



# 2018 Community Health Needs Assessment Report

Northwestern Medicine Kishwaukee Hospital



# Contents

Acknowledgments .....	3
Introduction.....	4
Service Area.....	5
The Community Health Needs Assessment.....	6
Key Findings and Opportunities .....	14
Social Determinants of Health.....	15
Interpreting and Prioritizing Health Needs.....	26
Development of Implementation Plan .....	31
Appendix A.....	36
Appendix B.....	41

# Acknowledgements

Northwestern Medicine Kishwaukee Hospital gratefully acknowledges the participation of a dedicated group of individuals who gave generously of their time and expertise to help conduct and develop our 2018 Community Health Needs Assessment

Adventure Works DeKalb

Brown Law Group

City of DeKalb

City of Sycamore

DeKalb County Non-Profit Partnership

DeKalb County Board of Health

DeKalb County Community Development

DeKalb County Community Foundation

DeKalb County Government

DeKalb County Health Department

DeKalb County Mental Health Board and  
Community Action

DeKalb CUSD 428

DeKalb Fire Department

DeKalb Park District

DeKalb Police Department

Department of Human Services

Family First Physicians

First Lutheran Church, DeKalb, IL

Fox Valley YMCA

Kishwaukee YMCA

Northern Illinois University  
Center for Governmental Studies  
Emergency Management and Planning  
Health Services

Northwestern Medicine  
Ben Gordon Center  
Kishwaukee Hospital  
Valley West Hospital

Rotary Club of Sandwich

Sycamore Police Department

WNIJ/WNIU Local Media

# Introduction

Northwestern Medicine Kishwaukee Hospital (NMKH) is a 98-bed acute-care hospital in DeKalb, Illinois, with more than 200 physician members on the voluntary medical staff representing nearly every specialty.

NMKH is dedicated to improving the quality and safety of care provided to our patients. In addition, our role has expanded far beyond caring for people when they are sick or hurt, to proactively engaging with our community to keep people well.

NMKH has completed a comprehensive Community Health Needs Assessment (CHNA) to identify the highest priority health needs of residents within our community, and use this information to guide new and existing efforts to improve the overall health of the populations we serve. As described in detail in this report, the goal of the CHNA was to implement a structured, data-driven approach to determine the health status, behaviors and needs of all residents in the NMKH service area. Through this assessment, health needs were identified that are prevalent among residents across all socioeconomic groups, races and ethnicities, as well as issues that highlight health disparities and disproportionately impact the medically underserved and uninsured.

# Service area

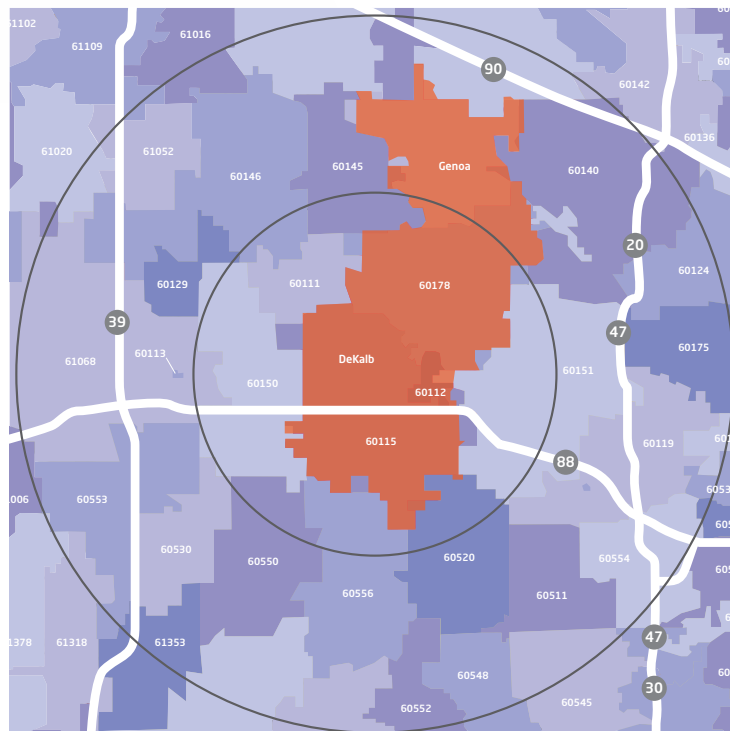
For the purposes of this CHNA, NMKH's community was defined as the NMKH service area. According to data from FY15, 74 percent of NMKH discharges originate from the Primary Service Area.

NMKH primary service area by ZIP code

60115      60178      60112      60135

NM far west suburban region by ZIP code

60111      60145      60537      60552  
 60112      60146      60541      60553  
 60113      60530      61353      60178  
 60115      60531      60545      60556  
 60518      61049      61068      60560  
 60129      60150      60548  
 60135      61342      60550  
 60520      60536      60551



# The Community Health Needs Assessment

## **Background**

NMKH has undertaken a CHNA as required by federal and state laws. This assessment incorporates components of primary and secondary data analysis that focus on the health care and social needs of the hospital service area. This comprehensive assessment will be used to guide new initiatives and enhance current efforts to improve the health of our community.

In 2010, the United States Congress enacted the Patient Protection and Affordable Act (the Affordable Care Act, or ACA), which instituted comprehensive health insurance reforms that will enhance the quality of health care for all Americans. The ACA requires that all non-profit hospitals complete a CHNA every three years.

NMKH completed a CHNA in partnership with the DeKalb County Health Department. The two organizations collaborated under the name "Together for a Healthier DeKalb County" for the purpose of the CHNA. The Together for a Healthier DeKalb County steering committee, made up of employees from both NMKH and the DeKalb County Health Department utilized the assessment tool of Mobilizing for Action through Planning and Partnerships (MAPP) in January 2018. MAPP is a community-driven strategic planning process for improving community health. This framework helps communities apply strategic thinking to prioritize public health issues and identify resources to address them. MAPP is not an agency-focused assessment process; rather, it is an interactive process that can improve the efficiency, effectiveness and ultimately the performance of local public health systems.

The CHNA is the primary tool used by the hospital to assess perceptions of healthcare delivery, access and health practices impacting residents of the community. Data sets were reviewed for prioritization of populations, health issues and social determinants of health having the most impact on the community.

## **Methodology**

The CHNA incorporates data from both primary and secondary sources. As previously noted, MAPP is a community-wide strategic planning framework for improving public health. The process helps communities prioritize public health issues, identify resources for addressing them, and implement strategies relevant to their unique community contexts. The MAPP process has six phases: listed below are the phases that collect primary data.

## Primary data analysis

### **Community themes and strength assessment**

The purpose of this assessment is to collect contextual information about DeKalb County residents' perspective of well-being. Using qualitative research methods, this assessment aims 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?**

The Together for a Healthier DeKalb County steering committee discussed data collection methods, developed strategies for participant recruitment, and implemented strategies of data collection. The committee considered literacy and layout of the survey before it was made available to the public. This assessment was a questionnaire-style, self-administered survey, available online in both English and Spanish. The survey was also available in paper form for respondents who may not have access to the internet or are not comfortable with technology.

The process followed a cross-sectional research design, taking a snapshot of DeKalb County residents at a single moment in time. The survey collected respondent demographic information including ZIP code, age, sex, marital status, children living in the home, DeKalb County residency, household income, level of education, race, ethnicity, where health care is obtained when needed and how respondents pay for health care. The strategies for collecting data included configuring the survey to use the online research application, Qualtrics. This allowed for all survey results to be stored in one database and analyzed efficiently.

Community partners were encouraged to take the survey, and share with employees and clients. Area providers made the survey available in their waiting rooms. The steering committee also targeted "hard-to-reach" populations. This included low-income areas, mental health clinics, youth organizations and food pantries. The survey opened January 16, 2018, and closed April 2, 2018. The results were then analyzed and displayed to be used in consideration when setting community health priorities.

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The key findings from this perspective include:

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**Top 3 Strengths**

1. Police, Fire and Rescue Services
2. Friendly Community
3. Parks and Recreation

**Top 3 Health Concerns**

1. Mental Health Problems
2. Alcohol/Drug Abuse
3. Safe and Affordable Housing

**Top 3 Risky Behaviors**

1. Alcohol/Drug Use
2. Poor Nutrition/Eating Habits
3. Being Overweight

**Top 3 Areas to Focus**

1. Access to Mental Health Services
  2. Low Crime, Safe Neighborhoods
  3. Good Jobs and Healthy Economy
- 

**Local Public Health System Assessment (LPHSA)**

A standardized assessment utilizing the National Public Health Performance Standards, these standards allow responding sites to consider activities of all public health system partners contributing to public health within a community. Together for a Healthier DeKalb County utilized the LPHSA instrument to answer two main questions regarding health in the community:

What are the components, activities, competencies and capacities of our public health system?

How well are the 10 Essential Services being provided in our system?

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The dialogue that occurred at each session contributed to specifically identifying strengths, weaknesses and opportunities for immediate improvements and long-term investments. The participants contributing to the LPHSA performance score were selected according to the organization or type of entity they represent. This included public, private and voluntary organizations.

