



2018 Community Health Needs Assessment Report

Northwestern Medicine Delnor Hospital



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Introduction

Northwestern Medicine Delnor Hospital (NMDH) has a rich history of caring for its community. NMDH, an acute-care hospital located in Geneva, Illinois, offers emergency care and inpatient specialty care in medical and surgical services, obstetrics, pediatrics, neurology and oncology to the residents of central Kane County and surrounding areas. NMDH continues to uphold its promise to provide convenient and affordable access to high-quality, state-of-the-art healthcare services. More than 450 physicians are on the medical staff at NMDH and are trained in more than 80 medical specialties. NMDH holds a prestigious Magnet® designation from the American Nurses Credentialing Center. This recognition is considered the gold standard for nursing excellence and demonstrates an organizational commitment to quality care.

NMDH sponsors numerous programs to promote health and wellness, healthcare career training, youth mentoring, language assistance and a multitude of other programs to enhance the quality and accessibility of health services. Services are carefully designed and structured to meet the needs of our growing and changing communities.

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

Acknowledgments

NMDH gratefully acknowledges the participation of a dedicated group of organizations that gave generously of their time and expertise to help guide and develop this 2018 Community Health Needs Assessment:

United Way Elgin

Kane County Health Department

Community Unit School District 300

Aunt Martha's Clinic

VNA Healthcare

Inc 708 Board

Northern Illinois University

Waubonsee Community College

The Community Health Needs Assessment

Background

A comprehensive Community Health Needs Assessment (CHNA) was commissioned on behalf of Northwestern Medicine by Professional Research Consultants, Inc. (PRC). PRC is a nationally recognized healthcare consulting firm with extensive experience in conducting CHNAs in hundreds of communities across the United States since 1994.

The CHNA framework consisted of a systematic, data-driven approach to determine the health status, behaviors and needs of residents in the service area of NMDH. The CHNA provided information to enable hospital leadership and key community stakeholders to identify health issues of greatest concern among all residents and decide how best to commit the hospital's resources to those areas, thereby achieving the greatest possible impact on the community's health status.

Methodology

As previously noted, the CHNA incorporates data from both quantitative and qualitative sources. Quantitative data input includes primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data). These quantitative components allow for trending and comparison to benchmark data at the state and national levels. Once the data has been reviewed by NMDH community health experts, executive leadership and key community stakeholders identify priority areas of need in which NMDH is uniquely positioned to address and respond.

The entire CHNA process includes:

A comprehensive identification and prioritization of needs

The identification of priority needs that NMDH is most uniquely suited to address

The development of a comprehensive Community Health Improvement Plan (CHIP) designed to guide NMDH in addressing and responding to the identified priority needs via a process-driven methodology including goal development, strategies and measurable outcomes

A plan to partner with other key community stakeholders to support the remaining needs

CHNA Goals

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

1 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.

2 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.

3 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.

Quantitative data analysis: The community health survey

Quantitative data input included primary research (the PRC Community Health Survey) and secondary research (vital statistics and other existing health-related data). These quantitative components allowed for comparison to benchmark data at the state and national levels.

Survey instrument

The survey instrument used for the PRC Community Health Survey was based largely on the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System, as well as various other public health surveys and customized questions addressing gaps in indicator data relative to health promotion and disease prevention objectives and other recognized health issues. The final survey instrument was developed by Northwestern Medicine and PRC.

Community defined for this assessment

The study area for the survey effort was defined as the NMDH service area and analyzed at the ZIP code level, and included the following ZIP codes: :

60119	Campton Hills
60134	Geneva
60174	St. Charles
60175	St. Charles
60144	Kaneville
60510	Batavia

Sample approach and design

A precise and carefully executed methodology is critical in asserting the validity of the results gathered in the PRC Community Health Survey. Thus, to ensure the best representation of the population surveyed, a mixed mode methodology was implemented. This included surveys conducted via telephone (landline and cell phone) as well as through online questionnaires.

The sample design used for this effort consisted of a random sample of 379 individuals age 18 and older in the NMDH service area. Upon completion of the interviews, they were weighted in proportion to the actual population distribution to appropriately represent the service area as a whole. For statistical purposes, the maximum rate of error associated with a sample size of 379 respondents was +/-5.0 percent at the 95 percent confidence level. All administration of the surveys, data collection and data analysis were conducted by PRC.

Sample characteristics

To accurately represent the population studied and minimize bias, proven telephone methodology and random-selection techniques were applied. While this random sampling of the population produces a highly representative sample, it is a common and preferred practice to “weight” the raw data to further improve the representation. This was accomplished by adjusting the results of a random sample to match the geographic distribution and demographic characteristics of the population surveyed (post-stratification) to eliminate any naturally occurring bias.

Specifically, once the raw data were gathered, respondents were examined by key demographic characteristics (namely gender, age, race, ethnicity and poverty status) and a statistical application package applied, weighting variables that produced a sample that more closely matched the population for these characteristics. While the integrity of each individual’s responses was maintained, one person’s responses may have contributed to the whole the same weight as, for example, 1.1 respondents. Another respondent, whose demographic characteristics may have been slightly over-sampled, may have contributed the same weight as 0.9 respondents.

The poverty descriptions used in this report are based on administrative poverty thresholds determined by the U.S. Department of Health and Human Services. These guidelines define poverty status by household income level and number of persons in the household. (For example, the 2017 guidelines place the poverty threshold for a family of four at \$24,400 annual household income or lower). In this report, “low income” refers to community members living in a household with defined poverty status or living just above the poverty level and earning up to twice (< 200 percent) of the poverty threshold. “Mid/high income” refers to those households living on incomes that are at least twice (>= 200 percent) the federal poverty level.

The sample design and quality control procedures used in the data collection ensure that the sample is representative. Thus, the findings may be generalized to the total population of community members in the defined area with a high degree of confidence.

Quantitative data analysis: Public health, vital statistics and other data

A variety of existing (secondary) data sources was consulted to complement the research quality of the CHNA. Data for the NMDH service area were obtained from the following sources with specific citations included throughout the PRC report:

Center for Applied Research and Environmental Systems (CARES)	U.S. Census Bureau
Centers for Disease Control and Prevention (CDC)	U.S. Department of Agriculture
Community Commons	U.S. Department of Health and Human Services
ESRI ArcGIS Map Gallery	U.S. Department of Justice, Federal Bureau of Investigation
Illinois Department of Public Health	U.S. Department of Labor, Bureau of Labor Statistics
National Cancer Institute, State Cancer Profiles	

Benchmark data

Trending data was utilized throughout the report when available. State and national risk factor data was utilized as an additional benchmark against which to compare local survey findings. Source data included Behavioral Risk Factor Surveillance System (BRFSS) and Trend Data published by the CDC. State and national level vital statistics were also provided for comparison of secondary data indicators. Healthy People 2020 – a nationally recognized and evidence-based program – was also utilized as a significant source of benchmark data.

Qualitative data analysis: Community stakeholder input

Qualitative data input includes primary research gathered through an online key informant survey of various community stakeholders.

Online key informant survey

To solicit input from key informants – individuals who have a broad interest in the health of the community – an online key informant survey was included in the assessment process. A list of recommended participants was provided by NMDH, which included names and contact information of physicians, public health representatives, other health professionals, social service providers and a variety of other community leaders. Potential participants were chosen because of their ability to identify primary concerns of the populations with whom they work as well as the overall community.

