Community Health Needs Assessment

2017 - 2019

December 2019

Thank you for taking the time to learn more about the Advocate Good Samaritan Hospital Community Health Needs Assessment (CHNA). Identifying and addressing the health needs of the communities we serve is critical in providing quality and transformative health care. The CHNA is also integral in helping the hospital provide culturally competent, high-quality care with compassion and dignity.

Every three years the hospital completes a comprehensive CHNA by collecting and analyzing demographic, socioeconomic and health data for the hospital's defined community. Advocate Good Samaritan was privileged to work with the DuPage County Health Department and Impact DuPage to complete a collaborative DuPage County CHNA process. The assessment process supports the hospital in developing strategies that effectively address the most significant health needs of the community. We used local data, a CHNA data platform and input from the community to identify socioeconomic and health needs that are present in the communities we serve.

It is essential that the CHNA process is inclusive of local community representatives that provide insight to at-risk populations. The hospital therefore convened a Community Health Council comprised of community and hospital representatives to oversee the collaborative CHNA process. Many of the members of The Council represent underserved or underrepresented populations. The Council served as the hospital's advisory body in the CHNA process and provided critical feedback around the health and social needs of communities across DuPage County. Council members also supported the completion of the collaborative CHNA process through reviewing and analyzing socioeconomic and health data. After thorough review of data including community feedback, our Community Health Council approved the following health priorities.

- Health Status Improvement. This health priority includes access to health care, obesity prevention and healthy lifestyles.
- Behavioral Health. This priority includes both substance use and mental health.

As a community hospital, we understand that health status improvement and behavioral health are fundamental in creating healthy communities across DuPage County. We also understand that these health issues are strongly influenced by social factors and therefore we will partner with community organizations across various sectors to address our 2019 CHNA health priorities.

We are excited to share this report with our community partners and stakeholders and encourage you to not only read through the document but also provide feedback regarding the health needs of DuPage County. A link at the end of the CHNA report will provide you with the opportunity to leave feedback, comments or any ideas regarding the CHNA process. Through strong partnerships, collaboration and transformative programming we will be able to create a measurable impact and make healthy happen across communities in DuPage County.

Nancy M. Tinsley
President
Advocate Good Samaritan Hospital

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I. Executive Summary

Advocate Good Samaritan Hospital (Advocate Good Samaritan) partnered with Impact DuPage to conduct a collaborative DuPage County community health needs assessment (CHNA) process. Impact DuPage is a coalition of DuPage County hospitals, community-based organizations and the DuPage County Health Department. The DuPage County Health Department served as the anchor for the Impact DuPage collaborative CHNA.

Advocate Good Samaritan also conducted an assessment of the health status and social determinants of health for two communities that are in the hospital's primary service area (PSA), but not in DuPage County (Romeoville and Bolingbrook). The body of this report describes how the Community Health Department and the hospital Community Health Council (CHC) engaged in in the broader DuPage County collaborative assessment. The Impact DuPage collaborative assessment defined "community" as DuPage County which consists of 36 zip codes and 31 communities. The assessment of needs for Bolingbrook-Romeoville can be found in Appendix 6.

DuPage County is 74.7 percent White, 11.68 percent Asian, 5.45 percent "Other", 5.22 percent Black, 2.6 percent two or more races, 0.3 percent American Indian/Alaskan Native and 0.04 percent Native Hawaiian/Pacific Islander. The ethnic make-up of the County is 15 percent Hispanic/Latino and 85 percent non-Hispanic/Latino. In addition, the County is 50.9 percent female and 49.1 percent male with a median household income of $88,988.

The Advocate Good Samaritan CHC, comprised of hospital and community representatives, provided oversight of the Impact DuPage collaborative CHNA process—including county-level data review and analysis. The CHC reviewed primary and secondary data for the top eight health needs, which were identified by the hospital's Community Health Department. The County's top eight health needs are listed below.

- Behavioral Health (mental health and substance use)
- Healthy Lifestyles
- Access to Health Care
- Cardiovascular Disease
- Immunizations
- Sexually Transmitted Diseases
- Asthma
- Senior Health

After careful review of the data, in April 2018, the hospital's CHC members prioritized the eight DuPage County health needs down to two by using criteria including prevalence and incidence rates of the health issue, the degree to which community partners address the health issue and the effectiveness of possible interventions/programs. The top two priorities became the focus of what the hospital would support at the larger Impact DuPage Steering Committee's health need prioritization vote. The CHC advised the hospital's director of community health to vote for health status improvement/healthy lifestyles and behavioral health as the County's priorities at the larger Impact DuPage Steering Committee meeting.

After a final vote by the Impact DuPage Steering Committee members, health status improvement, which includes healthy lifestyles and access to care, along with behavioral health and affordable housing were selected as the county-wide priorities.

Results of the Impact DuPage voting process were presented to the hospital's CHC including the three prioritized health needs for the County. Taking into consideration the hospital's capacity and limited resources, the CHC decided to adopt two out of the three County health need priorities. Behavioral health and health status improvement were selected as the hospital's 2019 CHNA health need priorities due to the increasing rates of substance use and mental health issues and the high obesity and food insecurity rates among low-income populations in DuPage County.

To address the 2019 CHNA health status improvement priority, the hospital will explore multiple strategies and community partnerships. The DuPage Health Coalition is one of the community organizations leading the work to address health status improvement in the County. The hospital's director of community health will meet with the DuPage Health Coalition to identify ways in which the hospital can support the County's health literacy, access to care and chronic disease management strategies. In addition, the hospital's Community Health Department will work with and support the Transition Support Program (TSP), an Advocate Aurora Health program that works with Advocate Good Samaritan patients to ensure they have a primary care provider and a scheduled follow-up appointment upon discharge. The Community Health Department will also work with TSP to ensure the social needs of patients are being addressed.

The hospital will also address behavioral health through multiple partnerships including the DuPage County Health Department, Gateway Foundation and the NAMI DuPage. In partnership with the Gateway Foundation, the hospital will host the State Targeted Response program, which aims to work with patients admitted to the ER due to opioid use disorder to get them placed in treatment and to provide community support services. The hospital will also continue to work with NAMI DuPage on the Teen Recovery Support Group and Ending the Silence program, which aims to create awareness and destigmatize mental illness.

The hospital will begin developing a 2019 CHNA Implementation Plan that will include community strategies and outline how the hospital will address the prioritized health needs. The hospital will also be very intentional about partnering with the DuPage County Health Department to ensure programs are not duplicated and the collective impact model is used to develop well-rounded and collaborative strategies. The director of community health will ensure all Implementation Plan strategies are measurable and presented to the CHC for feedback and final approval.

The 2017-2019 CHNA was a collaborative process conducted in partnership with the DuPage County Health Department/Impact DuPage. The process provided great insight on the health needs of the County and allowed CHC members to compare the health needs of DuPage County with those of the hospital's PSA. The hospital will continue to work with community partners and Impact DuPage to ensure a collaborative Implementation Plan.

II. Description of Advocate Aurora Health and Advocate Good Samaritan Hospital

Advocate Aurora Health

Advocate Aurora Health is one of the 10 largest not-for-profit, integrated health systems in the United States and a leading employer in the Midwest with more than 70,000 employees, including more than 22,000 nurses and the region's largest employed medical staff and home health organization. A national leader in clinical innovation, health outcomes, consumer experience and value-based care, the system serves nearly 3 million patients annually in Illinois and Wisconsin across more than 500 sites of care. Advocate Aurora is engaged in hundreds of clinical trials and research studies and is nationally recognized for its expertise in cardiology, neurosciences, oncology and pediatrics. The organization contributed $2.1 billion in charitable care and services to its communities in 2018. We help people live well.

Advocate Good Samaritan Hospital

Advocate Good Samaritan opened in 1976 and is a 285-bed hospital committed to providing clinically excellent and compassionate care. The hospital has more than 1,000 physicians representing 68 specialties and more than 2,200 associates, 580 volunteers and 1,130 auxilians. Through strong partnerships with outstanding physician and nursing staff, the hospital is improving the health of residents in the community and meeting the highest standard of patient care.

During its over 40-year history, Advocate Good Samaritan has evolved into a recognized national leader in health care. It has been named one of the Top 100 Community Hospitals by Becker's Hospital Review. Advocate Good Samaritan also provides the community with a certified Level I trauma center and a certified Level III neonatal intensive care unit, the highest designations in Illinois, and has twice received the American Nurses Credentialing Center Magnet recognition for nursing excellence. It is the only health care organization in Illinois to earn the prestigious Malcom Baldrige National Quality Award for performance excellence. A range of services are offered at the hospital including cardiology, oncology, neurosurgery, orthopedic surgery, general surgery, gastroenterology, stroke care, obstetrics and gynecology, low dose diagnostic imaging, and a comprehensive breast cancer program. In 2017, the hospital opened three state-of-the-art facilities, including the Bhorade Cancer Center, the Spine Care Center and the West Tower expansion. The Bhorade Cancer Center offers both radiation oncology and chemotherapy services under one roof. The Spine Care Center offers the most advanced tools for diagnostics and minimally invasive treatment for back and spine disorders, and the West Tower expansion holds 96 private rooms and the best technology for patient safety.

In addition to the clinical service lines, the hospital also has a Health & Wellness Center, which is a 90,000 square-foot medical-model fitness center located on the hospital's campus. The center offers several fitness and wellness programs to the community in addition to its team members.

Exhibit 1: Advocate Good Samaritan Annual Statistics 2017

	TOTAL
Inpatient Admissions	15,000
Births	1,600
Emergency Department Visits	43,000
Surgical Cases	8,800
Outpatient Visits	127,000

Source: Advocate Aurora Business Development Analytics, 2018

III. Summary of the 2014-2016 Community Health Needs Assessment and Program Implementation

Community Definition

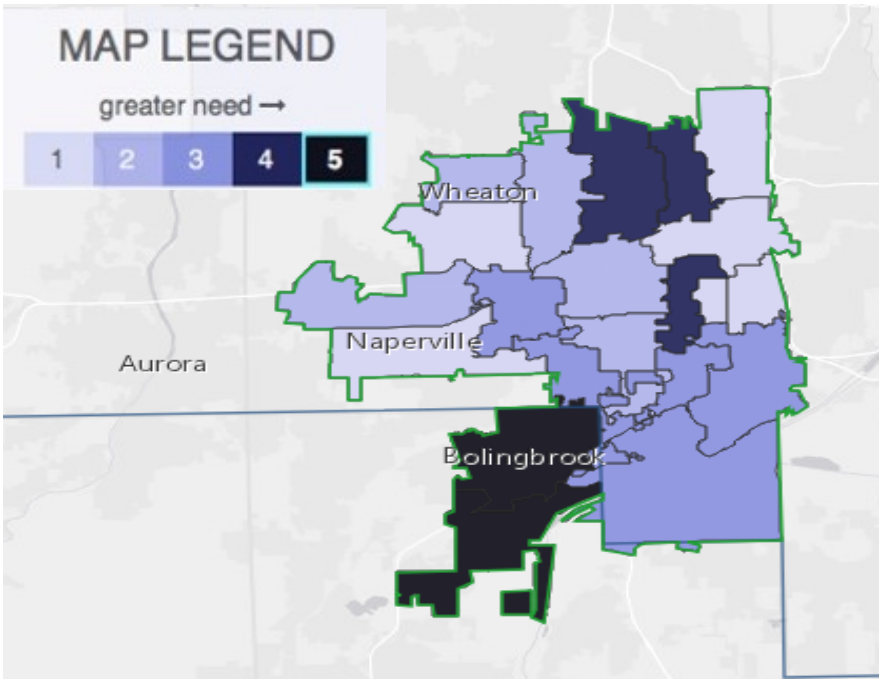
For the purposes of the 2014-2016 CHNA, Advocate Good Samaritan defined the community as its PSA. The PSA for the hospital consists of 15 communities representing 21 zip codes in DuPage County and three communities representing three zip codes in Will and Cook Counties. The PSA communities include Lombard (60148), Downers Grove (60515, 60516), Westmont (60559), Woodridge (60517), Darien (60561), Glen Ellyn (60137), Lisle (60532), Villa Park (60181), Oak Brook (60523), Willowbrook (60527), Bolingbrook (60440), Lemont (60439), Wheaton (60189, 60187), Elmhurst (60126), Naperville (60563, 60540), Clarendon Hills (60514), Romeoville (60446) and Hinsdale (60521). As a general practice in Advocate Aurora, PSA is defined as the communities where 75 percent of the hospital's patients reside.

Communities with Highest SocioNeeds Index Values

In order to understand the social context that exists in the hospital PSA that deeply influences health, the hospital utilized the Conduent SocioNeeds Index. The SocioNeeds Index is a measure of socioeconomic need that is correlated with poor health outcomes (Healthy Communities Institute, 2016). Indicators for the index are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. This index combines multiple socioeconomic indicators into a single composite value.

As a single indicator, the index served as a concise way to explain which areas are of highest need for the hospital's 2014-2016 CHNA. The scores ranged from 1 to 100. A score of 100 represents the highest socioeconomic need. The ranking of one to five is a local comparison of each zip code to all others within the PSA; a five represents areas of highest socioeconomic need in comparison to others in the specific geographic area under consideration. Throughout the data analysis phase of the assessment, a trend indicated that communities with a high socioneeds score had poorer health outcomes.

Exhibit 2: Advocate Good Samaritan PSA SocioNeeds Index 2016



Source: Healthy Communities Institute, 2016

Overview of Collaborations

Advocate Good Samaritan collaborated with numerous stakeholders for the 2014-2016 CHNA. The key stakeholders and partners were as follows.

- Advocate Good Samaritan Community Health Council
- Advocate Good Samaritan Governing Council
- DuPage County Health Department
- Impact DuPage
- Advocate system and hospital leadership

Summary of Assessment Process

Advocate Good Samaritan's Community Health Council met numerous times to review and discuss key data findings. In addition, the CHC devoted time to review how the identified health priorities would be implemented and what strategies were best to utilize during the planning and implementation phase. The CHC used a prioritization tool to rank the ten key community health needs. The prioritization tool used a rating system based on the following six criteria.

- Seriousness of the need
- Importance to the community

- Size of the problem (percent of population affected)/extent of the need
- Degree to which effective programs are available to address the need
- Degree to which community assets can help address the need
- Degree to which community partners can/are involved in solving the problem

The CHC indicated significance of community need using the following rating scale.

- High (3)
- Medium (2)
- Low (1)
- None (0)

Through application of the prioritization tool, three key health needs were identified: 1) obesity/healthy lifestyles; 2) mental health; and 3) substance abuse. After thoroughly reviewing the data and considering the advice of key community partners, the CHC determined that healthy lifestyles and mental health were the key focus areas for the 2014-2016 CHNA.

Needs Identified and Priorities Selected

Obesity and poor nutrition are the main causes of many chronic diseases and health issues including heart disease, stroke, some cancers and diabetes. Taking this into consideration, the CHC selected healthy lifestyles as one of the two health priorities to address, due to the high impact it has on quality of life and overall health status. The prevention of obesity, proper nutrition and physical activity have the potential to decrease the rate of chronic disease thus increasing life expectancy and quality of life. The term healthy lifestyles is used to encompass multiple factors that cause obesity and impact quality. Data also revealed that low-income populations within DuPage County had higher rates of obesity indicating obesity prevention and nutrition education was an essential need in the more vulnerable communities within the hospital's PSA.

The CHC selected mental health as the second health need priority. Data trends indicated that mental health issues were increasing and the need for mental health services and programming was continuing to grow. This health need is also correlated with substance abuse as many substance users/abusers also experience mental health issues and many individuals with mental health disorders experience substance abuse issues. The National Alliance for Mental Illness (NAMI), one of the leading mental health agencies in DuPage County, provided mental health data that also indicated the need for resilience and mental health crisis training among adolescents and young adults. The CHC was specifically interested in programs that prevent mental health emergencies and decrease ED visits and hospitalization due to mental health issues.

Summary of Implementation Programs and Key Accomplishments

As a result of the 2016 Community Health Needs Assessment (CHNA), Advocate Good Samaritan prioritized healthy lifestyles and mental health. An Implementation Plan with several strategies was created for each health priority and included various process and impact indicators to evaluate and track strategy outcomes.

Mental Health

In partnership with the National Alliance on Mental Illness (NAMI DuPage), Advocate Good Samaritan implemented Mental Health First Aid (MHFA) trainings throughout the hospital's PSA. MHFA is an 8-hour course that teaches individuals how to identify, understand and respond to signs of mental illnesses and substance use disorders. The training gives individuals the skills needed to reach out and provide initial help and support to someone who may be developing a mental health or substance use problem or experiencing a crisis. From 2017 to 2019 the hospital implemented over six MHFA trainings for community partners and internal associates. Since 2017, more than 100 individuals completed the training and more than 75 percent of those who completed the training scored higher than 80 percent on the final exam which measured knowledge change and skill development in identifying and addressing mental illness.

The hospital also partnered with NAMI DuPage to create and run a Teen Recovery Support Group, which focused on providing support to teens with mental health issues. Along with NAMI DuPage, the hospital's behavioral health staff researched best practices around adolescent mental health support groups to create the program structure. After developing the program and the evaluation component, the Teen Recovery Support Group was implemented in fourth quarter 2018. Since the inception of the group, over twenty teens have participated and sought support and resources through their engagement in the program.

In addition, Advocate Good Samaritan worked with local schools to provide the Ending the Silence program, a program aimed at destigmatizing mental illness among middle and high school students. Over 600 students in the hospital's PSA completed the class with over 63 percent of students reporting that they felt more comfortable talking about mental illness.

Healthy Lifestyles

In partnership with Action for Healthy Kids (AFHK), Advocate Good Samaritan worked with two local elementary schools to improve the health and wellness among students and the environment. The hospital provided mental health workshops, nutrition education, healthy food taste testings, yoga classes, support in the development of a community garden and worked with AFHK to provide technical assistance and support around fulfilling the HealthierUS School Challenge requirements. Over 700 students and families were served through this initiative.

In an effort to increase health and wellness among low-income populations, the hospital worked with local food pantries, University of Illinois Extension and Northern Illinois Food Bank to implement healthy

lifestyle workshops for food pantry clients and recipients. The hospital implemented over 28 healthy lifestyle workshops including taste testings and physical activity education to over 60 food pantry clients. In addition, over 2,000 pounds of healthy food and produce were distributed to workshop participants.

In an effort to address overweight/obesity in children, Advocate Good Samaritan partnered with ProActive Kids, an organization that aims to reduce childhood obesity through working with children ages 8 to 14 with a high body max index (BMI). The program includes physical activity, nutrition education and healthy lifestyle coaching for participants and their families. Since 2017, over 20 children completed the eight-week program and 67 percent of participants decreased their BMI.

The hospital's cardiac service line worked with local community partners and businesses to implement the Brain and Heart Attack workshop. This workshop aimed to decrease and prevent heart attacks and strokes through living and maintaining a healthy lifestyle. Over eight workshops were implemented, and 80 percent of workshop participants reported they were more knowledgeable about how to prevent a heart attack and stroke.

Input from the Community

Although many feedback mechanisms were put in place for the public to comment or provide input on the community health needs assessment, the hospital did not receive any feedback from the community. The hospital will continue to encourage input from the community by providing various feedback mechanisms for the 2017-2019 community health needs assessment.

Lessons Learned

There were several lessons learned throughout the 2014-2016 Community Health Needs Assessment and Implementation Plan processes. A key lesson learned was the importance of integrating social determinants of health into Implementation Plan strategies to ensure root causes of adverse health outcomes are being addressed. Having a multi-sectorial approach to addressing health needs will support the hospital in creating a comprehensive Implementation Plan that addresses root causes of poor health.

The hospital also learned that developing measurement tools that evaluate long-term impact is essential. Implementation Plan strategies that aim to increase knowledge and generate behavior change are only impactful if the knowledge or behavior changed is sustained, therefore the hospital will develop tools to measure sustained behavior changes as a result of workshops and trainings.

Advocate Good Samaritan also learned the importance of partnering and aligning with the DuPage County Health Department on Community Health Needs Assessments and addressing health needs in the community. The hospital's 2014-2016 CHNA priorities aligned with the DuPage County Health Department, however, the Implementation Plan strategies did not. The hospital recognizes the power and importance of collective impact and will explore additional partnership opportunities with the DuPage County Health Department for the next CHNA and Implementation Plan in efforts to increase

program impact in the community. The goal is to more closely align Implementation Plan strategies with the DuPage County Health Department and employ a collective impact model.

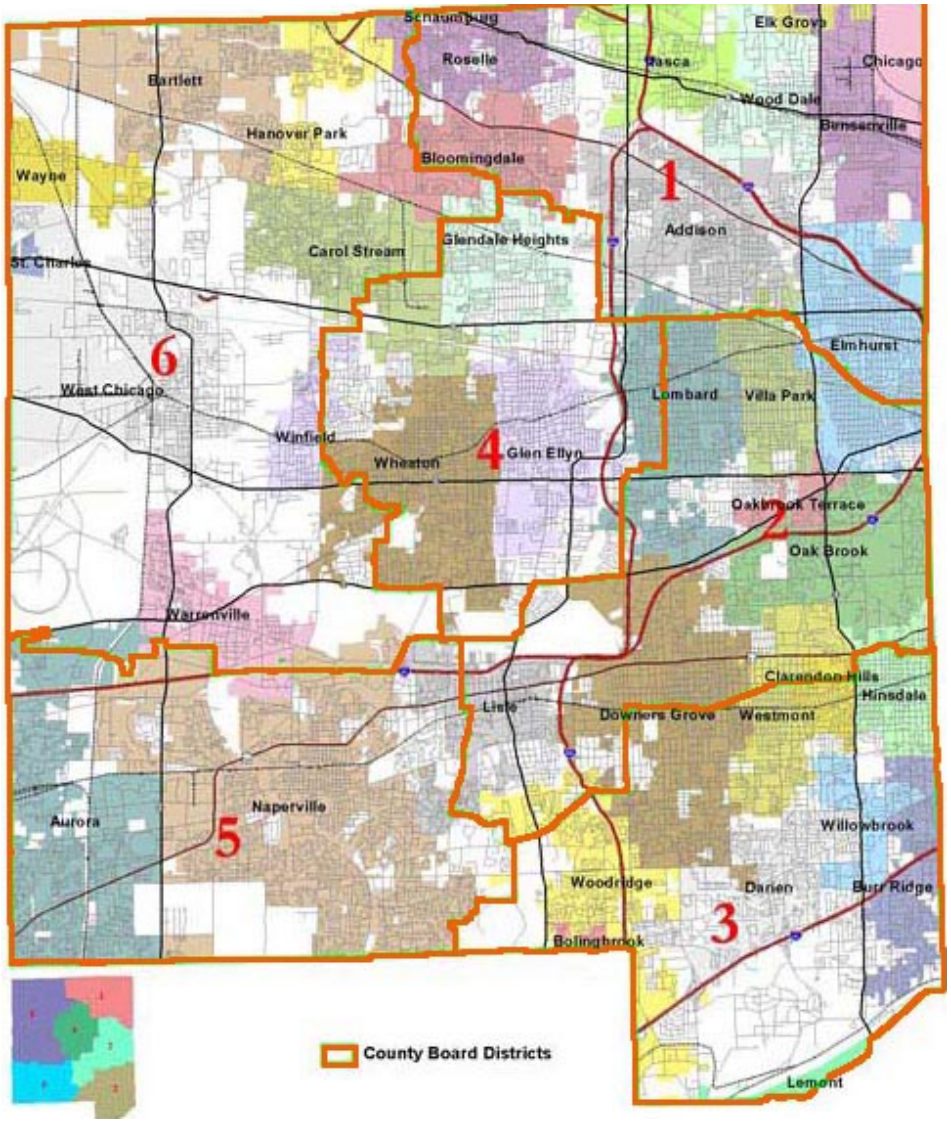
IV. 2017-2019 Community Health Needs Assessment

Community Definition

For the purposes of the 2017-2019 CHNA, Advocate Good Samaritan defined the community as DuPage County and two communities within the hospital PSA which are in Will County (Bolingbrook-Romeoville). In partnership with the DuPage County Health Department, other DuPage County hospitals and community organizations, Advocate Good Samaritan conducted a joint CHNA for DuPage County, which includes 37 zip codes and 32 communities. The total population for DuPage County is 929,026 (Healthy Communities Institute, Claritas, 2018). The DuPage County communities include 60101 (Addison), 60504 (Aurora), 60502 (Aurora), 60103 (Bartlett), 60106 (Bensenville), 60108 (Bloomingdale), 60527 (Burr Ridge), 60188 (Carol Stream), 60514 (Clarendon Hills), 60561 (Darien), 60515 (Downers Grove), 60516 (Downers Grove), 60126 (Elmhurst), 60519 (Eola), 60137 (Glen Ellyn), 60139 (Glendale Heights), 60521 (Hinsdale), 60143 (Itasca), 60532 (Lisle), 60148 (Lombard), 60157 (Medinah), 60540 (Naperville), 60565 (Naperville), 60563 (Naperville), 60523 (Oak Brook), 60172 (Roselle), 60181 (Villa Park), 60555 (Warrenville), 60184 (Wayne), 60185 (West Chicago), 60559 (Westmont), 60187 (Wheaton), 60189 (Wheaton), 60527 (Willowbrook), 60190 (Winfield), 60191 (Wood Dale), 60517 (Woodridge).