The LPHSA was scheduled to be administered every Thursday morning from 8:30 to 10:30 am; the sessions took place between January 25, 2018, and February 22, 2018. Two essential services were covered in each two-hour block. The LPHSA main performance assessment in DeKalb County attracted more than 100 participants. Participation included 25 unique organizations representing the following groups: mental health, law office, city and county officials, public health, elementary and secondary schools, the local university, fire, police, emergency response, health services, advocacy agencies, private clubs and a youth mental health organization.

All participants at each session were provided an information packet including a response survey. Discussion questions were used to introduce the Essential Service Model. Next, participants were asked to answer the assessment questions using the Summary of Assessment Response Options. The participants identified strengths, weaknesses, and immediate and long-term opportunities. This open dialogue was recorded and analyzed to gain insight to each standard and the unique position the DeKalb County public health system has to address and improve each Essential Service.



**Performance scoring LPHSA**

Summary of Average Essential Service Performance Score: The average overall assessment score for DeKalb County, Illinois, in 2018 was 52.0 out of 100.0. This score indicates the system is performing at “Significant Activity” levels, suggesting most responses were greater than 50 percent but no more than 75 percent (Graph 1)<sup>1</sup>.

**Optimal activity (76 to 100):** None

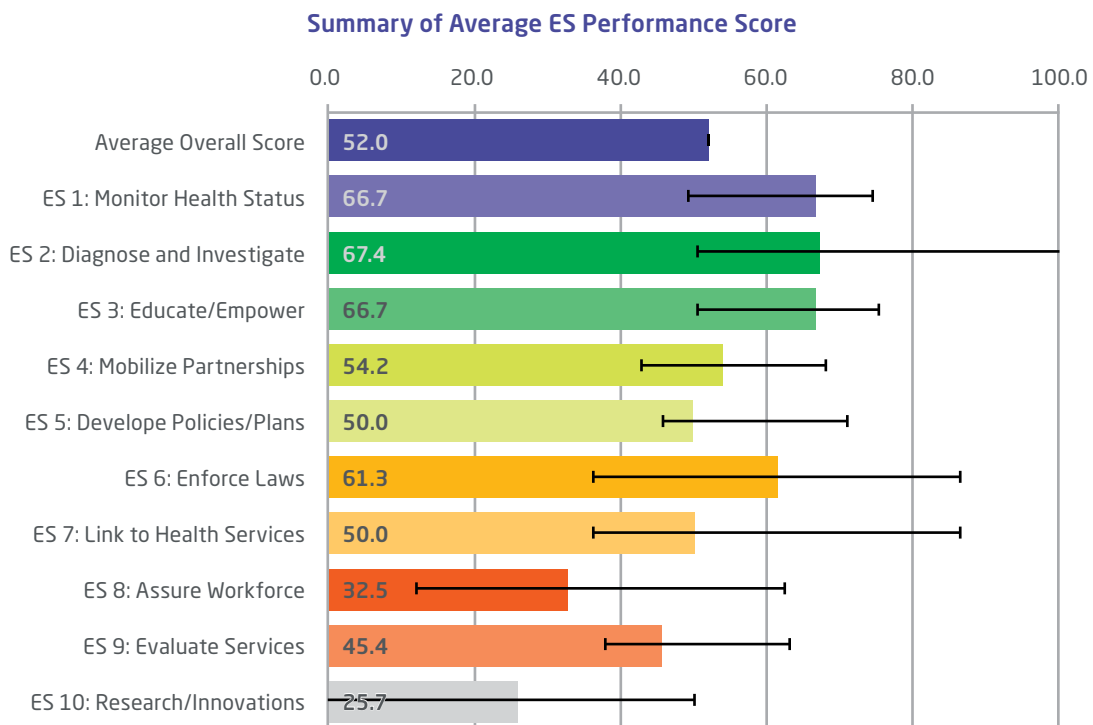
**Significant activity (56 to 75):**

- ES 1 - Monitor Health Status
- ES 2 - Diagnose and Investigate
- ES 3 - Educate and Empower
- ES 4 - Mobilize Partnerships
- ES 6 - Enforce Laws

**Moderate activity (26 to 50):**

- ES 5 - Develop Policies and Plans
- ES 7 - Link to Health Services
- ES 8 - Assure Workforce
- ES 9 - Evaluate Services

**Minimal activity (1 to 25):** ES 10 Research/Innovations



Graph 1

<sup>1</sup> 2018 Local Public Health System Assessment is available in its entirety at <http://health.dekalbcounty.org>

### Forces of Change Assessment

This assessment is designed to identify forces such as legislation, technology and other impending changes that affect the context in which the community and its public health system operate. The assessment answers these questions:

What is occurring or might occur that affects the health of our community or the local public health system?

What specific threats or opportunities are generated by these occurrences?

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The Forces of Change Assessment results in a comprehensive, focused list that identifies key forces and describes their impact. The participants that contributed to the Forces of Change Assessment included DeKalb County Board of Health, Together for a Healthier DeKalb County collaborative (steering committee), members of the leadership team from DeKalb County Health Department and leadership from NMKH. Four separate events were held to elicit feedback from these groups.

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The Forces of Change Assessment sought feedback for 9 categories:

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- |              |                  |            |
|--------------|------------------|------------|
| 1. Social    | 4. Technological | 7. Legal   |
| 2. Economic  | 5. Environmental | 8. Ethical |
| 3. Political | 6. Scientific    | 9. Health  |
-

The Forces of Change Assessment provided an overview of key trends, events or factors that participants acknowledged as current or potential influences on the overall health and well-being of DeKalb County. In accumulating this information, the Forces of Change participants identified many trends and themes that overlapped one another.<sup>2</sup> These high-level themes for DeKalb County include:

**Social**

Social Determinants of Health  
Health Equity  
Violence

**Economic**

Health Equity  
Access to Care  
Healthcare Policy

**Political**

Healthcare Policy  
Immigration Issues  
Maternal Child Health

**Technological**

Health Information and Communication Technology  
Access to Care  
Chronic Disease

**Environmental**

Vector Borne Disease  
Climate Change  
Air Quality  
Social Determinants of Health  
Chronic Disease

**Scientific**

Access to Care  
Health Equity

**Legal**

Violence  
Mental and Behavioral Health  
Health Equity

**Ethical**

Health Equity  
Health Education

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<sup>2</sup> 2018 Forces of Change Assessment is available in its entirety at <http://health.dekalbcounty.org>

## Secondary data analysis

### Community Health Status Assessment

The last of the four data collection methods collects data necessary for the decision-making process. The assessment and analysis was provided by Kari Nimmo, MPH, independent consultant with expertise in Health Policy Administration and Public Health Informatics. Data from local, county, state and federal sources were collected to present a community profile, birth and death characteristics, access to health care, chronic disease, social issues and school and student characteristics. When pertinent, these data sets are presented in the context of DeKalb County and the State of Illinois. Analyses were conducted at the most local level possible for NMKH's primary service area, given the availability of the data. Existing (secondary) data sources utilized include:

U.S. Census Bureau	Centers for Disease Control and Prevention,
Modern Language Association	National Center for Chronic Disease Prevention
Northern Illinois University	and Health Promotion
American Fact Finder	Behavioral Risk Factor Surveillance System
The National Center for Education Statistics (NCES)	National Cancer Institute
Bureau of Labor Statistics	Centers for Disease Control and Prevention
Feeding America	Annual Coroner's Report DeKalb County, IL 2015,
U.S. Department of Health and Human Services	2016, 2017
The Area Health Resource File (AHRF)	Illinois Youth Survey, 2016 DeKalb County Report
Centers for Medicare and Medicaid Services	Vital Records, Illinois Department of Public Health
National Provider Identifier	Illinois Department of Public Health Opioid
	Dashboard
	Illinois Department of Human Services

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### CHNA goals

The NMKH CHNA will serve as a tool toward reaching three related goals:

**Improve residents' health status, increase their life spans and elevate their overall quality of life.**

A healthy community is one where its residents suffer little from physical and mental illness, and enjoy a high quality of life.

**Reduce the health disparities among residents.** By gathering demographic information along with health status and behavior data, it will be possible to identify population segments that are most at risk for various diseases and injuries. Intervention plans aimed at targeting these segments may then be developed to combat some of the socioeconomic factors that have historically had a negative impact on residents' health.

**Increase accessibility to preventive services for all community residents.** More accessible preventive services will prove beneficial in accomplishing the first goal (improving health status, increasing life spans and elevating the quality of life), as well as lowering the costs associated with caring for late-stage diseases resulting from a lack of preventive care.

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### Information and data gaps

While this NMKH CHNA is quite comprehensive, it cannot measure all possible aspects of health in the community, nor can it adequately represent all possible populations of interest. As with any assessment, limitations are always present. Although the data set available is full of information, data gaps do exist. Public data sets are at times three to 10 years old. Updated data sets were used whenever possible.

Certain population groups, such as persons who are homeless, institutionalized or only speak a language other than English or Spanish, may not be fully represented in the survey data.

Other population groups, such as lesbian/gay/bisexual/transgender residents, undocumented residents, and members of certain racial/ethnic or immigrant groups, might be identifiable or might not be fully represented in numbers sufficient for independent analysis.

