



# Table of Contents

Executive Summary
Delnor Priority Needs Identified
Delnor Community Health Needs Assessment Overview
Section 1 – Demographic and Socioeconomic Indicators
Section 2 – Maternal and Child Health
Section 3 – Adult Morbidity and Mortality: Leading Causes of Death and Years of Potential Life Lost
Section 4 – Chronic Conditions and Diseases
Section 5 – Infectious and Sexually Transmitted Disease
Section 6 – Mental Health
Section 7 – Nutrition, Physical Activity and Obesity
Section 8 – Access to Care
Section 9 – Health Collaboratives and Key Community Stakeholders52
Section 10 – Delnor Priority Initiatives
Bibliography59

# **Executive Summary**

Community health assessment is an important tool in identifying the health needs of a community. The results assist in prioritizing health needs that lead to the allocation of appropriate resources and the creation of new partnerships to improve the health of the population. In an era of aging baby boomers, increased chronic disease, an epidemic prevalence of obesity, a flagging economy, an increasing number of uninsured citizens and disparate access to care, healthcare organizations are being challenged to maximize the use of their collective resources to respond to the needs of the communities they serve.

In 2011 Delnor Hospital in partnership with the Kane County Health Department, the county's four other hospitals, two United Way agencies and Inc. 708 Board joined forces to fund a Community Health Assessment (CHA). It was the goal of this coalition—the Community Health Assessment Committee—to conduct a comprehensive, multifactor assessment that would not only fulfill each organization's regulatory requirements, but also provide a consistent and standardized database that each organization could use to guide the development and implementation of their individual strategic plans while promoting opportunities to work collaboratively to address the health needs of county residents.

The assessment included the collection and analysis of the most up-to-date health, social, economic, housing and other data as well as qualitative input directly from residents gathered from telephone surveys, focus groups and community open houses. Whenever possible, data was then broken down and reported by northern, central and southern regions of the county. A summary of key data follows along with implications for healthcare planning.

We would like to thank all of our community partners who work together to identify and address the health needs throughout our community. In particular, we thank the Kane County Health Department staff and administration who worked tirelessly to facilitate the development of the Community Health Needs Assessment and the Community Health Improvement Plan. We also thank them for their generous sharing of statistical data, insight and technical advice in preparing this report.

# **Demographics and Vital Statistics**

The Delnor Hospital primary service area comprises the municipalities of Batavia, Elburn, Kaneville, LaFox, St. Charles and Wasco, with a total population of 97,731. The largest municipality is St. Charles, making up about 34 percent of the service area. Its population is mostly white (88 percent) and 7 percent Hispanic.

During the past two decades, the demographic profile of central Kane County has changed dramatically, with the fastest-growing segment being 55- to 69-year-olds. With 515,269 current residents, the overall Kane County population is expected to reach 800,000 people by the year 2040. This will drive community need for a growing range of acute care services including heart and vascular, stroke, diabetes and cancer care for the aging population as well as preventive and wellness services to promote healthy lifestyles.

Kane County's overall minority population, specifically the Hispanic population, is also expected to continue to grow, increasing the need for outreach and clinical programs that address the unique needs of an increasingly diverse population.

# Challenges of Rising Poverty and Limited English Proficiency

Although Kane County has been among one of the most affluent counties in Illinois, with the Delnor service area having the highest median family income in the county, the number of low-income households has increased. The recent economic downturn has accelerated this trend, significantly increasing the number of unemployed and uninsured. The overall poverty rate in Kane County increased by two-thirds to 11.1 percent, while the poverty status in St. Charles, Batavia and Geneva were 3.9 percent, 8.5 percent and 2.1 percent respectively.<sup>1</sup>

Lower socioeconomic status is associated with an increased risk for many diseases, including cardiovascular disease, arthritis, diabetes, chronic respiratory diseases and cervical cancer as well as mental distress. Kane County hospitals and other providers will need to provide affordable care as this low-income population continues to grow.

According to the 2012 County Health Rankings, 17.4 percent of the people in Kane County state they can speak English less than "very well," which means that they represent the percent of the population that is not proficient in English. This is an increase from the 16.9 percent reported in 2011 and is also significantly higher than the state, which is at 10 percent.<sup>2</sup>

# Maternal and Child Health

There were a total of 1,023 births in the Delnor Hospital service area in 2008. This was slightly lower than the previous five years. Of these, 85 percent of the mothers had adequate prenatal care—the highest in Kane County and above the federal government's Healthy People 2020 goal of 77.6 percent. One in eight babies was born premature and 8 percent of them weighed less than 2500 g. More than 25 percent of first-time mothers were delivered by cesarean section and 95 percent of previous C-sections also had a repeat C-section with subsequent pregnancies. The infant mortality rate in central Kane County was not available due to small numbers.

# Chronic Disease and Mortality: Cancer, Heart Disease and Stroke

Chronic disease accounted for 81 percent of all deaths in Kane County. The three leading causes of death were cancer, heart disease and stroke. The mortality rate for cardiovascular deaths was 171.8, cancer 164.5 and stroke 41.9 (all per 100,000 population). The rates for all three diseases were below Illinois and U.S. mortality rates.

In the Delnor service area, heart disease, cancer, stroke and diabetes were the four leading causes of death—crude rates exceeding overall Kane County. While the stroke mortality rate has gone down 19 percent in the last five years, it has still not decreased enough to achieve the Healthy People 2020 goal of 33.8 per 100,000.

According the U.S. Centers for Disease Control and Prevention (CDC), chronic diseases are responsible for 70 percent of deaths and 75 percent of healthcare spending nationally. In 2007 these conditions accounted for 81 percent of the mortality rate in Kane County.<sup>3</sup> The CDC also identifies four common risk factors that cause chronic disease: lack of physical activity, poor nutrition, tobacco use and excessive alcohol consumption.

Chronic disease is costly to the individual, healthcare providers and insurance companies. For example, the cost of heart disease in the United States was estimated to be \$444 billion in 2010. With the rapidly growing older population in the county, these diseases will only become more prevalent unless more preventive action is taken. Without proper insurance, people will be unable to keep their conditions under control and will end up in the hospital and emergency departments for issues that could be managed more cost effectively by regular visits to a physician.