The supplemental assessment for Bolingbrook-Romeoville can be found in Appendix 6. These communities are both high socioneed communities in Will County which the hospital determined were important to include in the assessment.

Exhibit 3: Map of DuPage County 2018



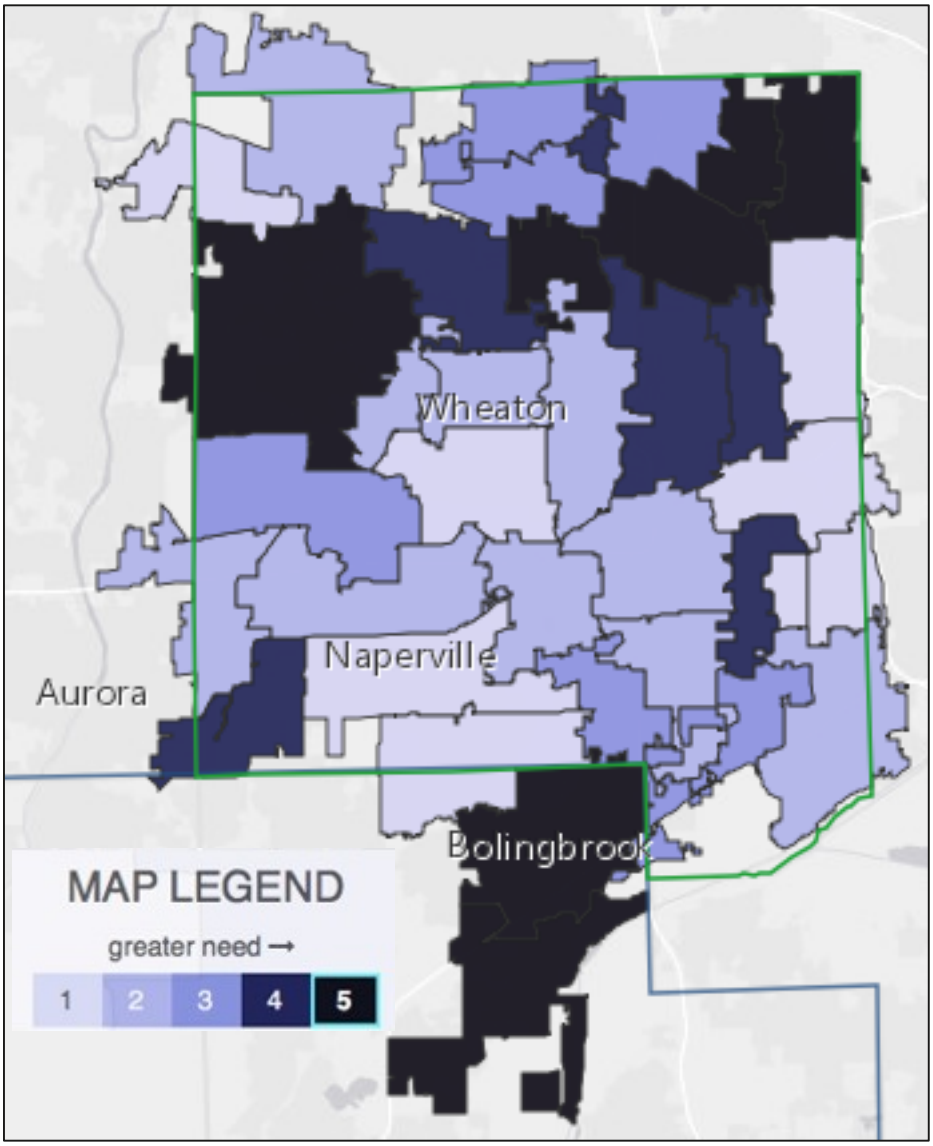
Source: The County of DuPage, 2018

SocioNeeds Index

In order to understand the social context that exists in the defined community that deeply influences health, the hospital utilized the Conduent SocioNeeds Index to more clearly understand the roots causes around the DuPage County health needs. The SocioNeeds Index is a Conduent Healthy Communities Institute indicator that is a measure of socioeconomic need, correlated with poor health outcomes. The index is calculated from six indicators, one from each of the following topics: poverty, income, unemployment, occupation, education and language. The indicators are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. All zip codes, counties, and county equivalents in the United States are given an index value from 0 (low

need) to 100 (high need). To help identify the areas of highest need within a defined geographic area, the selected zip codes are ranked from one (low need) to five (high need) based on their Index value. These values are sorted from low to high and divided into five ranks. These ranks are then used to color the zip codes with the highest socioneeds indices with the darker colors. The hospital has several communities within the PSA that have greater socioeconomic needs compared to other communities in the PSA. Addison, Glendale Heights and Bensenville are DuPage County's highest need communities.

Exhibit 4: DuPage County SocioNeeds Index Map 2018



Source: Conduent Healthy Communities Institute, 2018

Exhibit 5: PSA SocioNeeds Index Top Three Communities 2018

City/Town	Zip Code	Index	Rank
Addison	60101	69.8	5
Glendale Heights	60139	61.2	5
Bensenville	60106	59	5

Source: Conduent Healthy Communities Institute, 2018

Demographics

Age

Twenty-three percent of the DuPage County population is under the age of 18, while 9.3 percent of the population is between the ages of 18 and 24 (Conduent Healthy Communities Institute, Claritas, 2018). The largest age group in the County is the 25-64 year old age group with a population of 53.01 percent (Conduent Healthy Communities Institute, Claritas, 2018). The third largest age group is the senior population (65 years and older) at 17 percent (Conduent Healthy Communities Institute, Claritas, 2018). The life expectancy for the County is 82.5 years, which is higher than the state of Illinois at 79.2 years and the U.S. at 79.1 years of age. Exhibit 6 displays the DuPage County population by age group.

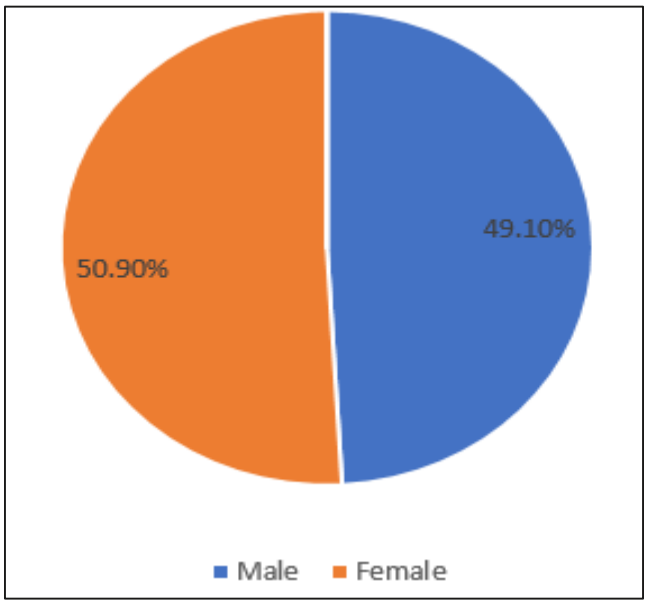
Exhibit 6: DuPage County Population by Age 2017

Population by Age	County: DuPage	
	Persons	% of Population
Under 18	209,455	22.55%
18+	719,571	77.45%
25+	633,118	68.15%
65+	140,622	15.14%
85+	17,629	1.90%

Source: Conduent Healthy Communities Institute, Claritas, 2018

Gender

Exhibit 7: DuPage County by Gender 2017

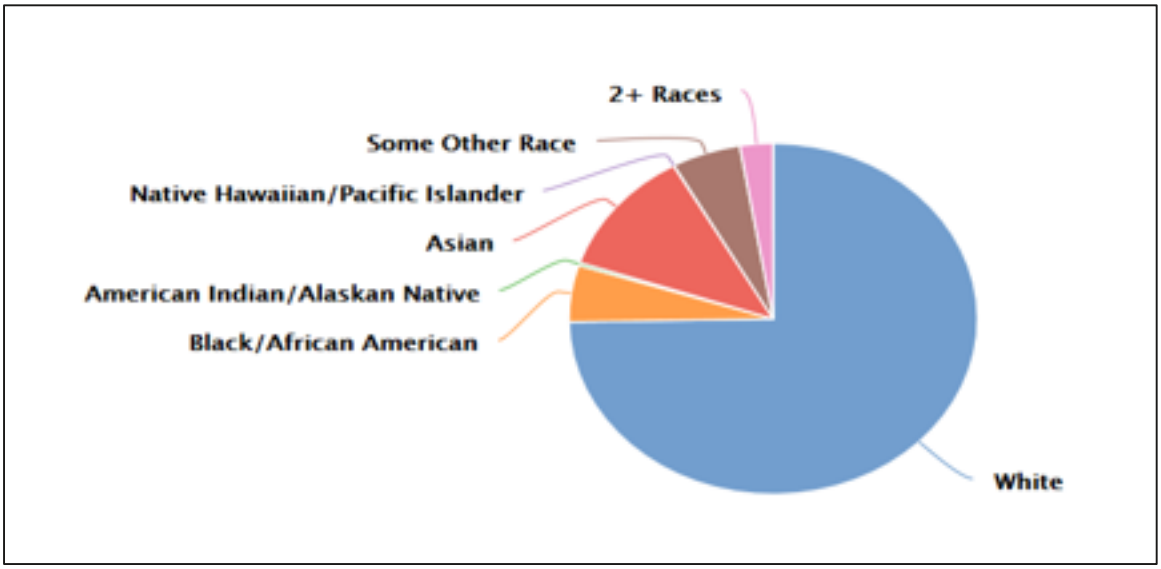


Source: Conduent Healthy Communities Institute, Claritas, 2018

Race and Ethnicity

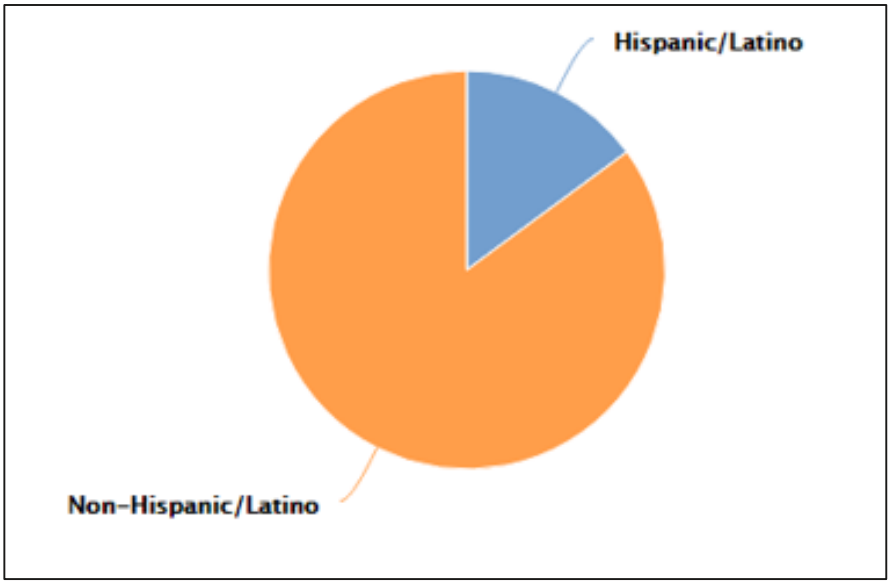
Demographic data shows that DuPage County is 74.7 percent White, which is the largest racial group followed by the Asian population at 11.68 percent, the "Other" population at 5.45 percent, the Black/African American population at 5.22 percent, two or more races at 2.6 percent, American Indian/Alaskan Native at 0.3 percent and the Native Hawaiian/Pacific Islander population at 0.04 percent (Conduent Healthy Communities Institute, Claritas, 2018). The ethnic make-up of the County is 15 percent Hispanic/Latino and 85 percent non-Hispanic/Latino (Conduent Healthy Communities Institute, Claritas, 2018). Graphs showing the racial and ethnic composition of DuPage County are displayed below in Exhibits 8 and 9.

Exhibit 8: DuPage County by Race 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

Exhibit 9: DuPage County by Ethnicity 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

Languages Spoken at Home

Exhibit 10: DuPage County by Languages Spoken at Home 2018

Population Age 5+ by Language Spoken at Home	County: DuPage	
	Persons	% of Population Age 5+
Speak Only English	646,665	73.85%
Speak Spanish	91,909	10.50%
Speak Asian/Pac Islander Lang	44,536	5.09%
Speak Indo-European Lang	85,508	9.76%
Speak Other Lang	7,067	0.81%

Source: Conduent Healthy Communities Institute, Claritas, 2019

Household/Family

DuPage County has 345,205 households and 242,654 families (Conduent Healthy Communities Institute, Claritas, 2019). The average household size is 2.66 persons and 35.42 percent of households have children (Conduent Healthy Communities Institute, Claritas, 2019). In addition, 25 percent of those aged 65 and older in DuPage County live alone (Conduent Healthy Communities Institute, American Community Survey, 2017).

Economics

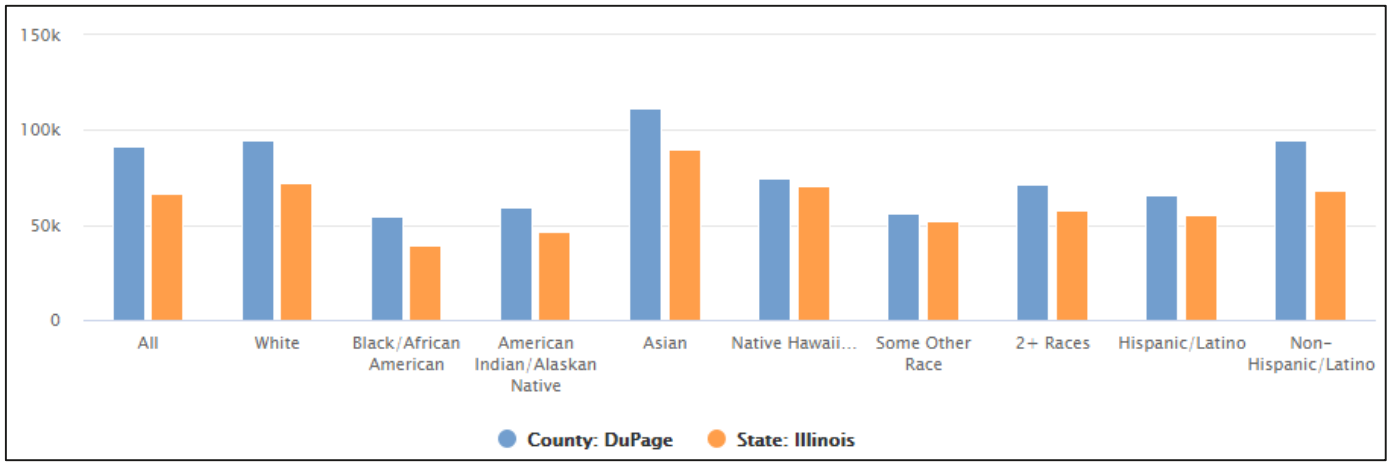
Income

The median household income in DuPage County is $88,988, which is significantly higher than the state's median household income of $64,872 (Conduent Healthy Communities Institute, Claritas, 2018). The number of families living below the poverty level is 11,982, which accounts for five percent of families in DuPage County. In addition, there are 9,162 families with children that live below the poverty level, which accounts for 3.9 percent of families with children. Furthermore, 5.4 percent of seniors aged 65 and older live below the poverty level. There is a large racial disparity in the median household income with the White and Asian populations having the highest household incomes and the African American, "Other" and American Indian/Alaskan Native populations having the lowest median household incomes.

There is a large ethnic disparity in household income in DuPage County. The median household income for the non-Hispanic/Latino population is $92,580 while the Hispanic/Latino population has a median household income of $64,599. Overall, all racial and ethnic groups in DuPage County have

higher median household incomes when compared to Illinois. The graph below in Exhibit 11 shows DuPage County median household income by race/ethnicity compared to Illinois.

Exhibit 11: DuPage County and State of IL Median Household Income by Race/Ethnicity 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

Employment

The unemployment rate among DuPage County residents that are of 16 years of age and older is five percent, which is lower compared to the state of Illinois at 7.55 percent (Conduent Healthy Communities Institute, Claritas, 2018). The top fields of employment in DuPage County include healthcare, manufacturing, retail trade and educational services (Conduent Healthy Communities Institute, Claritas, 2018).

Education

Educational Level

DuPage County educational attainment data was also reviewed and analyzed to gain an in-depth understanding of educational levels across the County. Educational attainment is one of the social determinants of health. Higher levels of education correlate with both better health outcomes. The percent of individuals in DuPage County with a bachelors, graduate and/or a professional degree is larger compared to the state of Illinois. Exhibit 12 displays educational attainment rates among individuals aged 25 and older residing in DuPage County and Illinois.

Exhibit 12: DuPage County by Educational Attainment 2017

Report Area	Percent No High School Diploma	Percent High School Only	Percent Some College	Percent Associates Degree	Percent Bachelors Degree	Percent Graduate or Professional Degree
DuPage County, IL	7.6%	18.7%	19.2%	7.2%	28.7%	18.6%
Illinois	11.7%	26.5%	21.1%	7.8%	20.2%	12.7%

Source: DuPage County Health Department, 2018

Exhibit 13: DuPage County by Adult Literacy Skills 2018

Report Area	Estimated Population over 16	Percent Lacking Literacy Skills
DuPage County, IL	698,431	7%
Illinois	9,507,861	13%
United States	219,016,209	14.6%

Source: DuPage County Health Department, National Center for Education Statistics, 2019

Health Care Resources in the Defined Community

Advocate Good Samaritan's community health staff mapped all health care resources within the hospital's defined community as follow.

Name of Facility	Type of Facility	Location
Access Addison Health Center	Federally Qualified Health Center	Addison
Access Army Trail Road Family Health Center	Federally Qualified Health Center	Addison
Access Gateway Center Family Health Center	Federally Qualified Health Center	West Chicago
AMITA Health Adventist Medical Center Glen Oaks	Hospital	Glendale Heights
AMITA Health Adventist Medical Center Hinsdale	Hospital	Hinsdale
Edward Hospital	Hospital	Naperville
Elmhurst Hospital	Hospital	Elmhurst
Advocate Good Samaritan Hospital	Hospital	Downers Grove
Hamdard- Addison	Federally Qualified Health Center	Addison

Marianjoy Rehabilitation Hospital	Hospital	Wheaton
Martin R Russo Family Health Center	Federally Qualified Health Center	Bloomingdale
Northwestern Medicine Central DuPage Hospital	Hospital	Winfield
VNA Health Center Bensenville	Federally Qualified Health Center	Bensenville
VNA Healthcare at DuPage County Health Department	Federally Qualified Health Center	Wheaton
VNA Healthcare of Fox Valley Carol Stream	Federally Qualified Health Center	Carol Stream

Key Roles in the 2017-2019 Community Health Needs Assessment

Advocate Aurora System and Advocate Good Samaritan Leadership

In 2017, Advocate Health Care began organizing resources to implement the 2017-2019 CHNA cycle. The system had a contract with Xerox Health solutions to provide an internet-based data resource—the Conduent Health Community Institute CHNA tool—for all Advocate hospitals during the 2017-2019 CHNA cycle. The robust data platform offered over 171 health and demographic indicators including hospitalization and emergency department visit indicators. Hospital and system leadership also provided access to aggregated and de-identified DuPage County hospital utilization data through the Illinois Hospital Association's COMPdata for the collaborative DuPage County Community Health Needs Assessment, which was led by the DuPage County Health Department/Impact DuPage.

A community health team comprised of two master's prepared staff oversees and is responsible for coordinating and promoting the hospital's involvement in policies, programs and services to improve the overall health status of the hospital's service area communities. The CHNA, the convening and oversight of the hospital's Community Health Council and the co-administering of the hospital's community benefits reporting are responsibilities of the director of community health. The hospital's community health team also works collaboratively with the DuPage County Health Department and other community organizations to complete collaborative CHNAs and implement community health strategies and programs. There is a matrixed relationship between the director of community health and the hospital's executive leadership to ensure the CHNA process and community benefits plan and reporting align with the hospital's strategic plan.

The hospital's manager of outpatient behavioral health services, director of nursing care management and clinical operations, manager of the ED and the Bhorade Cancer Center were engaged in the DuPage County collaborative CHNA process through their participation in the Forces of Change Assessment (FOCA), a component of the Mobilizing Action through Planning and Partnerships (MAPP) process that aims to identify all the forces and associated opportunities and threats that can affect the local environment. Hospital representatives provided input including community and patient health concerns and community strengths and opportunities. The information provided by hospital

representatives was collected by the DuPage County Health Department and used to complete the DuPage County/Impact DuPage collaborative CHNA. Various hospital departments also worked with the hospital's director of community health and the DuPage County Health Department to provide de-identified primary data regarding the hospital's patient population.

Governing Council

The hospital's Governing Council is comprised of community leaders and executive level hospital staff. The role of each Governing Council member includes supporting hospital leadership in achieving the hospital's goals, representing the community's interest to the hospital and serving as a hospital ambassador in the community. The Governing Council also monitors clinical outcomes, patient and team member satisfaction, physician credentialing and relations, financial performance, strategic direction and overall community health.

Governing Council representation on the hospital's CHC ensures alignment of the community health needs and programming with the hospital's resources, capacity and areas of expertise. It is essential that the resources and strategic direction of the hospital are considered when reviewing the health needs of the community and creating the Implementation Plan; therefore the hospital's Community Health Council will continue to engage the Governing Council through ensuring a Governing Council member is always represented on the CHC and engaged in the community health needs assessment. Under the direction of the Governing Council, the hospital's capacity and strategic plan will support the development and implementation of programs and strategies that address the identified prioritized health needs of the community.

The Governing Council also approves and endorses the CHNA. The director of community health presented the process and findings of the collaborative DuPage County CHNA in September 2019 to the full Governing Council. The presentation included details of the data review and analysis, the hospital's role in the collaborative CHNA, the collaborative prioritization process and the selection of the prioritized health needs. The Advocate Good Samaritan Hospital Governing Council approved the 2019 CHNA and the priority health needs on September 19, 2019.

Community Health Council

The Advocate Good Samaritan Community Health Council (CHC) was formed in 2016 and serves in an advisory capacity for the hospital's community health programming, Implementation Plan and CHNA. The CHC is led by the hospital's regional director of community health and is a multi-sectorial council comprised of hospital leaders and community representatives from community-based organizations. There are a total of 13 CHC members of which seven are community organization representatives and six are hospital representatives. Under the direction of the director of community health and DuPage County Health Department, the CHC supported the collaborative DuPage County/Impact DuPage CHNA through data collection, data review and prioritizing identified health needs. The CHC also works with the hospital's Community Health Department to identify community partners for the Implementation Plan.