Key informants were contacted by email, introducing the purpose of the survey and providing a link to take the online survey. Reminder emails were sent as needed to increase participation. In all, 157 community stakeholders took part in the online key informant survey, including representatives of the following organizations:

- | | |
|---|---|
| Advocate Sherman Hospital | Geneva Park District |
| Agency on Aging Northeastern Illinois | Greater Elgin Family Care Center |
| Association for Individual Development | Herget Middle School |
| Batavia Interfaith Food Pantry and Clothes Closet | Hesed House |
| Batavia United Way | Highland Avenue Church of the Brethren |
| Benedictine University | Hope for Tomorrow, Inc. |
| Blackberry Township | INC Board NFP |
| Batavia Public School District #101 | Kane County Board |
| CASA Kane County | Kane County Development and Community Services Department |
| Catholic Social Services (Catholic Charities) | Kane County Division of Transportation |
| Centro de Informacion | Kane County Farm Bureau |
| City of Aurora | Kane County Health Department |
| Community Contacts, Inc. | Kane County Medical Society |
| Community Foundation of the Fox River Valley | Kane County Regional Office of Education |
| Conley Outreach Community Services | Kane County Sheriff's Office |
| DayOnePACT | Kaneland Community School District #302 |
| Elderday Center, Inc. | Lao-American Organization of Elgin |
| Elgin Area Chamber of Commerce | Lazarus House |
| Elgin Partnership for Early Learning | Lutheran Social Services (Elgin) |
| Environmental Protection Agency | Marie Wilkinson Food Pantry |
| Family Service Association of Greater Elgin Area | Marklund Hyde Center |
| Fox Valley Special Recreation Association | Mutual Ground |
| Gail Borden Library | NAMI - Kane, DeKalb and Kendall Counties |
| Gateway Foundation | Northeastern Illinois Area Agency on Aging |

Open Door Clinic of Greater Elgin

PADS at Hesed House

PR Strategies and Communications / PMS Advertising, Inc.

Presence Mercy Medical Center (Aurora)

Presence St. Joseph Hospital (Elgin)

Rebuilding Together Aurora

Renz Addiction Counseling Center

Rush Copley Medical Center

St. Charles Park District

STC Underground Teen Center

Suicide Prevention Services

Salvation Army of Aurora

Tri City Family Services

Tri City Health Partnership

U-46 School District (Elgin)

University of Illinois Extension

Valley Industrial Association

Village of Algonquin

VNA Healthcare

Waubonsee Community College

Wayside Cross Ministries

Well Child Center

WellBatavia Initiative

West Aurora School District #129

YWCA Elgin

Through this process, input was gathered from several individuals whose organizations work with low-income, minority populations and other medically underserved populations. Key informants were asked to rate the degree to which various health issues are a problem in their own community. Follow-up questions asked for a description of how these issues may be better addressed.

Minority/medically underserved populations that were represented within the key informant survey included:

- African Americans
- Asians
- Behavioral health patients
- Cancer patients
- Children
- Criminal justice offenders
- People with physical disabilities
- Elderly
- Hispanic
- Homebound people
- Homeless people
- Immigrants/refugees
- People with intellectual/developmental disabilities
- Laotians
- LGBTQ persons
- Persons with limited education
- Low-income people
- Marginalized people
- Medicaid/Medicare recipients
- Mentally ill people
- Non-English-speaking people

Determination of significance

Differences noted in this report represent those determined to be significant. Statistical significance is determined based on confidence intervals (at the 95 percent confidence level) using question-specific samples and response rates. For purposes of this assessment, “significance” of secondary data indicators is determined by a 5 percent variation from the comparative measure.

Information gaps

While this NMDH 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. It must be recognized that these information gaps might in some ways limit the ability to assess all of the community’s health needs.

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

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

Public dissemination

This NMDH CHNA is available to the public and can be accessed through the following channels:

View, download and/or print the document without special computer hardware or software (other than software that is available to members of the public at no cost) without fee at nm.org/about-us/community-initiatives/community-health-needs-assessment

View a hard copy of the CHNA at NMDH without fee upon request.

Public comment

NMDH made its prior CHNA report publicly available in August 2016 through its website; through that mechanism the hospital requested from the public written comments and feedback regarding the CHNA and implementation strategy. At the time of this writing, NMDH had not received any written comments. However, through population surveys and key informant feedback, input from the broader community was considered and taken into account for this assessment when identifying and prioritizing the significant health needs of the community. NMDH will continue to use its website as a tool to solicit public comments and ensure that these comments are considered in the development of future CHNAs.

Key Findings and Opportunities: Quantitative Data

Community description

Kane County is the fifth-largest county in Illinois and is located 40 miles west of Chicago. It occupies 520 square miles of land and is home to NMDH's primary service area and much of its secondary service area. The population in 2016 was 526,615, with a population density of about 1,012 – up from 776.5 people per square mile in 2010 – according to the U.S. Census Bureau.

Demographics

Kane County is the seventh-youngest county in Illinois and is notable for its age distribution. From 1990 to 2010, the population increased by 60 percent and the age distribution shifted rapidly. The median age, as noted in our previous CHNA, was 34.5 years as compared to the 2015 current Census Bureau average of 36.7 years. Those ages 18 to 24 make up 61.1 percent of the population; 27.1 percent are age 0 to 17, and 11.7 percent are age 65 or older. This is relatively consistent with state and national data.

Race and ethnicity

In 2016 the population breakdown by race was estimated to be 72.5 percent Caucasian, 5.6 percent African-American, and 2.2 percent other races. The percentage of the population in Kane County that is Hispanic is 31.4. While this finding has not changed significantly since our previous CHNA, when compared to Illinois, the proportion of Hispanics in Kane County remains almost double that of the state and national distribution.

Social determinants of health

Health starts in our homes, schools, workplaces, neighborhoods and communities. We know that taking care of ourselves (including eating well, staying active, not smoking and making regular visits to the doctor) influences our health. Our health is also determined in part by access to social and economic opportunities, community resources, quality education, workplace safety, environmental factors and our relationships. The conditions in which we live explain, in part, why some Americans are healthier than others.

Poverty

The U.S. Census Bureau American Community Survey 5-Year Estimates (2012 to 2016) show 11.0 percent of the Kane County population living below 100 percent of the Federal Poverty Level as compared to 14 percent statewide and 15 percent across the country.

The U.S. Census Bureau estimates that 27.4 percent of residents (142,413 individuals) live below 200 percent of the Federal Poverty Level as compared to 30.9 percent statewide and 33.6 percent across the country.

Education and employment

Among the Kane County population age 25 and older, an estimated 16.9 percent (56,865 people) do not have a high school education, which was a less favorable number than state (11.7 percent) and national (13.0 percent) findings.

According to data derived from the Illinois Department of Employment Security, the unemployment rate in Kane County was 3.8 percent in April 2018, trending more favorably than both the state and national unemployment rates.

General health status

- A total of 65.8 percent of NMDH service area adults rated their overall health as “excellent” or “very good.”
- Another 7.0 percent described their overall health status as “fair” to “poor.” This was a 2 percent decrease in the number of individuals articulating “fair or poor” health from the 2015 NMDH CHNA and significantly lower than state (18.0 percent) and national (18.1 percent) reports. Almost twice as many women (9.0 percent) reported experiencing “fair or poor” health as men (4.8 percent).
- The remaining 27.2 percent rated their health as “good.”
- A total of 21.4 percent of individuals surveyed in the NMDH service area reported three or more days of poor health in the last month, trending upward from 18.3 percent in the 2015 CHNA.