# Infectious and Sexually Transmitted Disease

In 2011 there were 537 cases of reportable infectious diseases in Kane County. The leading reported diseases were hepatitis C, salmonellosis, pertussis, varicella, chicken pox and hepatitis B. Despite the availability of vaccines, pneumonia and seasonal flu are significant causes of hospitalization and death in the United States and Kane County. Tuberculosis cases in Kane County increased by 22 percent, the highest increase in Illinois. Additionally, adequate immunization coverage among 2-year-olds in Kane County was only 56 percent as compared with the Illinois rate of 59 percent.

The best way to control communicable diseases is by maintaining high levels of vaccination in the population. Improving vaccine rates for established diseases requires public outreach and coordination among providers. Meeting emerging disease threats also requires highly coordinated rapid mobilization of public health and provider resources.

## Mental Health/Social and Emotional Wellness

According to the National Institute of Mental Health, one in four adults across the nation experiences a mental health disorder in any given year. Kane County is no exception. In 2008, 40.6 percent of adults reported symptoms of depression, up from below 35 percent in 2006. Residents in central Kane County had relatively better outcomes than in other areas of the county. Survey results indicated that 61 percent of respondents reported that their general health was excellent or very good, while 7 percent reported their mental health as not being good during 14 or more of the last 30 days. The Kane County Mental Health Council was formed to address access to mental health services across the county, and Delnor Hospital serves as a member of the council.

# **Growing Obesity Prevalence**

The problem of obesity in the United States has reached epidemic levels and Kane County is experiencing equally high rates of obesity for adults and children. Two out of three Kane County adults are overweight or obese. Among children, the overweight/obesity problem is reflected in the fact that more than 32 percent of the 5-years-old and younger population is overweight or obese. Like many chronic health conditions, obesity is more common among lower-income and less-educated populations. Obesity is a central risk factor for chronic disease and increases the risk of many conditions, including diabetes, heart disease, lung disease, stroke, cancer and osteoarthritis.

Preventing and reducing obesity has the potential to greatly improve public health, reduce healthcare costs and restore economic losses due to disability. Outreach and interventions targeting children and high-risk adult populations are essential to reduce obesity in the community. In addition to medical care, resources for exercise, healthful foods and ongoing public education are required.

#### Access to Care

Access to care for low-income and uninsured patients, while up from 2002, remains a concern. The U.S. 2010 Census reported that 86.8 percent of the total population had health insurance, compared to 86.2 percent for Illinois, which is lower than the Healthy People 2020 goal of 100 percent.

A lack of health insurance may cause people to skip preventive care and to use hospital emergency departments for routine care. A disproportionate share of access concerns is also occurring among minority and non-English speaking populations.

# Countywide Threats to Health

Analysis of the 2011 Community Health Survey data pointed to six major countywide threats to community health and well-being:

- Obesity
- Chronic disease
- Infant mortality
- Childhood lead poisoning
- Communicable disease
- Poor social and emotional wellness

In response to the CHA findings, the assessment committee developed a comprehensive set of policy and program recommendations for our community—the Kane County Community Health Improvement Plan (CHIP). The CHIP identifies priority areas where we can have the largest impact on improving the quality of life for all Kane County residents. These priority areas include:

- 1. Supporting health behaviors that promote well-being and prevent disease
- 2. Increasing access to high-quality, holistic preventive and treatment services across the healthcare system
- 3. Supporting and creating health-promoting neighborhoods, towns and cities
- 4. Promoting social, economic and educational environments that optimize health

Within each of these areas, the CHIP also developed a set of strategies to guide community stakeholders in the planning and implementation of initiatives designed to respond to the needs identified in the Community Needs Assessment.

# Citations

- 1 Kane County Health Department
- 2 County Health Rankings and Roadmap
- 3 Kane County Community Health Improvement Plan

# Delnor Priority Needs Identified

Upon lengthy review of both the Community Health Assessment and Community Health Improvement Plan, along with an analysis specific to central Kane County, Delnor has identified four priority needs that will be addressed during FY 2012-2014. Each priority area will have specific and measurable goals, objectives and outcomes, which are outlined in our FY 2013-2015 Community Benefit Plan.

At Delnor Hospital, we believe that the most effective way to address needs in our community is to work collaboratively with our community partners and stakeholders. This approach allows us to maximize efforts and achieve the best use of our collective resources.

In selecting priorities we considered the degree of community need for additional resources, the capacity of other agencies to meet the need, and the suitability of our own expertise and resources to address the issue. In particular, we looked for health needs that require a coordinated response across a range of healthcare and community resources. We believe that these needs can benefit most from the integrated nature of our organization and our provider and community partners. FY 2011-2013 priority initiatives are:

## Access to Care

An aging population, coupled with a flagging economy and an increasing prevalence of chronic disease, creates a variety of access-to-care issues relating to both the affordability and availability of care. Delnor seeks to promote access through a variety of initiatives that will be delineated within the Community Benefit Plan. Summarily, Delnor will continue to work with individuals and families to promote access to medically necessary inpatient services by maintaining an accessible financial assistance program. Additionally, staff and leadership will work collaboratively with key community partners to promote a seamless continuum of care into local medical home settings.

# Obesity/Nutrition

The problem of adult/child obesity has reached epidemic levels, both nationally and in Kane County. Currently 63.9 percent of Kane County adults are considered overweight and/or obese. It is widely recognized that being overweight or obese can lead to a variety of chronic diseases, including heart disease, diabetes, hypertension, cancer, stroke and osteoarthritis. With both a large young population and an aging population, it is critical to address this issue to not only enhance health and well-being but to reduce healthcare costs over the long term. Delnor will continue its partnership with Kane County's Fit Kids 2020 Plan in addition working with local school and park districts.