Data are not available on all topics for evaluation of health needs within each race/ethnicity by age-/gender-specific subgroups.

Prevalence of chronic conditions is not available for children, a group that is underrepresented in more formal data collection sets.

Countywide data that characterize health risk and lifestyle behaviors such as nutrition, exercise and sedentary behaviors are not available for persons 18 years and younger.

Behavior Risk Factor Surveillance System (BRFSS) data are difficult to accurately measure in subpopulations due to BRFSS methodology issues.

In reference to the online survey, issues such as incomplete surveys and coding as well as other errors in the online survey could not be altered once the survey was posted.

Some respondents to the online survey may have had difficulty understanding the multiple-choice questions, and interpreting the rating and agreement scales, affecting the fact that an issue may be present. This may have led to individuals not knowing if an issue presented needed clarification for them, or they were uncertain of the issue and how it affects the health of the population.

Reporting error or incorrect reporting could have occurred in the online survey because the respondent misunderstood or misinterpreted the question being asked.

The LPHSA performance score attendance indicates an over-representation from Northern Illinois University, Northwestern Medicine and DeKalb County Health Department staff. The data collected are subjective by nature and based on the opinions of those LPHS partners choosing to participate. Not all recommended entity types were represented at each session.

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In terms of content, the CHNA process was designed to provide a comprehensive and broad picture of the health of the overall community. However, it is recognized that there are many medical conditions that were not specifically addressed.

### Public dissemination

The NMKH CHNA is available to the public using the following URL: [nm.org](http://nm.org). Adobe Acrobat Reader is available for free download, which allows for the report to be downloaded, viewed and printed in hard copy. In addition, NMKH maintains a hard copy of the CHNA to be viewed by anyone who requests it.

# Key findings and opportunities

## Community description

DeKalb County is located approximately 60 miles southwest of Chicago. It occupies 631 square miles of land and is home to NMKH. The county is comprised of four cities: DeKalb, Genoa, Sandwich and Sycamore. In addition, there are 19 townships in the county, as well as nine villages and 12 unincorporated communities. The estimated total population in 2016 was 104,528 residents, according to the latest census estimates. The population has declined slightly since 2010. The county's population density is reported at 166.6 per square mile. Despite DeKalb County's rural agricultural setting, nearly 80 percent of the population is living in an urban setting. The rural populations make up 20 percent of the population. In comparison, this is 8.8 percent higher than Illinois rural populations and 1.2 percent higher than the United States.

## Demographics

It is important to understand the age distribution of the population, as different age groups have unique health needs that must be considered in planning to meet the needs of county residents. In DeKalb County, the population breakdown by age suggests that the county has a higher representation of 20- to 29-year-olds (21.4 percent) and 10- to 19-year-olds (16.3 percent) than that of the State of Illinois and the United States. This indicates a large segment of the population is in their child-bearing years. The median age in the county is 30.3 years; this is seven years less than the median age of an Illinois or United States resident. Additionally, within DeKalb County, the population demographics are as follows: 30 to 39 years (11 percent), 40 to 49 years (11.8 percent), 50 to 59 years (2.4 percent) and 60+ years of age (15.8 percent).

Reviewing population distribution by 10-year age ranges, residents aged 70 to 79 years and 80+ years represent only 3.9 percent of the population. This may change in the next 10 years as the Baby Boomer generation moves into older adulthood.

Additionally, it is important to note that DeKalb County is home to students attending Northern Illinois University (NIU). Although NIU students are not necessarily counted as permanent residents of DeKalb County, total student enrollment for the 2017-2018 academic year is 19,015 students. The student housing capacity on campus is approximately 5,000, suggesting that 64 percent of undergraduates are living in the community or commuting from other areas.

## Race and ethnicity

DeKalb County's population by race suggests 87 percent of the population is white, 8 percent is black or African American, 3 percent is Asian, and 2 percent is two or more races. When considering ethnicity, 11 percent of the population identified as Hispanic or Latino.

# Social determinants of health

Health starts in the home, school, workplace, neighborhood and community. Self-care (including eating well, staying active, not smoking and making regular visits to the doctor) influences health. Health is also determined in part by access to social and economic opportunities, community resources, quality education, workplace safety, environmental factors and relationships. Living conditions explain, in part, why some Americans are healthier than others.

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## Poverty

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Per-capita income takes each member of the population 15 years and older and divides the total number of salaries claimed for the year. The per-capita income equation is:

$$\text{[total income of population age 15+]} / \text{[Total population]}$$

DeKalb County's income per capita is \$25,172; this is less than the State of Illinois at \$31,502. Further broken down by race, disparities exist: whites earn \$26,448; black or African Americans earn \$11,625; and multiple races earn \$5,606. Those identifying as not Hispanic/Latino are making more than double the annual salary per capita than those identifying as being Hispanic/Latino.

Free and reduced lunch benefits are income-based and are reflective of the number of families with children living in poverty. Over the past four years, the percentage of children needing this service has risen in DeKalb County: In the 2010 - 2011 school year, 32.9 percent of children qualified; by the 2014 - 2015 school year, 43.23 percent of children qualified. This is a 10.33 percent increase in four years.

The U.S. Census Bureau American Community Survey 5-Year Estimates (2012 - 2016) show that 18.2 percent of all people in DeKalb County live below the poverty level. This is 4 percent higher than the State of Illinois. When considering poverty level data by families' inequity, 11.3 percent of all families are living at or below poverty level. Of the 11.3 percent, 19 percent of these families have a related child under age 18 living in the home, and 22.7 percent have a child under age 5 living in the home. Married couples make up only 4.5 percent of families in poverty; families with a female householder with no husband present make up 37.1 percent. Nearly half of those – 48.7 percent – have related children under 18 years, and 63.8 percent of the female households living in poverty have a child under five years of age. The number of female households living in poverty with a child under five years of age is 18.8 percent higher than the United States. (45 percent), and 18 percent higher than the State of Illinois (45.8 percent).

DeKalb County's percentage of the population that experienced food insecurity at some point during the report year is 13.4 percent. The percentage of people under the age of 18 in DeKalb County that experienced food insecurity at some point during the past year is 18.6 percent. Both indicators are higher than that of Illinois, but lower than the United States. Food insecurity is the household-level economic and social condition of limited or uncertain access to adequate food. In DeKalb County, 34 percent of food-insecure children are ineligible for state

or federal nutrition assistance; this is 3 percent higher than the State of Illinois and the United States. Assistance eligibility is determined based on the household income of food-insecure households relative to the maximum income-to-poverty ratio for assistance programs, such as SNAP and WIC.

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### Education and employment

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As of November 2017, the DeKalb County unemployment rate was 4.1 percent. This percentage has been on a downward trend since 2010.

In 2015, DeKalb County schools reported 85.8 percent of students are receiving their high school diploma within four years. The county is higher than Illinois at 77.7 percent. In addition, this is greater than the Healthy People 2020 (HP2020) target of 82.4 percent. Education is a strong predictor of health.

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### General health status

NMKH service area adults were asked to rate their personal overall health status. This self-reported data was asked during the Community Themes and Strengths Assessment online survey.

The percentage of adults who rated their personal health as “very healthy or healthy” was 63.7.

The percentage who rated their health as “somewhat healthy” was 30.4.

The percentage who rated their health as “unhealthy or very unhealthy” was 5.9.

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Survey respondents were asked to rate the health of DeKalb County.

The percentage of adults who described the health of DeKalb County as “very healthy or healthy” was 27.7.

The percentage who described the county as “somewhat healthy” was 58.4.

The percentage who described the county as “unhealthy or very unhealthy” was 13.9.

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The discrepancy between personal health and perceived health of DeKalb County provides an interesting perspective from survey participants.



## Behavioral/mental health

Mental health is a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with others, and the ability to adapt to change and to cope with challenges. Mental health is essential to personal well-being, family and interpersonal relationships, and the ability to contribute to society. Mental disorders are among the most common and costly causes of disability. Mental and physical health are closely connected.

The ratio of mental health providers – psychiatrists, psychologists, clinical social workers and counselors who specialize in mental health care – is 1 mental health provider for every 676 people. This ratio is higher than that of the State of Illinois (1 mental health provider for every 554 people), and that of the United States (1 mental health provider for every 493 people).

Inpatient hospital admission data analysis found the most frequent Medicare Severity Diagnostic Related Groups (MS-DRGs) assigned to DeKalb County residents is psychoses; this is three times higher than the next most frequent MS-DRG. Additionally, according to this data, using a three-year average of total charges in each MS-DRG category and three-year average length of stay (ALOS), psychoses had the second-longest ALOS at 8.0 days at a cost of approximately \$18,000.

Centers for Medicare and Medicaid Services (CMS) recommends that a metro county such as DeKalb County have inpatient psychiatric services within a 30-mile radius. By this rule, the county is inadequately covered for inpatient psychiatric services; this is important to note as the top MS-DRG for DeKalb County residents is psychoses.