The CHC convened for four two-hour in-person meetings throughout 2018 to contribute to the completion of the DuPage County/Impact DuPage collaborative CHNA. In addition to the in-person meetings, CHC members were able to send recommendations and feedback electronically. Community representatives provided critical feedback around the health needs of the overall community specifically those related to vulnerable and under-served populations, while hospital representatives provided critical feedback around top patient health issues, hospital resources and confirmation of the hospital health needs alignment with the county's health needs. Community representatives were also able to provide perspectives from various disciplines and represented the health and social needs issues of many vulnerable and marginalized populations within DuPage County.

Both community and hospital representatives engaged in a robust discussion regarding the health needs of DuPage County compared to those of the hospital's service area. CHC members discussed the extent to which health needs of the county aligned with the PSA. CHC members were also able to share knowledge regarding social determinants of health and county zip codes that had the most health disparities and social barriers. CHC members identified DuPage County's top two health need priorities to inform and guide the vote of the hospital's director of community health on the DuPage County/Impact DuPage Steering Committee, a collaborative of hospitals and community organizations that oversee and approve the health priorities for DuPage County's collaborative CHNA.

The hospital's CHC played a key role in completing the collaborative DuPage County CHNA and will continue to convene in efforts to ensure a thorough and collaborative Implementation Plan. The affiliation and titles of the Advocate Good Samaritan CHC members are listed below. The CHC member affiliations representing at-risk/disparate populations are indicated on page 24.

2019 CHC Members

- DuPage County Health Department, Coordinator, Population Health
- DuPage County Health Department, Director, Client Access
- DuPage PADS, President, Chief Executive Officer
- DuPage Health Coalition, President
- DuPage Senior Citizens Council, Associate, Programs and Development
- People's Resource Center, Senior Director, Programs and Services
- SamaraCare, Clinical Director, Adult Services
- Benedictine University, Instructor, Coordinator, Advisor
- Advocate Good Samaritan Hospital, Manager, Public Affairs and Marketing
- Advocate Good Samaritan Hospital, Vice President, Mission and Spiritual Care
- Advocate Good Samaritan Hospital, Clinical Nurse Specialist, Behavioral Health
- Advocate Good Samaritan Hospital, Governing Council Member, Emergency Room Physician
- Advocate Good Samaritan Hospital, Manager, Behavioral Health

Collaborations with Health Departments and/or Hospitals

Advocate Good Samaritan completed a collaborative CHNA under the leadership of the DuPage County Health Department/Impact DuPage and the hospital's director of community health. Throughout 2018, the hospital's Community Health Department and CHC partnered with the DuPage County Health

Department to conduct the DuPage County CHNA. The County health department worked with hospital leadership and CHC members to conduct the Forces of Change Activity (FOCA), described on page 22. The qualitative data collected through FOCA contributed to the collaborative DuPage County CHNA process.

Collaborations with Other Key Stakeholders

The hospital's director of community health is also a member of the Impact DuPage Steering Committee, a collaborative of DuPage County hospitals and community organizations that oversee the community health needs assessment process and Action Plan for the County. The Impact DuPage collaborative is facilitated and coordinated by the DuPage County Health Department hence the CHNA report term "DuPage County Health Department/Impact DuPage". DuPage County Health Department/Impact DuPage selects the County's priority health needs. In 2018, the director of community health attended eight Impact DuPage Steering Committee meetings as a representative of Advocate Good Samaritan and participated in the county's community health needs assessment process. Impact DuPage Steering Committee members are listed below.

Impact DuPage Steering Committee

- Advocate Good Samaritan, Director, Community Health
- Community Consolidated School District 89, Superintendent
- DuPage Foundation, Director, Programs
- DuPage County Community Services, Director, Community Services
- DuPage County Health Department, Executive Director
- DuPage County Public Defender's Office, Clinical Consultant, Mental Health
- DuPage Health Coalition, President
- DuPage PADS, President and CEO
- Metropolitan Family Services, Executive Director
- Northwestern Medicine- Central DuPage Hospital, Director, Community, Government and Public Affairs
- People's Resource Center, Executive Director
- Prairie State Legal Services, Managing Attorney
- United Way of Metropolitan Chicago, Chief Professional Officer, West Suburban Region
- DuPage Federation on Human Services, Executive Director
- AMITA Health, Director, Advocacy and Community Benefit
- DuPage Medical Group, Director, Clinical Research and Charitable Fund
- Family Shelter Service, Executive Director
- Edward-Elmhurst Health, Director, Community and Government Relations

Methodology

Timeline

In September 2017, the DuPage County Health Department, the DuPage Federation on Human Services Reform's executive directors and the hospital's director of community health convened to discuss the opportunity to conduct a collaborative CHNA. The DuPage County Health Department's executive director shared details of the collaborative DuPage County/Impact DuPage CHNA process including partnerships with other DuPage County hospitals and the timeline for completion. After a robust conversation, the hospital agreed to partner with Impact DuPage, a collaborative led by the DuPage County Health Department comprised of DuPage County community organizations and hospitals, to conduct a collaborative CHNA.

In November 2017, the DuPage County Health Department/Impact DuPage presented details of the collaborative CHNA to the hospital's Community Health Council. Details including the collaborative CHNA model, timeline and priority voting were shared and CHC members approved the hospital's participation in the collaborative CHNA. In February 2018, the DuPage County Health Department conducted the FOCA with Advocate Good Samaritan's leadership, staff and CHC members to gather feedback on the health needs of the patients and the local PSA community. Following the FOCA with the hospital's CHC and staff, the hospital's director of community health compiled and presented DuPage County demographic, socioeconomic and health data to the hospital's CHC. After careful review and analysis of the data, the CHC selected behavioral health and health status improvement (healthy lifestyles and access to care) as the two prioritized health needs.

As a hospital representative and member on the Impact DuPage Steering Committee, the director of community health voted for behavioral health and health status improvement during the Impact DuPage Steering Committee prioritization meeting on behalf of the hospital's CHC. In December 2018, the Impact DuPage Steering Committee selected behavioral health, health status improvement and affordable housing as the county's health need priorities for 2019-2021. As a result of the collaborative CHNA, Advocate Good Samaritan adopted the County's prioritized health needs, which aligned with the CHC's recommended priority health needs. Due to the hospital's CHNA cycle and Implementation Plan timeline, Advocate Good Samaritan will begin to implement the prioritized health need strategies in 2020 through 2022.

Secondary Data

Multiple data collection strategies were employed to collect data for the CHNA. As indicated in the section above, Advocate Good Samaritan collaborated with many partners to collect county data. Details regarding the hospital's CHNA secondary data sources are listed below.

Conduent Healthy Communities Institute (HCI)

In early 2017, Advocate Health Care signed a second three-year contract with Conduent Healthy Communities Institute (HCI) to continue to provide an internet-based data resource for their eleven

hospitals during the 2014-2016 CHNA cycle. This robust platform offered the hospitals 198 health and demographic indicators, including 38 hospitalization and emergency department (ED) visit indicators at the service area and zip code levels. Utilizing the Illinois Hospital Association's COMPdata , Conduent HCI was able to summarize, age adjust and average the hospitalization and ED utilization data for five time periods from 2009-2017. The Conduent HCI contract also provided a wealth of county and zip code data comparisons, a Socio Needs Index visualizing vulnerable populations within service areas and counties, a Healthy People 2020 tracker and a database of promising evidence-based interventions.

As indicated, Conduent HCI was a key source of data for the 2016 CHNA. This secondary data was crucial in analyzing the hospital's PSA health needs as the data base was the only source that provided such an extensive amount of data specific to the 2016 CHNA's defined community. All data collected through Conduent HCI was quantitative and included data comparisons between PSA communities and counties in Illinois. These comparisons were exemplified in the form of community dashboards, which provided great insight on the health status of the hospital's PSA in comparison to other counties and communities in Illinois.

Conduent HCI provides a gauge that illustrates comparison of indicators across counties, service areas and zip codes.

Green (Good):	When a high value is good, community value is equal to or higher than the 50th percentile (median), or, when a low value is good, community value is equal to or lower than the 50th percentile.
Yellow (Fair):	When a high value is good, community value is between the 50th and 25th percentile, or when a low value is good, the community value is between the 50th and 75th percentiles.
Red (Poor):	When a high value is good, the community value is less than the 25th percentile, or when a low value is good, the community value is greater than the 75th percentile.

Throughout the community health needs assessment, indicators may be referred to as being in the green, yellow or red zone, in reference to the above value ratings from Conduent Healthy Communities Institute.

DuPage County Health Department

The hospital also utilized DuPage County Community Assessment data to fully align with the DuPage County/Impact DuPage collaborative CHNA process. As part of the collaborative CHNA process, the DuPage County Health Department collected secondary community data from multiple sources, including the American Community Survey, Claritas and the Illinois Department of Human Services. This data was analyzed and presented to the CHC to provide a clear picture of the health and socioeconomic needs for DuPage County. The DuPage County Health Department's Population Health Coordinator reviewed the data to ensure alignment with other DuPage County data presentations.

Primary Data

In addition to collecting and analyzing secondary data, the hospital's director of community health worked with the DuPage County Health Department to gather and analyze primary data. Primary sources of data included the DuPage County Community Survey and the Forces of Change Assessment. A description of the primary data utilized in the CHNA process is outlined below.

Input from At Risk/Disparate Populations

As indicated on page 19, the CHC is comprised of various community representatives, of which many represent at risk/disparate populations in DuPage County. Recognizing that health issues disproportionately affect at risk/disparate populations, the Community Health Department ensured input from social service and community organizations on the Council. Agencies such as DuPage PADS are members on the CHC and provide critical feedback on the health and social needs of at risk/disparate populations in DuPage County. CHC members from the following organizations represented the needs and concerns of at risk/disparate populations.

Agency/Organization	At Risk/Disparate Population(s) Represented
DuPage Pads	Homeless, Unemployed, Underemployed, Low-income, Uninsured
Engage DuPage	Uninsured, Underinsured
People's Resource Center	Homeless, Unemployed, Underemployed, Low-income
DuPage Senior Citizens Council	Low-income, Seniors
DuPage Health Coalition	Unemployed, Underemployed, Low-income, Uninsured

Forces of Change Assessment

The DuPage County Health Department partnered with Advocate Good Samaritan to conduct a Forces of Change Assessment (FOCA). Hospital staff and community members convened at Advocate Good Samaritan to complete the assessment, which engaged participants in an activity that identifies the strengths, opportunities and threats of the local environment. Hospital staff and community members engaged in a robust discussion and provided critical feedback on the health, social and economic needs and strengths of the community. Feedback was collected throughout the assessment and used by the health department and hospital to identify and prioritize health needs in DuPage County. The qualitative data collected from the FOCA can be found in Appendix 2.

Community Surveys

As a part of the collaborative DuPage County CHNA, the DuPage County Health Department/Impact DuPage conducted a community survey that was disseminated to a diverse group of DuPage County residents. The survey included questions concerning DuPage County strengths, health needs and social issues. Survey distribution was supported through the Impact DuPage network. There were 1,577 surveys that were completed with 1,496 in English and 81 in Spanish. Data around the top health

concerns, risky behaviors, personal health status and community improvement projects was included in the survey and used by Advocate Good Samaritan's director of community health to support the selection and presentation of the county's top health needs.

Summary of Results

The collection and analysis of raw data was completed by the hospital's Community Health Department in collaboration with the DuPage County Health Department/Impact DuPage. As indicated on page 11, the community for the 2017-2019 CHNA was defined as DuPage County to align with the DuPage County community health needs assessment. In efforts to provide a clear picture of the county's health needs to the hospital's CHC, the director of community health used the following set of criteria and worked with the DuPage County Health Department to determine the top eight health needs of the County.

- High prevalence/incidence rates compared to other counties
- Number of cases/people affected drastically increased over time
- Large number of/percentage of people were affected by the health issue
- The community expressed concern via the community surveys and/or FOCAs

Using this criteria, the director of community health created a presentation of the top eight health needs including quantitative and qualitative data. The hospital's CHC was able to review the health needs and get a clear picture of the extent of each health need, including root causes. The sections below outline and review the county's top eight health needs in detail.

Behavioral Health

Substance and Alcohol Use

The rate of alcohol abuse in DuPage County continues to increase and is becoming a more significant health issue for adults, adolescents and children. The percentage of adults who drink excessively increased from 2015 at 19.8 percent to 2016 at 22.4 percent, which is high compared to other Illinois counties. The rate of ER visits due to alcohol use is 48 per 10,000 population (age 18 and older), which is high compared to other counties in Illinois. From 2015-2017 the rate of hospitalization due to alcohol was 22.1 per 10,000 population, which is an increase from 2014-2016 at 18.1 per 10,000 population. The rate of hospitalization due to alcohol is also high compared to other counties in Illinois. The rates of teens in DuPage County that use alcohol slightly decreased from 2016 at 44 percent to 2018 at 39 percent, however the percentage of teens using alcohol is still high compared to other counties in Illinois.

Results of the DuPage County Community Survey also indicated alcohol abuse is a major health concern among DuPage County residents, with 34 percent of survey respondents listing it in the top three most risky health behaviors in the county. DuPage County communities with the highest rates of ED visits and hospitalizations due to alcohol use are Winfield, Wheaton and Westmont. Exhibits 14 through 18 display dashboards and graphs of the hospitalization rates and ER visits due to alcohol use.

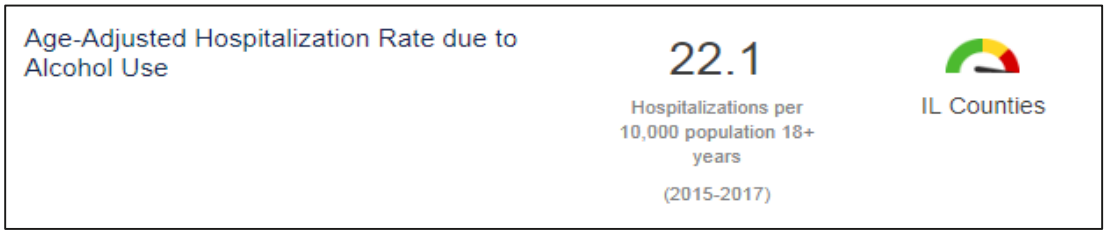
Exhibit 14: DuPage County Adults who Drink Alcohol Excessively 2015-2017

Source: Conduent Healthy Communities Institute, County Health Rankings, 2018

Exhibit 15: DuPage County Age-Adjusted ER Rate due to Alcohol Use 2015-2017

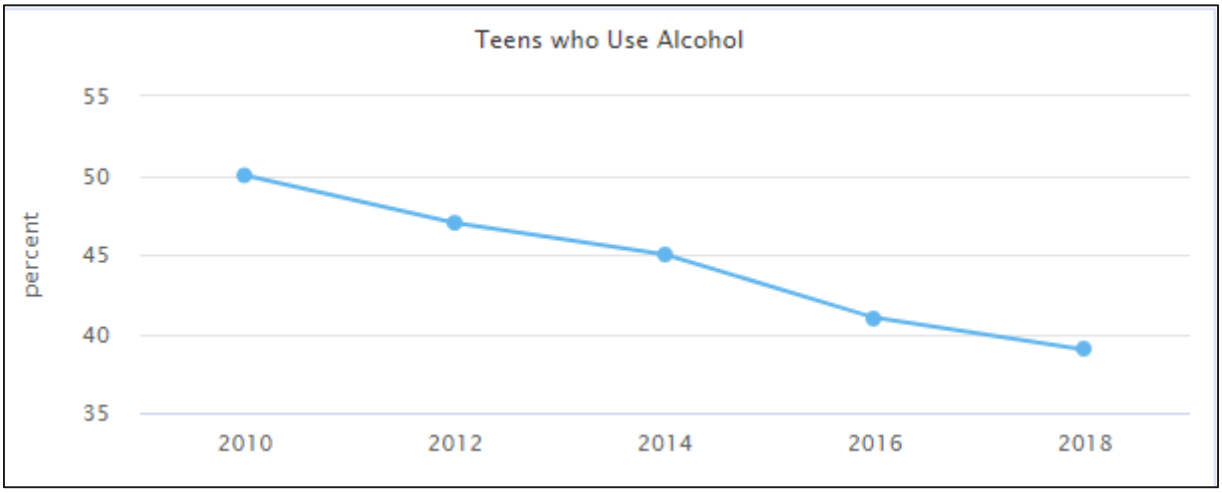
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 16: DuPage County Age-Adjusted Hospitalization Rate due to Alcohol Use 2015- 2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 18: DuPage County Teens who Use Alcohol 2010-2018



Source: Conduent Healthy Communities Institute, Illinois Youth Survey, 2018

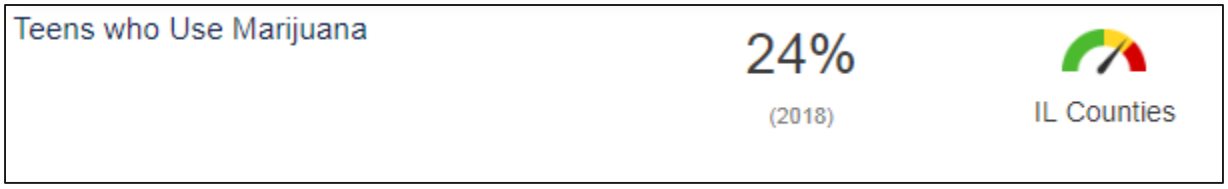
The rates of ER visits and hospitalizations due to substance abuse have also continued to increase over time. In addition to alcohol abuse, substance abuse was also a major health concern among DuPage County residents as indicated in the DuPage County Community Survey. Ninety-two percent of DuPage County residents indicated that drug abuse was one of the top three most risky behaviors in the county. The age-adjusted ER visits due to substance abuse is slightly higher in DuPage County at 18.2 visits per 10,000 population compared to other counties in Illinois and has consistently increased over time. Marijuana use is a significant problem among teens with almost a quarter (24 percent) of DuPage County teens using the substance, which is an increase from 2016 (22 percent). The ER rate due to opioid use has increased from 2012-2017, at 5.9 per 10,000 population (aged 18 years and older) to 11.1 per 10,000 population (aged 18 years and older), respectively. The rate of ER visits due to opioid use is also high when compared to other counties in Illinois.

Hospital leaders and staff that engaged in the Forces of Change Activity (FOCA) reported increased admissions due to alcohol and narcotic use, specifically heroin. There are several communities in DuPage County with higher rates of ER visits due to substance/opioid use. DuPage County communities with the highest rates of ER visits due to substance use include Warrenville at 38.3 visits per 10,000, Winfield at 34.9 visits per 10,000 and Villa Park at 41.3 visits per 10,000 population, as compared to the county at 18.2 visits per 10,000 population. Exhibits 19 through 21 show the rate of substance use and ER visits due to substance use.

Exhibit 19: DuPage County Age-Adjusted ER Rate due to Substance Use 2015-2017

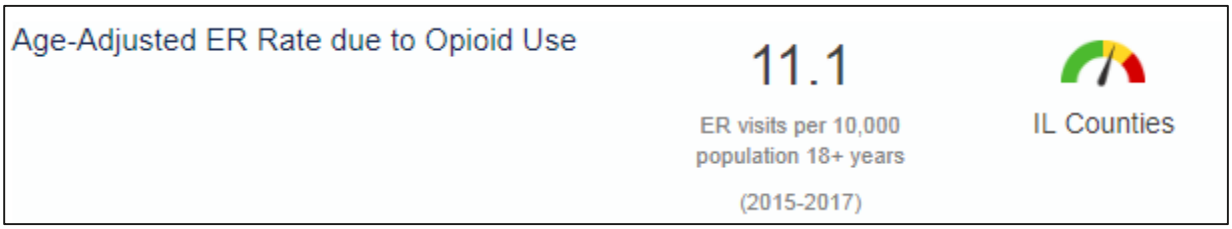
Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 20: DuPage County Teens who Use Marijuana 2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 21: DuPage County Age-Adjusted ER Rate due to Opioid Use 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Mental Health

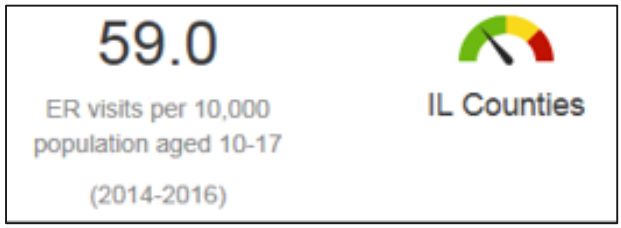
Mental health continues to be among the most increasingly important health issues in the U.S., Illinois and DuPage County. Similar to substance use, mental health was identified as a health need due to the rates of mental health crises, ED visits and hospitalizations substantially increasing over time in DuPage County. There is a strong correlation between substance use and mental health, which is evident through analyzing the rate of increase for the various substance use and mental health indicators and dashboards. Forty-three percent of DuPage County Community Survey respondents listed mental health as one of the most important health concerns in the county while 33 percent of survey respondents said the county's primary focus should be on access to mental health treatment. Mental health was also a key health issue in the Forces of Change Assessment. Issues such as the

shortage of mental health providers, the high demand for mental health care and the stigma around mental illness were frequently mentioned and discussed in the FOCA.

The age-adjusted ER rate due to adolescent suicide and intentional self-inflicted injury is 59 per 10,000 persons in DuPage County, which is lower than most other counties in Illinois but an increase from the previous measurement period in DuPage County. The county's age-adjusted ER rate due to suicide and Intentional self-inflicted injury among those aged 18 years and older in DuPage County is 23.6 per 10,000 population, which is lower than most other U.S. counties and the state of Illinois at 31.3 per 100,000 population. The age-adjusted ER rate due to adolescent and adult (aged 18 years and older) suicide and intentional self-inflicted injury is highest among the African American (81 per 10,000 population) and American Indian/Alaskan Native (177.5 per 10,000 population) populations. The age-adjusted death rate due to suicide is 9.6 per 100,000 persons, which is lower than other counties in the U.S. and the state of Illinois at 10.7 per 100,000 persons. The White population has a substantially higher rate (10.6 per 100,000 population) of death due to suicide compared to the Hispanic/Latino population (5.6 per 10,000 population).

The county's age-adjusted ER rate due to mental health (65.5 per 10,000 persons aged 18 years and older) is lower than the state of Illinois (94.7 per 10,000 persons aged 18 years and older) but has continued to increase over time. In DuPage County, the African American and American Indian/Alaskan Native populations have the highest rate of ER visits due to mental health. Furthermore, DuPage County residents who reported having frequent mental distress has increased from 8.6 percent in 2014 to 9.2 percent in 2015. Rates of hospitalization and ER visits due to mental health are particularly high in the following communities within DuPage County: Villa Park (92.4 per 10,000 population aged 18 years and older), Wheaton (60187 at 92 per 10,000 population aged 18 years and older) and Aurora (60504 at 87.3 per 10,000 population aged 18 years and older). The county's rates of hospitalization and ER visits due to mental health and suicide have all increased over time—hence the need to identify the health issue as a significant need in DuPage County. Exhibits 22 through 25 that follow depict the indicators for the mental health rates discussed above.