## Chronic Disease

As our nation and local communities continue to age, an increase in both the incidence and the prevalence of chronic disease is expected. The existing healthcare delivery system is not prepared to provide the comprehensive services that will be required to address these diseases. Nor is it prepared to respond to both the direct and indirect burden that chronic disease is likely to create—including the significant financial strains for individuals, families and healthcare providers. Public health experts speak to the importance of education to prevent the onset of disease and improvement of healthy lifestyles along with screening to promote early detection and prompt treatment of disease states in an effort to limit associated disability. Additionally, education of individuals with chronic diseases to assist in the self-management of the disease will improve outcomes, lessen acute exacerbated episodes and promote longer, healthier lives with an emphasis on living in an optimum state of wellness. Delnor is committed to providing care along all three levels of the chronic disease continuum—education, prevention and management.

#### Communicable Disease

People in the United States continue to get diseases that are vaccine preventable. Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. However, only 56 percent of 2-year-olds in Kane County received recommended vaccines in 2010. This problem is exacerbated in central Kane County as many healthcare providers do not participate in the state's Vaccine for Children (VFC) Program. In response, Delnor Hospital has become a VFC provider and offers regular immunization clinics for children and adolescents with limited access to vaccines. Additionally, Delnor continues to partner with the Kane County Health Department and local providers in the diagnosis and inpatient treatment of individuals with active tuberculosis.

# Non-Prioritized Needs

Three additional needs were identified in the county Community Health Assessment data—infant mortality, childhood lead poisoning and poor social/emotional wellness. While we still consider these priority needs and will continue to participate in countywide initiatives to address these concerns, an analysis of central Kane County data specific to these priorities did not demonstrate significant need at this time. We will, however, continue to monitor these trends and respond accordingly should they become a notable concern in central Kane County.

# Infant Mortality

There were a total of 1,023 births to Kane County residents at Delnor Hospital in 2008. Of these, 85 percent of the mothers had adequate prenatal care. This represents the highest percentage in Kane County and exceeded Healthy People 2020 goals for early prenatal care. Additionally, infant mortality for Delnor residents was non-calculable due to small numbers.

# Childhood Lead Poisoning

While Kane County has one of the highest levels of childhood lead poisoning in the state, county data indicates the aggregation of this problem is concentrated in both the northern and southern parts of the county as evidenced by ZIP code tracking. We will continue to monitor this trend and assess VFC participants as needed for risk.

# Poor Social/Emotional Wellness

Residents in the Delnor service area had relatively better health outcomes than in other areas of the county. Survey data indicated that 61 percent of central Kane respondents reported their general health as excellent or very good, while 7 percent reported their mental health as not being good.

# Delnor Community Health Needs Assessment

Established in 1986, Delnor-Community Hospital has a rich history of caring for its community. The 159-bed, acute-care hospital offers inpatient specialty care in medical and surgical services, obstetrics, pediatrics, neurology, oncology and emergency. Additionally, the hospital offers outpatient services that include the Center for Breast Health, diabetes management, physical rehabilitation, cardiology and pulmonary rehabilitation, and cancer care along with health and wellness, home care and elder care services, making Delnor a truly integrated health system. Delnor provides services to approximately 163,000 individuals annually.

Our services are carefully designed and structured to meet the needs of our growing and changing communities. We continually assess the health priorities of our community and strive to provide services to address those needs.

# Community Health Needs Assessment Process Overview

In 2011 the Kane County Health Department in partnership with the county's five hospitals, two United Way agencies and Inc. 708 Board joined forces to fund a Community Health Assessment. It was the goal of this coalition—the Community Health Assessment Committee—to conduct a comprehensive, multifactor assessment that would not only fulfill each organization's regulatory requirements, but also provide a consistent and standardized database that each organization could use to guide the development and implementation of their individual strategic plans while promoting opportunities to work collaboratively to address the health needs of county residents.

The assessment included the collection and analysis of the most up-to-date health, social, economic, housing and other data as well as qualitative input directly from residents gathered through focus groups, Community Cafes and Quality of Kane open houses. Additionally, Northern Illinois University Public Opinion Laboratory was contracted to conduct a phone survey of county residents using questions based on the CDC's Behavioral Risk Factor Surveillance System (BRFSS) survey. Using this methodology allowed the assessment committee the opportunity to not only look at traditional quantitative data but allowed for the qualitative input of the county's residents.

11 '

# **Community Health Assessment Findings**

Analysis of the 2011 Community Health Survey data pointed to six major countywide threats to community health and well-being:

- Obesity
- · Chronic disease
- Infant mortality
- Childhood lead poisoning
- · Communicable disease
- Poor social and emotional wellness

# Community Health Improvement Plan

In response to the CHA findings, the assessment committee developed a comprehensive set of policy and program recommendations for our community, identifying areas where we can have the largest impact on improving the quality of life for all Kane residents. These priorities include:

Priority 1: Support Health Behaviors That Promote Well-Being and Prevent Disease

- Reduce tobacco use and exposure to environmental tobacco use
- Increase access to and consumption of fresh fruits and vegetables
- Coordinate the effective communication of tailored, accurate and actionable health information to Kane County residents across their life span

Priority 2: Increase Access to High-Quality, Holistic Preventive and Treatment Services Across the Healthcare System

- Increase the proportion of residents of all ages who have regular, ongoing sources of medical and dental care
- Increase the proportion of residents of all ages who receive appropriate, evidence-based clinical preventive services
- Focus culturally appropriate outreach and engagement efforts to eliminate racial disparities in health outcomes, especially in infant mortality
- Enhance systems to support the prevention, early identification and treatment of communicable disease in the community
- Enhance systems to support the prevention, early identification and evidence-based treatment of mental health conditions

Priority 3: Support and Create Health-Promoting Neighborhoods, Towns and Cities

- Increase the availability and variety of high-quality, safe and affordable housing and compact, mixed-use development
- Institute "complete streets" types of policies to ensure that roadways are designed and operated with all users in mind, including bicyclists, public transportation vehicles and riders, and pedestrians of all ages and abilities
- Assure access to safe playgrounds, parks, trails and open space
- Assure access to safe food and clean and safe water and air

Priority 4: Promote Social, Economic and Educational Environments That Optimize Health

- Increase the proportion of children who have high-quality early developmental support, especially in child care and education
- Increase the proportion of Kane County young people who complete high school
- Increase the job skills and readiness of Kane County residents who are unemployed

# Section 1: Demographic and Socioeconomic Indicators

## **OVERVIEW**

A community's health needs are significantly impacted by its demographic characteristics.