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## Chronic disease

### Cardiovascular disease

Heart disease is the leading cause of death in the United States, with stroke following as the third-leading cause. Together, heart disease and stroke are among the most widespread and costly health problems facing our nation today, accounting for more than \$500 billion in healthcare expenditures. HP2020 stresses that the risk of Americans developing and dying from cardiovascular disease would be substantially reduced if changes were made in diet, physical activity, and management of high blood pressure, cholesterol and smoking. Fortunately, these diseases are most preventable if intervention is provided across the lifespan of the disease, from early education, prevention and screening, to early diagnosis, prompt treatment and comprehensive after-care. In planning to address this health priority within the community, hospitals can positively impact the health burdens of all chronic disease by addressing the disease across the continuum of its lifespan.

Of adults aged 18 and older in DeKalb County, 6.2 percent have ever been told by a doctor that they have coronary heart disease or angina.

Of adults aged 18 years and older, 21.1 percent have ever been told by a doctor that they have high blood pressure or hypertension.

The top cause of natural death in DeKalb County as reported in the DeKalb County Annual Coroner's Report 2017 was heart or heart-related death, at 174.1 per 100,000 people. This is an increase of 1.1 percent from 2016 and almost a 14 percent increase from 2015.

Cardiovascular disease is the second-leading cause of mortality as indicated in an Illinois Department of Public Health IQuery.

A total of 13.4 percent of survey respondents indicated they have poor nutrition/eating habits, making it the second-most common "risky behavior" in DeKalb County.

Physical inactivity was reported by 19 percent of survey respondents, indicating they do not get the recommended amount of daily physical activity.

Being overweight or obese ranked as the third-most common "risky behavior" (11.9 percent) based on responses to the online survey.

According to County Health Rankings, 29 percent of DeKalb County residents report a body mass index (BMI) of 30 or more.

The most common "risky behavior" in DeKalb County was alcohol/drug use, reported by 23.7 percent of survey respondents.

Alcohol/drug use ranked as the second-highest health concern in DeKalb County (12.6 percent).

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## Cancer

Cancer remains the second-leading cause of death in the United States, and is the leading cause of mortality in the county as indicated in an IDPH IQuery database.

At 116.7 per 100,000, cancer deaths represent the second-leading cause of natural deaths in the county according to the DeKalb County Annual Coroner's Report 2017. This is down 8.3 per 100,000 from 2016.

It is important to identify cancers separately to better target interventions. Adjusted Incidence Rates by cancer sites (2010 - 2014):

- Breast cancer - DeKalb County, 122.9 per 100,000; Illinois 130 per 100,000
- Cervical cancer - DeKalb County, 7.9 per 100,000; Illinois 7.7 per 100,000
- Colon and rectum cancer - DeKalb County, 44.9 per 100,000; Illinois 44.5 per 100,000
- Lung cancer - DeKalb County, 70.4 per 100,000; Illinois 66.8 per 100,000
- Prostate cancer - DeKalb County, 137.8 per 100,000; Illinois 119.4 per 100,000

Top cancers by site and gender in DeKalb County:

- Male: Prostate, lung, colon and rectum
- Female: Breast, lung, colon and rectum
- Combined: Breast, prostate and lung

Cigarette smoking is estimated to account for approximately 90 percent of lung cancers and is responsible for at least 30 percent of all cancer deaths. Smoking also causes other deadly health problems, such as heart disease, aneurysms, bronchitis, emphysema and stroke. According to the IDPH Illinois Behavioral Risk Factor Surveillance System, the percentage of smokers in DeKalb County is 29.5 percent; this is 10.7 percent higher than that of the State of Illinois, at 18.8 percent.

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### Environmental health

Ensuring proper installation and repair of privately owned wells and sewage disposal systems prevents the transmission of disease caused by exposure to contaminated drinking water and sewage. According to the 2017 DeKalb County Health Department Annual Report, 28 well permits were issued, 14 new well inspections took place, and 105 water samples were obtained and sampled.

The Food Service Sanitation program at the DeKalb County Health Department includes licenses and inspects food establishments, including temporary vendors. In the 2017 Annual Report, the county reported 554 licensed food establishments and conducted 1,386 food establishment inspections.

A severe housing problem is considered to be one or more of the following:

- Housing unit lacks complete kitchen facilities, defined as a unit which lacks a sink with running water, a range or a refrigerator
- Housing unit lacks complete plumbing facilities, defined as lacking hot and cold piped water, a flush toilet or a bathtub/shower
- Household is severely overcrowded, defined as more than 1.5 people per room
- Household is severely cost burdened, defined as monthly housing costs (including utilities) that exceed 50 percent of monthly income

In DeKalb County, 21 percent of total households in the county have a severe housing problem.

Reviewing County Stock Housing built before 1950 and housing stock built between 1950 and 1979 can be helpful to assess lead poisoning risk exposure among children. In DeKalb County, 27 percent of housing was built before 1950, and 44 percent of housing was built between 1950 and 1979.

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### Health communication/health information technology

Utilizing health communication strategies and health information technology can help improve population health outcomes and healthcare quality, and achieve health equity. These principles are central to health care, public health and the way society views health. By strategically combining health IT tools and effective health communication processes, there is the potential to:

Improve healthcare quality and safety

Increase efficiency of healthcare and public health service delivery

Support care in the community and at home

Improve the public health information infrastructure

Build health skills and knowledge

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According to the LPHSA, there are several areas of weakness related to health communication that could be improved upon:

Generally, the community is not aware that the health department and/or the hospital are required to perform health needs assessments

Community health assessment needs to be further promoted to partners

There is no active monitoring or further discussion of results

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There seems to be further opportunity to create a more robust system for data sharing; currently, data collection happens in silos throughout organizations in the county.

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Strengths were also noted during the LPHSA:

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Organizations are utilizing GIS mapping

Each organization does collect and report data as required by the individual organization (i.e. ICARES used by the health department, EMR used by the hospital for patient access)

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## **Injury and violence**

Injuries and violence are widespread in society. HP2020 notes that both unintentional injuries and those caused by acts of violence are among the top 15 killers for Americans of all ages.

Accidental deaths are categorized in one of two ways: Motor Vehicle and Non-Motor Vehicle. According to the DeKalb County Annual Coroner's Report 2017, Motor Vehicle Deaths occurred at a rate of 13.39 per 100,00. Non-Motor Vehicle deaths increased significantly in DeKalb County in 2016 and again in 2017: In 2015, the rate per 100,000 was 9.57; in 2016, it was 23.92 per 100,000; and in 2017, it was 31.57 per 100,000 people. The increase in Non-Motor Vehicle deaths in DeKalb County is largely due to opioid-related deaths.

Violent index offenses (murder, criminal sexual assault, robbery and aggravated assault) were reported at a rate of 169 crimes per 100,000 residents.

## **Infectious disease**

### **Human Immunodeficiency Virus (HIV)**

HIV is a life-threatening communicable disease that disproportionately affects minority populations and may also indicate the prevalence of unsafe sex practices.

The prevalence rate of HIV per 100,000 is 85.9 in DeKalb County. This is considerably lower than both the State of Illinois and the United States.

### Sexually Transmitted Infection (STI)

Despite their burdens, cost, complications and the fact that they are largely preventable, STIs remain a significant public health problem in the United States. STIs may cause hurtful, often irreversible and costly clinical complications such as reproductive health issues, cancer, and fetal or perinatal health problems. This indicator is relevant because it is a measure of poor health status and indicates the prevalence of unsafe sex practices.

While both chlamydia and gonorrhea rates in DeKalb County per 100,000 are lower than both the State of Illinois and the United States, it is worth noting that DeKalb County's STI three-year trend by count has increased significantly, from 57 to 95 cases of gonorrhea.

### Adolescent health

Adolescence (defined as ages 10 to 17) and young adulthood (ages 18 to 25) according to HP2020 are critical developmental periods in young people's lives, as behavioral patterns established during these years help determine not only current health status but also the risk for developing chronic diseases during adulthood. Although adolescence and young adulthood are commonly considered healthful times of life, there are health and social problems that either start or peak during these years: mental disorders, substance use, smoking/nicotine use, nutrition and weight conditions, sexually transmitted infections, teen pregnancy, homelessness, homicide, suicide and motor vehicle collisions. Effective programs and policies that address these issues can provide protective factors during these important stages in a person's life.

The number of students who reported eating two or more servings of fruit a day in the past seven days: 43 percent of 8th grade students, 38 percent of 10th grade students and 40 percent of 12th grade students.

The Illinois Youth Survey (IYS) indicates that 18 percent of 8th graders, 16 percent of 10th graders and 17 percent of 12th graders consumed three or more servings of vegetables daily in the past seven days.

Obesity prevalence based on BMI as self-reported by DeKalb County students who responded to the IYS: 8 percent of 8th graders, 10 percent of 10th graders and 9 percent of 12th graders.

Alcohol is the most commonly used substance among DeKalb County teens, as reported in the IYS: 22 percent of 8th graders, 46 percent of 10th graders, and 57 percent of 12th graders self-report using alcohol within the past year.

DeKalb County youth ages 12 - 18 are self-reporting an increase in electronic cigarette use (e-cigs). When asked about use of e-cigs, 10 percent of 8th graders, 23 percent of 10th graders, and 30 percent of 12th graders reported ever using an electronic cigarette.