Exhibit 22: DuPage County Age-Adjusted Rate due to Adolescent Suicide and Intentional Self-Inflicted Injury 2014-2016

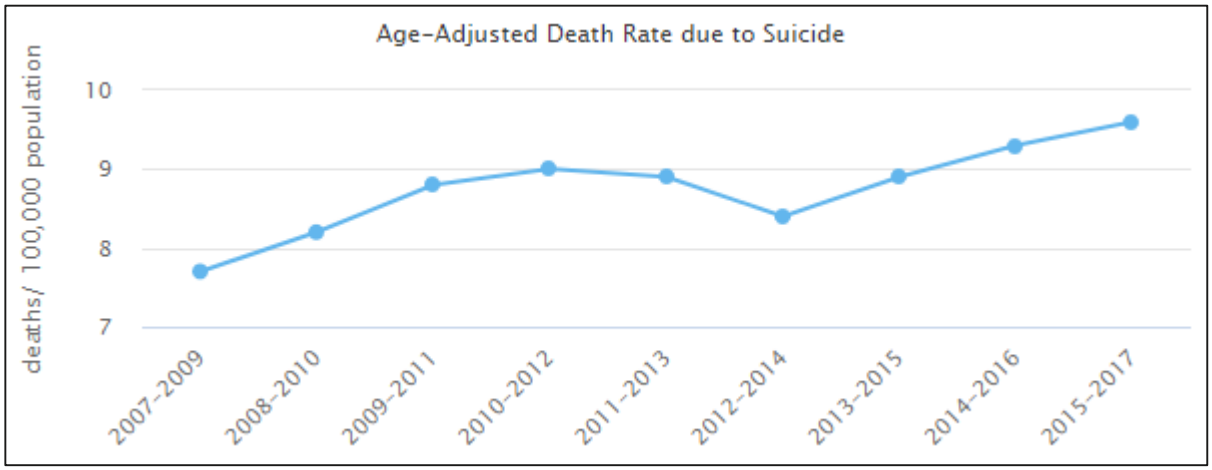


Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 23: DuPage County Age-Adjusted ER Rate due to Suicide and Intentional Self-Inflicted Injury 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 24: DuPage County Age-Adjusted Death Rate due to Suicide 2007-2017



Source: Conduent Healthy Communities Institute, Centers for Disease Control and Prevention, 2019

Exhibit 25: DuPage County Age-Adjusted ER Rate due to Mental Health 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Healthy Lifestyles

Poor nutrition and physical activity are some of the leading causes of chronic disease including cancer, heart disease and stroke. Lack of nutrition and physical activity have also been linked to poor mental health and overall quality of life. Ensuring that all DuPage County community members have access to affordable healthy food regardless of income, race, ethnicity or education is essential to creating

healthy communities and environments. As a part of the collaborative DuPage County CHNA, the Advocate Good Samaritan CHC reviewed nutrition, obesity and physical activity data.

Between 2010-2014, 22.6 percent of DuPage County adults were obese, which is less than the state of Illinois at 31.6 percent and the U.S. at 29.09 percent. DuPage County also has a substantially greater number of children that were food insecure but likely ineligible for assistance at 45 percent, compared to the state of Illinois at 32 percent and the U.S. at 34 percent. The percentage of food insecure children likely ineligible for assistance has increased over time and will likely continue to increase as housing and the cost of living increase in DuPage County. Despite the overall lower obesity rates in DuPage County, 14 percent of low-income preschoolers and 16.4 percent of children enrolled in WIC are obese, which is high compared to other counties in Illinois and the U.S. Furthermore, the county has an extremely small number of SNAP certified stores at 0.5 stores per 1,000 population, which is less than most other counties in Illinois and the U.S at. In addition, 23.6 percent of DuPage County residents have low-access to a grocery store, which makes it difficult for about a quarter of DuPage County residents to purchase healthy and fresh foods. Forty-five percent of DuPage County Community Survey respondents reported they felt their community was “somewhat healthy” out of a selection ranging from “very healthy” to “very unhealthy”. Exhibits 26 through 31 show the rates of obesity and food insecurity, as well as low access to a grocery store for various populations in DuPage County.

Exhibit 26: DuPage County Adults who are Obese 2010-2014

Source: Conduent Healthy Communities Institute, IL Behavioral Risk Factor Surveillance System, 2018

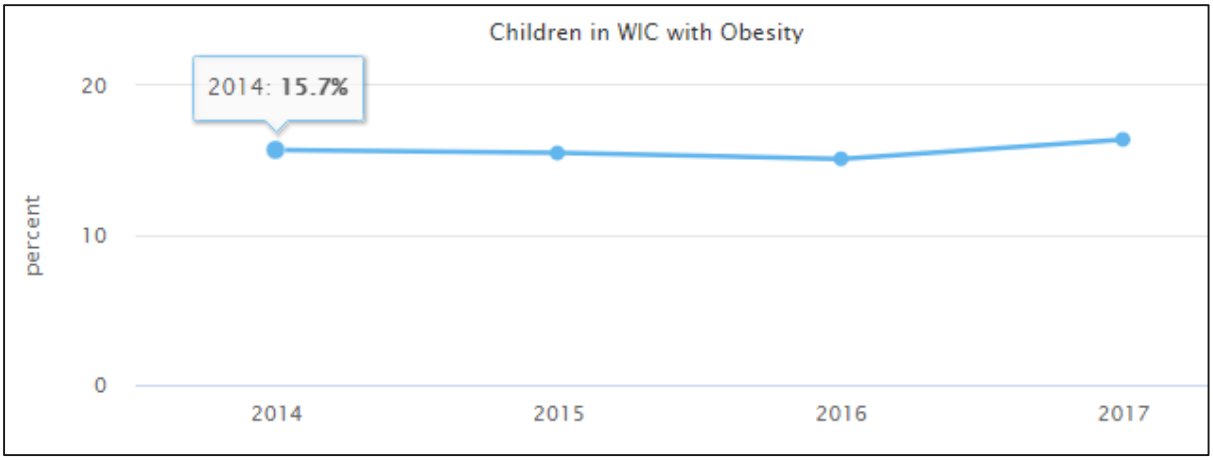
Exhibit 27: DuPage County Food Insecure Children Likely Ineligible for Assistance 2015

Source: Conduent Healthy Communities Institute, Feeding America, 2018

Exhibit 28: DuPage County Low-Income Preschool Obesity 2009-2011

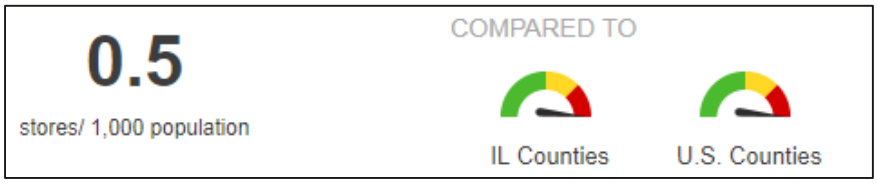
Source**:** Healthy Communities Institute, 2018

Exhibit 29: DuPage County Children in WIC with Obesity 2014-2017



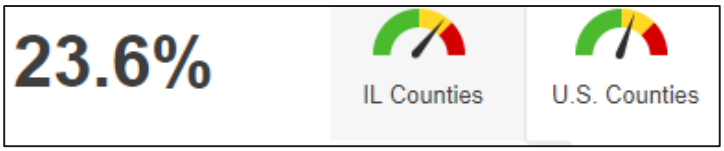
Source: DuPage County Health Department, 2019

Exhibit 30: DuPage County SNAP Certified Stores 2015-2017



Source: Conduent Healthy Communities Institute, U.S. Department of Agriculture, 2019

Exhibit 31: DuPage County Population with Low Access to a Grocery Store 2015-2017



Source: Conduent Healthy Communities Institute, U.S. Department of Agriculture, 2019

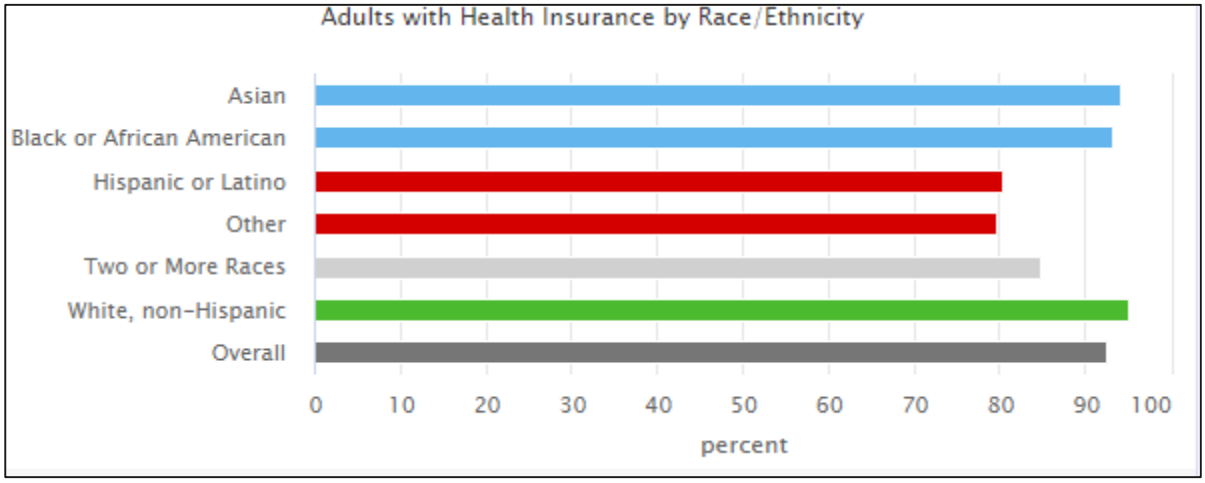
Access to Health Care

Access to health care services is essential in maintaining good health, preventing and managing chronic diseases and preventing unnecessary ER visits. One of the major barriers to accessing health care is the lack of health insurance; the hospital's Community Health Department reviewed insurance coverage rates as a proxy metric for access to care to evaluate the need for increased access to health care in DuPage County.

DuPage County adults with health insurance account for 92.6 percent of the adult population, which is higher than the state of Illinois at 90.2 percent and the U.S. at 87.7 percent. There is a racial/ethnic disparity in the rates of health insurance among adults with the White population having the highest coverage rates at 95.1 percent compared to the Hispanic/Latino population at 80.3 percent. DuPage County children with health insurance account for 96.3 percent of the population among those aged 18 years and younger, which is slightly lower than the state of Illinois at 97.1 percent and slightly more than the U.S. at 95 percent. There is a racial disparity in insurance rates among children in DuPage County with 98 percent of White Non-Hispanic children having health insurance and only 88.4 percent of African American children having health insurance.

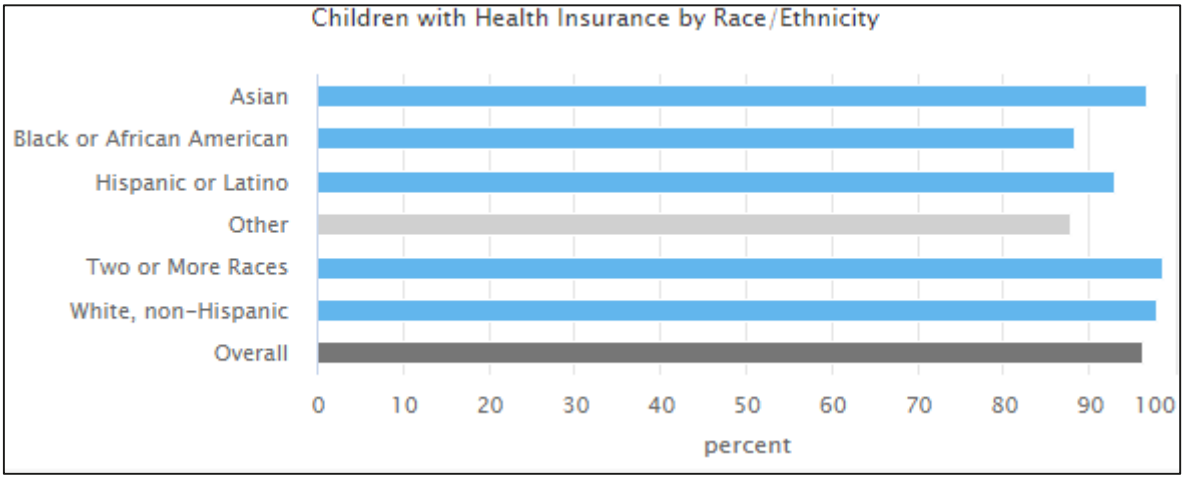
Persons with private health insurance account for 70.1 percent of the population, which is high compared to the state of Illinois at 59 percent and the U.S. at 55.8 percent. Public health insurance covers 14.1 percent of the population in DuPage County, which is less than the state of Illinois at 23.3 percent and the U.S. at 23.6. Data representing populations having health insurance is provided in Exhibits 32 and 33.

Exhibit 32: DuPage County Adults with Insurance 2017



Source: Conduent Healthy Communities Institute, American Community Survey, 2018

Exhibit 33: DuPage County Children with Health Insurance 2017

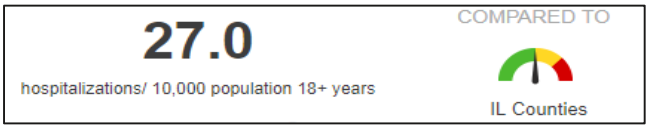


Source: Conduent Healthy Communities Institute, American Community Survey, 2018

Cardiovascular Disease

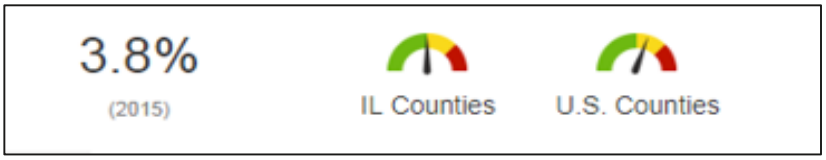
According to the Illinois Hospital Association's COMPdata, DuPage County has high rates of hospitalization due to heart failure at 27.8 hospitalizations per 10,000 population aged 18 and older, which is high compared to other counties in Illinois and the U.S. at 36.3 per 10,000 population aged 18 years and older. There is a racial disparity in the rate of hospitalizations due to heart failure with African American (60 per 10,000 population) and American Indian/Alaskan Native (70 per 10,000 population) populations having significantly higher rates of hospitalizations due to heart failure. In 2017, 3.6 percent of the Medicare population in DuPage County had a stroke, which is slightly lower than Illinois and the U.S. at 3.8 percent. The percentage of atrial fibrillation in the DuPage County Medicare population is high at 9.7 percent compared to other Illinois counties, the state of Illinois at 8.7 percent and the U.S. at 8.1 percent. The DuPage County age-adjusted death rate due to cerebrovascular disease is 32.1 per 100,000 population, which is slightly lower than Illinois (37.9) and the U.S. (37.2). Similar to the rate of hospitalization due to heart failure, African Americans have a substantially higher death rate due to cerebrovascular disease at 49.7 per 100,000 population compared to all other races/ethnicities in DuPage County and the overall County rate at 32.1 per 100,000 population.

Exhibit 34: DuPage County Age-Adjusted Hospitalization Rate due to Heart Failure 2014-2016



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2019

Exhibit 35: DuPage County Stroke: Medicare Population 2015



Source: Conduent Healthy Communities Institute, Centers for Medicare and Medicaid Services, 2018

Exhibit 36: DuPage County Atrial Fibrillation: Medicare Population 2015

Source: Conduent Healthy Communities Institute, Centers for Medicare and Medicaid Services, 2018

Immunizations

Immunization preventable influenza and pneumonia can be detrimental to seniors. In DuPage County, seniors aged 85 and older have the highest rates of hospitalizations and ER visits due to immunization-preventable pneumonia and influenza. The rate of ER visits due to immunization-preventable pneumonia and influenza is 9.4 per 10,000 population aged 18 and older, which is lower than the state of Illinois at 11 per 10,000 population. The age-adjusted hospitalization rate due to immunization-preventable pneumonia and influenza is two per 10,000 population aged 18 and older, which is slightly lower than Illinois at 2.2 per 10,000. Pneumonia and influenza vaccinations are essential in decreasing the rate of hospitalizations and ER visits, therefore the CHC reviewed DuPage County vaccination rates. From 2010 to 2014, an average of 29.9 percent of DuPage County adults received a pneumonia vaccination, which was substantially less than the state of Illinois at 38.1 percent. An average of 45.5 percent of DuPage County adults received an influenza vaccination from 2010-2014, which was more than the state average at 37.5 percent. Exhibits 37 through 38 depict the various immunization and hospitalization/ER visit rates for influenza and pneumonia.

Communities with the highest rates of ER visits due to immunization-preventable pneumonia and influenza include Glendale Heights, Aurora (60504) and Addison.

Exhibit 37: DuPage County Age-Adjusted ER Rate due to Immunization-Preventable Pneumonia and Influenza 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 38: DuPage County Adults with Pneumonia Vaccination 2010-2014

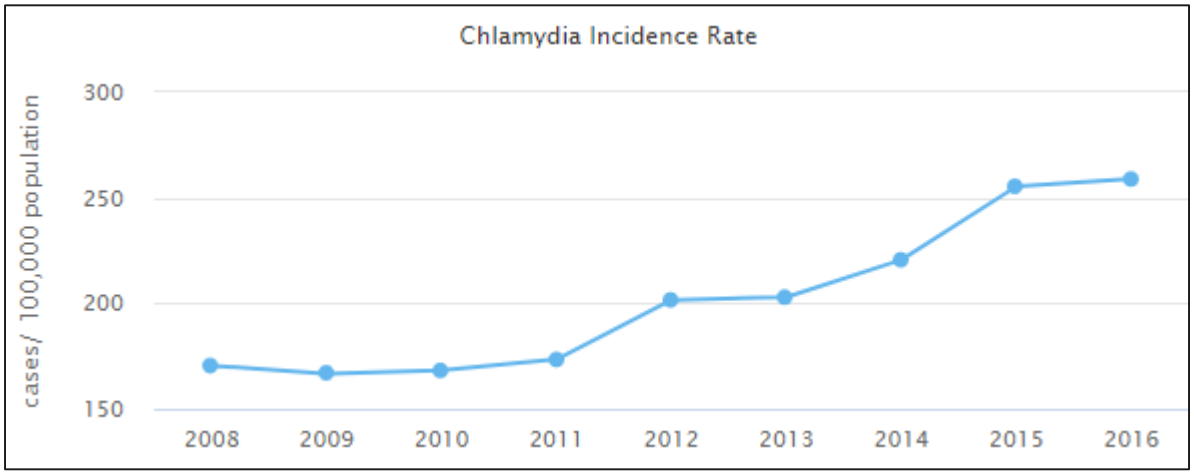
Source: Conduent Healthy Communities Institute, Illinois Behavioral Risk Factor Surveillance System, 2018

Sexually Transmitted Diseases

Sexually transmitted diseases (STDs) also called sexually transmitted infections (STIs) refer to diseases and infections caused by pathogens primarily transmitted through sexual contact (DuPage County Health Department, 2019). DuPage County has seen a continuous increase in STIs and STDs over the last several years. The incidence rate for Chlamydia in DuPage County is 258.9 cases per 100,000 population, which is less than the state of Illinois at 561.4 and the U.S. at 497.3 per 100,000 population. Although the chlamydia incidence rate is lower than the state and U.S., DuPage County has seen a substantial increase in the number of chlamydia cases from 173.4 per 100,000 in 2011 to 258.9 per 100,000 population in 2016. In addition, the incidence rate of gonorrhea for the County is 41.8 per 100,000 population, which is lower than the state of Illinois at 164.8 and the U.S. at 145.8 per 100,000 population.

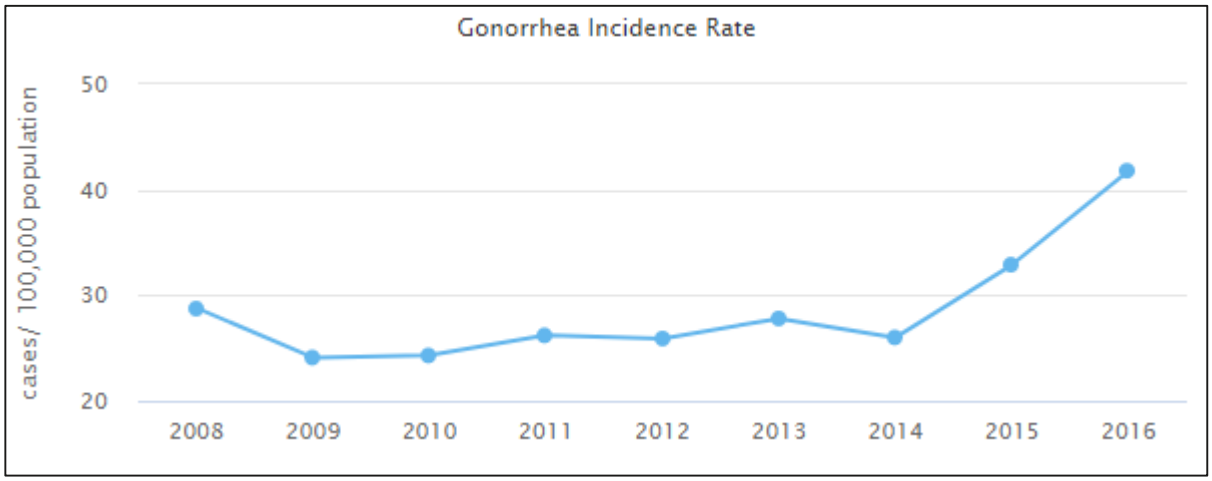
Similar to the incidence rate of chlamydia, the incidence rate of gonorrhea has increased substantially in DuPage County, going from 26.2 per 100,000 in 2011 to 41.8 per 100,000 in 2016. Furthermore, the rate of syphilis has also increased substantially from 2.1 per 100,000 in 2012 to 6.4 per 100,000 population in 2016. Exhibits 39 and 40 show the increase in rates of STIs/STDs in DuPage County from 2008 to 2016.

Exhibit 39: DuPage County Chlamydia Incidence Rate 2008-2016



Source: Conduent Healthy Communities Institute, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, 2018

Exhibit 40: DuPage County Gonorrhea Incidence Rate 2008-2016



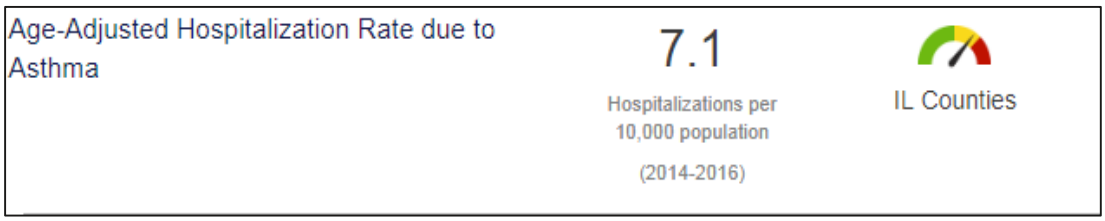
Source: Conduent Healthy Communities Institute, National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention, 2018

Asthma

Asthma is one of the most common long-term diseases of children and is a condition in which a person's air passages become inflamed, and the narrowing of the respiratory passages make it difficult to breathe (DuPage County Health Department, 2019). Ten percent of adults in DuPage County have asthma, which is higher than the state of Illinois at nine percent. In DuPage County the age-adjusted rate of hospitalization due to asthma (7.1 per 10,000 population) is lower than the state of Illinois (9.2) but higher than other counties in Advocate Aurora Health's Illinois service areas.

The rate of hospitalization due to asthma is highest amongst African American and American Indian/Alaskan Native populations, which is similar to the racial disparities seen in asthma hospitalization at the state and federal levels with the African American population having higher rates of hospitalization and ER visits due to asthma. The age-adjusted rate of ER visits due to asthma is 23.3 per 10,000 population, which is lower than the state of Illinois at 41.9 per 10,000 population. Similar to the age-adjusted hospitalization rate due to asthma, there is a racial disparity in ER visits due to asthma with the African American population having the highest rates in DuPage County. Exhibits 41 through 43 show the rates of hospitalization and ER visits due to asthma.

Exhibit 41: DuPage County Hospitalizations due to Asthma 2014-2016



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 42: DuPage County Age-Adjusted ER Visits Rate due to Asthma 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 43: DuPage County Adults with Current Asthma 2010-2014

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Senior Health

Fifteen percent of DuPage County is over the age of 65. Providing care to the senior (65 years and older) population is critical in creating a healthy environment for seniors and maintaining/increasing the life expectancy in DuPage County. The top health issues for seniors in DuPage County are cancer, unintentional falls and Alzheimer's and dementia.