Mental health status

- A total of 62.6 percent of residents reported their mental health as “excellent” or “very good,” with 23.6 percent reporting “good” and 13.8 percent reporting “fair” or “poor.”
- Additionally, 25.8 percent of respondents in the NMDH service area reported three or more days of poor mental health in the past month as compared to 14.7 percent in 2015.
- A total of 22.5 percent of adults reported being diagnosed with a depressive disorder (an increase from 8.3 percent in the 2015 CHNA).
- A total of 31.9 percent of respondents reported three or more days of feeling sad, blue or depressed in the past month as compared to 16.0 percent in 2015. Of those reporting, 62.9 percent were between 18 and 39 years of age.
- Between 2014 and 2016, the annual average age-adjusted suicide rate was 8.5 deaths per 100,000 population in Kane County (essentially unchanged from 2013 - 2015 data).
- Among respondents with children age 2 to 17 years within the NMDH service area, 21.5 percent rated their child’s mental health as “poor or fair” as compared to 7.3 percent in 2015.
- A total of 39.3 percent of respondents reported ever having sought help for a mental or emotional problem as compared to 30.8 percent nationally.

- A total of 19.3 percent of respondents reported either currently taking medication or receiving mental health treatment as compared to 13.9 percent nationally.
- Lack of access to mental health care within the past 12 months was reported by 21.0 percent of individuals 18 to 39 years of age.
- A total of 65.0 percent of survey respondents acknowledged awareness of local mental health resources.
- A total of 61.0 percent of key informants identified mental health as a major problem in the community, citing reasons such as:
 - Lack of access
 - Lack of availability
 - Lack of affordability
 - Insufficient funding
 - Number of psychiatrists in Kane County
 - Significant prevalence of anxiety and depression
 - Ongoing treatment and insufficient capacity

Morbidity and mortality

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.

Healthy People 2020 (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, deaths from cardiovascular disease are preventable, especially if intervention is provided across the lifespan of the disease – from early education, prevention and screening to early diagnosis, prompt treatment and comprehensive aftercare. In planning responses to the priority needs of their communities, hospitals can positively impact the health burdens of all chronic diseases by addressing the disease across the continuum of its lifespan.

Together, cardiovascular disease (heart disease and stroke) accounted for 26.9 percent of all deaths in Kane County in 2016. A total of 4.9 percent of survey respondents acknowledged having been told by their healthcare provider that they either had heart disease or had a stroke.

A total of 31.3 percent of adults reported being told at some point that their blood pressure was high, exceeding the HP2020 target of 26.9 percent or lower. This finding represented a decrease from 34.9 percent in the 2015 assessment.

A total of 87.4 percent of adults with multiple high blood pressure readings reported taking action to control their levels.

A total of 32.0 percent of adults reported a diagnosis of high cholesterol. This represents an increase from 30.1 percent in our 2015 assessment and an HP2020 target of 13.5 percent or lower. A total of 85.8 percent reported taking action to help control their cholesterol levels.

Regarding total risk of cardiovascular disease, 82.3 percent of respondents reported having one or more risk factors, including being overweight, smoking cigarettes, being physically inactive, or having high blood pressure or high cholesterol levels.

A total of 77.7 percent of key informants rated heart disease and stroke as a moderate/major problem in the community.

Cancer

Continued advances in cancer research, detection and treatment have resulted in a decline in both incidence and death rates for all cancers. Yet cancer remains a leading cause of death within the NMDH service area, and 24.0 percent of key informants rated cancer a major problem in Kane County. Once again, intervention across the lifespan of the disease poses an opportunity for hospitals to focus on prevention through education, and early diagnosis and treatment through access to routine screenings.

Between 2014 and 2016, the annual average age-adjusted cancer mortality rate was 142.3 deaths per 100,000 residents in Kane County. The rate has decreased from the 2012 - 2014 rate of 152.5 per 100,000 residents.

Lung cancer remains the leading cause of cancer deaths in Kane County, followed by female breast cancer, prostate cancer and colorectal cancer.

When queried regarding screenings:

Among women age 50 to 74 years, 75.1 percent reported having had a mammogram in the past two years. This represented a decrease from 77.5 percent in 2015.

Among women age 21 to 65 years, 80.6 percent reported having had a Pap smear within the past three years. This represented an increase from 71.1 percent in 2015.

Among men age 40 and over, 56.4 percent reported having had a prostate-specific antigen (PSA) test in the past two years. This rate remained relatively unchanged from 56.1 percent in 2015.

Among adults age 50 to 75 years, 71.9 percent reported having a colorectal cancer screening. This represented an increase from 58.1 percent in 2015.

Pulmonary disease

Asthma and chronic obstructive pulmonary disease (COPD) are also significant public health burdens. Annual healthcare expenditures for asthma alone were estimated by HP2020 to be more than \$20 billion dollars.

In 2018, 7.3 percent of respondents reported suffering from COPD as compared to 9.1 percent in 2015.

Additionally, 7.7 percent of adult survey respondents suffer from asthma – up significantly from 3.9 percent in 2015.

Also, 5.4 percent of children within the NMDH service area were reported to have asthma. This represents a decrease from 8.7 percent in 2015.

A total of 55.6 percent of key informants rated respiratory disease as either a moderate or major problem in Kane County.

Diabetes

Diabetes is another disease that continues to increase in both incidence and prevalence in the U.S. Increasing numbers coupled with earlier onset of the disease pose a growing concern about the potential to overwhelm the existing healthcare system.

Between 2011 and 2013, the annual average age-adjusted diabetes mortality rate was 11.3 deaths per 100,000 residents in DuPage County, well below regional, state and national rates; age-adjusted mortality by race was highest among the Hispanic population. In 2015 the rate dropped to 10.9.

In 2018, 9.7 percent of respondents reported having been diagnosed with diabetes, and an additional 9.2 percent reported having "pre-diabetes." The prevalence of pre-diabetes has decreased from 10.4 percent in 2015.

Among individuals not having been diagnosed with diabetes, only 55.4 percent reported having had their blood sugar level tested within the past three years. This is a slight decrease from 57 percent in 2015.

Diabetes was identified as a major problem in DuPage County by 56 percent of respondents.

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. Poisoning (including accidental drug overdose), falls, motor vehicle accidents and suffocation accounted for the majority of accidental deaths in the hospital's service area in 2015.

Between 2014 and 2016, the annual average age-adjusted diabetes mortality rate was 18.0 deaths per 100,000 residents in Kane County, slightly below state and national rates.

In 2018, 9.5 percent of respondents reported having been diagnosed with diabetes, and an additional 5.3 percent reported having "pre-diabetes." The prevalence of diabetes has increased from 8.4 percent in 2015.

Among individuals not having been diagnosed with diabetes, only 53.4 percent reported having had their blood sugar level tested within the past three years. This is a decrease from 62 percent in 2015.

Diabetes was identified as a major problem in Kane County by 41.8 percent of key informants.

Infectious disease

Acute respiratory illnesses

A total of 73.3 percent of older adult respondents reported having received a flu vaccination in the past year. This was up significantly compared to 44.6 percent in 2015.

Additionally, 80.4 percent of older adult respondents reported ever having had a pneumonia vaccination. This was also up significantly from 63.7 percent in 2015.

Lack of immunizations and infectious disease were rated as moderate/major problems by 44.9 percent of key informants.

Human immunodeficiency virus (HIV)

Human immunodeficiency virus (HIV) continues to be a major public health crisis, with an estimated 1.1 million Americans affected; an additional 1 in 5 people with HIV do not know they have it. HIV continues to spread, leading to about 56,000 new cases annually in the U.S.