Students in DeKalb County were asked about various types of bullying, and these experiences were compiled into two overarching categories: ever bullied and intensely bullied. Of 8th grade students, 46 percent reported ever being bullied; 38 percent of 10th graders and 28 percent of 12th graders also indicated that they have been bullied in one form or another.

Dating violence is identified through the IYS by 10th and 12th grade students in the county. In the past 12 months, 14 percent of 10th graders and 12 percent of 12th graders report their partners have tried to control them or put them down.

Depression within the last 12 months was reported by 28 percent of 8th graders, 38 percent of 10th graders and 34 percent of 12th graders.

### Maternal child health

The number of births in DeKalb County for 2016 was 1,093. Notably, there has been a decrease in births over the past three years within DeKalb County.

Infant mortality rate (per 1,000 births) in DeKalb County is 7.1.

Infant mortality rates by race/ethnicity identify disparity: Non-Hispanic Blacks experience infant deaths at a rate of 13.4 per 1,000 live births, while the Non-Hispanic White rate is 5.5 per 1,000 live births.

Low-birthweight babies are babies born weighing less than 5.5 pounds; in DeKalb County, 7.2 percent of births were considered low birthweight.

The overall teen birth rate in DeKalb County per 1,000 population is 15.7; this is significantly lower than both the State of Illinois at 35 per 1,000 population and the United States. When considering teen birth rates for DeKalb County broken down by race: the rate for Hispanic/Latino teen births is 2.86 times greater than Non-Hispanic Black rates, and 3.2 times greater than Non-Hispanic White teen birth rates. This would indicate a disparity among Hispanic/Latino teens.

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### Access to care

Access to health services has a profound effect on every aspect of a person's health, yet almost one in four Americans does not have a primary care provider (PCP) or health center where he or she can receive regular medical services. Increasing access to both routine medical care and medical insurance is vital for improving the health of all Americans.<sup>3</sup> Access to health services affects a person's health and well-being. Regular and reliable access to health services can:

Prevent disease

Increase quality of life

Detect and treat illnesses or other health conditions

Reduce unnecessary disability and premature (early) death

Increase life expectancy<sup>4</sup>

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- Approximately one in five Americans (children and adults under age 65) does not have medical insurance. People without medical insurance are more likely to lack a usual source of medical care, such as a PCP, and are more likely to skip routine medical care due to costs, increasing their risk for serious and disabling health conditions. When they do access health services, they are often burdened with large medical bills and out-of-pocket costs.
- According to self-reported data from the Community Themes and Strength Assessment, approximately 4 percent of the participants indicated no insurance or pay cash.

<sup>3</sup> Healthy People 2020

<sup>4</sup> Healthy People 2020, Leading Health Indicators

- Doctors classified as primary care physicians by the American Medical Association include general family medicine MDs and DOs, general practice MDs and DOs, general internal medicine MDs and general pediatric MDs. Physicians age 75 and over, and physicians practicing sub-specialties within the list are excluded. PCPs in DeKalb County occur at a rate of 3.8 providers for every 10,000 people; this is a disparity. The rate in DeKalb County is 5.9 per 10,000 people, less than that of the state rate of 9.7 per 10,000 people.
- CMS recommends a PCP be within 10 miles or 15 minutes of driving distance from residents in a metro county. PCPs for the purpose of this information can include physician assistants and nurse practitioners. According to the CMS, NPI Database as of August 2017, DeKalb County has 66 PCPs and the southwest corner of DeKalb County does not have a PCP available to residents within 10 miles. This is a health disparity for DeKalb County.
- DeKalb County's discharge rate of 61.7 per 100,000 for conditions that are ambulatory care sensitive (ACS) is higher than state and national rates. ACS conditions include pneumonia, dehydration, asthma, diabetes and other conditions that could have been prevented if adequate primary care resources were available and accessed by those patients. This indicator is relevant because analysis of ACE discharges allows demonstrating a possible "return on investment" from interventions that reduce admissions (for example, for uninsured or Medicaid patients) through better access to primary care resources.
- Preventable Hospital Events by year during a five-year trend in DeKalb County is consistently higher than that of the State of Illinois and the United States. This is a health disparity and natural consequence of inadequate PCP access.

### Summary of key informant perceptions

As noted throughout this report, key stakeholders and informants were involved in the entire decision-making process to identify health needs that were perceived as a priority within the community. The following top concerns were identified (in alphabetical order):

Adolescent Health

Chronic Disease (Cancer and Cardiovascular Disease)

Behavioral Health/Substance Abuse

Maternal Child Health

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### Areas of opportunity for community health improvement

The following areas of opportunity were identified through this CHNA and represent potential areas to consider for intervention. The areas of opportunity were determined after consideration of various criteria, including comparison with national benchmark data, identified trends, the preponderance of significant findings within topic areas, the number of persons affected, and the potential health impact of a given issue.

Topic	Identified Need	Explanation
<b>Access to health services</b>	Inconvenient office hours Inadequate or no insurance coverage Lack of availability of services Lack of culturally competent care	Access to Health Services ranked as a concern that will be addressed within the health priorities selected through the MAPP process.
<b>Adolescent health</b>	Fruit/vegetable consumption Bullying incidence Substance use Mental health concerns, including suicidal thoughts Upward trend in unhealthy BMI Food insecurity rate high – including students who qualify for free and/or reduced lunch Overweight and obese children Children living in poverty	Adolescent Health ranked as a top concern through the MAPP process and will be addressed by NMKH as part of the hospital's Implementation Plan.
<b>Behavioral health/mental health</b>	Diagnosed depression Suicide deaths Hospital discharge	Behavioral/Mental Health ranked as a top concern through the MAPP process and will be addressed by NMKH as part of the hospital's Implementation Plan.
<b>Chronic disease: Cancer Cardiovascular disease</b>	<b>Cancer:</b> <ul style="list-style-type: none"> <li>• Cancer deaths</li> <li>• Incidence by site</li> <li>• Female breast cancer screening</li> </ul> <b>Cardiovascular Disease:</b> <ul style="list-style-type: none"> <li>• The leading cause of death among DeKalb County residents</li> <li>• Prevalence of high blood pressure</li> <li>• High blood pressure management</li> <li>• Overweight/obese adults</li> </ul>	Cancer and Cardiovascular Disease ranked as top concerns through the MAPP process and will be addressed by NMKH as part of the hospital's Implementation Plan.
<b>Environmental health</b>	Food sanitation service Sewage disposal and water treatment Severe housing problems Housing built before 1950 and housing built between 1950 and 1979	NMKH did not select this as a priority to address in the population, as there are programs and initiatives available through other organizations within DeKalb County.



Topic	Identified Need	Explanation
<b>Health communication/health information technology</b>	Data collection methods differ by organization Identification of resources in one central location to help to inform and direct decision-making as it relates to health	NMKH did not select this as a priority to address; however, the hospital does utilize tools such as an electronic medical record as a way to continue to assist patients and community members with Health Information Technology.
<b>Infectious disease/sexually transmitted infections</b>	Gonorrhea incidence Chlamydia incidence HIV prevalence	NMKH did not select this as a priority to address in the population, as there are programs and initiatives available through other organizations within DeKalb County.
<b>Injury and violence</b>	Motor Vehicle/Non-Motor Vehicle deaths Violent crime index	NMKH did not select this as a priority to address in the population, as there are programs and initiatives available through other organizations within DeKalb County.
<b>Maternal child health</b>	Disparity in birth weight by race/ethnicity Infant mortality higher than state and U.S. rates Children living in poverty	Maternal Child Health ranked as a top concern through the MAPP process and will be addressed by NMKH as part of the hospital's Implementation Plan.
<b>Social determinants of health</b>	Poverty Education Employment	Social Determinants of Health ranked as a concern that will be addressed within the health priorities selected through the MAPP process.

# Interpreting and prioritizing health needs

## External Steering Committee

The CHNA External Steering Committee (ESC) provides oversight to the development of the CHNA and engages the community throughout the process under the leadership and direction of the Core Support Team. ESC members were recommended by leadership staff from the DeKalb County Health Department, NMKH and Northwestern Medicine Valley West Hospital (NMVWH). To be eligible, staff must:

- Work a minimum of 20 hours per week
- Be in a support or professional staff role
- Demonstrate effective communication skills

Members were representative of public health professions and department of the DeKalb County Health Department, NMKH or NMVWH. Time commitment was anticipated to be four hours per week to ensure participation and minimize disruption to routine work.

## Prioritization Process

A planned and structured process was used to facilitate prioritization of the identified health needs. The MAPP process is a community-wide strategic planning framework for improving public health. MAPP has six phases:



### **Phase 1: Organize for success and partnership development**

Part of the planning phase, this phase identifies who should be involved in the process and how the partnership will approach and organize the process. This included the formation of the ESC.

NMKH and NMVWH, in partnership with the DeKalb County Health Department, collectively call the work of the CHNA “Together for a Healthier DeKalb County.”

### **Phase 2: Visioning**

Visioning is a collaborative and creative approach that leads to a shared community vision and common values.