The percentage of Medicare recipients with cancer in DuPage County is 9.6 percent, which is higher than the state of Illinois at 8.9 percent and the U.S. at 8.2 percent. The rates of cancer within the Medicare population are highest amongst those aged 65 and older at 10.5 percent compared to Medicare recipients under the age of 65 at 3.6 percent. The rates of cancer among the Medicare population in DuPage County have modestly increased from 2011 to 2017, going from 9.2 percent to 9.6 percent.

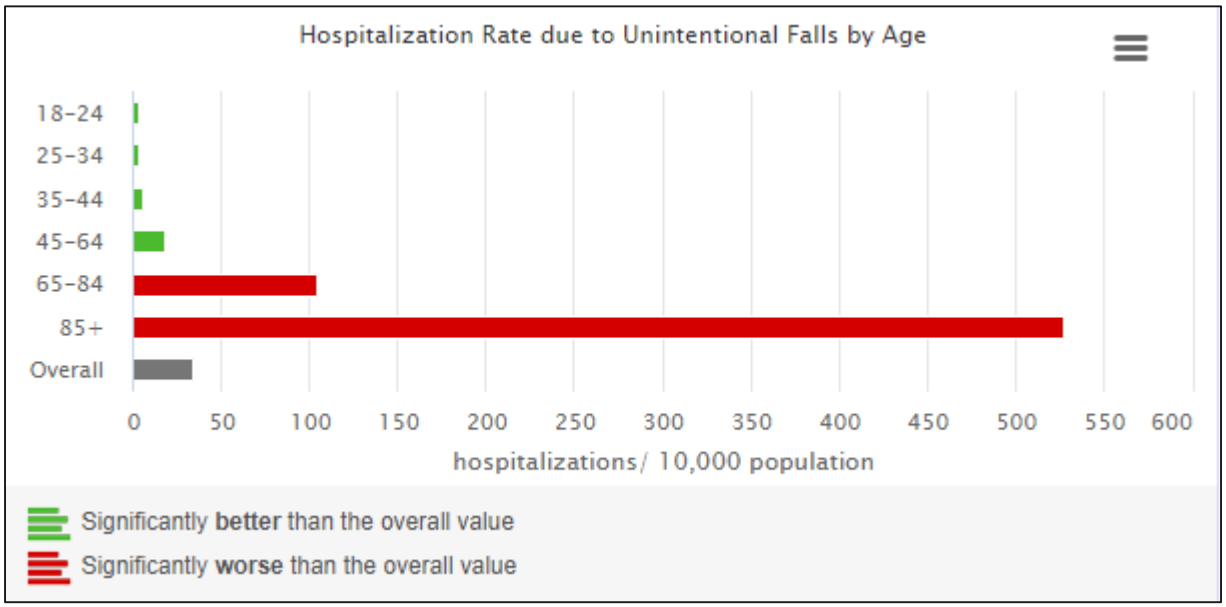
Unintentional falls can be detrimental to those aged 65 and older. In DuPage County, unintentional falls continues to be an issue among seniors. The overall age-adjusted hospitalization rate for unintentional falls in DuPage County is 33.5 per 10,000 population. Rates of hospitalization due to unintentional fall for those aged 65-84 is 103.8 and 527.6 per 10,000 population for those over the age of 85—both rates are substantially higher than the overall county rate of 33.5 per 10,000 population.

Alzheimer's disease and dementia are syndromes that severely impair the memory, language, complex motor skills and other intellectual abilities that are essential to daily life. Eleven percent of Medicare recipients in DuPage County have Alzheimer's or dementia, which is slightly higher than the state of Illinois at 10.7 percent and the U.S. at 10.8 percent. The percentage of Alzheimer's or dementia is highest amongst DuPage County Medicare recipients over the age 65 at 11.5 percent, compared to Medicare recipients under the age of 65 at 6.4 percent.

Exhibit 44: DuPage County Cancer in the Medicare Population 2017

Source: Conduent Healthy Communities Institute, Centers for Medicare and Medicaid Services, 2018

Exhibit 45: DuPage County Age-Adjusted Hospitalization Rate due to Unintentional Falls 2015-2017



Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 46: DuPage County Alzheimer's or Dementia in the Medicare Population 2017

Source: Conduent Healthy Communities Institute, Center for Medicare and Medicaid Services, 2018

Social Determinants of Health

The DuPage County health needs discussed above are strongly influenced by various social factors; this concept is known as social determinants of health (SDOH). The World Health Organization (WHO) defines social determinants of health as the conditions in which people are born, grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources at global, national and local levels. DuPage County data shows a relationship between income, race/ethnicity and health outcomes. DuPage County communities with lower median household incomes had higher rates of obesity, ED visits and hospitalizations due to chronic disease and mental health issues (Conduent Healthy Communities Institute, 2018). This data is consistent with state and national trends, which indicate poor health outcomes and the risk of chronic disease are greater among those who are low-income with less educational attainment (Healthy People 2020, 2019). The hospital's CHC and DuPage County Health Department/Impact DuPage recognize the importance of addressing root causes of the

health needs above and therefore the priority health needs selected will incorporate social determinants of health in Implementation Plan strategies and programs.

Key Findings: DuPage County Top Health Needs

- Behavioral health was identified as a health need in DuPage County largely due to increasing rates of ER visits and hospitalizations due to mental health and substance use.
- Cancer was identified as a health need for DuPage County due to high prevalence and incidence rates of the disease.
- Senior health was a health need in DuPage County due to the high rates of chronic disease and increasing health conditions compared to other counties in Illinois.
- Cardiovascular disease was identified as a health issue due to the high rates of hospitalization and ER visits for heart failure and stroke.
- Sexually transmitted diseases were identified as a health issue in the County due to the significantly increasing rates over a short period of time.
- Data indicated that immunizations were a health need for DuPage County due to low immunization rates and high rates of ER visits and hospitalizations due to immunization-preventable pneumonia and influenza, especially among seniors.
- Access to care was identified as a health issue in the County with the lowest health insurance rates seen in the Hispanic/Latino and African American populations.
- Healthy lifestyles was a health need in DuPage County due to low access to affordable healthy foods specifically among the lower income populations in DuPage County.

V. Prioritization of Health-Related Issues

Priority Setting Process

Advocate Good Samaritan's Community Health Department presented data to the hospital's CHC for the top eight health needs in DuPage County. The data was reviewed and discussed by the CHC, including representatives from the DuPage County Health Department, to ensure the health needs presented were consistent with the DuPage County Health Department data. The top health needs presented to the Council are listed below.

- Behavioral Health
- Healthy Lifestyles
- Cardiovascular Disease
- Immunizations
- Sexually Transmitted Diseases and Infections
- Asthma
- Senior Health
- Access to Health Care Services

Council members were able to ask questions and engage in a robust discussion around the top eight health needs, which lead to the prioritization phase of the CHNA. Council members were asked to vote for their top two health needs based upon the following criteria.

- Size of the health need. This was determined through ED, hospitalization, and disease and health condition prevalence and incidence data.
- Seriousness of the health issue. Several questions were taken into consideration to rate the seriousness of the health issue including:
    1. What is the importance of health issue to the community?
    2. Does the health issue impact the quality of life?
    3. What are the hospitalization and mortality rates caused by the health issue?
- Effectiveness of available interventions. The CHC considered several questions to determine the effectiveness of the health need interventions including:
    1. Are prevention programs effective in preventing the health issue?
    2. Do interventions for the health issue have the ability to improve/impact other health issues?
    3. Do treatment programs effectively address the health issue?
- Existing community partners working on the issue. CHC members were asked to give special attention to this criterion given that the hospital was working with DuPage County Health Department/Impact DuPage to align CHNA for a collaborative process.
- Potential for health issue to impact other health issues.

The two health needs with the most votes were selected as the most significant health needs for DuPage County. The results of the vote for significant health needs are listed below.

- Substance Abuse - All
- Access to Care - All
- Affordable Housing - All
- Mental Health - 11
- Healthy Lifestyles - 8
- Senior Health - 0
- Sexually Transmitted Infections - 0
- Cardiovascular Disease - 0
- Asthma - 0

In efforts to align with and engage in a collaborative DuPage County CHNA, the hospital's director of community health voted for the significant health needs identified by Advocate Good Samaritan's CHC at the larger Impact DuPage Steering Committee (listed on page 24) prioritization meeting. The final vote and selection of DuPage County health priorities was determined by the Impact DuPage Steering Committee and then presented to the hospital's CHC for final review and approval to adopt the county health needs as priorities for the hospital. After a robust discussion on the health need priorities selected by the Impact DuPage Steering Committee, CHC members adopted two out of the three DuPage County prioritized health needs. The sections below provide details around the health needs selected and not selected by Advocate Good Samaritan.

Health Needs Selected to Address by Advocate Good Samaritan

Behavioral Health

The CHC adopted behavioral health as a priority health need for DuPage County. The CHC initially looked at substance use and mental health as separate health issues however, after careful review of data, it was evident that mental health and substance use are strongly correlated and present as co-occurring health issues. Taking this into consideration, the CHC and Impact DuPage Steering Committee identified behavioral health as the priority health need and the most effective way to address mental health and substance use. Data trends indicated that mental health issues are increasing and the need for mental health services and programming is continuing to grow. Adolescents and young adults have some of the highest hospitalization and ER rates due to mental health issues and the greatest need for mental health services. In addition, behavioral health impacts one's ability to live a healthy lifestyle, which makes it essential to address mental health in order to decrease obesity, improve nutrition and increase physical activity. The CHC is specifically interested in collaborating with community organizations such as the National Alliance for Mental Illness (NAMI) to increase the amount of community programs and resources available to teens and young adults who experience mental health issues. The hospital will work with the DuPage County Health Department and Impact DuPage to effectively address behavioral health needs in DuPage County.

Health Status Improvement

Health status improvement includes access to health care, obesity prevention, nutrition and physical activity. The CHC and Impact DuPage identified healthy lifestyles and access to health care as a critical health need for DuPage County. Obesity and nutrition are the leading causes of many chronic diseases and health issues including heart disease, stroke, some cancers and diabetes. Taking this into consideration, the CHC and Impact DuPage selected health status improvement due to the ability to impact the quality of life and overall health status. The prevention of obesity, proper nutrition and physical activity have the potential to decrease the rate of chronic disease, thus increasing the quality of life and life expectancy. Therefore, the CHC made the recommendation and the Impact DuPage Steering Committee voted to prioritize healthy lifestyles.

In addition, the Impact DuPage Steering Committee identified and selected access to health care as access to health care services is critical in preventing health conditions and creating and maintaining a healthy lifestyle. To ensure well-rounded strategies that effectively improve the overall health of individuals living in DuPage County, the Impact DuPage Steering Committee included access to health care in the health status improvement priority, which was adopted by the hospital's CHC. Data also revealed that obesity rates and poor nutrition are higher in low income communities within DuPage County, making these high risk/disparate communities a priority for programs that address health status improvement.

Health Needs Not Selected by Advocate Good Samaritan

Affordable Housing

Although affordable housing was identified as a significant health need by the CHC and voted as a priority for DuPage County by the Impact DuPage Steering Committee, the CHC determined the hospital's capacity and availability of resources was limited to two health priorities. In efforts to effectively address behavioral health and health status improvement, the CHC and hospital's Community Health Department decided to be engaged in the planning, brainstorming and promotion phase of the county's affordable housing initiative. The hospital recognizes the significance of the need for affordable housing in DuPage County and therefore the hospital will continue to partner with the DuPage County Health Department and DuPage Pads to advance affordable housing strategies in the County.

Cardiovascular Disease

The CDC estimates that 200,000 heart disease and stroke deaths are preventable. Obesity increases the risk for high blood pressure and cholesterol, which also contributes to heart disease. After careful review of the data, the CHC recommended that the hospital address cardiovascular disease through the health status improvement priority, which includes nutrition, physical activity and obesity prevention. The Impact DuPage Steering Committee also did not select cardiovascular disease as a county health need priority due to the impact health status improvement has on decreasing the rate of cardiovascular disease. Although cardiovascular disease was not selected as a priority the hospital will address this health issue through the health status improvement priority.

Asthma

Asthma was identified as a health need but not selected as the recommended health priority by the CHC due to the lack of community partners and the ineffectiveness/availability of asthma prevention programs. The CHC also identified the high rates of hospitalization and ER visits due to asthma as a potential access to health care issue. Taking this into consideration, CHC members suggested addressing access to care through the health status improvement priority as a way to address the ER and hospitalization rates due to asthma. In addition, asthma was not identified as a significant health need for DuPage County by the Impact DuPage Steering committee. Although asthma was not selected as a priority health need, the hospital will work with the DuPage Health Coalition, an organization that aims to increase access to care for all DuPage County residents, to ensure county residents have some form of health care insurance and access to primary and specialty health care services.

Sexually Transmitted Infections

Although the CHC recognized the increasing need to address sexually transmitted infections, particularly in the adolescent population, the CHC did not recommend prioritizing this health issue due to the multiple organizations, including DuPage County schools, addressing the issue. The hospital also

has limited expertise to address this health need in the adolescent population. Although not selected as a priority, the hospital will be able to address sexually transmitted diseases through the health status improvement priority by improving access to health care for detection and treatment of sexually transmitted infections.

Senior Health

The hospital recognizes the importance of senior health and engages in multiple community activities and programs that address the health needs of seniors. The hospital implements the Matter of Balance program, which aims to decrease falls among seniors through increasing education around preventing falls and creating fall-free environments. In addition, the hospital implements senior health fairs and health education workshops across DuPage County in partnership with various senior centers and residences. In addition, the Impact DuPage Steering Committee did not prioritize senior health as a health need for DuPage County due to the abundant amount of resources available for seniors at the DuPage County Health Department.

Immunization Preventable Diseases

The CHC recommended that immunizations not be selected as a priority due to the current efforts being implemented to address this health need. Throughout DuPage County, the need for vaccinations/immunizations is being addressed by the retail and non-profit sectors. Advocate Aurora Health has several Walgreens clinics in which vaccinations are offered at a low-cost to the community. In addition, the DuPage County Health Department offers vaccinations at a low or no cost to DuPage County residents including those with no insurance. Due to the availability of vaccinations across the county, the CHC nor the Impact DuPage Steering Committee selected vaccinations/immunizations as a priority health need.

VI. Approval of Community Health Needs Assessment

The director of community health provided a copy of the CHNA to each hospital Governing Council member in advance of the September 2019 Council meeting. Governing Council members were able to review the CHNA document in its entirety before the Council meeting. The hospital's director and coordinator of community health presented the CHNA document including an overview of the assessment process and the selected health need priorities to Council members. Following the presentation, Council members were able to discuss findings, ask questions and comment. On September 19, 2019, the hospital's Governing Council approved the 2017-2019 Advocate Good Samaritan CHNA Report, including the Bolingbrook-Romeoville CHNA Report included in the appendix. The Advocate Health Care Network Board approved the full 2017-2019 Advocate Good Samaritan CHNA Report at the system level on December 16, 2019.

VII. Overview of 2020-2022 Implementation Planning and Community Resources

The hospital's Community Health Department will lead the process in creating and developing the 2020-2022 Implementation Plan. The Implementation Plan will outline strategies that explain how the hospital will address the prioritized health needs. The Plan will also include goals, objectives, measurement tools and partner organizations. It is critical that the hospital identify the correct target population for each priority health need strategy therefore the hospital's Community Health Department will take a deeper dive into the high-risk and most impacted communities through reviewing the SocioNeeds Index map and zip code-level data. It is of utmost importance to successfully track and measure community impact. The hospital's director of community health, therefore, will annually report the hospital's progress/accomplishments towards achieving the Implementation Plan's goals and objectives.

Health Status Improvement

DuPage Health Coalition

The hospital has a long-standing relationship with the DuPage Health Coalition, an organization that works to address access to care in DuPage County. The President of DuPage Health Coalition is also a member of the hospital's CHC and is actively engaged in the hospital's community health work. In addition, the DuPage Health Coalition is also a member of the Impact DuPage Steering Committee and is a key partner in addressing the health status improvement priority in the Impact DuPage County Action Plan. The hospital's director of community health will work with the President of DuPage Health Coalition to identify partnership opportunities in addressing access to care, including health literacy in DuPage County.

Transition Support Program (TSP)

Advocate Good Samaritan implements TSP under the leadership of the system TSP Manager. The program employs TSP Navigators engage admitted patients in a culturally and linguistically appropriate manner to ensure they have a primary care provider and a scheduled follow-up appointment post discharge. The program aims to decrease readmission rates through increasing access to primary care providers and eliminating or decreasing barriers to primary care, such as transportation. The hospital's Community Health Department will partner with TSP to provide community resources and supports including programs that address social determinants of health for TSP patients who are discharged into the community.

Healthy Schools

The hospital will explore new nutrition and physical activity strategies with two long-standing partner schools. Initiatives such as yoga for students, school gardens, farmer's markets, parent workshops and

cooking demos will be explored as strategies in the 2020-2022 Implementation Plan. The hospital will also work with schools to provide mental health workshops and education, which address behavioral health, the hospital's second priority health need.

DuPage County Health Department

To ensure alignment with the DuPage County CHNA Action Plan, the hospital's director of community health will meet with the staff lead for the Impact DuPage Steering Committee to review Action Plan strategies for the health status improvement priority. The hospital's director of community health will discuss DuPage County Action Plan partners and explore ways in which the hospital can support the county's Action Plan strategies around health status improvement.

Behavioral Health

NAMI

The hospital will continue to work with NAMI DuPage to implement the Teen Recovery Support group for DuPage County teens with mental health issues/illness. The hospital will provide staff support to implement the Recovery Support Groups and explore opportunities to integrate healthy lifestyle classes/education into the group sessions. In addition, the hospital will review opportunities to implement the Bridges of Hope program, a program that addresses mental health with a faith-based approach. Mental Health First Aid and the Ending the Silence programs, which aim to destigmatize and create awareness around mental illness, will also be considered for continuation from the previous (2017-2019) hospital Implementation Plan.

State Targeted Response

The State Targeted Response (STR) program addresses opioid use disorder in the hospital's ER. The hospital partners with Gateway Foundation to place an Engagement Specialist in the ER. The Engagement Specialist works with ER patients who have opioid use disorder to find and place them in treatment. The Engagement Specialist also helps individuals find transportation to treatment and provides community resources to address social and mental health needs. The hospital's ER, Behavioral and Community Health Departments are engaged and provide support to the STR program.

DuPage PADS

The hospital's Behavioral and Community Health Departments will meet with DuPage PADS, an organization focused on addressing the housing needs of the homeless population in DuPage County, to discuss mental health needs for the client population. Due to the high prevalence of mental illness in the homeless population, the need for mental health services and counseling is critical to clients' ability to secure successful placement and remain in permanent housing. The hospital will explore ways in which the mental health needs of the homeless population can be addressed in an effort to increase quality of life and create a stable housing environment.

DuPage County Health Department

The hospital's director of community health will meet with the DuPage County Health Department Coordinator of Population Health and Impact DuPage Steering Committee to discuss DuPage County Action Plan strategies that address mental health. Potential partnership opportunities include hospital membership on the HOPE Taskforce, a committee that addresses opioid use in DuPage County; support in implementing the pre-arrest diversion program; and support in training 160 DuPage County Emergency Medical Services (EMS) responders in Mental Health First Aid.

VIII. Vehicle for Community Feedback

Community Feedback

Advocate Good Samaritan Hospital welcomes all feedback regarding the 2019 Community Health Needs Assessment. Any member of the community wishing to comment on this report, can click on the link below to complete a CHNA feedback form. Questions will be addressed and will also be considered during the next CHNA cycle.
http://www.advocatehealth.com/chnareportfeedback

If you experience any issues with the link to our feedback form or have any other questions, please click below to send an email to us at:
AHC-CHNAReportCmtyFeedback@advocatehealth.com

This report can be viewed online at Advocate Health Care's Community Health Needs Assessment Report webpage via the following link: http://www.advocatehealth.com/chnareports

A paper copy of this report may also be requested by contacting the hospital's Community Health Department.

Sharing Results

Advocate Good Samaritan's director of community health will present the 2019 CHNA to the hospital service lines, community partners and hospital leadership. Feedback from the presentations will be recorded and collected at the conclusion of each presentation. Additional presentations will be given upon request.

IX. Appendices

(All data was verified and website links were fully functional within the CHNA Report and Appendices as of September 1, 2019.)

Appendix 1: 2017-2019 Community Health Needs Assessment Data Sources

Advocate Aurora Business Development Analytics, 2018

Centers for Disease Control and Prevention, 2018
https://www.cdc.gov/

National Institutes of Health, 2018
https://www.nih.gov/

National Alliance on Mental Illness, Mental Health by the Numbers, 2018
https://www.nami.org/Learn-More/Mental-Health-By-the-Numbers

DuPage County Community Health Needs Assessment, Impact DuPage, 2018
https://www.impactdupage.org/tiles/index/display?id=142066843864563241

State of Obesity, 2017 https://www.stateofobesity.org/states/il/

Conduent Healthy Communities Institute, 2018. Website unavailable to the public.

The following data sources were accessed through Conduent Healthy Communities Institute:

American Community Survey, 2014-2017 https://www.census.gov/programs-surveys/acs/

Center for Diseases Control and Prevention, 2016 https://www.cdc.gov/

Centers for Medicare and Medicaid Services, 2018 https://www.cms.gov/

Chicago Health Atlas, 2018 https://www.chicagohealthatlas.org/indicators/life-expectancy

Chicago Public Health Department, 2017 https://www.chicago.gov/city/en/depts/cdph.html

Cook County Department of Public Health, 2017 https://www.cookcountypublichealth.org/

County Health Rankings, 2017 https://www.countyhealthrankings.org/explore-health-rankings

Healthy People 2020, 2018 https://www.healthypeople.gov/

Illinois Department of Public Health, Vital Statistics, 2016 http://dph.illinois.gov/data-statistics/vital-statistics

Illinois Hospital Association, 2015-2017 https://www.team-iha.org/

National Alliance for Mental Health, 2018 https://www.nami.org/

The Nielsen Co, Truven Health Analytics, 2016. Data unavailable to the public

World Health Organization, 2018 https://www.who.int/social_determinants/sdh_definition/en/

Appendix 2: DuPage County Forces of Change Assessment

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Forces of Change Assessment

PHASE Three

2018 Assessment

Forces of Change

The Forces of Change Assessment (FOCA) is centered around answering the questions:

"What is occurring or might occur that affects the well-being of our residents or the local system?"

"What specific threats or opportunities are generated by these occurrences?"

The FOCA was facilitated by the Impact DuPage Core Team, comprised of DuPage County Health Department staff. Facilitated brainstorming sessions were conducted with community leaders to identify forces such as trends, factors, or events that are influencing the quality of life and health of the community. To obtain wide-ranging input, the assessment was conducted with 11 distinct audiences during meetings held in the winter of 2018. The groups that participated in the brainstorming sessions were the Neighborhood Resource Centers, Community Hunger Network, Impact DuPage Steering Committee, Healthy Lombard, Willowbrook Corners Coalition, Bensenville Youth Services Coalition, Prevention Leadership Team, DuPage County Community Services Manager Meeting, the DuPage County Health Department (DCHD) Leadership staff, and the DCHD Board of Health.

Findings

The 11 groups of community leaders discussed forces, threats, and opportunities across eight categories: Social, Economic, Political, Technological, Environmental, Scientific, Legal, and Ethical. The results of the discussions were reviewed to determine the themes that were most commonly discussed within the groups.

These sections are meant to summarize the discussion and are not necessarily reflective of the positions of any participating agency. Statements are the perspectives and perception of the individuals who participated and have not been verified. The results of these discussions are listed below.

<u>Employment and Wages:</u>

There is a belief that unemployment rates are misleading and that more people are unemployed or not employed in the jobs they want or were trained for. People are taking part-time jobs because they cannot find a job in their field. There is a lack of jobs for young people, especially new grads, in DuPage County, which is leading to massive student debt. Another concern is that some jobs in DuPage are becoming obsolete and cannot grow towards the future. The problem with getting new industries in this area is the financial status of the state as well as the high taxes within the county.