Generally speaking, the older the population the greater the overall need for health services. Genetics and culture also influence health needs. Rates of high blood pressure, cardiovascular disease, diabetes, cancers, eye disease and other genetically-linked conditions typically vary significantly among racial and ethnic groups.

Socioeconomic factors — such as income, education, employment status — and English language literacy can also influence the health needs in a community. Lower-income individuals may require more assistance in accessing affordable care, and those with limited English language proficiency may require interpretation and culturally-sensitive specialized outreach services.

The most important demographic and socioeconomic trends affecting community health needs are:

# Rising age

In the last 10 years, the 60- to 64-year-old age group has doubled. By 2030, the number of Kane County residents 60 and older will account for 22 percent of the population as opposed to 14 percent in 2000, according to the Kane County Perspective. This will drive the need for a range of acute care services, including heart and vascular, stroke and cancer care. The need for resources to manage the chronic conditions and to promote healthy lifestyles would also increase.

# Ethnic diversity

The minority population increased in virtually every age group within Kane County, especially Hispanics who now comprise 31 percent of the population. Additionally, the Asian by 145 percent from its 2000 population. The Delnor service area is more homogeneous in terms of race and ethnicity than the county as a whole, with white non-Hispanics making up 88 percent of the population, Hispanics 7 percent, and Asians and African-Americans each comprising 2 percent of the population. Services across the spectrum that meet the specific populations, as well as outreach and interpretation services for non-English speakers, may be needed as the community becomes more

# Increased lowincome, unemployed and uninsured

Despite the fact that Kane County has a median household income of more than \$65,000, the number of low-income households in the county has risen sharply. The within the last 10 years. In December Kane County was 10.1 percent. From 1990 to 2010, poverty rates in the county increased by twothirds to 11.1 percent. The economic downturn has accelerated this trend and has sharply raised the number of unemployed and uninsured residents. Resources, planning and community groups and government will be required to ensure access to affordable care for this growing low-

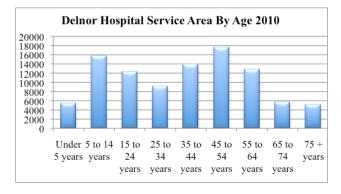
Details on the demographic and socioeconomic indicators and implications for planning follow.

# 1.1 Current Population Demographics

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 Delnor's primary service area and much of its secondary service area. The population in 2010 was 515,269, with a population density of about 776.5 people per square mile, according to the U.S. Census Bureau. In 2010 the population breakdown by race was estimated to be 304,051 Caucasian, 27,819 African-American, 17,505 Asian and 158,390 Hispanic or Latino origin. The population of the total Delnor service area was 97,331.

# 1.2 Demographics by Age

Kane County is the overall seventh youngest county in Illinois, and it 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 in Kane County is 34.5 years. The largest age group is the 5- to 14-year-olds, but the fastest-growing segment of the population is 55- to 69-year-olds. Delnor's primary service area reflects a relatively older community, with only 27 percent of the population younger than 18.



**Delnor Hospital Service Area by Age** Source: U.S. Census Bureau 2010

# 1.3 Demographics by Race/Ethnicity

The racial distribution in Kane County has changed significantly from 2000 to 2010. Non-Hispanic whites now constitute 59 percent of the total population, a drop from 68 percent in 2000 while Hispanics now comprise 31 percent of the total population, an increase from 24 percent in 2000. When compared to Illinois, the proportion of Hispanics is double in Kane County, and the county has the largest proportion of Hispanics in the state.

# **Delnor Hospital Service Area by Race/ Ethnicity** ■ White Not Hispanic Black or African American Not Hispanic Hispanic ■ Asian Not Hispanic Native Hawaiian and Other Pacific Islander Not Hispanic Some Other Race Not Hispanic ■ Two or More Races Not Hispanic Source: US Census Bureau 2010

Demographics of Kane County by Race/Ethnicity

# 1.4 Immigrant Population

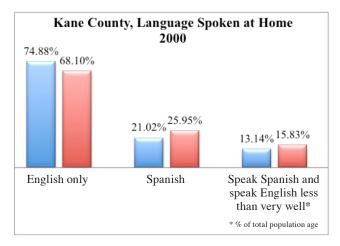
Between 1990 and 2000, the foreign-born population of Kane County increased by more than 64,846 residents or 68.8 percent; between 2000 and 2010 it increased another 31.2 percent. Currently, the foreign-born population constitutes 18.2 percent of the total Kane County population with 94,191 foreign-born residents.<sup>7</sup>

	KANE C	KANE COUNTY		
	Number	Percent		
Place of Birth				
Total population	516,499	100%		
Native	422,308	81.8%		
Foreign Born	94,191	18.2%		
Entered 2000 or later	29,345	31.2%		
Entered before 2000	64,846	68.8%		

Place of Birth
Source: U.S. Census Bureau 2010

# 1.5 English Literacy

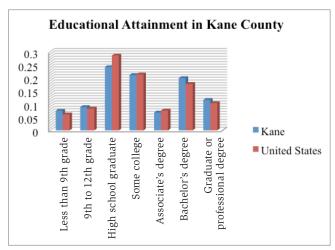
In 2010, the percentage of the Kane County population speaking a language other than English at home grew to 30.1 percent. Within the foreign-born population, the proportion speaking a language other than English at home was 25.9 percent. Some 61 percent (75,413 people) older than 5 reported that they spoke English "less than very well." According to County Health Rankings, 17.4 percent of the population in Kane County is not proficient in English, while 11.3 percent of the population is illiterate.<sup>9</sup>



Kane County Language Spoken at Home Source: U.S. Census Bureau

# 1.6 Education

In 2010, the percentage of the population in Kane County without a high school degree increased by 16 percent from 2000. Conversely, the percentage of the population with a college, graduate or professional degree increased by 50 percent. In Kane County, 8.5 percent of residents age 25 and older have not graduated high school.