Together for a Healthier DeKalb County’s vision is working together to prevent disease, promote wellness and improve health outcomes for all DeKalb County residents.

### **Phase 3: Four assessments to collect and analyze data that guide the entire MAPP process**

The assessment phase provides a comprehensive picture to the community of its current state using both quantitative and qualitative methods. MAPP provides tools to help communities analyze health issues through multiple lenses.

#### **Community themes and strengths assessment**

The purpose of this assessment is to collect contextual information about DeKalb County residents’ perspective of well-being. Using qualitative research methods, this assessment aims to answer the following questions:

What is important to the community?

How is quality of life perceived?

What assets can be used to improve community well-being?

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#### **Local public health system assessment**

A standardized assessment utilizing the National Public Health Performance Standards, these standards allow responding sites to consider activities of all public health system partners contributing to public health within a community. Together for a Healthier DeKalb County utilized the Local Public Health System Assessment instrument to answer two main questions about health in the community:

What are the components, activities, competencies and capacities of our public health system?

How well are the 10 Essential Services being provided in our system?

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#### **Community health status assessment**

This assessment provides quantitative data on a broad array of health indicators, including quality of life, behavioral risk factors and other measures that reflect a broad definition of health.

### Forces of Change Assessment

This assessment is designed to identify forces such as legislation, technology, and other impending changes that affect the context in which the community and its public health system operate. The assessment answers the following questions:

What is occurring or might occur that affects the health of our community or the local public health system?

What specific threats or opportunities are generated by these occurrences?

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### Phase 4: Identify strategic issues

This phase uses the information gathered from the four assessments to determine the strategic issues a community must address to reach its vision.

### Phase 5: Formulate goals and objectives

This phase involves specifying goals for each of the strategic issues identified in the previous phase. Many communities create a Community Health Improvement Plan (CHIP) at the end of this phase.

### Phase 6: Action cycle

This phase includes planning, implementation and evaluation of a community's strategic plan.

Strategic Issues were identified exploring the convergence of the results of the four MAPP assessments administered in Phase 3. Again, these assessments include:

1. Community Themes and Strengths
  2. Local Public Health System Assessment
  3. Community Health Status Assessment
  4. Forces of Change Assessment
- 

Each participant received an agenda and priority matrix worksheet. A presentation was organized around 10 potential health priorities based on the CDC's HP2020 categories. These included *Mental/Behavioral Health, Maternal Child Health, Access to Health Services, Chronic Disease, Adolescent Health, Social Determinants of Health, Injury and Violence, Infectious Disease/STI, Environmental Health and Health Communication/HIT*. Relevant results from each of the four MAPP assessments were used to substantiate the importance of each potential priority. Immediately after the presentation, participants were asked to complete a worksheet ranking each priority.

The Full Analytical Criteria Method, a Six-Sigma prioritization matrix, was used to rank DeKalb County's potential health priorities. The results of the worksheet were entered in the matrix to obtain the highest-ranking priorities. Each health priority had a maximum of 324 possible points. The priority scores were summed and divided by the maximum possible points. The highest-ranking priority is Mental/Behavioral Health at 80.2 percent; the second is Maternal Child Health at 71.6 percent; and the third-highest-ranking health priority is Access to Health Services at 70.4 percent. The standard deviation, a quantity calculated to indicate the extent of deviation for a group, is displayed in the table below. The number is used to gauge how closely the participants answered the questions. Users may assume a lower number indicates less variation in each group or health priority, which translates to a higher confidence in the result.

Potential Health Priority	Rank	Percent	Standard Deviation
Mental/Behavioral Health	1	80.2%	2.2
Maternal Child Health	2	71.6%	2.7
Access to Health Services	3	70.4%	3.0
Chronic Disease	4	68.8%	4.2
Adolescent Health	5	68.5%	3.6
Social Determinants of Health	6	65.4%	3.0
Injury and Violence	7	63.0%	2.7
Infectious Disease/STI	8	62.3%	3.7
Environmental Health	9	56.2%	2.6
Health Communication/HIT	10	45.7%	2.2

Phase 4 MAPP Assessment 2018

### Prioritization timeline

Monthly meetings were held beginning in July 2017. In July, ESC members were provided an overview of the CHNA, MAPP process and team charter for the project.

At the second meeting, in August 2017, committee members were provided a guideline for Local Public Health Partners to include in the assessment process. The group reviewed the list and were able to provide feedback on community members and stakeholders that may receive an invite. In addition, the committee reviewed the Community Themes and Strengths Assessment survey and were given an opportunity to provide feedback and edits.

In September 2017, branding efforts for the CHNA and ESC began. A logo was created, and the Local Public Health Partners list was reviewed for organizational capacity.

The October 2017 meeting included further in-depth conversations about how to promote the Community Themes and Strengths online survey. In addition, LPHSA details were worked through and finalized so that invitations to the January - February meetings could be generated.

November 2017 efforts included Visioning, an important step in the MAPP process that includes the group's aspirations for collaboration across multiple organizations.

January and February began the assessment process. The LPHSA was scheduled to be administered every Thursday morning from 8:30 to 10:30 am. The sessions took place between January 25, 2018, and February 22, 2018. Two essential services were covered in each two-hour block. The LPHSA main performance assessment in DeKalb County attracted more than 100 participants.

All participants at each session were provided an information packet including a response survey. Discussion questions were used to introduce the Essential Service Model. Next, participants were asked to answer the assessment questions

using the Summary of Assessment Response Options. The participants identified strengths, weaknesses, and immediate and long-term opportunities. Additionally, the Community Themes and Strengths Assessment online survey opened for participation from February 1 through March 31, 2018.

February also included the beginning of the Forces of Change Assessment. ESC members were asked to brainstorm about forces outside of our control that affect the local public health system or community. This assessment was then given to the DeKalb County Health Department Board of Health and Senior Leadership at NMKH for feedback.

In May 2018, Kari Nimmo led a discussion and presented the findings from the four MAPP assessments. Ms. Nimmo then asked each participant to rank the health priorities with the matrix that was provided. On May 17, 2018, a sub-group of the ESC met to review the findings from the priority matrix activity, determined priorities, and began to discuss goal development and strategies to be included in the CHIP.

#### Prioritization Results (Priority Health Needs)

The CHIP is developed to address the health priorities identified through the CHNA (MAPP Phases 1 through 4). With input from community members, business leaders and elected officials through four assessments, the CHIP identifies the greatest health threats in DeKalb County, who is most at risk, what factors put individuals at risk and how we can increase protective factors to reduce these threats and reach high-risk populations with available resources.

The CHIP was developed through a health-equity lens. Each priority is examined for health disparities caused by economic inequality, racism and discrimination. These disparities are the main contributors to accessing health care in the United States. Availability and access to services are considered in each identified priority area. The ACA has increased healthcare access to millions of Americans. The challenge today is identifying high-risk populations and teaching them to maneuver within a health system.

Building off the efforts of the Together for a Healthier DeKalb County collaborative, NMKH selected the health priorities below for the 2018 - 2021 CHNA. Although Access to Health Services was the third-ranking priority, NMKH will address Access to Health Services within each priority selected.

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The identified priorities include:

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- |                                      |   |
|--------------------------------------|---|
| 1. Adolescent Health                 | 3. Chronic Disease<br>(Cancer and Cardiovascular Disease) |
| 2. Behavioral Health/Substance Abuse | 4. Maternal Child Health                                  |
-

# Development of implementation plan

NMKH and its community health partners share a vision of a healthy community and are committed to working together to address significant health needs. We believe that we can most effectively impact the health of our community by working together, recognizing each organizations' strengths and assets.

Through its affiliation with Northwestern Memorial HealthCare, NMKH and its sister organizations within Northwestern Medicine can support efforts to positively change the health status of our community by taking on any of many roles:

- A direct clinical service provider, through application of our research and education expertise
  - An educator, by sharing our knowledge of health literacy, quality improvement or information technology
  - A supporter, by providing indirect support to organizations that can impact health
  - A funder, by funding initiatives undertaken by others
- 

The CHIP will specify resources NMKH and its community partner organizations will direct toward each priority health need. A general listing of the collective assets that could potentially be directed toward impacting priority health issues includes:

- |   |   |
|---|---|
| Clinical care resources and facilities of NMKH and its community partner organizations  | Financial assistance programs at NMKH   |
| Established, replicable, community-based clinical and health promotion programs addressing both highly prevalent and targeted chronic health conditions | Policies and procedures that broaden and simplify access to health care for the uninsured or underinsured |
| Research and education expertise among Northwestern University Feinberg School of Medicine physicians   | Advocacy resources at NMKH and its community partner organizations  |
|   | Planning and oversight resources  |
|   | Management expertise in quality improvement and information technology                                    |
- 

## Existing healthcare facilities and resources

NMKH also recognizes that a large number of healthcare facilities and organizations within DeKalb County respond to health needs and support health improvement efforts. A list of those that were found through publicly available information sources as of June 2018 is included in Appendix B.