<u>Aging Population:</u>

The population in DuPage County is aging which is creating new needs within the community. The aging population is putting stress on the local provider system. As individuals are aging, they are less likely to be financially prepared for their future. Older adults are getting laid off in prime earning years and replaced by younger employees. There are not enough resources for adults in the community to help them get the latest education and resources they need to come back into the workforce and compete for good jobs.

<u>Affordable Housing:</u>

Expensive housing and high taxes have made it difficult for people to find housing in DuPage County. The increased cost of living has caused people to be priced out of their communities, potentially moving out of the county. Affordable housing should not all be located in the same community because it will cause segregation

and a concern about creating bad communities. There is less housing available for the elderly and what is available comes at a high cost.

Technology and Social Media Use:

Social media can have a large influence on a child's mental health and wellbeing. Bullying and other acts experienced through social media can cause trauma to children and may contribute to teen depression and anxiety. There are rarely repercussions for bullies on social media. These are new zones of a child's life that are difficult for adults to monitor or get involved in until there is a crisis and it is too late. Parents need more education about ways to monitor/ limit access to technology, as well as more awareness on how to see warning signs of problems. Increased use of social media has led to changes in the way that a community is built and interacts, given that young people's community is mostly online. Sedentary lifestyles brought on by too much screen time are common and lead to poor health outcomes. An additional concern regarding technology is that it is difficult for low-income individuals to access the internet and own technological devices.

Transportation:

Transportation services within DuPage County are limited and people cannot get the services that they need because they do not have access to transportation. There is no sense of a true transportation system within the county, and there are limited public transit routes. Car maintenance is expensive, and there are many families who cannot afford to have cars. It is difficult for families to find transportation for their children to get to and from activities and for the elderly to find transportation to and from their medical services. Transporting older family members can take a toll on families and their job productivity. There may be an opportunity for hospitals to partner with ride-share companies to transport patients with transportation barriers.

Mental health:

Due to the regional shortage of mental health care providers, the demand for care cannot be met within the community. Stigma regarding mental health as well as substance abuse treatment facilities is still present. There is a "not in my backyard" mentality within DuPage County regarding treatment facilities. Improvements seen regarding mental health include law enforcement Crisis Intervention Teams and more criminal justice and mental health efforts. It seems like it is becoming more acceptable to admit mental health issues and more people are willing to seek treatment.

Gun access and gun violence:

Mental health needs to be addressed regarding violence and access to guns. Gun access is leading to more domestic violence. Gun violence within the country is causing stress, anxiety, and an uncertainty of safety for students, parents, and faculty within DuPage. There needs to be a balance between protecting individual rights and protecting the community. There is a lot of information in the media about guns and gun violence, and some of this information is misleading.

Funding:

The new tax plan is causing concern regarding how charitable contributions to nonprofits will be affected and whether there will be major cuts to federally funded programs. The impact of the tax plan will not be fully seen until late 2018 or in 2019. Funding for schools and property rates are being negatively affected by the state's budget/taxes. Lack of equity across schools and school districts' funding is a concern. Decreased financial support and grants for nonprofits leaves community organizations with fewer options to help fund essential programs. Local agencies are merging to do collaborative work that combines efforts and creates connections to overcome funding struggles.

Additional forces of change that were often discussed are included in Appendix A.

May 10, 2018

Forces of Change	Group Comments
Misconceptions in Media	- Misconceptions in media about health facts, news stories, and gun facts - Difficult to figure out what is reliable news - People are disregarding scientific evidence and believing information from untrustworthy sources - Companies are profiting off marketing products that may actually be harmful
Health System Technology	- A need for more standardization of how to share health information - Big data allows for better diagnosing, but can also cause privacy concerns - Telehealth will allow more people to receive care
Diversity in DuPage & Demographic Change	- Shifts have occurred that totally change the face of DuPage - Leaders in DuPage should echo the need for inclusion of diverse groups rather than taking an adversarial approach -Siloed communities: long-term residents vs. new migrants (racial disparities & stereotypes) - People moving to suburbs from the city without social supports or transportation - Several different languages being spoken in schools without effective resources - Earlier education settings can be a good place for intervention
Immigration Issues	- People not willing to participate in community programs because of the fear that it will be used against them or is a trap - Misinformation about what happens if police are called on an immigrant - Immigrant community working together to heal and fight back - The immigrant population is a part of who DuPage is and we should celebrate that
Business Struggles	- Increase in online shopping and less shopping locally - There is a loss of jobs for small businesses - Many new jobs are not located within this community
Opioid Crisis & Narcotic Use	- Vast increase in the heroin/opioid epidemic over the past few years - Overprescribing of medications such as antibiotics, opioids, and psychotropics - Lack of treatment centers, especially those who offer low-cost options - Police and others using naloxone are open to liability

	- Awareness of the opioid crisis has allowed for broader conversations about addiction
Health Insurance	- There is a disintegration of the payer mix within the community - Insurance changes disproportionately affect the low-income population - High cost of insurance and concerns about changes to Medicaid - Medicaid managed care is poorly done in Illinois. Reimbursements not accurate or timely - Currently, there is decreased investment in safety net systems, decreased access to care due to MCOs limiting networks of providers, and a risk of moving from fee for service to capitation - Not enough education on insurance and what it means to be insured
Marijuana Legalization	- Risks and benefits need to be identified - Will opioid prescriptions be reduced with use of medical marijuana? - How will it affect substance abuse, and mental health, alcohol use? - What are the underlying issues/causes of youth use? - What mental health issues may be seen in 5-10 years (e.g. psychosis) due to it? - Funding can be used for other services - Pro-marijuana views are ignoring science and going off personal experience - Huge threat to community on mental health issues caused by marijuana use (tied to lack of education) - Road safety concerns as well as ER visits due to pediatric/adult overdose

Appendix 3: Landscape Review/DuPage County Community Health Needs Assessment

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Landscape Review

Landscape Review

The Impact DuPage Landscape Review Committee[1] (Committee) was charged with the collection of contextual information that would help Impact DuPage understand DuPage County residents' perception of well-being. Using qualitative research methods, the Committee sought to answer the following questions:

1. What is important to the community?
2. How is quality of life perceived?
3. What assets can be used to improve community well-being?

Updating Existing Qualitative Data Sources

The Committee met between January 2018 and February 2018 to review the results of the previous landscape review community survey, discuss and select data collection methods, develop strategies for participant recruitment, and implement data collection. Members decided to keep the overall structure and scope of the 2014 landscape review community survey as it appears to have accurately captured resident perspectives regarding community well-being. However, the committee did decide to adjust certain aspects of the previous landscape review community survey such as minor changes to verbiage in order to ensure its accessibility to all DuPage residents. Therefore, the 2018 landscape review can be viewed as an update to the existing 2014 landscape review.

Survey Methodology

Survey Design

The Community Themes and Strengths Assessment (CTSA), a component of the Mobilizing for Action through Planning and Partnerships (MAPP) process, was a valuable resource for the Committee. The CTSA is often used by public health systems to evaluate community health by answering questions such as: *What is important to our community? How is quality of life perceived in our community?* and *What assets do we have that can be used to improve community health?*

After consulting several MAPP Community Themes and Strengths Assessment surveys from other communities, the group selected one survey used by the Partnership for a Healthier Fairfax to serve as a template for the 2014 landscape review. Survey questions were adapted to make them applicable to DuPage County.

Since the current iteration of the Landscape Review is an update, it was determined that a pilot was not necessary. Instead, the committee used the results of the previous Landscape Review to adjust the survey for current needs.

Once the survey was finalized (Appendices II and III), countywide roll out details were determined. An electronic version of the survey was created in SurveyMonkey. A paper version was created for respondents who may not have access to a computer or who may be uncomfortable with technology. Prior to the survey launch, communication tools were developed to promote the survey. Tools included an Impact DuPage flyer, an e-mail template, and social media messages (Appendices IV and V). The survey was administered in the community from February 13th – April 13th, 2018.

[1] Committee roster available in Appendix I.

The survey contained questions on DuPage County's greatest strengths, important health concerns, risky behaviors, community and personal health, and where the community should focus its attention to make things better in DuPage County. The survey collected respondent demographic information including zip code, gender, age, marital status, children living in home, DuPage County residency, household income, level of education, race, ethnicity, where respondents receive healthcare and how they pay for healthcare. The survey was available in both English and Spanish.

Survey Distribution

Using the networks of Committee members, information regarding the launch of the survey was distributed via:

- Addison Resources Connect;
- Benedictine University;
- DuPage Chiefs of Police Association;
- DuPage County Board of Health;
- DuPage County Health Department Public Health Clinics;
- DuPage County Health Department Website;
- DuPage County Juvenile Justice Council;
- DuPage County Staff;
- DuPage Early Childhood Collaboration;
- DuPage Mayors and Managers Conference;
- Family Shelter Service;
- Glendale Heights Youth Commission;
- Healthy Lombard;
- Impact DuPage Networks;
- LOVE Christian Clearinghouse Newsletter;
- Municipal PIOs;
- North Central College;
- OHSEM EOC Tour - Girl Scout Parents;
- People's Resource Center Weekly Email;
- Prevention Leadership Team;
- Virtual Backpacks;
- Walk in Ministries;
- Weather Spotter Training Course Attendees; and
- Woodridge Park District.

Paper surveys were located at multiple DuPage County Health Department Public Health Clinics throughout the county. The survey was featured in village newsletters and various agency websites and social media accounts.

Challenges

Due to the fact that the survey was opt-in, the Committee focused on capturing a representative sample of DuPage County residents rather than concentrate on a response rate. From February—April, weekly updates were sent to Committee members tracking the demographics of respondents. The spreadsheet compared Census data of the larger DuPage County population to respondent demographics so that underrepresented populations could be targeted for survey participation.

Committee members were mindful of the sample size's margin of error and confidence level. According to several survey research sources, a population of 1,000,000 (DuPage County's total population estimate for 2018 is 929,026) requires at least 384 respondents for a 5% margin of error (answers reflect the view of the population) and at least 664 respondents for a 99% confidence level (the sample accurately samples the population). Both of these thresholds were surpassed with the survey's total of 1,577 responses.

Paper surveys were more difficult to administer than those in the electronic format. The electronic survey forced respondents to follow the instructions (e.g., select three choices). If a respondent checked more choices than asked, our protocol was to not include the survey.

In addition to paper surveys with more than the allowed choices selected, surveys completed by respondents that lived outside of DuPage County also were not included in the findings.

Although it is difficult to determine if an individual took the survey multiple times, communication tools were crafted to emphasize the importance of hearing from every DuPage County resident and to thank individuals if they had already taken the survey.

Survey Findings

A total of 1,577 responses were collected from DuPage County residents. Of those, 1,496 completed the survey in English and 81 completed the survey in Spanish. A summary of the respondent demographics can be found in Appendix
VI. The summary below contains the ten highest ranking selections with the three highest ranking selections bolded for most questions. For a complete list of rankings for all selections, see the Final Analysis including comments in Appendices VII and VIII.

What are the three greatest strengths of DuPage County?

1. **Good Schools (59%)**
2. **Low Crime/Safe Neighborhoods (40%)**
3. **Parks and Recreation (37%)**
4. Police/Fire/Rescue Services (23%)
5. Access to Healthcare (20%)
6. Friendly Community (20%)
7. Clean Environment (14%)
8. Good Jobs and Healthy Economy (13%)
9. Walkable/Bikeable Community (13%)
10. Access to Affordable/Healthy Food (9%)

What do you think are the three most important health concerns in DuPage County?

1. **Drug Abuse (44%)**
2. **Mental Health Problems (43%)**
3. **Too Much Screen Time/Technology Use (21%)**
4. Housing that is Safe and Affordable (20%)
5. Obesity (18%)
6. Bullying (15%)
7. Not Having Insurance (14%)
8. Aging (13%)
8. Cancers (13%)
10. Suicide (10%)

What are the top three risky behaviors in DuPage County?

1. **Drug Abuse (58%)**
2. **Alcohol Abuse (34%)**
3. **Too Much Screen Time/Technology Use (30%)**
4. Being Overweight (29%)
5. Poor Nutrition/Eating Habits (26%)
6. Lack of Exercise (22%)
7. Lack of Car Safety (18%)
8. Lack of Insurance (16%)
9. Unfairness Towards Other Races/Cultures (15%)
9. Tobacco Use/Smoking (15%)

How would you rate the health of our community?

1. **Somewhat Healthy (45%)**
2. Healthy (36%)
3. Somewhat Unhealthy (13%)
4. Very Healthy (4%)
5. Unhealthy (3%)
6. Very Unhealthy (<1%)

How would you rate your personal health?

1. **Healthy (48%)**
2. Somewhat Healthy (28%)
3. Very Healthy (12%)
4. Somewhat Unhealthy (8%)
5. Unhealthy (3%)
6. Very Unhealthy (1%)

Where should the community focus its attention to make things better in DuPage County?

1. **Access to Mental Health Treatment (33%)**
2. **Access to Alcohol/Drug Abuse Treatment (25%)**
3. **Good Jobs and Healthy Economy (22%)**

3. **Affordable Housing (22%)**
5. Low Crime/Safe Neighborhoods (19%)
6. Access to Healthcare (16%)
7. Schools (15%)
8. Reduce Bullying (13%)
9. Homeless Services (12%)
9. Access to Affordable Child Care (12%)

Appendix I: Landscape Review Committee Member List

Committee Member	Title	Organization
Judie Caribeaux	Executive Director	Family Shelter Service
Jennifer Chan	Administrator of Community Development	Department of Community Services
Jordan Durrett	Data Analyst	DuPage Federation on Human Services Reform
Bridget James	Manager, Intake and Referral	DuPage County Community Services
Jessica Lucas	Senior Program Manager	United Way of Metro Chicago – West Suburban Region
Scott Kaufmann	Population Health Specialist	DuPage County Health Department
Giovanna Losurdo	Emergency Management Specialist	DuPage County Office of Homeland Security and Emergency Management
Marija Maretic	Population Health Intern	DuPage County Health Department
Christopher Ragona	Community Development Manager	DuPage County Community Services
Gina Strafford-Ahmed	Administrator, Intake and Referral	Department of Community Services
Sarah Troll	Population Health Coordinator	DuPage County Health Department

Appendix IV: Communication Tool: Impact DuPage Flyer

We need the community's input to move DuPage County forward!

Impact DuPage is a group of community leaders and organizations working together to understand the needs and priorities of DuPage County residents. As part of the Impact DuPage 2018 Community Assessment, we are conducting a survey that asks about community themes and strengths that are important to the individuals in DuPage County.

DuPage County resident participation in this survey will help Impact DuPage improve the well-being of the community. The survey is open from February 5, 2018 – March 30, 2018 and takes an estimated 3-5 minutes to complete.

This survey is available at the following links:

English: www.surveymonkey.com/r/impactdupage2018

Spanish: www.surveymonkey.com/r/impactdupage2018spanish

Our goal is to hear one response from each DuPage County resident. If you have already taken this survey, thank you for your participation!

For more information about Impact DuPage or the survey, please contact impactdupage@dupagehealth.org or visit www.impactdupage.org.

Appendix V: Communication Tool: E-Mail and Social Media Messaging

Impact DuPage Survey: *E-Mail Message Template*

We need the community's input to move DuPage County forward!

Impact DuPage is a group of community leaders and organizations working together to understand the needs and priorities of DuPage County residents. As part of the Impact DuPage 2018 Community Assessment, we are conducting a survey that asks about community themes and strengths that are important to the individuals in DuPage County.

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Our goal is to hear one response from each DuPage County resident. If you have already taken this survey, thank you for your participation!

For more information about Impact DuPage or the survey, please contact impactdupage@dupagehealth.org or visit www.impactdupage.org.

Social Media Messages

We are asking DuPage County residents to let us know how we can help improve the well-being of the community. Help us hit our goal of reaching all 936,342 residents. www.surveymonkey.com/r/impactdupage2018

Appendix VI: Respondent Demographics

A total of 1,577 responses were collected from DuPage County residents. Of those, 1,496 completed the survey in English and 81 completed the survey in Spanish. A summary of the respondent demographics and survey findings is below.

	DuPage County (ACS, 2016)	**Survey**	
		Percentage	*Count*
Gender			
Female	51%	73%	1,148
Male	49%	25%	388
Non-Binary/Third Gender	NA	<1%	3
Prefer Not to Answer	NA	2%	33
Prefer to Self-Describe	NA	<1%	2
Age			
1 – 17 years	23%	1%	12
18 – 24	9%	4%	60
25 – 34	13%	15%	239
35 – 44	13%	27%	426
45 – 64	28%	41%	636
65 – 80	11%	11%	177
81+	4%	1%	15
Marital Status			
Single	31%	19%	296
Married	54-55%	69%	1,069
Divorced	9-10%	10%	150
Widowed	5%	3%	44
Do you have children under the age of 18 living in your home?[2]			
Yes	30%	52%	804
No	70%	48%	754

[2] As multiple individuals from the same household may take the survey, these percentages are unlikely to match up.

	DuPage County (ACS, 2016)	Survey	
Do you work in DuPage County?			
Yes	61%	59%	897
No	38%	41%	620
Annual household income			
< $9,999	4%	7%	94
$10,000-$29,999	9-15%	13%	191
$30,000-$49,999	10-16%	9%	129
$50,000-$74,999	15%	12%	175
$75,000-$99,999	14%	12%	176
$100,000-$124,999	NA	13%	192
$125,000-$149,999	NA	9%	130
$100,000-$149,999	20%	22%	322
$150,000+	22%	25%	359
Highest level of education			
Less than high school	2%	5%	72
High school/GED	5%	8%	118
Some college, no degree	12%	14%	215
Associates/Technical degree	6%	7%	107
Bachelor's degree	37%	33%	513
Graduate degree or higher	39%	34%	522

	DuPage County (ACS, 2016)	Survey	
Ethnicity			
Hispanic/Latino	14%	14%	217
Non-Hispanic	86%	86%	1313
Race			
African American/Black	6%	3%	48
Asian	12%	4%	61
Native Hawaiian/Pacific Islander	<1%	<1%	5
American Indian/Alaska Native	1%	1%	14
White/Caucasian	81%	82%	1,279
Other	3%	10%	151

	Survey	
Where do you usually go when you are sick or need healthcare?		
Doctor's office	87%	1,338
Public Health Clinic	5%	81
Community Health Center	2%	37
Hospital Emergency Department	2%	35
Other	3%	46
How do you pay for your healthcare?		
Employer Sponsored Health Plan	61%	991
Pay cash/No insurance	6%	95
Private health insurance	7%	119
Medicare	14%	223
Medicaid	12%	192
How do you pay for your healthcare (continued)?		
Veteran's Administration (VA)	1%	9
Indian Health Services	NA	NA
Other	2%	33

Municipality	Zip Code(s)*	English Responses	Spanish Responses	Total Responses
Addison	60101	60	16	76
Aurora	60502; 60504	30	0	30
Bartlett	60103	10	0	10
Bensenville	60106	12	5	17
Bloomingdale	60108	30	0	30
Carol Stream	60188	71	0	71

Municipality	Zip Code(s)*	English Responses	Spanish Responses	Total Responses
Clarendon Hills	60514	6	0	6
Darien	60561	11	0	11
Downers Grove	60515; 60516	46	0	46
Elmhurst	60126	106	0	106
Glen Ellyn	60137	103	2	105
Glendale Heights	60139	39	12	51
Hanover Park	60133	22	2	24
Hinsdale	60521	4	0	4
Itasca	60143	8	0	8
Lisle	60532	78	0	78
Lombard	60148	90	0	90
Naperville	60540; 60563; 60564; 60565	231	0	231
Oak Brook	60523	4	0	4
Roselle	60172	17	0	17
Villa Park	60181	39	4	43
Warrenville	60555	19	2	21
West Chicago	60185	32	21	53
Westmont	60559	11	0	11
Wheaton	60187; 60189	217	0	217
Willowbrook	60527	15	0	15
Winfield	60190	19	0	19
Wood Dale	60191	13	0	13
Woodridge	60517	51	0	51

*This chart contains only zip codes that had over three respondents participate in the survey.

Appendix VII: Impact DuPage Community Survey

Final Analysis (DuPage County residents only)

What are the 3 greatest strengths of DuPage County?	*Responses (ALL)*		*English*	*Spanish*
Good Schools	59%	917	889	28
Low Crime/Safe Neighborhoods	40%	619	609	10
Parks and Recreation	37%	582	574	8
Police/Fire/Rescue Services	23%	362	338	24
Access to Healthcare	20%	321	275	46
Friendly Community	20%	309	304	5
Clean Environment	14%	227	217	10
Good Jobs and Healthy Economy	13%	207	201	6
Walkable/Bikeable Community	13%	199	197	2
Access to Affordable/Healthy Food	9%	135	119	16
Arts and Cultural Events	6%	100	99	1
Respect Towards Different Cultures and Races	6%	93	76	17
Early Childhood Programs	5%	80	69	11
Programs for Youth Outside of School	5%	72	66	6
Religious/Spiritual Values	5%	71	68	3
Affordable Housing	4%	62	57	5
Senior Services	4%	61	54	7
Access to Affordable Child Care	3%	42	29	13
Public Transportation	3%	42	41	1
Homeless Services	2%	34	30	4
Prepared for Emergencies	2%	32	31	1
Technology/Internet Access	2%	32	32	0
Access to Alcohol/Drug Abuse Treatment	2%	24	18	6
Total Respondents Answered	100%	1566	1487	79

What do you think are the 3 most important health concerns in DuPage County?	*Responses (ALL)*		*English*	*Spanish*
Drug Abuse	44%	682	673	9
Mental Health Problems	43%	674	666	8
Too Much Screen Time/Technology Use	21%	332	324	8
Housing that is Safe and Affordable	20%	317	313	4
Obesity	18%	287	272	15
Bullying	15%	235	225	10
Not Having Insurance	14%	213	188	25
Aging	13%	208	204	4
Cancers	13%	199	174	25
Suicide	10%	162	161	1
Heart Disease and Stroke	9%	138	133	5
Domestic Violence	9%	137	121	16
Alcohol Abuse	9%	135	127	8
Diabetes	8%	126	106	20
Environmental Problems	7%	111	111	0
Tobacco Use/Smoking	6%	93	87	6
Motor Vehicle Injury	6%	88	87	1
High Blood Pressure	6%	86	80	6
Gun Violence or Firearm-Related Injuries	5%	79	74	5
Child Abuse/Neglect	5%	73	64	9
Dental Problems	3%	51	41	10
Teenage Pregnancy	3%	46	27	19
Accidental Injuries	2%	29	27	2
Infectious Diseases	2%	28	24	4
Rape/Sexual Assault	1%	23	23	0
Elder Abuse	1%	21	19	2
Sexually Transmitted Diseases	1%	20	16	4
Total Respondents Answered	100%	1563	1486	78

What are the top 3 risky behaviors in DuPage County?	Responses (ALL)		English	Spanish
Drug Abuse	58%	905	868	37
Alcohol Abuse	34%	532	501	31
Too Much Scree Time/Technology Use	30%	467	448	19
Being Overweight	29%	448	422	26
Poor Nutrition/Eating Habits	26%	407	398	9
Lack of Exercise	22%	344	335	9
Lack of Car Safety	18%	280	271	9
Lack of Insurance	16%	245	231	14
Unfairness Towards Other Races/Cultures	15%	234	230	4
Tobacco Use/Smoking	14%	220	207	13
Not Getting Vaccines to Prevent Disease	11%	178	167	11
Not Getting an Annual Checkup	7%	111	92	19
Dropping Out of School	6%	89	71	18
Unsafe Sex	5%	73	68	5
Gambling	4%	55	55	0
Total Respondents Answered	100%	1560	1483	77

How would you rate the health of our community?	Responses (ALL)		English	Spanish
Somewhat Healthy	45%	704	691	13
Healthy	36%	557	523	34
Somewhat Unhealthy	13%	196	188	8
Very Healthy	4%	59	47	12
Unhealthy	3%	40	31	9
Very Unhealthy	<1%	5	5	0
Total Respondents Answered	100%	1561	1485	76
How would you rate your personal health?	*Responses (ALL)*		*English*	*Spanish*
Healthy	48%	743	706	37
Somewhat Healthy	28%	439	423	16
Very Healthy	12%	195	188	7
Somewhat Unhealthy	8%	130	123	7
Unhealthy	3%	43	38	5
Very Unhealthy	1%	11	11	0
Total Respondents Answered	100%	1561	1489	72

Where should the community focus its attention to make things better in DuPage County?	*Responses (ALL)*		*English*	*Spanish*
Access to Mental Health Treatment	33%	516	508	8
Access to Alcohol/Drug Abuse Treatment	25%	383	368	15
Good Jobs and Healthy Economy	22%	350	329	21
Affordable Housing	22%	349	341	8
Low Crime/Safe Neighborhoods	19%	297	285	12
Access to Healthcare	16%	251	220	31
Schools	15%	231	220	11
Reduce Bullying	13%	199	187	12
Homeless Services	12%	182	175	7
Access to Affordable Child Care	12%	181	167	14
Public Transportation	11%	170	162	8
Respect Towards Different Cultures and Races	11%	169	160	9
Walkable/Bikeable Community	10%	156	156	0
Senior Services	10%	155	151	4
Clean Environment	9%	148	143	5
Programs for Youth Outside of School	9%	139	125	14
Parks and Recreation	7%	116	113	3
Police/Fire/Rescue Services	5%	81	78	3
Information on How to be Healthy	5%	73	66	7
Access to Disability Services	5%	72	67	5
Early Childhood Programs	5%	71	70	1
Access to Domestic Violence Services	4%	64	55	9
Arts and Cultural Events	4%	62	60	2
Healthy Moms and Babies	4%	60	53	7
Prepared for Emergencies	3%	54	51	3
Faith Communities	3%	50	46	4
Technology/Internet Access	2%	27	26	1
Sexually Transmitted Diseases	1%	12	12	0
Total Respondents Answered	100%	1563	1485	78

Appendix VIII: Impact DuPage Survey Open-Ended Comments – Themes

The survey asked respondents to clarify their "other" selections for several questions. These sections were left open-ended—which is to say that respondents could enter any text they wished. In the following sections readers may find the categorized responses to these "other" selections. Section headings are the survey questions for which the respondent selected "other."