In 2013, the prevalence rate per 100,000 residents in Kane County was 131.2. This rate was significantly lower than the state rate of 322.9 and national rate of 353.2 per 100,000 residents.

A total of 17.8 percent of adults age 18 to 44 in the NMDH service area were tested for HIV in the past year as compared to 36.3 percent in 2015.

HIV was rated as a moderate problem by 33.6 percent of key informants.

Sexually transmitted diseases

In 2014, the chlamydia incidence rate in Kane County was 326.2 cases per 100,000 residents, and the gonorrhea incidence rate was 45.5 cases per 100,000 residents, both notably lower than regional, state and national rates.

STDs were rated as a moderate problem by 40.8 percent of key informants.

Births

- Between 2014 and 2016, 23.8 percent of all Kane County births occurred with no prenatal care during the first trimester as compared to the state level of 24.1 percent.
- A total of 7.0 percent of all births between 2014 and 2016 were low-birthweight.
- The average infant death rate during that same period was 5.5 infant deaths per 1,000 live births, which is lower than state and national rates.
- The birth rate for teen mothers in Kane County was reported at 5.7 percent from 2014 – 2016, almost identical to state and national data.
- Infant and child health was noted to be a major problem by 11.1 percent of key informants, while 44.4 percent reported it to be a moderate problem.

Factors contributing to premature death

The most prominent contributors to mortality in the U.S. in 2000 were tobacco, diet, activity patterns, alcohol, microbial agents, toxic agents, motor vehicles, firearms, sexual behavior and illicit use of drugs. Smoking remains the leading cause of mortality, although many researchers believe that poor diet and physical inactivity may soon overtake tobacco as the leading cause of death. These findings, coupled with escalating healthcare costs and an aging population, indicate an urgent need to establish a more preventive orientation in today's U.S. healthcare model.

At NMDH, we believe that this is a shared responsibility among public health systems and the hospitals and medical centers that provide care to populations within their respective service areas. Utilizing a collaborative, evidence-based approach to prevention, screening and chronic disease management will allow for an optimum impact in the reduction/elimination of many of the prominent contributors to mortality in U.S. healthcare systems.

Diet and nutrition

A total of 23.1 percent of survey respondents reported eating five or more servings of fruits and/or vegetables per day.

Among respondents with children age 2 to 17 years, 33.7 percent reported their children consumed five or more servings of fruits and/or vegetables per day. This was a significant downward trend from 59.5 percent in 2015.

Additionally, 11.1 percent of respondents reported little or no difficulty accessing fresh produce.

U.S. Department of Agriculture 2015 data reported that 21.0 percent (108,260 individuals) had low food access or live in a "food desert," meaning that they did not live near a supermarket or large grocery store.

Physical activity

A total of 21.1 percent of respondents in the NMDH service area reported no leisure-time physical activity in the past month; this trend was less favorable than regional, state and national findings.

Additionally, a total of 30.2 percent of respondents participate in regular, sustained, moderate or vigorous physical activity.

Among service area children age 2 to 17 years, 28.6 percent were reported to have had 60 minutes of physical activity on each of the seven days preceding the interview. These results were significantly lower than the 2015 rate of 36.3 percent.

A total of 19.9 percent of service area children age 2 to 17 years were reported to have three or more hours of screen time on a typical day. This was an increase from 13.1 percent in 2015.

Overweight/obesity

Based on self-reported heights and weights, 66.3 percent of survey respondents were overweight (BMI of 25 or higher), and 29.2 percent of the total population was obese (BMI of 30 or higher). Current reports demonstrate an increase from 63.5 percent overweight and 23.0 percent obese in 2015 data.

Based on heights and weights reported by surveyed parents, 12.3 percent of children age 5 to 17 years were overweight or obese (> 85th percentile). This finding indicated a decrease from 15.3 percent in 2015.

Further, 10.0 percent of these children were obese (> 95th percentile); an increase from 9.2 percent in 2015.

Nutrition, physical activity and weight were perceived as major problems by 40.7 percent of key respondents, who cited reasons including education, access to affordable healthy foods, school lunch menus and less opportunity for physical activity.

Substance abuse

Age-adjusted deaths from cirrhosis/liver disease rose from 8.9 deaths per 100,000 population in 2015 to 9.5 deaths in 2016, exceeding state rates.

Age-adjusted drug-induced deaths remained lower than state and national rates.

A total of 28.1 percent of respondents reported excessive drinking. This was higher than the national rate of 22.5 percent.

A total of 4.0 percent of respondents acknowledged driving after having consumed too much alcohol in the last month – up from 1.4 percent in 2015.

Illicit drug use in the past month was acknowledged by a total of 3.7 percent of survey respondents. While this exceeded the U.S. rate (2.5 percent), it also reflected an increase from 0.7 percent in the 2015 survey.

A total of 4.0 percent of respondents acknowledged seeking professional help for a drug- or alcohol-related problem, up from 2.8 percent in 2015.

Substance abuse was characterized as a “major” problem in the community by 44.7 percent of key informants. Education, denial/stigma, cost/insurance and access to affordable care were cited as barriers to treatment, and ease of access to opiates noted as a contributing factor.

Key informants who rated substance abuse as a “major” problem most often identified alcohol, cocaine, heroin/opioids, prescription medications and marijuana as the most problematic substances in the community.

Tobacco use

A total of 8.2 percent of NMDH service area adults currently smoke cigarettes, representing a decrease from 13.2 percent in 2015.

Among households with children, 4.0 percent have someone who smokes cigarettes in the home.

Additionally, 13.9 percent of service area adults use some type of smokeless/vaping products, representing an increase from 8.6 percent in 2015.

A total of 33.5 percent of respondents were aware of the Illinois Tobacco Quit-Line program.

Tobacco use was identified as a moderate problem by 47.1 percent of key informants, while an additional 11.0 percent identified it as a major problem, citing concerns such as lack of education, peer pressure and high-stress environments.

Access to care

Access to health services has a profound effect on every aspect of a person’s health, yet almost one in four Americans¹ does not have a primary care provider (PCP) or health center where he or she can receive regular medical services. Increasing access to routine medical care and medical insurance is vital for improving the health of all Americans. Regular and reliable access to health services can:

- | | |
|---|--|
| Prevent disease and disability | Increase quality of life |
| Detect and treat illnesses or other health conditions | Reduce the likelihood of premature (early) death |
| | Increase life expectancy ² |

Insurance

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

¹Healthy People 2020

²Healthy People 2020, Leading Health Indicators

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 expenses.

A total of 3.7 percent of survey respondents age 18 to 64 reported having no insurance coverage for healthcare expenses. This is down from 6.3 percent in 2015 and is notably lower than state (10.7 percent) and national (13.7 percent) reports.

Barriers to access

A total of 38.3 percent of service area respondents reported some type of difficulty or delay in obtaining services in the past year. These findings were similar to both regional and national findings. Notable barriers to healthcare access included:

- | | |
|---|-----------------------------|
| Inconvenient office hours | Cost of prescriptions |
| Difficulty obtaining a provider appointment | Difficulty finding a doctor |
| Cost of a doctor visit | Lack of transportation |

Difficulty obtaining medical care for children in the past year was reported by 5.3 percent of respondents, as compared to 5.1 percent in 2015.