Educational Attainment in Kane County Source: U.S. Census Bureau 2010

# 1.7 Median Household Income

The median household income for Kane County is \$65,712. According to the U.S. Census Bureau, the median household income in the county remains substantially higher than the state and nation, with an increase of 11 percent between 2000 and 2010.<sup>10</sup>

# 1.8 Housing

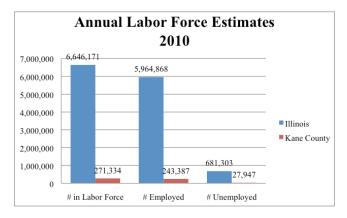
The number of households paying more than 35 percent of their income for rent, which is commonly defined as the threshold of affordability for middle-income groups, has increased sharply. The 2009 U.S. Census American Community Survey reported that 46.4 percent of Kane County renter households, and 33.2 percent of owners with mortgages, are spending 35 percent or more of household income on monthly housing costs. Due to rising financial burdens, foreclosure rates increased to 40.1 per 1,000 mortgages in Kane County in 2010, up from 33.8 in 2009.



Foreclosure Filings Per 1,000 Mortgageable Properties
Source: Woodstock Institute

# 1.9 Unemployment

Historically, the Kane County unemployment rate has run below the state and national levels, but it doubled from 1990 to 2010 due to the economic downturn. With 27,947 people unemployed in 2010, the unemployment rate was 10.3 percent, which was similar to the state of Illinois, but higher than the national rate of 9.6 percent.<sup>12</sup>



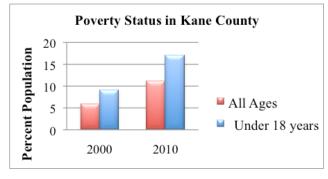
2010 Annual Labor Force Estimates

Source: Illinois Department of Employment Security

# 1.10 Poverty

Although Kane County has one of the highest median incomes in the state, the number of low-income residents is steadily increasing. In 2010, poverty rates in Kane County grew by two-thirds to 11.1 percent of Kane County residents falling below the poverty level, compared to 5.9 percent in 2000, an increase of 66 percent. When viewed by race/ethnicity, one in three African-Americans living in Kane County are below poverty level compared to one in five Hispanics and one in 20 whites.<sup>13</sup>

In 2010, the U.S. Census Bureau reported that 149,190 children in Kane County were younger than 18 years of age in 2010. Seventeen percent of children younger than 18 years lived below poverty level, while 24 percent of female-headed households were below poverty level. <sup>14</sup>

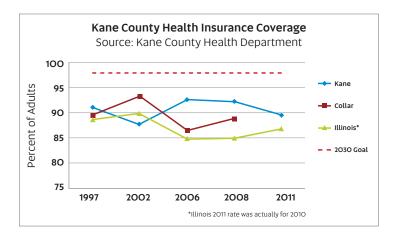


Poverty Status in Kane County Source: U.S. Census Bureau

# 1.11 Uninsured and Publicly Insured

The percentage of the Kane County population without health insurance continues to be lower than the state and nation. According to the Kane County Health Department, the percentage of residents in Kane County with health insurance coverage was 89.1 percent in 2011 compared to 87.8 percent in 2002, which is lower than the Healthy People 2020 goal of 100 percent of residents being covered by health insurance.

There is a racial and economic disparity among race in health insurance coverage. Among Hispanics, 73 percent had health insurance while 83 percent of African-Americans in Kane County and 94 percent of non-Hispanic whites had health insurance. Additionally, 27 percent of residents who were at 200 percent of the federal poverty level or lower were uninsured compared to 7 percent for those above 200 percent of the federal poverty level.<sup>15</sup>



# 1.12 Homelessness

A study of homelessness in Chicago and the suburbs found that there were many similarities as to why people were homeless, whether in a city or in a suburban location. People who are homeless generally tend to stay within a jurisdiction and do not relocate across county and city boundaries. This holds true in all geographic locations. The average time people at risk of homelessness had lived in their respective jurisdiction was 13 years, and for those who were homeless it was 14 years. The study also found that people who are persistently homeless are more likely to be unemployed (15.2 percent) and not in the labor market than those who experience crisis (11.7 percent) or episodic (13.8 percent) homelessness. The population of people experiencing homelessness includes adults and their children. Of those surveyed, 40.3 percent reported have having children younger than age 18.17

While the number of homeless individuals in Kane County is relatively low at any given time, homelessness and the threat of homelessness are increasing. According to Continuum of Care for Kane County's 2003 Super Notice of Funding Available (SuperNOFA), there were 505 homeless families with children in the county. In the 2010-2011 school year there were a total of 1,629 homeless school age children in Kane County, an almost 30 percent increase from the 2008-2009 school year.

# Implications of Demographic and Socioeconomic Trends for Health Services

Based on the trends and characteristics documented above, the community health needs in the coming years will be significantly expanded and transformed in Kane County. Healthcare and human services providers, community groups, government agencies and individual community members will be required to coordinate resources in order to meet the emerging needs of the population.

One of the biggest challenges that lies ahead is the rapid aging of the population. With aging comes an increased rate of chronic conditions and diseases such as obesity, diabetes, arthritis, heart disease, cancer and degenerative neurological conditions. With the increase of these conditions comes the increased need for a range of services, from wellness and prevention to the management of chronic conditions and acute care. This means that more healthcare professionals will be needed to provide the services, from home health aides, social workers, dietitians and nurses to advance practice nurses, primary care physicians and skilled specialists.

The increasing diversity of the population will bring with it a need for greater diversity in the healthcare workforce and inclusive approaches to delivering services that are sensitive to the cultural needs of the population. Specifically, more resources will be needed to serve foreign-born populations that may not speak English and have different health and wellness traditions. In order to effectively inform and communicate with these individuals, specialized outreach and interpretation services will be needed.

Increased foreclosures, higher unemployment rates, lack of insurance, increasing poverty and homelessness will increase the need for access to affordable healthcare services. Social services also will be needed to mitigate the impact of low incomes on community and individual health. Significant planning and coordination of services will be required to obtain the maximum positive impact on community health status for resources invested.