What are the three greatest strengths of DuPage County?

Other Strengths--Commented

Strengths Other	Count of Respondent ID
Public Learning Facilities (i.e. libraries, museums, etc.)	5
Mental Health Services	4
Commute	3
No Strengths	3
Different from Cook County	2
Diversity	2
Housing	2
Access to Early Childhood Support Services	1
Access to Stores	1
Good Local Governance	1
Good Schools	1
Health Services for People with No Insurance	1
Professionalism	1
Secular Values	1
Social Service Workers	1
Total	**29**

What do you think are the three most important health concerns in DuPage County?

Other Health Concerns--Commented

Health Concerns Other	Count of Respondent ID
Stress	5
Lack of Neighborhood Safety	4
Financial Concerns	3
Abuse/Neglect in Healthcare and Emergency Setting	2
Food Insecurity	2
Lack of Access to Affordable and Quality Healthcare	2
Lack of Providers Accepting Medicaid	2
Lack of Safe Bicycling	2
Lack of Tolerance for Diversity	2
Racism	2
Sewage Failures	2
Homelessness	1
Lack of childcare	1
Lack of Resources for Those with Criminal Backgrounds	1
Lack of Services for Special Needs Population	1
Mosquitos	1
Political Concerns	1
Total	**34**

What are the top three "risky behaviors" in DuPage County?

Risky Behaviors Other	Count of Respondent ID
Bullying	1
Financial Stress	1
High insurance costs	1
Improper Repairs to Waste Systems	1
Overworking	1
Placing kids in alternative schools	1
Pollution	1
Stress	1
Unfairness to those with special needs/disabilities	1
Violence	1
Total	**10**

Where should the community focus its attention to make things better in DuPage County?

Community Improvements Other	Count of Respondent ID
Address Corruption	1
Affordable Medications	1
Alcohol Treatment without Stigma; Nutrition Education	1
Enforce Rules of the Road	1
Lower Property Taxes	1
Parks with Accessible Amenties for Special Needs Population	1
Reduce Screen Time	1
Total	**7**

Appendix 4: 2017-2019 Bolingbrook-Romeoville Community Health Needs Assessment

2017-2019

Advocate Good Samaritan Hospital Bolingbrook-Romeoville Community Health Needs Assessment

I. Executive Summary

For the purposes of this 2017-2019 supplemental CHNA, Advocate Good Samaritan Hospital defined the community as Bolingbrook (60440) and Romeoville (60446), which are two high socioneed communities in Will County. During 2017-2019 the hospital conducted a collaborative DuPage County CHNA, which did not include Bolingbrook and Romeoville—two communities in the hospital's PSA but outside of DuPage County. The CHNA report includes demographic and socioeconomic data for Bolingbrook-Romeoville and key findings regarding the communities' health status. For the purposes of this report, the "community" was defined as Bolingbrook (60440) and Romeoville, which are two high socioneed communities located in Advocate Good Samaritan's PSA.

Demographic and socioeconomic data for Bolingbrook-Romeoville was collected and analyzed to get a thorough picture of the health needs for the community. Data collected included primary, secondary, quantitative and qualitative data. Data shows that the Bolingbrook-Romeoville community is 55 percent White, 18 percent African American, 14 percent "Other", nine percent Asian, and four percent two or more races. The ethnic composition of the community is 33 percent Hispanic/Latino while 67 percent of the population is Non-Hispanic/Latino. In addition, the PSA is 51 percent female and 49 percent male with an average median household income of $77,022.

The hospital's Community Health Council (CHC) was essential to completing the CHNA process and is comprised of hospital and community representatives. The CHC provided oversight of the 2019 CHNA process and reviewed and analyzed data along with the hospital's Community Health Department to determine the health needs of Bolingbrook-Romeoville. After thorough review and analysis of primary and secondary data, the top four health needs of Romeoville-Bolingbrook were identified as:

- Asthma
- Heart Disease and Stroke
- Behavioral Health
- Diabetes

After a thorough review and analysis of data, the CHC began the stage of prioritization using criteria such as severity of health issue, effectiveness of intervention and degree to which community partners are involved in addressing the health issue. After careful review of data in consideration of the criteria above, the CHC selected chronic disease prevention and management as Bolingbrook-Romeoville's priority health need.

Collaboration was an essential component of this CHNA. Advocate Good Samaritan worked with the Will County Health Department, AMITA Adventist Medical Center Bolingbrook, Bolingbrook-Romeoville Visiting Nurses Association (VNA) and West Suburban Community Pantry to collect primary and secondary data regarding the health needs of the community.

To ensure Advocate Good Samaritan develops an effective 2019 CHNA Implementation Plan, the hospital's CHC and Community Health Department will collaborate with community partners to create strategies that address the priority health need. Metrics, goals and objectives will be created for each strategy, and outcomes will be monitored to track community impact and program effectiveness.

II. 2017-2019 Bolingbrook, Romeoville Community Health Needs Assessment

Community Definition

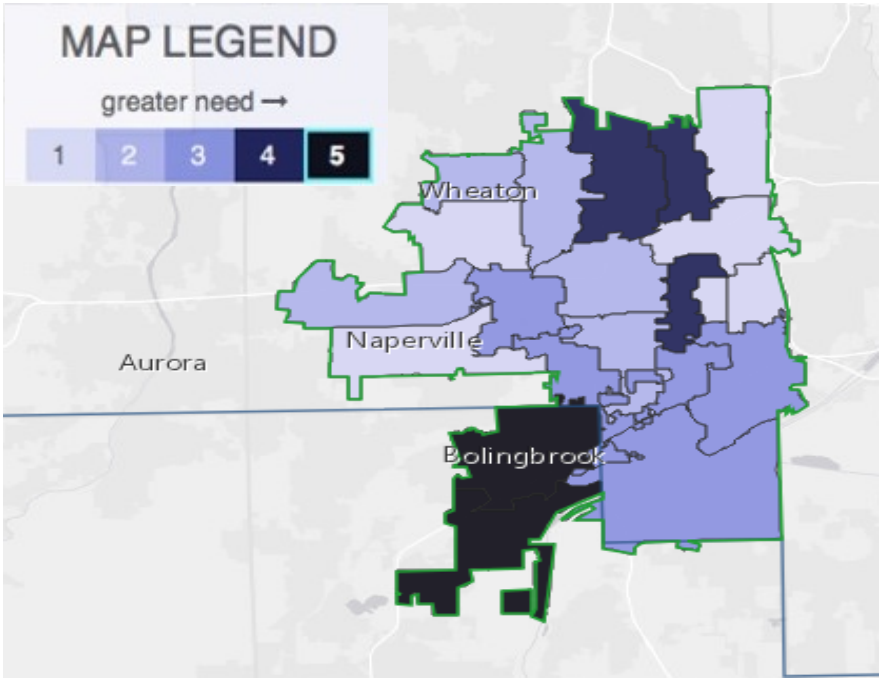
In efforts to meet the requirements of the Affordable Care Act and address health needs in the hospital's most at-risk communities, Advocate Good Samaritan conducted a CHNA specifically for Bolingbrook and Romeoville.

Social Determinants of Health: SocioNeeds Index

The SocioNeeds Index is a Conduent Healthy Communities Institute indicator that is a measure of socioeconomic need, correlated with poor health outcomes. The index is calculated from six indicators, one each from the following topics: poverty, income, unemployment, occupation, education and language. The indicators are weighted to maximize the correlation of the index with premature death rates and preventable hospitalization rates. All zip codes, counties and county equivalents in the United States are given an index value from 0 (low need) to 100 (high need). To help identify the areas of

highest need within a defined geographic area, the selected zip codes are ranked from 1 (low need) to 5 (high need) based on their Index value. These values are sorted from low to high and divided into five ranks using natural breaks. These ranks are then used to color the zip codes with the highest socioneeds indices with the darker colors. The communities of Bolingbrook and Romeoville have the greatest amount of socioneeds compared to other communities in the PSA. Both communities are rated a “five” by the socioneeds index, indicating that the communities have lower median household incomes and educational attainment rates and higher rates of populations living in poverty and food insecurity. Exhibit 1 shows the SocioNeeds map for the hospital’s PSA including Bolingbrook and Romeoville.

Exhibit 1: SocioNeeds Map 2019



Source: Conduent Healthy Communities Institute, 2019

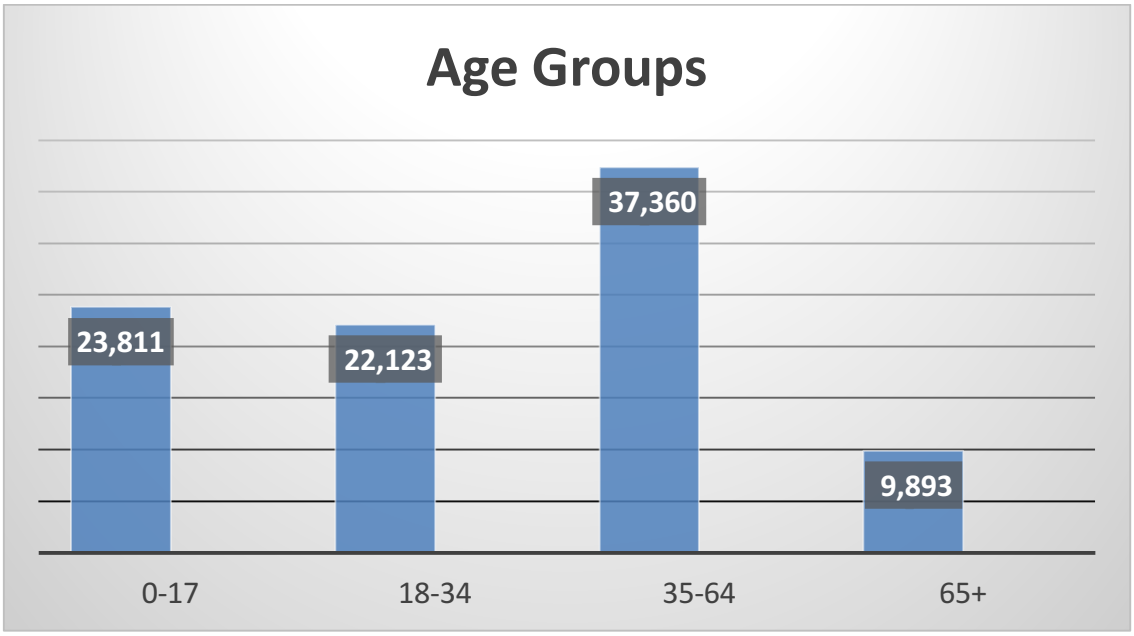
Demographics

The total population for Bolingbrook (60440) and Romeoville (60446) is 93,181 persons with 41,410 persons in Romeoville and 51,771 in Bolingbrook (60446). Exhibit 2 shows the Bolingbrook and Romeoville population by age.

Age and Gender

The largest age group is individuals aged 35-64 years of age with a population of 37,360, followed by the 0-17 year old age group with a population of 23,811.

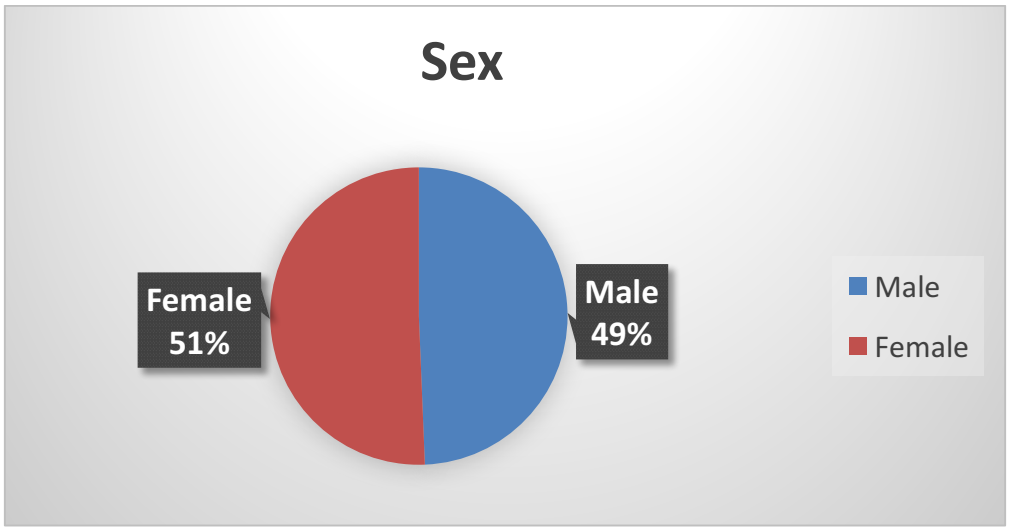
Exhibit 2: Bolingbrook (60440)-Romeoville by Age Group 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

Sex

Exhibit 3: Bolingbrook (60440)-Romeoville by Sex 2017

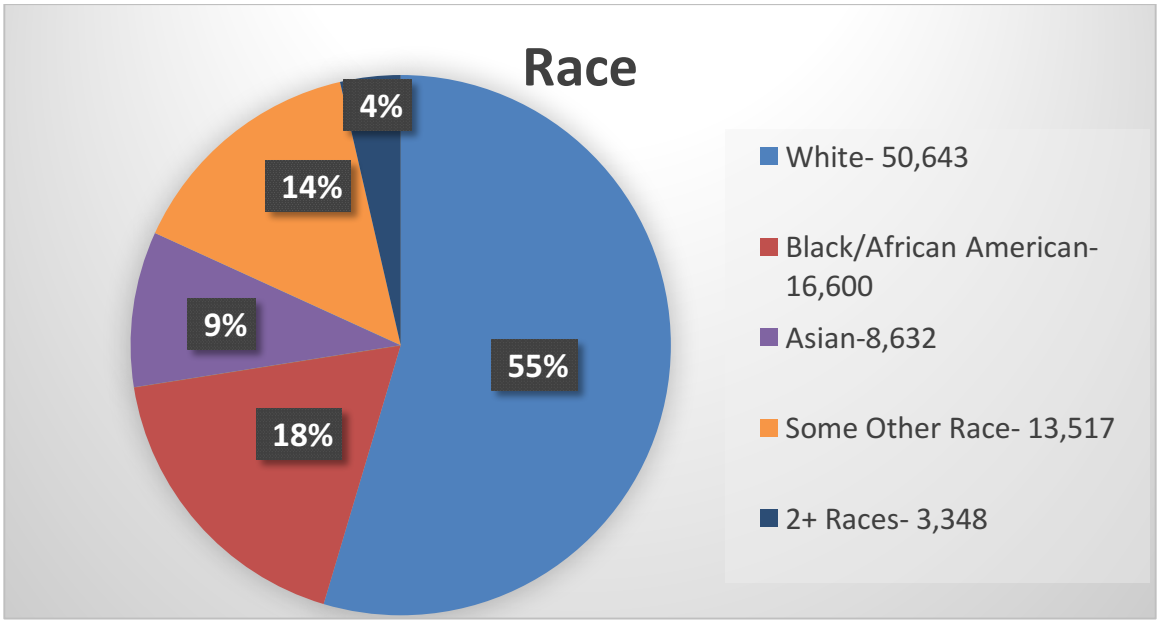


Source: Conduent Healthy Communities Institute, Claritas, 2018

Race and Ethnicity

The Bolingbrook-Romeoville community is 55 percent White, 18 percent African American, 14 percent "Other", nine percent Asian and four percent two or more races.

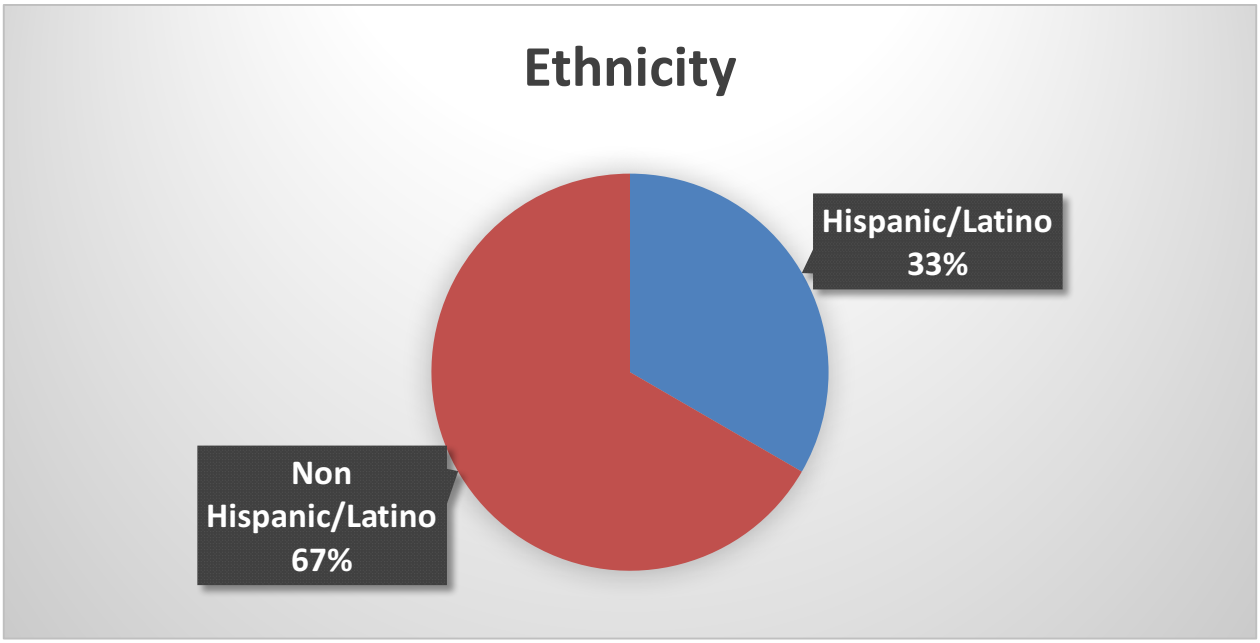
Exhibit 4: Bolingbrook (60440)-Romeoville by Race 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

Data shows that Bolingbrook-Romeoville is 33 percent Hispanic/Latino while 67 percent of the population is Non-Hispanic/Latino. Exhibit 5 shows Bolingbrook-Romeoville by ethnicity.

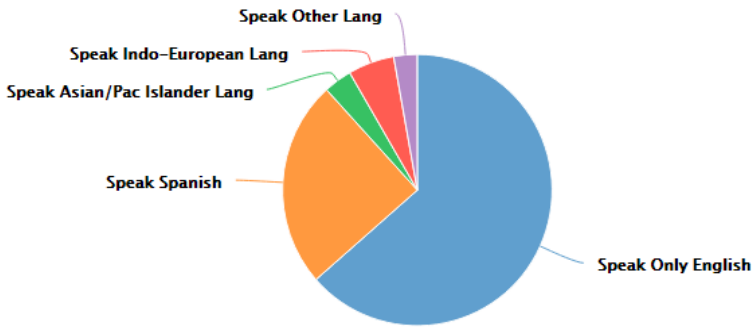
Exhibit 5: Bolingbrook (60440)-Romeoville by Ethnicity 2017



Source: Conduent Healthy Communities Institute, Claritas, 2018

The Bolingbrook-Romeoville community is also very diverse in the languages spoken at home. English and Spanish are the two predominant languages spoken at home in Bolingbrook and Romeoville. Exhibits 6 and 7 show the Romeoville and Bolingbrook population aged five and older by languages spoken at home.

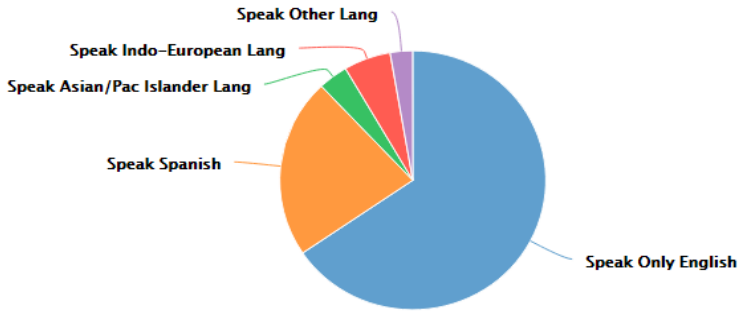
Exhibit 6: Romeoville Population Age 5+ by Languages Spoken at Home 2017



Population Age 5+ by Language Spoken at Home	Zip Code: 60446		County: DuPage		State: Illinois	
	Persons	% of Population Age 5+	Persons	% of Population Age 5+	Persons	% of Population Age 5+
Speak Only English	24,567	63.55%	646,665	73.85%	9,268,824	77.20%
Speak Spanish	9,544	24.69%	91,909	10.50%	1,604,939	13.37%
Speak Asian/Pac Islander Lang	1,310	3.39%	44,536	5.09%	349,719	2.91%
Speak Indo-European Lang	2,150	5.56%	85,508	9.76%	658,792	5.49%
Speak Other Lang	1,085	2.81%	7,067	0.81%	124,363	1.04%

Source: Conduent Healthy Communities Institute, Claritas, 2018

Exhibit 7: Bolingbrook (60440) Population Age 5+ by Languages Spoken at Home 2017



Population Age 5+ by Language Spoken at Home	Zip Code: 60440		County: DuPage		State: Illinois	
	Persons	% of Population Age 5+	Persons	% of Population Age 5+	Persons	% of Population Age 5+
Speak Only English	31,940	65.52%	646,665	73.85%	9,268,824	77.20%
Speak Spanish	10,936	22.43%	91,909	10.50%	1,604,939	13.37%
Speak Asian/Pac Islander Lang	1,758	3.61%	44,536	5.09%	349,719	2.91%
Speak Indo-European Lang	2,790	5.72%	85,508	9.76%	658,792	5.49%
Speak Other Lang	1,327	2.72%	7,067	0.81%	124,363	1.04%

Source: Conduent Healthy Communities Institute, Claritas, 2018

Income

The combined average household income for Bolingbrook-Romeoville is $77,022, which is substantially less than the overall PSA median household income at $95,321. There are racial and ethnic disparities in the median household income with the African American and Hispanic/Latino populations making substantially less than the White and Asian populations in both Bolingbrook (60440) and Romeoville. Exhibit 8 shows the combined (Bolingbrook and Romeoville) population by race/ethnicity and average median household income.