Access to healthcare services was identified as a moderate/major problem in the community by 55.2 percent of respondents, who noted the following concerns:

- Barriers to care for refugee and immigrant populations, including access to care, transportation, language barriers and difficulty navigating the system
- Growing minority population affected by income, lack of education and multiple other disparities
- Personal finances
- Lack of providers who accept all Medicaid plans
- Transportation for seniors

Key informants identified the types of medical care most difficult to access:

- | | |
|----------------|---------------------------|
| Mental health | Chronic disease care |
| Specialty care | Substance abuse treatment |

Access to primary care

Despite the collaborative efforts of NMDH, the Kane County Health Department and multiple health/human service organizations, service area residents have less access to PCPs than throughout the state or nation. Kane County reports 44.8 PCPs per 100,000 population as compared to between 80 and 95 PCPs at the state and national level.

A specific source of primary care was acknowledged by 83.5 percent of survey respondents.

A total of 71.7 percent have visited their healthcare provider for a checkup in the past year, up from 67.0 percent in 2015.

A total of 95.7 percent of respondents' children have visited a PCP for a routine checkup in the past year, up from 82 percent in 2015.

Use of the emergency room more than once in the past year was acknowledged by 2.7 percent of survey respondents for the following reasons:

Emergency situations (52.1 percent)

Lack of a PCP (12.3 percent)

Weekend/after-hours situations (30.8 percent)

Specialty care

A total of 56.7 percent of respondents reported the need to see a specialist within the past year – an increase from 52.1 percent in 2015. Those individuals noted obtaining specialty care was:

A major problem (8.6 percent)

A minor problem (12.5 percent)

A moderate problem (8.2 percent)

No problem at all (70.7 percent)

Dental care

A total of 81.8 percent of survey respondents acknowledged a source of dental care, exceeding state (65.5 percent), national (59.7 percent) and HP2020 targets (49 percent or higher).

Additionally, 76.3 percent of respondents had insurance coverage for all or part of dental care costs, an increase from 66.1 percent in 2015.

Among key informants, 16.7 percent identified oral health as a major problem and 44.7 percent noted it as a moderate problem. Concerns noted by key informants included:

Access to dental care by refugee population

Inadequate number of dentists who accept Medicaid reimbursement)

Lack of access

Vision care

A total of 67.2 percent of respondents acknowledged having a dilated eye exam within the past two years.

Summary of key informant perceptions

As noted throughout this report, key informants were asked to rate the degree to which each of the health issues were perceived to be a problem in the community.

The following top concerns were identified:

Mental health

Nutrition, physical activity and weight

Substance abuse

Chronic diseases (cancer, heart disease, diabetes)

Access to healthcare services

Additional sources of input and key partnerships

In 2018, the Kane County Health Department completed a comprehensive community health assessment (CHA) using the Mobilizing for Action through Planning and Partnerships (MAPP) process. Historically, the health department has conducted a similar assessment every five years as part of the Illinois local health department certification process and to understand the priority needs of the community. The local hospital partners conveyed their interest in partnering on all aspects of assessment and planning but were concerned about the differences in timeline, as non-profit hospitals are required to conduct a similar assessment and planning process every three years under the Affordable Care Act (ACA). Upon further partnership discussion, the health department decided to move to a three-year cycle for assessment and planning to better collaborate with the area non-profit hospitals. While still using the MAPP process, the health department and its community partners (collectively known as “Kane Health Counts”) decided to modify the MAPP process every other cycle to be more efficient with resources. Last cycle, the full assessment process was implemented with the four different assessment methods described below:

- The Community Health Status Assessment (CHSA) provides quantitative information on community health conditions.
- The Community Themes and Strengths Assessment (CTSA) identifies assets in the community and issues that are important to community members.
- The Local Public Health System Assessment (LPHSA) measures how well different local public health system partners work together to deliver the Essential Public Health Services.
- The Forces of Change Assessment (FOCA) identifies forces that may affect a community and the opportunities and threats associated with those forces.

During the current cycle, Kane Health Counts will 1) update the community asset inventory; 2) update the CHSA to include community input on behavioral risk factor data collected through a random sample phone survey; and 3) conduct the FOCA. The FOCA was released in April 2018, and an overview and summary of findings are provided below..

FOCA overview

The FOCA identifies forces – such as trends, factors or events – that may influence the health and quality of life of the community, and the effectiveness of the local public health system. Forces are identified across a diverse set of categories, and may be current or anticipated for the future.

- **Trends** are patterns over time, such as migration in and out of a community, or a growing disillusionment with government.
- **Factors** are discrete elements, such as a community’s large ethnic population, an urban setting, or the jurisdiction’s proximity to a particular community resource.
- **Events** are one-time occurrences, such as a hospital closure, a natural disaster or the passage of new legislation.

During the FOCA, participants answered 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?

Assessment methodology

On April 3, 2018, the Kane Health Counts Executive Committee convened a half-day retreat to conduct the FOCA with community leaders and key stakeholders. A neutral facilitator from the Illinois Public Health Institute (IPHI) guided participants through the exercise. The facilitator provided a brief overview of the MAPP process, and honed in on the definitions and components of the FOCA process. The facilitator introduced the following eight categories as the framework for the assessment:

Social	Environmental
Economic	Medical/Scientific
Political	Legal/Ethical
Technological	Religion/Spirituality

Groups of five to six individuals were assigned a category and discussed potential forces. For each force of change, participants were asked to identify potential threats posed to the Local Public Health System (LPHS) or community; potential opportunities created for the LPHS or community; and any questions or information needed.

Interpreting and prioritizing health needs

External Steering Committee

Following completion of the CHNA, NMDH leadership convened the External Steering Committee (ESC) to review the findings. This multidisciplinary committee was made up of key stakeholders who were selected based on strong collaborative efforts to improve the health of the community, including the medically underserved, minority and low-income populations. The varied backgrounds of the committee members provided diverse insight into prioritizing identified health indicators.

Prioritization process

A planned and structured process was used to facilitate prioritization of the identified health needs. Tools and data utilized in the process included the CHNA data, IPLAN data, an organizational asset inventory and alignment with guiding principles for response to community need. Organizational guiding principles included:

Importance of the problem to the community

- Is there a demonstrated community need?
- Will action impact vulnerable populations?
- Does the identified health need impact other community issues?

Availability of tested approaches or existing resources to address the issues

- Can actionable goals be defined to address the health need?
- Does the defined solution have specific and measurable goals that are achievable in a reasonable timeframe?
- Is there an opportunity for collective impact?
- Can the need be addressed in collaboration with community or campus partners to achieve significant, long-term outcomes?
- Are organizations already addressing the health issue?

Applicability of NMDH as a change agent (such as acting as a partner, researcher or educator, or in a position to share knowledge or funding)

- Does NMDH have the research or education expertise/resources that address the identified health need?
- Does NMDH have clinical services or other expertise/resources that address the identified health need?

Estimated resources, timeframe and size of impacted population

NMDH developed a survey tool to formally solicit input from ESC members and identify their organizations' priority health needs (defined as health needs that could be impacted the most by the work of NMDH and partner organizations participating on the ESC). NMDH leaders and ESC members were asked to identify top priorities from among the areas of opportunity identified by PRC using the following prioritization criteria:

Magnitude: How many people in the community are/will be impacted?

Seriousness and impact: How does the identified need impact health and quality of life?

Feasibility: What capacity/assets currently exist to address the need?

Consequences of inaction: What impact would inaction have on the population health of the community?

Trend: How has the need been changing over time?

The survey results were compiled and shared with the ESC. Together with the committee, the highest-priority health needs were determined, taking into account the findings of the CHNA, the survey findings, and discussion around the guiding principles and prioritization criteria.