# Citations

- 4 Kane County Regional Planning Commission
- 5 Chicago Metropolitan Agency for Planning
- 6 Kane County Community Health Assessment Databook
- 7 U.S. Department of Health and Human Services
- 8 Illinois Department of Public Health
- 9 2012-2016 Community Health Improvement Plan
- 10 U.S. Census Bureau
- 11 U.S. Census Bureau
- 12 Illinois Department of Employment Security
- 13 U.S. Census Bureau
- 14 Illinois Department of Employment Security
- 15 Community Health Improvement Plan 2012-2016
- 16 Facing Homelessness, A Study of Homelessness in Chicago and the Suburbs
- 17 Facing Homelessness, A Study of Homelessness in Chicago and the Suburbs
- 18 Kane County 2003 SuperNOFA Application (Appendix 2)
- 19 Kane County Health Department

# Section 2: Maternal and Child Health

#### **OVERVIEW**

The health of mothers and infants is of critical importance to the overall health of our community. Not only is it a reflection of the current health status of a large segment of the population, it is also a predictor of the health of the next generation. Examination of maternal and child health data in Kane County reveals:

# Overall infant mortality above target

The 2008 Kane County infant mortality rate was 6.6 per 1,000 live births. The white infant mortality rate was at 4.9 per 1,000 births, which was lower than the Healthy People 2020 objective of 6.0 per 1,000. The African-American infant mortality birth rate at 10.8 per 1,000 was more than double the white rate. The Hispanic infant mortality rate was 5.9 per 1,000.20 Outreach and improved access to prenatal care through medical homes or similar primary care models may help reduce this rate.

# Infant mortality higher among African-Americans

Though sample sizes are small and rates fluctuate, twice as many African-American babies died before their first birthday compared to all other races/ethnicities in Kane County, with a mortality rate at 10.8 per 1,000 births. Research and interventions targeting this population may be warranted.

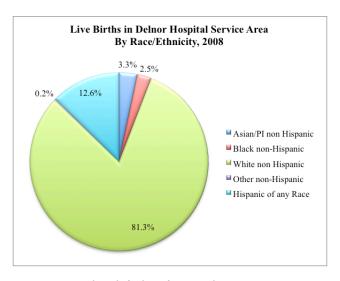
# Prenatal care in Delnor exceeds county

In 2008, 71.7 percent of women in Kane County received adequate prenatal care in the first three months of their pregnancies, according to the Kessner Index. In the Delnor service area the number of women receiving adequate prenatal care in the first trimester was 84.8 percent.<sup>21</sup>

Details on maternal and child health and implications for planning follow.

# 2.1 Infant Mortality

The five-year Kane County infant mortality rate average for 2004 to 2008 was 5.6 per 1,000 births. In 2008 the infant mortality rate was 6.6 per 1,000, lower than the Illinois rate of 7.2 per 1,000. Comparing infant mortality for different races and ethnicities, the white infant mortality at 4.9 was lower than the Healthy People 2020 objective of 6.0 per 1,000 births. The Hispanic infant mortality rate was 5.9 per 1,000, also lower than the Healthy People 2020 objective. Community outreach and improved access to prenatal care through medical homes or similar primary care models may help reduce this rate.<sup>22</sup>



**Live Births in Delnor Service Area**Source: Illinois Department of Public Health

## 2.2 Prenatal Care

Women who begin prenatal care in their first trimester can improve their chances for having a healthy baby. In 2008, only 72 percent of mothers in Kane County received adequate prenatal care as measured by the Kessner Index, compared to the Healthy People 2020 goal of 77.6 percent. African-Americans and Hispanics had the lowest rates of prenatal care, at 55 percent and 63 percent respectively.<sup>23</sup>

# 2.3 Low Birth Weight

Since the risk factor most closely associated with neonatal death is low birth weight (less than 2500 grams or 5.5 pounds), raising infant birth weight can help reduce in infant mortality. Very low birth weight babies (less than 1500 grams or 3.25 pounds) are at highest risk of dying in their first year.<sup>24</sup> A review of Kane County birth rates in 2008 reveals that about 5 percent (568) of Kane County births were low birth weight. Of these, 101 had a birth weight of less than 1500 grams. Kane County has consistently met the Healthy People 2020 objective of less than 7.8 percent of live births below 1500 grams.

# 2.4 Adolescent Pregnancy

Infants born to teenage mothers, especially mothers younger than 15, are more likely to suffer from low birth weight, neonatal death and sudden infant death syndrome.<sup>25</sup> These infants may also be at greater risk of child abuse, neglect, and behavioral and educational problems at later stages. In 2008 the teen birth rate in Kane County was 43.5 per 1,000 females aged 15 to 19.<sup>26</sup>

# Implications of Maternal and Child Health Trends for Health Services Planning

Targeted community outreach is needed to address the higher rates of infant mortality and low birth weight in African-American women. This outreach would require the collaborative efforts of the county health department, community clinics, physicians, schools and community groups. While the overall infant mortality rate for whites and Hispanics in Kane County is less than the Healthy People 2020 objective of 6.0 per 1,000 births, the African-American mortality rate at 10.8 per 1,000 births is more than double the white rate. This indicates a need for increased awareness of and access to prenatal care among the African-American population. Support for prenatal services throughout the county provided through a medical home or community clinic model may help ensure that adequate and early care is available and affordable close to home for every pregnant woman in the county.

#### Citations

- 20 Kane County Community Health Assessment 2011-2012
- 21 Illinois Department of Public Health
- 22 Kane County Community Health Improvement Plan 2012-2016
- 23 Illinois Department of Public Health
- 24 Illinois Department of Public Health
- 25 U.S. Department of Health and Human Services
- 26 Illinois Department of Public Health

# Section 3: Adult Morbidity and Mortality: Leading Causes of Death and Years of Potential Life Lost

# **OVERVIEW**

Cause of death and years of potential life lost are important measures that highlight the health needs in the community. The absolute number of deaths spotlights the most serious medical conditions in the community overall, while years of potential life lost helps identify causes of premature and possibly avoidable deaths. Examination of cause of death and years of potential life lost data in Kane County reveals:

# Cancer, heart disease and stroke are the leading causes of death.

Together they account for nearly two-thirds of the 2,687 deaths in Kane County in 2007. In the Delnor service area, 10.4 percent of the adult population smokes, compared to 12 percent in Kane County. The percentage of adults in the Delnor service area that identified themselves as binge drinkers was 19.3 percent, which is higher than Kane County. Addressing these conditions will require wellness education, screening, prevention and management of chronic conditions and risks, as well as acute interventions.