Exhibit 8: Romeoville-Bolingbrook Population by Race/Ethnicity and Average Median Household Income 2017

Race/Ethnicity	Average Median Household Income
Asian	$91,529
White	$73,833
Black/African American	$66,661
Hispanic/Latino	$61,767
Other	$60,531

Source: Conduent Healthy Communities Institute, Claritas, 2018

There are 8.37 percent of families (1,069 families) that live below the poverty level in Bolingbrook and 5.7 percent of families (556 families) that live below the poverty level in Romeoville. Both communities

have a larger percentage of families living in poverty compared to the overall PSA at 4.54 percent of families living in poverty.

Employment

The unemployment rates in Bolingbrook and Romeoville are 4.49 and 4.55 percent respectively. Both unemployment rates are slightly higher than the overall hospital PSA at 4.45 percent. The three top industries of employment are health care, retail trade and total manufacturing (Conduent Healthy Communities Institute, Claritas, 2018).

Education

Educational Level

Seven percent of the Bolingbrook-Romeoville population have less than a 9th grade education while seven percent have no high school diploma. Over a quarter (27 percent) of the population has at least a high school diploma and 21 percent have a bachelor's degree while seven percent have a master's degree.

Hospital community health staff identified one other health care resource in the defined community as follows.

Health Care Resources in the Defined Community

Name of Facility	Type of Facility	Location
Amita Health Adventist Medical Center Bolingbrook	Hospital	Bolingbrook, Illinois

Key Roles in the 2017-2019 Community Health Needs Assessment

Advocate System and Hospital Leadership

In 2017, Advocate Health Care began organizing resources to implement the 2017-2019 CHNA cycle. The system had a contract with Xerox Health solutions to provide an internet-based data resource for all Advocate hospitals during the 2017-2019 CHNA cycle. The robust data platform offered over 171 health and demographic indicators including hospitalization and emergency department visit indicators.

A community health team comprised of a master's prepared regional director and coordinator of community health oversaw and were responsible for coordinating and promoting the hospital's involvement in policies, programs and services to improve the overall health status of the hospital's service area communities. The community health needs assessment, the convening and oversight of the hospital's Community Health Council and the co-administering of the hospital's community benefits reporting are responsibilities of the director of community health. The hospital's community health team also worked collaboratively with the Will County Health Department and AMITA Health Adventist

Medical Center Bolingbrook to conduct the Romeoville-Bolingbrook community health needs assessments. There is a matrixed relationship between Advocate Good Samaritan's director of community health and the hospital's executive leadership to ensure the CHNA process and community benefits plan and reporting align with the hospital's strategic plan.

Governing Council

Advocate Good Samaritan's Governing Council is comprised of community leaders and executive level hospital staff. The role of each Governing Council member includes supporting hospital leadership in achieving the hospital's goals, representing the community's interest to the hospital and serving as a hospital ambassador in the community. The Governing Council also monitors clinical outcomes, patient and association satisfaction, physician credentialing and relations, financial performance, strategic direction and overall community health.

Governing Council representation on the hospital's CHC ensures alignment of the community health needs and programming with the hospital's resources, capacity and areas of expertise. It is essential that the resources and strategic direction of the hospital are considered when reviewing the health needs of the community and creating the Implementation Plan; therefore, the hospital's Community Health Council will continue to engage the Governing Council through ensuring a member is always represented on the CHC and engaged in the community health needs assessment. Under the direction of the Governing Council, the hospital's capacity and strategic plan will support the development and implementation of programs and strategies that address the identified prioritized health needs of the community.

The Governing Council is also the body that approves and endorses the hospital's CHNA(s) at the site level. The hospital's director of community health presented the process and findings of the Romeoville-Bolingbrook CHNA to the full Governing Council in September 2019. The presentation included details of the data review and analysis, the prioritization process and the selection of the prioritized health needs. The Advocate Good Samaritan Governing Council approved the hospital's 2017-2019 CHNA Report, as well as the Bolingbrook-Romeoville CHNA that was included as an appendix of that report, on September 19, 2019. At the system level, the Advocate Health Care Network Board approved the hospital's 2017-2019 CHNA Report as well as the Bolingbrook-Romeoville CHNA on December 16, 2019.

Community Health Council

The Advocate Good Samaritan Community Health Council (CHC) was formed in 2016 and serves in an advisory capacity for the hospital's community health programming, Implementation Plan and CHNA. The CHC is led by the hospital's regional director of community health and is a multi-sectorial council comprised of hospital leaders and community representatives from community-based organizations. There are a total of 13 CHC members of which seven are community organization representatives and six are hospital representatives. Under the direction of the community health director and the DuPage County Health Department, the CHC supported the Bolingbrook-Romeoville CHNA through the collection of data, data review and prioritization of identified health needs. The CHC also works with the hospital's Community Health Department to identify community partners for the Implementation Plan.

The CHC convened for two, two-hour in-person meetings in 2018 to contribute to the completion of the Bolingbrook-Romeoville CHNA. In addition to the in-person meetings, CHC members were able to send recommendations and feedback electronically. Community representatives provided feedback on the local community's health needs, with particular insight regarding specific needs of the community's at-risk and/or disparate populations. Advocate Good Samaritan representatives provided critical feedback around top patient health issues, hospital resources and confirmed that hospital health needs aligned with the county's health needs. Both community and hospital representatives engaged in a robust discussion regarding the health needs of Bolingbrook-Romeoville compared to those of the hospital's overall service area. CHC members voted on the priority health need for Bolingbrook-Romeoville after reviewing and discussing health and socioeconomic data and a presentation from the Bolingbrook-Romeoville VNA.

The hospital's CHC played a key role in completing the Bolingbrook-Romeoville community health needs assessment and will continue to convene in efforts to ensure a thorough and collaborative Implementation Plan. The affiliation and titles of the Advocate Good Samaritan CHC members are listed below.

2019 CHC Members

- DuPage County Health Department, Coordinator, Population Health
- DuPage County Health Department, Director, Client Access
- DuPage PADS, President, Chief Executive Officer
- DuPage Health Coalition, President
- DuPage Senior Citizens Council, Associate, Programs and Development
- People's Resource Center, Senior Director, Programs and Services
- SamaraCare, Clinical Director, Adult Services
- Benedictine University, Instructor, Coordinator, Advisor
- Advocate Good Samaritan, Manager, Public Affairs and Marketing
- Advocate Good Samaritan, Vice President, Mission and Spiritual Care
- Advocate Good Samaritan, Clinical Nurse Specialist, Behavioral Health
- Advocate Good Samaritan, Governing Council Member, Emergency Room Physician
- Advocate Good Samaritan, Manager, Behavioral Health

Collaborations with Health Departments and/or Hospitals

Advocate Good Samaritan's Community Health Department met with the Will County Department of Public Health to discuss the Will County community health needs assessment and the specific health needs of Romeoville and Bolingbrook. The Will County Public Health Department also provided information regarding programs, including outcomes, in Romeoville and Bolingbrook that address key community health needs. The hospital's Community Health Department also met with AMITA Health Adventist Medical Center Bolingbrook to discuss the Amita Adventist Medical Center Bolingbrook's community health needs assessment process for Bolingbrook and Romeoville as well as community health improvement strategies implemented to address the health needs of Romeoville and Bolingbrook.

Collaborations with other Key Stakeholders

The hospital partnered with the Bolingbrook-Romeoville VNA, a federally qualified health center located in Romeoville, to discuss the clinic's patient population and health needs. The hospital's Community Health Department initially met with the VNA to learn more about the clinic's community health programs and top five health needs of patients. After a robust conversation with the VNA, the hospital's Community Health Department extended an invitation to present to the hospital's CHC about the health needs and programs in Bolingbrook-Romeoville. The VNA's Chief Executive Officer and VP of Strategy and Development presented on the top five health needs and community health programs in Bolingbrook and Romeoville. CHC members were able to ask questions and comment at the conclusion of the VNA presentation.

Methodology

Timeline

In August 2018, the hospital's Community Health Department presented Romeoville and Bolingbrook health and socioeconomic data to the CHC. Data came from multiple sources and included qualitative, quantitative, primary and secondary data. After thorough review and analysis, the hospital's Community Health Department presented the top four health needs of Bolingbrook-Romeoville to the Council. Council members engaged in a robust conversation regarding the data and were able to ask questions about data and health disparities.

In February of 2019, the VNA presented to the community health council regarding the health needs of Bolingbrook and Romeoville. The VNA also presented on various community programs and partners in Bolingbrook and Romeoville including, programs that address food security, healthy lifestyles and chronic disease prevention and management.

At the conclusion of the presentation in February 2019, CHC members voted on the top health need priority for Romeoville-Bolingbrook.

As indicated above, multiple data collection strategies were employed to collect data for the 2019 Bolingbrook-Romeoville community health needs assessment. Advocate Good Samaritan collaborated with community partners to collect primary and secondary service area and zip code data. Details regarding the hospital's 2019 community health needs assessment primary and secondary data sources are listed below.

Primary Data

The hospital's Community Health Department worked with the Bolingbrook-Romeoville VNA to collect and analyze demographic, socioeconomic and health need data for the client population in Bolingbrook-Romeoville. Data regarding the health needs of the general community and VNA clients were presented to the CHC. After reviewing the data, CHC members asked questions and provided feedback to Bolingbrook- Romeoville VNA leadership regarding the health needs and how they compared to the needs seen in DuPage County and overall PSA.

The hospital's Community Health Department also worked with AMITA Adventist Medical Center Bolingbrook (AMITA) to collective primary qualitative data around the health needs of their service area. AMITA staff were able to share outcomes of their CHNA and Implementation Plan strategies, which provided critical insight of the health needs for the Bolingbrook-Romeoville community.

Secondary Data

Multiple data collection strategies were employed to collect data for the 2019 community health needs assessment. As indicated in the section above, Advocate Good Samaritan collaborated with many partners to collect PSA and county data. Details regarding the hospital's 2016 CHNA secondary data sources are listed below.

Conduent Healthy Communities Institute (HCI)

In early 2017, Advocate Health Care signed a second three-year contract with Conduent HCI to continue to provide an internet-based data resource for their eleven hospitals during the 2017-2019 CHNA cycle. This robust platform offered the hospitals 198 health and demographic indicators, including 38 hospitalization and emergency department (ED) visit indicators at the service area and zip code levels. Utilizing the Illinois Hospital Association's COMPdata data, Conduent HCI was able to summarize, age adjust and average the hospitalization and ED data for five-time periods from 2009-2017. The Conduent HCI contract also provided a wealth of county and zip code data comparisons, a Socio Needs Index visualizing vulnerable populations within service areas and counties, a Healthy People 2020 tracker and a database of promising and evidence-based interventions.

As indicated, Conduent HCI was a key source of data for the 2016 CHNA. This secondary data was crucial in analyzing the hospital's PSA health needs as the database was the only source that provided such an extensive amount of data specific to the 2017-2019 CHNA defined community. All data collected through Conduent HCI was quantitative and included data comparisons between PSA communities and counties in Illinois. These comparisons were exemplified in the form of community dashboards, which provided great insight on the health status of the hospital's PSA in comparison to other counties and communities in Illinois.

Conduent HCI provides a gauge that illustrates comparison of indicators across counties, service areas and zip codes.

Green (Good):	When a high value is good, community value is equal to or higher than the 50th percentile (median), or, when a low value is good, community value is equal to or lower than the 50th percentile.
Yellow (Fair):	When a high value is good, community value is between the 50th and 25th percentile, or when a low value is good, the community value is between the 50th and 75th percentiles.
Red (Poor):	When a high value is good, the community value is less than the 25th percentile, or when a low value is good, the community value is greater than the 75th percentile.

Throughout the community health needs assessment, indicators may be referred to as being in the green, yellow or red zone, in reference to the above value ratings from Conduent Healthy Communities Institute.

Identified Health Needs

Heart Disease and Stroke

According to the CDC, heart disease is the number one cause of death in the U.S. and Illinois (Centers for Disease and Control and Prevention, 2018). Lack of nutrition and physical activity are strongly correlated with increased prevalence and incidence of heart disease and stroke. Romeoville and Bolingbrook (60440) have higher rates of hospitalization and ER visits due to heart failure and hypertension compared to the hospital's overall PSA. The age-adjusted ER rate due to hypertension for Romeoville and Bolingbrook is 28.3 and 33.4 respectively per 10,000 population aged 18 and older, both communities have a higher rate compared to the overall PSA at 19.5 per 10,000 population. The Hispanic/Latino, American Indian/Alaskan Natives and African American populations have the highest rates of ED visits due to hypertension compared to the White and Asian populations. The hospitalization rate due to heart failure is also high in Bolingbrook (40.1 per 10,000 population aged 18 and older) and Romeoville (58.3 per 10,000 population aged 18 and older) compared to the overall PSA rate (27.9 per 10,000 population aged 18 years and older).

Exhibit 9: Romeoville Age-Adjusted ER Rate due to Hypertension 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 10: Bolingbrook Age-Adjusted ER rate due to Hypertension 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 11: Romeoville Age-Adjusted Hospitalization Rate due to Heart Failure 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 12: Bolingbrook Age-Adjusted Hospitalization Rate due to Heart Failure 2014-2016

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Diabetes

Diabetes is a chronic health condition that affects how the body turns food into energy. In the U.S. more than one in three adults have prediabetes, which can lead to diabetes type two, heart disease and stroke (CDC, 2019). One of the main contributing factors of type two diabetes and prediabetes is lack of proper nutrition and physical activity. In Bolingbrook and Romeoville, the age-adjusted hospitalization rate due to diabetes is 21.9 and 17.5, respectively, per 10,000 population, which is high compared to other zip codes in Illinois and the hospital's overall PSA at 10.6 per 10,000 population aged 18 years and older. The age-adjusted ER rate due to diabetes for Romeoville and Bolingbrook is respectively 19.9 and 25 per 10,000 population aged 18 years and older, which is high compared to other zip codes in Illinois and the overall PSA rate at 11 per 10,000 population.

Exhibit 13: Bolingbrook Age-Adjusted Hospitalization Rate due to Diabetes 2014-2016

Source: Conduent Healthy Community Institute, Illinois Hospital Association, 2018

Exhibit 14: Romeoville Age-Adjusted Hospitalization Rate due to Diabetes 2014-2016

Source: Conduent Healthy Community Institute, Illinois Hospital Association, 2018

Exhibit 15: Romeoville Age-Adjusted ER Rate due to Diabetes 2014-2016

Source: Conduent Healthy Community Institute, Illinois Hospital Association, 2018

Exhibit 16: Bolingbrook Age-Adjusted ER Rate due to Diabetes 2014-2016

Source: Conduent Healthy Community Institute, Illinois Hospital Association, 2018

Asthma

Asthma is a chronic condition in which a person's air passages become inflamed and the narrowing of the respiratory passages makes it difficult to breathe. Asthma is one of the most common long-term diseases of children, but also affects millions of adults nationwide (Conduent Healthy Communities Institute, 2017). In Romeoville and Bolingbrook, the age-adjusted ER rate due to asthma is 37.6 and 45.3 respectively per 10,000 population, which is high compared to other zip codes in Illinois and the overall PSA rate at 23.3 per 10,000 population. The age-adjusted ER rate due to pediatric asthma in Bolingbrook and Romeoville is 83.3 and 67.8, respectively, per 10,000 population aged 17 years and younger, which is high compared to other zip codes in Illinois and the overall PSA rate of 42.4 per 10,000 population aged 17 years and younger.

Exhibit 17: Bolingbrook Age-Adjusted ER Rate due to Asthma 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 18: Romeoville Age-Adjusted ER Rate due to Asthma 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 19: Bolingbrook Age-Adjusted ER Rate due to Pediatric Asthma 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 20: Romeoville Age-Adjusted ER Rate due to Pediatric Asthma 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Behavioral Health

Behavioral health includes both substance use and mental health and is an increasing health issue in both Illinois and the U.S. The rates of substance use and mental health issues are high in both Romeoville and Bolingbrook compared to other zip codes in Illinois and the hospital's PSA. The age-adjusted ER rate due to adult mental health in Romeoville and Bolingbrook is 78.7 and 98.3, respectively, per 10,000 adults (aged 18 years and older), which is high compared to other zip codes in Illinois and the overall PSA rate at 64.6 per 10,000 population. The age-adjusted ER rate due to pediatric mental health is also high in Romeoville (69.3 per 10,000 population aged 17 years and younger) and Bolingbrook (75.1 per 10,000 population aged 17 years and younger) compared to other zips in Illinois and the PSA (55.8 per 10,000 population aged 17 years and younger). The rate of ER visits due to substance use is also high in Bolingbrook and Romeoville at 18.8 and 21.6, respectively, per 10,000 population aged 18 years and older, which is high compared to most other zip codes in Illinois and the overall PSA rate of 17.7 per 10,000 population aged 18 years and older. Exhibit 20 through 25 display the mental health and substance use dashboards for Bolingbrook and Romeoville.

Exhibit 21: Romeoville Age-Adjusted ER Rate due to Adult Mental Health 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 22: Bolingbrook Age-Adjusted ER Rate due to Adult Mental Health 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 23: Romeoville Age-Adjusted ER Rate due to Pediatric Mental Health 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 24: Bolingbrook Age-Adjusted ER Rate due to Pediatric Mental Health 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 25: Romeoville Age-Adjusted ER Rate due to Substance Use 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

Exhibit 26: Bolingbrook Age-Adjusted ER Rate due to Substance Use 2015-2017

Source: Conduent Healthy Communities Institute, Illinois Hospital Association, 2018

III. Prioritization of Health-Related Issues

Priority Setting Process

The hospital's Community Health Department presented data to the CHC for the top four health needs of Bolingbrook-Romeoville. The data was reviewed and discussed by the CHC. The top health needs that were presented to the council are listed below.

- Heart Disease and Stroke
- Diabetes
- Asthma
- Behavioral Health

The Bolingbrook-Romeoville VNA also provided a presentation on the top health needs and social determinants of health in the community. Social determinants of health are the conditions of the places where people live, work and play and how those conditions affect health risks and outcomes (Center for Disease Control and Prevention, 2019). Council members were able to ask questions and engaged in a robust discussion around the top four health needs, which led to the vote for selecting the final prioritized health need. CHC members used the following criteria as a guide for selecting/voting on the priority health need for Bolingbrook-Romeoville.

- Size of the health need—This was determined through ED, hospitalization, prevalence and incidence data.

- Seriousness of the health issue—Several questions were taken into consideration to rate the seriousness of the health issue including:
    1. What is the importance of health issue to the community?
    2. Does the health issue impact the quality of life?
    3. What are the hospitalization and mortality rates caused by the health issue?
- Effectiveness of intervention and available interventions—The CHC considered several questions to determine the effectiveness of the health need interventions including:
    1. Are prevention programs effective in preventing the health issue?
    2. Do interventions for the health issue have the ability to improve/impact other health issues?
    3. Do treatment programs effectively address the health issue?
- Resources available to address the health issue
- Existing community partners working on the problem
- Potential for health issue to impact other health issues
- Ability to impact the health issue through demonstrable outcomes and collaboration

After the Bolingbrook-Romeoville VNA presentation and consideration of the community health data and criteria listed above, the CHC decided that chronic disease was a significant health issue in the community, therefore chronic disease prevention and management was selected as the priority health need for Bolingbrook and Romeoville. Chronic disease management and prevention will address the high rates of ER visits and hospitalizations due to asthma, diabetes and heart disease, as well as decrease the incidence and prevalence rates of those diseases by focusing on chronic disease prevention through addressing nutrition and physical activity.

Health Need Selected

Chronic Disease Prevention and Management

The CHC selected chronic disease prevention and management given that three out of the four top health needs were chronic diseases. The focus on chronic disease prevention and management provides the hospital with the opportunity to decrease the incidence and prevalence of asthma, heart disease and diabetes while also supporting the community in managing chronic diseases in efforts to decrease hospitalization and ER visit rates due to chronic diseases.

Health Needs Not Selected

Heart Disease

Although heart disease was not specifically selected as the health need priority for Bolingbrook-Romeoville, the CHC selected chronic disease management which includes management of various chronic heart conditions. This health issue will also be addressed through chronic disease prevention, which will focus on proper nutrition and physical activity (healthy lifestyles).

Diabetes

Although diabetes was not specifically selected as the health need priority for Bolingbrook-Romeoville, the CHC selected chronic disease management which includes diabetes management education and programs. This health issue will also be addressed through chronic disease prevention, which will focus on proper nutrition and physical activity. According to the National Institute of Diabetes and Digestive and Kidney Diseases, nutrition and physical activity are also important parts of a healthy lifestyle when diagnosed with diabetes. Programming and support for healthy lifestyles is essential in addressing chronic disease prevention and management.

Asthma

Although asthma was not selected as the health need priority for Bolingbrook-Romeoville, the CHC selected chronic disease management, which includes asthma management. This health issue will also be addressed through chronic disease prevention, which will focus on proper nutrition and physical activity (healthy lifestyles), both of which are crucial components in managing asthma.

Behavioral Health

Although the CHC recognized the significance of behavioral health (substance use and mental health) in the Bolingbrook-Romeoville community, it was not selected as a priority due to other community partners and hospitals already addressing the health issue. After the Bolingbrook-Romeoville VNA presentation and feedback from AMITA , it was determined that the health need was sufficiently being addressed while the issue of chronic disease was not. Although behavioral health was not selected as a priority, the hospital will provide support to partner organizations and hospitals where resources are available.

IV. Approval of Community Health Needs Assessment

The director of community health provided a copy of the CHNA to each hospital Governing Council member in advance of the September 2019 Council meeting. Governing Council members were able to review the CHNA document in its entirety before the Council meeting. The hospital's director and coordinator of community health presented the CHNA document, including the assessment process, selected health need priorities and the high-level implementation strategy, to Council members. Following the presentation, Council members were able to discuss findings, ask questions and comment. On September 19, 2019, the Governing Council approved the full 2019 Advocate Good Samaritan CHNA Report, including the Bolingbrook-Romeoville CHNA included in the appendix. The full CHNA Report was approved at the system level by the Advocate Health Care Network Board on December 16, 2019.

V. Overview of 2020-2022 Implementation Plan Strategies and Community Resources

The hospital will partner with the Bolingbrook-Romeoville VNA, Will County Health Department and West Suburban Community Pantry to address chronic disease prevention and management. The hospital will work with the VNA to review their healthy lifestyle curriculum, which includes nutrition education, cooking demonstrations and healthy food taste testing. The hospital will also explore a partnership with the West Suburban Community Pantry mobile produce program, which delivers fresh produce to low-income household and community organizations to address food insecurity. Furthermore, the hospital will be engaged in the Will County Food Access Workgroup, which is a collaborative of community organizations and the health department working to address food insecurity in Will County. Through community partnerships and proper planning, the hospital will ensure a robust and thorough Implementation Plan is developed to address chronic disease prevention and management in Bolingbrook-Romeoville.

VI. Vehicle for Community Feedback

Community Feedback

Advocate Good Samaritan welcomes all feedback regarding this CHNA report. Any member of the community wishing to comment on this report, can click on the link below to complete a CHNA feedback form. Questions will be addressed and will also be considered during the next CHNA cycle.
http://www.advocatehealth.com/chnareportfeedback

If you experience any issues with the link to our feedback form or have any other questions, please click below to send an email to us at:
AHC-CHNAReportCmtyFeedback@advocatehealth.com

This report can be viewed online at Advocate Health Care's Community Health Needs Assessment Report webpage via the following link: http://www.advocatehealth.com/chnareports.

A paper copy of this report may also be requested by contacting the hospital's Community Health Department.