focus group:

Western Reserve Area Agency on Aging
Northeast Ohio Areawide Coordinating Agency
Council for Economic Opportunities in Greater Cleveland
Enterprise Community Partners
Cleveland Rape Crisis Center
Cuyahoga Metropolitan Housing Authority
CHN Housing Partners
Hunger Network of Greater Cleveland
The Food Trust

The following is the list of focus group questions:

1. In your opinion, what is the biggest issue or concern facing the people *that you serve?*
    a. Does this differ between age groups (0 – 17, 18 – 44, 45 – 65, 65+)?
2. If not mentioned... what is biggest health care related issue or concern?
3. Tell me about the kinds of problems that the people served by your agency have in accessing;
    a. Health care
    b. Mental and behavioral health – are those problems the same or different?
    c. Social services - are those problems the same or different?
4. Our health outcomes data show large disparities for those based on their race or where they live. It also suggests there is a large difference in access to quality healthcare. From where you sit in your organization, what causing and/or perpetuating these inequities?
    a. *Probe for specifics about*
        i. *Actions/inactions*
        ii. *Policies*
        iii. *Erroneous beliefs*
    b. *PROBE – what do you mean by that? Can you give me an example?*
5. If you were to prioritize, what would you say are the top 3 issues *impacting your community* in order of community's greatest need?
6. What are the biggest barriers in the way of your fulfilling your mission? [besides lack of funding]
    a. Why do you feel that way?
7. From your perspective, what are the assets in Greater Cleveland/Cuyahoga County?
    a. Restate if necessary: What is it about this region that contributes positively to quality of life?
    b. Tell me why you feel that way?
8. What role do you see the public health departments and hospitals in your area currently playing to help address the community health issues faced by the low-income people who live here?
    a. Are they different roles between health departments and hospitals?
9. If you had a magic wand and unlimited resources to make the city/county healthier, what would you do?
    a. Why?

G. University Hospitals' Priority / Resource Matrix

Hospital	Potential Resource Available
Priority: Elimination Structural Racism	
UH Cleveland Medical Center	• Community Impact, Equity, Diversity and Inclusion (CEDI), Health Scholars Program ○ UH staff, medical residents, space, materials – Health Scholars Program ○ Shaker Heights High School ○ Cleveland School of Science and Medicine ○ Case Western Reserve University
UH Rainbow Babies & Children/MacDonald Women's Hospital	• UH Rainbow Women & Children's Center: ○ Trauma Informed Care ○ Unconscious Bias Training
Priority: Trust building	
• There will be cross-cutting strategies for several medical centers	
Priority: Community Conditions	
UH Ahuja Medical Center	• UH staff, space, materials • Breakfast with Santa resource event • Cleveland library system
UH Bedford-Richmond Medical Centers	• UH financial counseling staff, ED providers, primary care offices • UH community outreach staff addressing safety
UH Cleveland Medical Center	• Adult Trauma Program, Violence Interrupters Program ○ Cleveland Peacemakers/City of Cleveland ○ UH Emergency Medical Services Institute
	• Community Impact, Equity, Diversity and Inclusion (CEDI), Food for Life Market ○ UH Staff, space ○ Sodexo ○ Olivet Institutional Baptist Church
	• UH Harrington Heart and Vascular Institute staff to support inner city health education/career development programs • UH staff including UH Emergency Medical Services Institute to provide heart failure CPR/safety training and Stop the Bleed Program and Cardiac Arrest Free Zones • Breakthrough Schools • Local first responders
	• UH Emergency Medical Services Institute injury prevention programs for all ages ○ Fire departments; mayors; safety directors; school districts
UH Parma Medical Center	• UH Emergency Medical Services Institute Stop the Bleed Program, Safety Fair, Meals on Wheels, Free Screenings, Free Summer Lunch Program • Cities of Parma, North Royalton, Parma Heights, Seven Hills, Brooklyn, Brooklyn Heights and Broadview Heights • Brecksville/Broadview Hts./North Royalton/Parma City School Districts • North Royalton YMCA • Padua High School • Parma Area Family Collaborative • Parma Libraries • Partnership for a Healthy North Royalton • St. Albert the Great • Senior centers • The Arthritis Foundation • West Creek Conservancy;

	• YMCA of Greater Cleveland

UH Rainbow Babies & Children/MacDonald Women's Hospital	• UH Rainbow Women & Children's Center:
	  ○ Rainbow Connects
	  ○ Community Nutrition Education
	  ○ Centering Pregnancy
	• UH Rainbow Kids Free Summer Lunch Program
	• UH Rainbow Injury Prevention Center
	• UH Rainbow Kids Free Weekend Meal Program
	• UH Dept. of Psychiatry
	• Bright Beginnings
	• Catholic Charities of Ashtabula County
	• Child Abuse & Neglect Prevention: Ohio Children's Trust Fund Great Lakes Regional Council
	• Cleveland Housing Network
	• Cleveland Neighborhood Progress
	• Dave's Market Community Kitchen Programs
	• Family Pride of NE Ohio
	• First Year Cleveland
	• Furniture Bank
	• Healthy Harvest, Kitchen demonstrations and events
	• May Dugan Center
	• MidTown Cleveland
	• Ohio Attorney General's Office
	• Ohio Department of Education
	• Ohio State Univ. Extension
	• Pediatric Trauma/Pediatric Emergency Department Antifragility Initiative
	• Safe Kids Coalition
	• Women, Infants, and Children
	• Womensafe, Inc.
	YWCA of Greater Cleveland