## Actions Taken to Address the 2018 CHNA Priority Health Needs

### Introduction

In 2018, NMKH identified four priority health needs in response to the CHNA. In selecting priorities, NMKH considered the degree of community need for additional resources, the capacity of other agencies to meet the need, and the suitability of its own expertise and resources to address the health need. The priority health needs identified for targeted efforts are:

1. Adolescent Health
  2. Behavioral/Mental Health
  3. Chronic Disease  
(Cancer and Cardiovascular Disease)
  4. Maternal Child Health
- 

NMKH and key community partners collaborated to address and identify the priority health needs listed above. This status report summarizes the impact of strategies that are outlined in NMKH's 2018 CHIP and the Community Health Implementation Plan Report (CHIP-R). For a more comprehensive discussion of the strategies and related outcome/impact, please refer to NMKH's 2018 Health Implementation Plan and Report.

Goals and objectives from HP2020 were reviewed and used in the development of the CHIP. The State of Illinois Improvement Plan was also reviewed for alignment and inclusion.

### Priority Health Need: Adolescent health

Adolescents (age 10 to 19) make up 16 percent of the DeKalb County population. The behavioral patterns established during these developmental periods can help determine young people's current health status and their risk for developing chronic diseases during adulthood.

#### Goal

Improve the healthy development, health, safety and well-being of adolescents in DeKalb County, Illinois.

#### Strategy:

- Advocate for use of evidence-based anti-bullying curriculum in schools
- Collaborate with schools to address depression and substance use among adolescents utilizing evidence-based interventions and education

#### Impact:

- To increase by 10 percent the number of adolescents who have an adult in their lives with whom they can talk about serious problems, as measured by the IYS, by December 31, 2021
- To decrease by 10 percent the number of adolescents experiencing depression in the past 12 months, as measured by the IYS, by December 31, 2021
- To decrease by 10 percent the number of adolescents reporting being bullied in the past 12 months, as related to name calling, physical threats, hitting, punching, kicking, pushing or cyber bullying (rumors on internet or social media), as measured by the IYS, by December 31, 2021
- To decrease by 10 percent the number of adolescents who report using cigarettes, e-cigarettes or other tobacco in the past year, as measured by the IYS, by December 31, 2021



- To decrease by 10 percent the number of adolescents who report using alcohol, marijuana and illicit drugs in the past year, as measured by the IYS, by December 31, 2021

#### **Priority Health Need: Behavioral health/substance abuse**

Behavioral health involves behaviors as they relate to or impact physical and mental health. This would include substance abuse or other addictions. Good health behaviors impact relationships with other people, and the ability to adapt to change and to cope with challenges. Healthy behavior is essential to well-being, family and interpersonal relationships, and the ability to contribute to community and society.

Poor health behaviors can lead to alterations in thinking, mood and/or behavior that are associated with distress or impaired functioning. If these behaviors continue, they may contribute to a host of problems related to disability, pain or death.

#### **Goal**

To improve the choices that impact health behaviors of DeKalb County residents.

#### **Strategy:**

- Support policy and efforts in becoming a Trauma Informed Community
- Address main transportation barriers in accessing behavioral health services
- Support efforts to eliminate stigma of mental illness
- Reduce high-risk opioid prescribing through provider education and guidelines
- Increase impact of drug prevention programs in communities and schools targeted at heroin and prescription drug abuse

#### **Impact:**

- To assess access to mental health services in DeKalb County, considering capacity of facilities to provide services or coordinate referrals, by December 31, 2021
- To support strategies and policies for community organizations to become trauma informed, supporting DeKalb County to become a Trauma Informed Community by December 31, 2021
- To educate the public on negative attitudes and beliefs regarding behavioral health by increasing the proportion of DeKalb County organizations whose staff complete a Mental Health First Aid course, and to increase awareness and decrease stigma related to mental illness, by December 31, 2021
- To educate the public and raise awareness regarding alcohol abuse by teens, through the sponsorship of an evidence-based media campaign, by December 31, 2021
- To reduce the number of prescribed opiate drugs as measured by the IDPH Opioid Dashboard by December 31, 2021
- To reduce the number of fatal opioid-related overdoses in DeKalb County, as measured by the Annual DeKalb County Coroner's Report, by December 31, 2021

### **Priority Health Need: Chronic disease**

Chronic disease is the leading cause of death and disability in the United States. Chronic disease and conditions such as heart disease, cancer and obesity are among the most common, costly and preventable of all health problems.

#### **Cardiovascular**

##### **Goal**

Improve cardiovascular health and quality of life through prevention, detection and treatment of risk factors for heart attack; early identification and treatment of heart attacks; prevention of repeat cardiovascular events; and reduction in deaths from cardiovascular disease.

##### **Strategy:**

- Continue to offer hospital- and community-based programs to increase awareness, educate, and screen for hypertension and related health conditions
- Promote "Know Your Numbers," an evidence-based approach to community awareness
- Offer educational programs on smoking cessation in the community
- Offer educational sessions for targeted populations to address prevention of cardiovascular disease through healthy diet and cooking programs at the NMKH Leishman Center for Culinary Health
- Offer the American Heart Association CPR program

##### **Impact:**

- Reduce the proportion of persons in DeKalb County with hypertension
- Increase the proportion of adults who have had their blood cholesterol levels checked
- Decrease the number of adults reporting smoking
- Assess adverse health risk factors through screening on cholesterol and blood sugar level, blood pressure, waist measurement and BMI
- Increase awareness of available programs around hypertension and preventive screenings
- Increase the number of community members trained to administer CPR (even hands-only) and automated external defibrillator (AED) during an emergency cardiac event

#### **Cancer**

##### **Goal**

Reduce the number of new cancer rates, as well as illness, disability and death caused by cancer.

##### **Strategy:**

- Educate community on importance of screening for cancer and early detection
- Provide free or reduced-cost mammograms for targeted populations

##### **Impact:**

- Target education to at-risk population not accessing or utilizing cancer screenings
- Reduce the number of adults in DeKalb County who report smoking

### **Priority Health Need: Maternal child health**

Improving the well-being of mothers, infants and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities and the healthcare system.

#### **Goal**

Improve the health and well-being of women, infants, children and families.

#### **Strategy:**

- Assess capacity to provide referral systems for smoking cessation among pregnant women
- Promote early attachment by educating the community on domestic violence and related trauma, and their lifelong impacts
- Advocate for policies to support the development of a holistic, comprehensive system of prenatal care

#### **Impact:**

- Increase the percentage of pregnant women who abstain from smoking during their pregnancy
- Increase access to prenatal care for at-risk populations
- Increase educational opportunities through programs on domestic violence and trauma

# Appendix A

Organization	Description of Medically Underserved, Low-Income or Minority Populations Represented (From Publicly Available Sources, June 2018)
Adventure Works DeKalb	A non-profit, nationally accredited, community-based outdoor behavioral healthcare organization. Adventure Works serves people ages 0 to 26 and believes that people of any age can benefit from its effective approach to counseling. In conjunction with the use of adventure activities, therapists provide an engaging way of counseling to promote growth and change. Adventure Works is a non-profit organization and strives to provide counseling services to youth regardless of their ability to pay using a sliding fee scale, supplemented by grants and donations from the community.
Brown Law Group	The Brown Law Group is a general civil practice law firm. The firm's practice centers around three major practice areas: Real Estate Transactions, Estate/Succession Planning and Probate Administration. In addition, the firm has extensive experience in the application of these areas of law to the Agricultural producer and landowner.
City of DeKalb	The City of DeKalb strives to deliver high-quality municipal services to those who live, work, learn in or visit the community.
City of Sycamore	The City of Sycamore delivers municipal services in the areas of city government, public safety, public works and development.
DeKalb County Non-Profit Partnership	The DeKalb County Non-Profit Partnership (DCNP) is a membership-based program of the DeKalb County Community Foundation that works to increase the capacity of non-profit organizations throughout DeKalb County through trainings and programming, access to resources and professional development opportunities.
DeKalb County Board of Health	The DeKalb County Board of Health, appointed by the DeKalb County Board, is the governing board of the DeKalb County Health Department.

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DeKalb County Community Development Department

The primary function of the DeKalb County Community Development Department is to help direct and manage growth and land use changes in DeKalb County. The principal way in which the department aids in such management is through the interpretation, application and enforcement of the county's Unified Comprehensive Plan, zoning ordinance, subdivision regulations, building codes and stormwater management regulations by facilitating an efficient development process and influencing investment in the community. The department provides staff support, and offers advice and assistance to the DeKalb County Board, Planning and Zoning Committee, zoning hearing officers, Economic Development Committee, DeKalb County Business Incubator and other county departments, as well as to local communities and citizens.

DeKalb County Community Foundation

The mission of the DeKalb County Community Foundation is to enhance the quality of life in DeKalb County by proactively addressing community needs and expanding, managing and distributing philanthropic resources.

DeKalb County Government

DeKalb County operates under the township form of county government. The governing body is the County Board. As the legislative element, the County Board is responsible for adopting all ordinances for the governance of DeKalb County, which laws are contained in the DeKalb County Code; establishing budget for several funds; levying taxes; and promulgating policies, rules and regulations for the management of county operations.