Attention was also focused on assessment of internal and external capabilities. An asset analysis included a review of current initiatives and exploration of ways to better coordinate efforts. The potential for duplicative efforts and existing gaps were identified.

An identified need is not addressed if NMDH is not best positioned to help due to the following situations:

NMDH has limited expertise, services or resources in the identified area of need

Public health or other organizations typically address the need

Other organizations have infrastructure and plans already in place to better meet the need

Broader initiatives in the Implementation Plan will address or significantly impact the need

Prioritization timeline

An email invitation to join the ESC was extended to prospective members. The focus of the initial email was to provide committee members with an introduction to the 2016 CHNA and request members to consider the following issues in anticipation of an upcoming conference call:

Does the CHNA accurately reflect issues in the community?

Are there community health needs missing from the assessment that should be considered in the prioritization process?

Do the issues identified seem modifiable (are there ways these needs can be addressed)?

Any other additional thoughts or feedback?

Two telephone conferences were conducted as follow-up to the email.

The goal of the first facilitated call was to gather external input around the CHNA findings. Content covered in the first teleconference included:

- | | |
|--|--|
| CHNA background (goals and requirements) | Community partner's role |
| Reporting process, timelines, goals and deliverables | Introduction to the 2016 CHNA findings |
| Solicitation of committee feedback | |

The goal of the second facilitated call was to discuss the areas of opportunity identified through the CHNA and prioritize the health needs. Content covered in the second teleconference included:

- Introduction to the NMDH prioritization process
 - Discussion to reach consensus on priority health needs of the NMDH service area
 - Status report on what NMDH and partners have accomplished in the last three years
 - Visioning for the next three years
-

Priority health needs

Americans are living longer, but they are sicker. While we are experiencing consistent increases in life expectancy, our longer lives are burdened with increasing chronic illnesses. Sedentary behavior and preventable chronic disease are compromising our community's health. More than one-quarter of the population is obese, and diabetes is at epidemic levels.

Hand-in-hand with a decreasing quality of life is an astounding increase in the economic impact of managing these diseases. The Robert Wood Johnson Foundation estimates that by the year 2030, annual medical costs associated with treating preventable obesity-related diseases are estimated to increase to \$66 billion, with a resultant loss in economic productivity of between \$390 and \$580 billion annually.

A 2012 CNN documentary entitled *Escape Fire* drives home the stark reality that we can no longer afford to focus on acute care as the center of health care, but must also focus on prevention, education, chronic disease management and case coordination to maximize the health of our nation's most valuable asset: our people. As healthcare providers, we must continue to challenge ourselves to provide high-quality, state-of-the-art health care to our community. As experts and leaders in the healthcare industry, we must also look outside our doors and reach out to the communities we serve, striving to enhance the quality of life by engaging in evidence-based activities that will promote health across the lifespan.

To that end, NMDH has identified three priority health needs that will enable us and our community partners to maximize the health benefits generated by our collective resources over the next few years. In selecting these priorities, we considered the degree of community health need, capacity and available resources of other agencies to meet the need, and the suitability of our own expertise and resources to address the need. In particular, we identified health needs that would be addressed through a coordinated response from a range of healthcare and community resources. We believe these health needs will be impacted through the integrated efforts of our organization and our community partners.

Through this process, the 2018 NMDH priority health needs were identified as follows:

1. Access to healthcare services
2. Chronic disease
3. Mental health/substance abuse

Development of Implementation Plan

NMDH will continue to work with the ESC to develop a comprehensive Community Health Implementation Plan (CHIP) that addresses each priority health need. NMDH and its community health partners share a vision of a healthy community and are committed to working together to address significant health needs.

Through its affiliation with Northwestern Memorial HealthCare, NMDH and its sister organizations within Northwestern Medicine can support efforts to positively change the health status of our community by taking on a number of 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 NMDH 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 NMDH and its community partner organizations
- Established, replicable, community-based clinical and health promotion programs addressing both highly prevalent and targeted chronic health conditions

Research and education expertise among Northwestern University Feinberg School of Medicine physicians

Financial assistance programs at NMDH

Policies and procedures that broaden and simplify access to health care for the uninsured or underinsured

Advocacy resources at NMDH and its community partner organizations

Planning and oversight resources

Management expertise in quality improvement and information technology

Existing healthcare facilities and resources

NMDH also recognizes that a large number of healthcare facilities and organizations within Kane County respond to health needs and support health improvement efforts. A list of those organizations that were found through publicly available information sources as of January 2018 is included in the PRC report and available upon request.

Actions taken to address the 2017 CHNA priority health needs

Introduction

An aging population, coupled with a rise in the incidence of chronic disease, challenges all U.S. healthcare providers to think outside of the box when it comes to the future of health care. Maintaining awareness of a community's health needs is imperative in an environment as dynamic and diverse as Chicago's western suburbs, especially when it involves planning and responding to the needs of demographically diverse populations.

The successful implementation of any community benefit strategy requires a comprehensive assessment of need coupled with knowledge of key community stakeholders and existing health collaboratives. No single institution can comprehensively address all of the health needs of a community, nor can it work independently of other key community stakeholders and existing outside initiatives.

A quality CHNA and its ensuing CHIP must consider the strengths and expertise of its organization, in addition to its ability to mobilize effective partnerships, which will result in the maximized use of every dollar expended to address unmet community need.

In 2016, NMDH identified three priority health needs in response to the CHNA. In selecting priorities, NMDH 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 were:

1. Access to healthcare services
 2. Chronic disease
 3. Mental health and substance abuse
-

NMDH and key community partners collaborated to address the above priority health needs. This status report summarizes the impact of the strategies outlined in NMDH's 2016 CHIP and the Community Health Implementation Plan Report (CHIP-R). For a more comprehensive discussion of the strategies and related outcomes/impact, please refer to NMDH's 2017 CHIP-R.

Summary of outcomes of strategies implemented as part of the CHIP

I. Access to healthcare services

In conjunction with national and local benchmarks, the following goals were established in response to the problem of limited access to care:

NMDH will continue to support efforts to increase access to care by providing leadership, investing resources and working collaboratively with other community organizations throughout the county.

NMDH will support the maintenance and expansion of an efficient and effective continuum of care offering medical homes (including primary and specialty care); pharmaceuticals; and inpatient, outpatient and emergent care to uninsured adult residents of Kane County.

NMDH will offer a comprehensive financial assistance program to patients who are unable to afford the cost of necessary medical care.

NMDH will also seek to engage and maintain a multicultural workforce of primary care practitioners, specialists, mid-level practitioners, registered professional nurses and other medical professionals committed to working in an evidence-based practice setting.

NMDH strategies to address access to health care

NMDH will ensure financial assistance policies are easily accessible, respectful and in compliance with all regulatory requirements.

NMDH will continue to provide medically necessary inpatient and outpatient hospital services to uninsured and underinsured patients.

NMDH will provide assistance with application for government-sponsored healthcare programs.

NMDH will collaborate with community partners to ensure a comprehensive continuum of care.

NMDH will provide an operational grant to Tri City Health Partnership (TCHP) to support their coordination of care for patients without insurance.

NMDH will continue to provide free inpatient and outpatient care to TCHP patients in accordance with presumptive eligibility and existing NMDH financial assistance policies.

NMDH will provide continued support to TCHP by assuming costs related to laboratory and other hospital services to presumptively eligible patients.

NMDH will serve as a training center for nursing and allied health professionals to ensure the continuation of a diverse, culturally sensitive and highly skilled workforce.