Chronic Disease Prevention / Management	
UH Ahuja Medical Center	• UH Diabetic Self-Management Education classes • UH staff: health professionals talks, wellness seminars, support groups, screenings • Stop the Bleed and CPR training • UH Age Well Be Well program • Alert Care Medical Systems Dementia Care • Alzheimer's Association • Alzheimer's Association • American Cancer Society • American Heart Association • Arden Courts, Chagrin Falls Dementia Care • Arthritis Foundation • Beachwood Fire Department • Beachwood High School • City of Beachwood • City of Bedford • City of Highland Hills • City of Nordonia • City of Solon • City of Warrensville Heights • Cleveland Library system – Orange Library • Cuyahoga Community College

	• Cuyahoga County Board of Health • Cuyahoga County Opiate Task Force • Diabetes Association • Empowering Epilepsy • Health Improvement Partnership - Cuyahoga • Hospice of the Western Reserve at UH • Job and Family Services • Lifebanc • Maltz Museum • Montefiore and the Weils • Ohio Library for the Blind and Physically Disabled • Orange Senior Center • Ostomy Awareness WOC • The Gathering Place • Twinsburg High School • UH Bariatrics • UH Dermatology • UH EMS Institute • UH Home Care Services • UH Orthopedics • UH Physical Therapy • Warrensville Heights Senior Center • Warrensville Heights YMCA • YMCA of Greater Cleveland
Beachwood RH, LLC	• UH Staff, space for support groups; partner with UH physicians
UH Bedford-Richmond Medical Centers	• UH staff in varying departments: dieticians, nurses, EMS Institute, respiratory therapists • Community partnership on aging • Partnerships with local churches, nursing facilities, senior centers, local government • Partnerships with police and fire departments, local businesses, Cuyahoga County public library, educational institutes, local schools
UH Cleveland Medical Center	• UH Harrington Heart and Vascular Institute staff • Emergency Medical Services Institute staff ○ Education and health screening pertaining to cardiovascular disease prevention and early detection • UH Seidman staff • American Cancer Society • Cleveland Clinic • Cleveland Public Health Department • City of Cleveland • Health Improvement Partnership-Cuyahoga • Healthy CLE • MetroHealth System
UH Parma Medical Center	• UH Physician presentations, events, smoking cessation classes to high schools • Health Education Center – offering free space for local agency support groups • Alzheimer's Association • Amelia Foundation • American Heart Association • Community health fairs • Food Addicts Anonymous Foundation • North Royalton School District • North Royalton YMCA

	• Ohio Parkinson's Foundation • Padua High School • Parma Area Family Collaborative • Parma Libraries • Parma City School District • Partnership for a Healthy North Royalton • St. Albert the Great • Senior centers in UH Parma service areas • The Arthritis Foundation • West Creek Conservancy; • YMCA of Greater Cleveland
UH St. John Medical Center	• UH Staff time, screening supplies, and event materials, printed materials • Area extended care facilities, local senior centers, Great Northern Mall; Bay Village Schools, North Olmsted and Westlake Schools and fire stations • American Cancer Society • American Diabetes Association • American Heart Association • City of Westlake • Colon Cancer Alliance • Crohns and Colitis Foundation • Cuyahoga County Board of Health • Far West, Porter and Lakewood Libraries • Fairhill Partners • Rite Aid • The Gathering Place • United Way • Veterans Administration • Westlake Community Services • Westlake Food Pantry • Westshore YMCA • Westside Health Organization • Westlake Recreation Center
Mental Health / Addiction	
UH Ahuja Medical Center	• UH Connor Integrative Network • UH Pain Management Institute • UH staff: Music therapy
UH Bedford-Richmond Medical Centers	• UH Staff • UH Connor Integrative Health Network
UH Cleveland Medical Center	• Pain Management Institute & UH Department of Psychiatry ○ UH Addiction Services

UH Rainbow Babies & Children/MacDonald Women's Hospital	• UH Rainbow Women & Children's Center:
	  ○ Mom Power Program
	  ○ UH MOMs (Maternal Opiate Medical Support) program
	• Lifeact

UH St John Medical Center	• UH staff including the St John Pain Management Clinic, Psychiatry, Cleveland Medical Center • Use of space, materials, meeting expenses and printing costs • Catholic Charities Matt Talbot for Women • Cuyahoga County Opiate Task Force • Laurelwood • Ohio Pharmacy Board

	• Project DAWN • SVCH Rosary Hall • The Center for Health Affairs • The City of Westlake Community Services, Police and Fire and Rescue • West Shore Enforcement Bureau

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