## BEHAVIORAL RISK FACTORS

Percent of adult population	Delnor	Kane	Central Kane
Smoking	10.4	12.0	10.3
Binge Drinking	13.5	18.2	19.3
Obesity	25.7	29.4	18.1
Diabetes	9.8	8.7	4.5
General Health Excellent or Very Good	60.8	54.8	68.8
Mental health not good 14 or more days a month	7.1	9.2	6.6
Health Insurance	96.1	89.1	95.3

Behavioral Risk Factors/Adult Population
\*Unweighted Frequencies

Source: Kane County Health Department 2011

Details of cause of death and years of potential life lost and implications for planning follow.

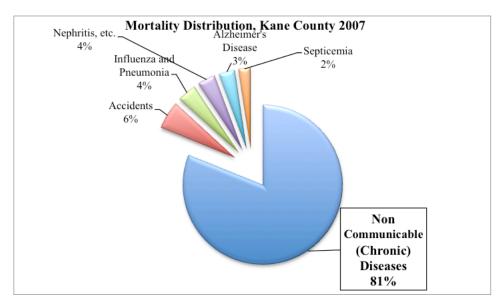
# 3.1 Crude Mortality Rate

During a seven-year period from 2000 to 2007, crude mortality rates in Kane County remained relatively stable with a crude death rate ranging from 574 to 536 deaths per 100,000. Each year, 5,233 years of potential life are lost to premature death.<sup>27</sup>

# 3.2 Leading Causes of Death

In 2008 there were 2,687 deaths in Kane County. Males accounted for 1,272 deaths, females 1,405 deaths. From a racial/ethnic perspective, there were 2,509 deaths among the white population, 210 deaths in the Hispanic community, 131 African-American deaths and 37 deaths among the remaining ethnic population.<sup>28</sup>

The top three leading causes of death in Kane County were diseases of the heart, cancer and cerebrovascular disease, in that order. In 2007 diseases of the heart accounted for 171.8 per 100,000 deaths, the cancer mortality rate was 164.5 per 100,000 and the mortality rate for cerebrovascular disease was 41.9 per 100,000.<sup>29</sup>

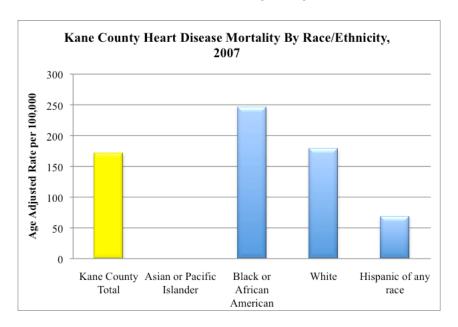


**Leading Causes of Death in Kane County**Source: Illinois Department of Public Health

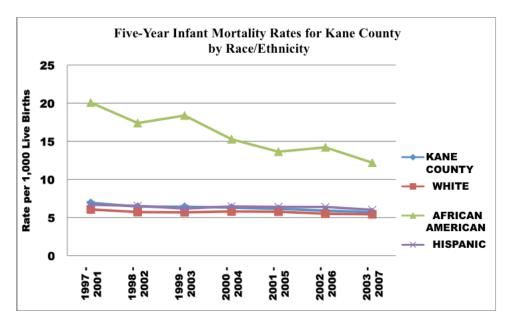
# 3.3 Leading Causes of Death by Race/Ethnicity

Life expectancy was lower for African-Americans (75.4 for females and 70.1 for males) than whites (79.9 for females and 75.5 for males). In 2007 the African-American age-adjusted death rate in Illinois was 1,019.8 per 100,000, more than double those of Asian or Pacific Islanders and Hispanics, as well as 40 percent higher than the rate for whites.<sup>30</sup>

Cancer and stroke are the most prevalent causes of death among older adults in Kane County and the Delnor service area, with a disproportionately high number of African-Americans being affected. The African-American age-adjusted cancer death rate was 200.4, compared with the Hispanic cancer death rate of 90.2 and the white cancer death rate of 173.2 (all per 100,000). Although Kane County cancer rates were similar to Illinois rates for all races, Kane County had a higher rate than Illinois among African-Americans for lung/bronchus, multiple myeloma, kidney among males and leukemia among females. For whites, the Kane County rate was slightly higher than the state for invasive breast cancer.<sup>31</sup>



All Deaths by Race/Ethnicity
Source: Kane County Health Department



Kane County Five-Year Infant Mortality Rate by Race/Ethnicity
Source: Illinois Department of Public Health

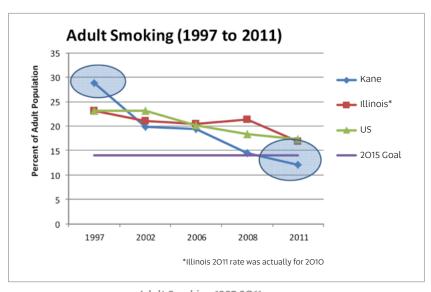
## 3.4 Years of Potential Life Lost

The impact of premature death can be measured by years of potential life lost (YPLL). Years of potential life lost is an indicator that identifies preventable causes of death. Healthy People 2020 tracks healthy life expectancy using three measures: expected years of life in good or better health, expected years of life free of limitation of activity, and expected years of life free of selected chronic diseases.

Cancer is the second leading cause of death in the United States, but accounts for the largest YPLL per 100,000 for both males and females. Deaths from motor vehicle accidents are the second leading cause of YPLL for both sexes in the United States.<sup>32</sup> In Kane County, cancer was the second leading cause of death, while accidents were the sixth leading cause of death.

According to the Kane County Health Department, there are 5,233 years of potential life lost each year to premature death in Kane County.<sup>33</sup> In 2007 premature death from coronary heart disease dropped to 17.2 per 100,000. YPLL at age 75 for Kane County was 482,355 person years or 4,800.4 person years per 100,000.<sup>34</sup>

The Centers for Disease and Control and prevention has identified four risk behaviors that lead to premature death. They are smoking, lack of physical activity, poor nutrition and alcohol consumption. In Kane County, smoking is the single largest cause of chronic disease and premature death, even though the smoking rate steadily declined. In 2011 the number of adults smoking in Kane County dropped to 12 percent, which is still above Kane County Health Department's 2015 goal to reduce adult smoking to 9 percent.