NMDH will utilize trained, professional healthcare interpreters in an effort to reduce barriers to care, promote access and ensure high-quality, culturally competent care.

NMDH will provide office space and support to the Senior Health Insurance Program, which provides Medicare counseling and support to seniors.

NMDH will work collaboratively with local federally qualified healthcare centers (FQHCs) to promote a seamless continuum of care to underserved individuals.

NMDH will offer vaccine clinics that are accessible to uninsured and underinsured families who do not have access to vaccines under the State of Illinois Vaccines for Children Program.

Key outcomes/metrics:

All financial assistance policies were reviewed annually.

More than 18,000 individuals received financial assistance at Northwestern Medicine Central DuPage Hospital (NMCDH) and Northwestern Medicine Delnor Hospital (NMDH).

A total of \$80,689,729.34 was rendered in financial assistance to uninsured and underinsured individuals (NMCDH/NMDH).

Five hundred and one Medicaid applications were processed through HJQ financial services.

NMDH leadership and staff participated in various community task forces to further the development of the health and human services safety net.

Ninety-nine individuals accessed Tri City Health Partnership (TCHP) – a free clinic supported by NMDH.

NMDH provided \$42,502 of free inpatient care to TCHP clients.

NMDH provided \$125,545 of free care to TCHP clients for outpatient and other services.

A total of 69,421 hours were committed to nursing and allied health professions training (NMDH/NMCDH).

Trained professional healthcare interpreters were utilized in 23,144 patient encounters (NMDH/NMCDH).

Support and assistance from the Senior Health Insurance Program were provided to 156 seniors (NMDH/NMCDH).

A formal agreement was executed in December 2016 with VNA Healthcare. Workgroups are currently developing a process for referring patients, and the program is set to launch in FY18.

A total of 49 vaccine clinics were offered this FY.

II. Chronic disease

In conjunction with national and local benchmarks, the following goals were established in response to the growing incidence and prevalence of chronic disease by addressing chronic disease and its contributing factors across its lifespan:

NMDH will continue to provide community education related to chronic disease in the areas of evidence-based primary interventions (disease prevention, health promotion).

NMDH will offer evidence-based secondary interventions (screenings).

NMDH will offer evidence-based tertiary interventions (programs targeting individuals affected with a chronic disease in an effort to promote an optimum state of wellness).

NMDH will also continue to bring leading-edge, acute chronic disease and chronic disease management care to all individuals, regardless of ability to pay.

NMDH strategies to impact chronic disease across its lifespan:

NMDH will host/offer evidence-based community health and wellness programming in the areas of cardiovascular disease, peripheral vascular disease and diabetes.

NMDH will host/offer evidence-based community health and wellness programming in the areas of cancer, including, but not limited to, the topics of breast and colon cancer, brain tumors, proton therapy, yoga for patients with cancer, palliative care, and hospice.

NMDH will host/offer evidence-based community health and wellness programming in various other areas related to chronic disease including, but not limited to, obesity, injury prevention, arthritis, maternal and child health, joint replacement, fall prevention, chronic lung disease, epilepsy and Parkinson's disease.

NMDH will offer a community-based heart failure (HF) program to all patients with an active diagnosis of HF who have not been referred for or are not receiving other nursing services.

NMDH will offer small community benefit grants targeted to enhance/promote health and minimize chronic disease and obesity.

- Making Kane County Fit for Kids (Grant amount: \$10,700)
- Northern Illinois Food Bank: Diabetes Prevention Education (Grant amount: \$15,210)

NMDH will work with local schools to implement the Coordinated Approach to Child Health (CATCH) program. Emphasis will be on parents and children attending the 4-year-old program and all preschool program teachers.

NMDH will provide “Kits for Kids,” an educational program that may be utilized by parents, teachers, Scout leaders and other individuals to assist children in learning about hand-washing, bicycle safety and nutrition.

NMDH staff will continue efforts to promote referral patterns of physicians and ancillary staff to smoking cessation resources.

NMDH will offer the nationally recognized Think First Injury Prevention Program.

Key outcomes/metrics:

Five educational seminars were offered regarding cardiovascular health, which drew a total of 809 attendees (NMDH/NMCDH combined data).

Meeting space was provided at no charge for 20 support groups-(NMDH/NMCDH).

Four educational seminars were offered regarding cancer, which drew a total of 370 attendees (NMDH/NMCDH).

Eleven additional educational seminars were offered, which drew a total of 1,326 attendees (NMDH/NMCDH).

Rehabilitation Services offered 15 community programs, which drew a total of 375 attendees (NMDH/NMCDH).

Diabetes Education Services offered nine community programs, which drew a total of 90 attendees (NMDH/NMCDH).

The Community-Based Heart Failure Program enrolled 340 individuals (NMDH/NMCDH). Results of the program:

- Thirty-day readmission rate for clients with an HF diagnosis was 1 percent, markedly below the national rate.
- A total of 97 percent of clients demonstrated the ability to identify appropriate action in the event of a worsening of their condition.

- A total of 98 percent of clients utilized an effective medication management system.
- A total of 82 percent of clients demonstrated compliance with symptom tracking.

Wasco Elementary was a pilot program for a Fit for Kids Healthy School program, which engaged 373 students.

Bell-Graham Elementary launched a new heart monitor program in PE classes that impacted 407 students.

Kane County Planning Cooperative partnered with Kane County Juvenile Justice Center to introduce a garden and healthy eating program at the facility.

Mid-Valley Special Education Cooperative updated its playground to include additional equipment for its 38 students.

On 2017 National Walk to School Day:

- A total of 82 elementary and middle schools from 21 towns participated.
- Twenty thousand students walked, biked or participated in Walk to School Day activities.
- Kane County had the highest participation in Illinois.

A total of 111 individuals participated in Northern Illinois Food Bank Diabetes Prevention Education programs.

The CATCH Program reached more than 1,500 students and teachers (NMDH/NMCDH). As a result:

- A total of 91 percent of children were able to verbalize six out of eight GO foods, and were able to recognize the importance of consuming GO foods daily.
- Every participating school/program adjusted its snack lists to include healthy (GO) foods.
- Twenty minutes of moderate physical activity were organized by 98 percent of teachers.
- A total of 95 percent of teachers continued to reinforce the GO-WHOA healthy food message in the classroom.

A total of 433 Kits for Kids were distributed to reinforce education around hand-washing, bicycle safety and healthy nutrition (NMDH/NMCDH).

The Think First Curriculum was offered to 24,591 children from kindergarten through high school, and 7,168 individuals participated in Think First community events (NMDH/NMCDH). As a result:

- A total of 5,627 children were fitted for and received bike helmets (NMDH/NMCDH).
- Child safety classes were attended by 61 couples (NMDH/NMCDH).
- A total of 519 car seats were checked/distributed (NMDH/NMCDH).

III. Mental Health and Substance Abuse

In conjunction with national and local benchmarks, the following goals were established in response to the priority need Mental Health and Substance Abuse:

NMDH will provide leadership, invest resources and work collaboratively with community partners in a countywide mental health/substance abuse coalition.

The purpose of the coalition will be to study the issues and needs, and develop planned responses that will ultimately improve the quantity, quality and continuity of mental health services available in the county.

NMDH strategies to impact mental health/substance abuse:

NMDH will provide in-kind leadership and support to the implementation of the Mental Health Council that has been developed by the Kane County Health Department.