DeKalb County Health Department

The mission of the DeKalb County Health Department is to promote optimal health for all county residents. Working in partnership with other organizations, programs help individuals, families and the community prevent, as well as manage, health problems and risks. DeKalb County Health Department has a strong commitment to delivering quality public health services with competence and skill, while respecting the dignity and rights of all individuals. The Community Health and Prevention and Health Promotion and Emergency Preparedness Division of the department provides maternal and child health services such as childhood immunizations; the Women, Infants, and Children (WIC) Nutrition Supplement Program; the Family Case Management Program for pregnant women and infants; and the Family Planning and STD Program. In-person counselors provide assistance with enrollment in the health insurance marketplace and expanded Medicaid implemented as part of the national Affordable Care Act.

DeKalb County Mental Health Board and Community Action

The DeKalb County Community Mental Health Board uses the following core values as the guiding principles that dictate the behavior and action of the board: Leadership, Responsibility, Service and Community. Core values are a central belief deeply understood and shared by every member of the organization. The board serves DeKalb County individuals and families with need for assistance with mental illness, developmental disabilities, and substance abuse and addiction.

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DeKalb CUSD 428	The mission of DeKalb Community Unit School District 428 is to prepare students to reach their full potential as lifelong learners. Its vision is to guide DeKalb CUSD 428 to be a cohesive and efficient organization fueled by a deep commitment to responsibly serve the community and a passion towards giving the best possible learning and growing environment for students and families.
DeKalb Fire Department	The mission of the DeKalb Fire Department is to provide the highest level of service to the citizens of DeKalb and those who visit. We strive to continuously seek innovative and effective ways to protect the lives and property of those we serve through suppression, emergency medical services, education, prevention and training.
DeKalb Park District	The DeKalb Park District's mission is to provide diverse, high-quality, active and passive recreational facilities and services to all residents of DeKalb. Goals include offering quality recreation programs and facilities; providing a comprehensive park system; caring for the facilities, parks and trails; strengthening operations; and increasing visibility in the community.
DeKalb Police Department	The DeKalb Police Department is committed to providing professional law enforcement and public safety services to all citizens of and visitors to the city.
Department of Human Services	The goal of the Illinois Department of Human Services is to provide Illinois residents with streamlined access to integrated services, especially those who are striving to move from welfare to work and economic independence, and others who face multiple challenges to self-sufficiency. IDHS is proud of its diversity, efficiency and services that the agency and its community partners provide to Illinois citizens.
Family First Physicians	Family First Physicians is a family medicine group serving the needs of families with children in the Genoa/DeKalb/Sycamore area, as well as surrounding Northern Illinois communities.
First Lutheran Church, DeKalb, IL	In keeping with its mission statement, "Hearing, living and sharing God's Word together," First Lutheran Church is an active, growing, serving group of God's people who are eager to meet the needs of the world with the gifts of God's love.

Fox Valley YMCA

The vision of the Fox Valley Family YMCA is to strengthen the foundation of the community by ensuring that participants have the opportunity to learn, grow and thrive. The organization is dedicated to building healthy, confident, connected and secure children, adults, families and communities. Its impact is felt when an individual makes a healthy choice, when a mentor inspires a child, and when a community comes together for the common good. It nurtures the potential of every youth and teen, improving areas of health and well-being, and providing opportunities to give back and support neighbors.

Kishwaukee YMCA

The goal of the Kishwaukee YMCA is to promote Christian principles by enriching the spirit, mind and body of all those in the community, especially families and children, regardless of ability to pay. Character development is integral to all YMCA programs. The organization is guided by four core values of caring, honesty, respect and responsibility. In child care, in the gym, at day camp, and at the member services counter, staff members strive to develop character values in members, participants and themselves. The organization believes strongly in its mission to promote and model these character-building values in all that they do.

**Northern Illinois University (NIU)**

Center for Governmental Studies

The Center for Governmental Studies at NIU provides expertise that helps decision-makers implement efficient, sustainable and cost-effective approaches to economic, social and information management issues.

Emergency Management and Planning

The Office of Emergency Management and Planning at NIU maintains the university's emergency operations plan and implements the National Planning Frameworks, which include: Prevention, Protection, Mitigation, Response and Recovery.

Health Services

NIU's Health Services provides high-quality health care and preventive services to eligible individuals; a comprehensive student health insurance program; and advocacy for optimal health within the university population. Health Services strives to meet the demonstrated needs of a diverse student population, in accordance with the core values, vision and mission of the Division of Student Affairs.

**Northwestern Medicine**

Ben Gordon Center

Northwestern Medicine Ben Gordon Center offers individualized care from qualified and dedicated professionals who are there for individuals and families.

Kishwaukee Hospital	Northwestern Medicine Kishwaukee Hospital is a 98-bed general acute-care community hospital with more than 200 physicians. In FY16, Kishwaukee Hospital saw: <ul style="list-style-type: none"><li>• 5,188 inpatient admissions</li><li>• 263,520 outpatient registrations</li><li>• 820 infant deliveries</li><li>• 31,754 Emergency Department visits</li></ul>
Valley West Hospital	Northwestern Medicine Valley West Hospital is a 24-bed critical-access hospital with a medical staff of more than 150 physicians. In FY16, Valley West Hospital saw: <ul style="list-style-type: none"><li>• 837 inpatient admissions</li><li>• 33,124 outpatient registrations</li><li>• 158 infant deliveries</li><li>• 8,874 Emergency Department visits</li></ul>
Rotary Club of Sandwich	The Rotary Club is a global network of 1.2 million neighbors, friends, leaders and problem-solvers who see a world where people unite and take action to create lasting change – across the globe, in communities and in themselves.
Sycamore Police Department	The Sycamore Police Department is committed to providing professional law enforcement and public safety services to all citizens of and visitors to the city.
WNIJ/WNIU Local Media	As the broadcast arm of Northern Illinois University, the mission of Northern Public Radio is to enrich, inspire and inform adults in Northern Illinois through programs and services that share ideas, encourage thought, give pleasure and create community.



# Appendix B

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## Acute-care hospitals/emergency departments

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Advocate Good Shepherd Hospital	Northwestern Medicine Valley West Hospital
Centegra Memorial Medical Center	OSF St. Anthony Medical Center-Rockford
Community Hospital of Ottawa	Presence St. Joseph Hospital
Edward Hospital	Presence St. Joseph Medical Center
Kindred Hospital - Sycamore	Presence Mercy Medical Center
Linden Oaks Hospital at Edward Hospital	Rochelle Community Hospital
Mendota Community Hospital	Rockford Memorial Hospital
Morris Hospital and Healthcare Centers	Rush-Copley Medical Center-Aurora
Northwestern Medicine Central DuPage Hospital	Rush-Copley Emergency Center-Yorkville
Northwestern Medicine Delnor Hospital	Sherman Hospital
Northwestern Medicine Kishwaukee Hospital	Swedish American Hospital

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## Federally qualified health centers and other safety net providers

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Access Community Health Centers	Crusader Community Health
Aunt Martha's Youth Service Center, Inc.	Greater Elgin Family Care Center
Aurora Community Health Center	Visiting Nurses Association (VNA) Health Care
Community Health Partnership of Illinois	Will County Community Health Center

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Home healthcare

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Access Home Health	Home Touch Healthcare
Alpha Home Healthcare	Kindred at Home
Country Home Care, Inc.	KSB Home Care
Comfort Keepers	Northwestern Medicine Home Health DeKalb
Community Alliance	Right at Home
Crescent Home Care	Swedish American Home Healthcare
Franciscan Home Care	Visiting Angels
Gentiva Health Services	Visiting Nurse Association of Fox Valley
Homebound Health Care	Visiting Nurse Association of Rockford
Home Helpers	Vital Wellness
Home Instead	

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Hospice care

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Gentiva Hospice	Passages Hospice
Heartland Hospice	Seasons Hospice
Homebound Hospice	Unity Hospice
Northwestern Medicine Hospice DeKalb	Vitas Hospice

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Mental health services/facilities

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Alexian Brothers Behavioral Health Hospital	Northern Illinois University Student Counseling Center
Centennial Counseling Center	North Central Behavioral Health System
Children's Home & Aid	Northwestern Medicine Behavioral Health Services
Elgin Mental Health Center	Northwestern Medicine Ben Gordon Center
Family Service Agency	Suicide Prevention Services
LaSalle County North Central Behavioral Health	

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Nursing homes/adult care/long-term care

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Alternatives for the Older Adult LaSalle County	Mendota Area Senior Services
Bethany Healthcare & Rehab Center	Oak Crest Retirement Center
Bridge Community Center LaSalle County	Peterson Health Care
DeKalb County Rehabilitation & Nursing Center	Pine Acres Rehab and Living Center
Fox Valley Older Adult Services	Prairie Crossing & Rehabilitation Center
Healthcare Center East	Sandwich Rehabilitation and Health Care
Hillside Healthcare	The Tillers Oswego
Kindred Hospital	Willowcrest Nursing Pavilion

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**Northwestern Medicine Kishwaukee Hospital**

1 Kish Hospital Drive  
DeKalb, Illinois 60115

815.756.1521

TTY for the hearing impaired 815.756.6448

[nm.org](http://nm.org)