NMDH will offer evidence-based wellness programs in the areas of mental health and substance abuse via programmatic venues including but not limited to Dinner with the Doc series, clinician-led educational offerings, self-help groups, rehabilitation services programs, support groups and professional development.

NMDH will offer community benefit grants targeted to address mental health needs in the NMDH service area:

NMDH will offer evidence-based wellness programs in the areas of mental health and substance abuse via programmatic venues including but not limited to the Dinner with the Doc series, clinician-led educational offerings, self-help groups, Rehabilitation Services programs, support groups and professional development.

NMDH will offer community benefit grants targeted to address mental health needs in the NMCDH service area:

- Tri City Family Services (Grant amount: \$10,000)
- Ecker Center (Grant amount: \$10,000)
- Samaritan Interfaith: Mental Health Access Program (Grant amount: \$9,150) (NMDH/NMCDH)
- World Relief: Refugee Wellness Program (Grant amount: \$6,000) (NMDH/NMCDH)

NMDH will implement the National Council for Behavioral Health's Mental Health First Aid (MHFA) Program and offer programming to members of the community (NMDH/NMCDH).

Key outcomes/metrics:

Leadership staff member Allison Johnson participated in the Mental Health Council. The Council focused on creating a provider network and assessment of resources in the community.

NMDH/NMCDH Behavioral Health Services hosted four evidence-based wellness events:

- CCPC Conference
- Congressional Forum on Opiates
- Kaneland High School Compassion Fatigue Presentation
- Clare Woods Academy: Job Stress and Burnout

Office space was provided at no charge for 12-step programs offered Sundays through Saturdays (NMDH/NMCDH).

- A total of 1,530 hours of room usage was recorded.
- Attendees throughout the year numbered 29,016.

TriCity Family Services grant outcomes:

- Progress in Behavior Towards Others was reported by 66.7 percent, indicating improvements in interpersonal relationships with others.
- Progress in Moods and Emotions was reported by 88.5 percent, indicating a reduction of anxiety and/or depression symptoms.
- Progress in Home/Family was reported by 88.3 percent, indicating improvements in family relationships and interactions.
- All participants reported progress in Thinking, indicating improved cognition relative to self and others.

Ecker Center grant outcomes:

- The baseline Medication Possession Ratio is 0.89; the ratio was consistently measured to be .91 during the grant period.
- Clients' symptoms improvement baseline is 72 percent; during the grant period, 92 percent of clients reported symptom improvement.

Impacts of funding from the Samaritan Interfaith: Mental Health Access Program (NMDH/NMCDH):

- An increase in GAF scale score was experienced by 83 percent of clients.
- Of those 83 percent, 61 percent experienced an increase of five or more points.
- Of those who completed the client satisfaction survey, 96 percent indicated that they agree/strongly agree with these three statements: "I feel I was able to accomplish what I set out to do," "I am better able to handle conflict and stress," and "My counselor interventions and interactions were helpful."

Outcomes reported as the result of NMDH funding to the World Relief Refugee Wellness Program (NMDH/NMCDH):

- A total of 83 percent of participants were able to identify symptoms of mental illness.
 - A total of 78 percent were able to identify at least three helpful mainstream community resources and reported stronger connectedness to members of their own community.
 - A total of 68 percent of refugees receiving mental health treatment demonstrated an increased level of functioning, experienced a decrease in symptoms and completed treatment goals.
 - Four NMCDH/NMDH staff were trained to offer the nationally recognized, evidence-based Mental Health First Aid (MHFA) program. Eleven classes were held, with 159 attendees (adults and youth). All MHFA participants scored a minimum of 85 percent on the MHFA course exam.
-

Appendix A

Organization	Description of medically underserved, low-income or minority populations represented (from publicly available sources, July 2018)
Aunt Martha's	Aunt Martha's is the third-largest community health center in Illinois and provides services to children within Kane County, including health care, child welfare, care coordination and other community-based services.
Community Unit School District 300	Community Unit School District 300 serves the communities of Algonquin, Hampshire, Dundee and Gilberts. District 300 serves both elementary and high school students and families. The community has mobilized to address mental health and substance abuse issues.
Inc. 708 Board	The Inc. 708 Board is a partnership of seven 708 Boards. The mission of the Inc. 708 Board is to initiate and coordinate programs of service for mental health, including services for those with substance abuse disorders and developmental disabilities within any political subdivision that is providing funds to the Corporation under the Community Mental Health Act as provided by the Illinois Community Mental Health Act.
Kane County Health Department	In active partnership with our community, the Kane County Health Department improves the quality of life and well-being of all residents by developing and implementing local policies, systems and services that protect and promote health, and prevent disease, injury and disability.
Northern Illinois University	Located in DeKalb, Illinois, and chartered in 1895, Northern Illinois University is a comprehensive teaching and research institution with a student enrollment of nearly 22,000
United Way - Elgin	With 90 years of experience in supporting health and human service needs in the Elgin area, United Way is uniquely qualified to rally the community around a drive for real, lasting change, through the resources and infrastructure to focus on the tough issues that demand a collective response, to prevent problems in the first place, and to implement a broad range of strategies.
VNA Health Care	VNA Health Care is a humanitarian, not-for-profit organization dedicated to providing compassionate, dependable, and comprehensive primary care and community health services. Recognizing that each individual is unique and is to be treated with dignity, VNA extends quality care to individuals regardless of their ability to pay for service in accordance with established VNA charitable care policies.
Waubonsee Community College	Waubonsee Community College is located in Sugar Grove and provides educational opportunities for residents of the Fox Valley.

Appendix B

Healthcare facilities and organizations in Kane County, Illinois, found through publicly available information sources as of July 2018:

Acute-care hospitals/emergency rooms

Advocate Sherman Hospital	Presence St. Joseph Hospital
Northwestern Medicine Delnor Hospital	Rush-Copley Medical Center
Presence Mercy Medical Center	

Emergency medical services (EMS)

Southern Fox Valley Emergency Medical Services

Federally qualified health centers and other safety net providers

Aunt Martha's	VNA Health Care
Greater Elgin Family Care Center	Well Child Center
TriCity Health Partnership	

Home Healthcare

Advocate Home Health	Home Care Physicians
Covenant Care at Home	Merit Home Care
Centegra Home Health	Northwestern Medicine Home Health and Hospice
Community Nursing Service	Patients First
DeKalb County Health Department	Presence Mercy Home Health
Dynacare	Total Home Care
Edward Home Health	VNA Home Health

Hospice care

Community Nursing Service	Odyssey
Edward-Elmhurst Hospice	Presence Hospice
Fox Valley Volunteer Hospice	Rush Hospice
Harbor Lights	Seasons Hospice
Hospice of DeKalb County	Vitas
Hospice of Northeastern Illinois	VNA Hospice
Northwestern Medicine Home Health and Hospice	

Mental health services/facilities

Aunt Martha's	Family Service Association
Aurora Family Services	Lutheran Social Services
Catholic Charities	Northwestern Medicine Central DuPage Hospital
Community Crisis Center	Tri Cities Family Services
Ecker Center for Mental Health	

Skilled nursing facilities

Alden Waterford	Maplewood
Arden Courts	Marklund Home
Aurora Manor	McAuley Manor
Batavia Rehabilitation Center	Michaelsen
Countryside	Presence Geneva Care
Elmwood	Presence Pine View
Fox River Pavilion	Rosewood
Greenfields Of Geneva	South Elgin Rehabilitation Center
Holmstad	Tillers
Jennings Terrace	Tower Hill



Northwestern Medicine Delnor Hospital

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