Adult Smoking 1997-2011 Source: Behavioral Risk Factor Surveillance Survey

# Implications of Leading Causes of Death and Years of Potential Life Lost for Health Services Planning

An aging population and the prevalence of heart disease, stroke and cancer as leading causes of death in Kane County suggest a growing need for screening and acute care services. Prevention, chronic disease management and wellness services are also needed to reduce the financial and disability impact of these conditions. Higher cancer mortality rates among African-Americans suggest that targeted outreach may be useful.

# Citations

27 Community Health Improvement Plan 2012-2016

28 U.S. Department of Health and Human Services

29 Illinois Department of Public Health

30 Kane County Community Health Assessment 2011-2012

31 Kane County Community Health Assessment 2011-2012

32 U.S. Department of Health and Human Services

33 Community Health Improvement Plan 2012-2016

34 Kane County Community Health Assessment 2011-2012

# Section 4: Chronic Conditions and Diseases

## **OVERVIEW**

Chronic conditions are responsible for 70 percent of deaths and 75 percent of healthcare spending nationally, according to the CDC and Prevention. These include diabetes, high blood pressure, high cholesterol, heart disease, chronic lower respiratory disease and obesity. Moreover, chronic diseases disproportionately affect minority and low-income populations, which are among the fastest growing in Kane County. Furthermore, adult smoking and adult obesity were cited as two conditions that contributed to chronic conditions in Kane County. Schronic diseases, also known as noncommunicable diseases (NCDs), accounted for 81 percent of all deaths in Kane County in 2007. Examination of chronic disease data in Kane County reveals:

# Rates of many chronic conditions are rising

In recent years, high blood pressure, high cholesterol, obesity and diabetes — each considered diseases themselves — have become more common. As these conditions increase, so does the risk for other chronic and acute conditions. Education, screening and management can help control these conditions, which are often lifestyle and diet-related.

# Chronic conditions contribute to leading causes of death

High blood pressure is present in most patients with heart disease, which is the leading cause of death in Kane County. Obesity, cholesterol and high blood pressure also contribute to cancer, the second leading cause of death, and cerebrovascular disease, the third leading cause of death. Managing and treating these conditions requires a range of resources from education to screening to high-acuity inpatient care.

# Chronic disease is a leading cause of disability and lost income

Arthritis, chronic lower respiratory conditions and stroke are leading causes of limitations of daily activity and productivity losses due to inability to work. Prevention, disease management and social services may help mitigate the impact of these conditions.

# Chronic disease disproportionately affects low-income and minority populations

Lack of access to primary care, inadequate nutrition, higher rates of smoking and alcohol consumption and genetic predispositions are factors that contribute to chronic disease. Targeted outreach, education, lifestyle improvement programs and access to regular preventive, screening and medical management services may reduce these disparities.

Details of chronic conditions and diseases and implications for planning follow.

# 4.1 Hypertension

Individuals with uncontrolled hypertension or high blood pressure are more likely to have heart attacks or strokes than those with normal blood pressure.

Between 2002 and 2009, Kane County reported that 31 percent of the residents had unnecessary hospitalizations with uncontrolled hypertension. In 2007 the leading cause of hospitalization in Kane County was heart disease, accounting for 23 percent of hospital admissions. Although hospitalization for uncontrolled hypertension has begun to slowly increase, the rate is still below the Kane County Health Department 2015 goal of 70 per 100,000 residents 18 years and older.<sup>36</sup>

# 4.2 Hypercholesterolemia

The health behavior survey that was conducted as part of the 2011 Kane County Community Health Assessment revealed that only 54 percent of adults meet recommended levels of physical activity, 14 percent eat the recommended five servings of fruits and vegetables and 39 percent of adults were told they had high cholesterol. Cholesterol is a substance normally produced by the liver, but also consumed in foods. When consumed in excess or not adequately metabolized, cholesterol levels build in the body, leading to diseases of the heart, including coronary artery disease, heart attack and stroke.

## 4.3 Obesity

In 2011 the prevalence of adult overweight/obesity increased to 63.9 percent in Kane County. Among children in Kane County, 36 percent were obese or overweight. While the number of obese adults in the Delnor service area is only 25.7 percent, it is still below the Kane County Health Department 2015 goal of reducing adult obesity to 14 percent.<sup>37</sup>

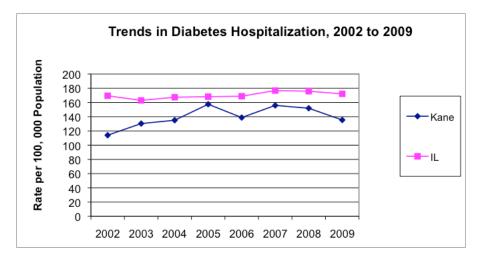
Studies have shown that lifestyle adjustments such as physical activity and dietary changes can help reduce obesity, prevent high blood pressure and reduce blood cholesterol.

## 4.4 Diabetes

Diabetes mellitus, like many chronic diseases, may be the result of behavioral risk factors, such as poor diet and being overweight or obese. In Kane County, diabetes prevalence among adults increased from 3.7 percent in 2002 to 8.7 percent in 2011.

Diabetes is the fifth leading cause of death in the county. Kane County's age-adjusted death rate of 24.9 per 100,000 is slightly higher than Illinois and U.S. rates. Diabetes deaths in Kane County increased 20 percent from 2003 to 2006, with the highest increase among Hispanics.<sup>38</sup>

Studies have found that only 35 to 40 percent of decedents with diabetes have the disease listed on the death certificate. About 10 to 15 percent have it listed as the underlying cause of death, though it commonly contributes to death from many other causes. The risk of death for an individual with diabetes is twice that of someone of the same age without the disease.<sup>39</sup>



**Trends in Diabetes Hospitalization, 2002-2009**Source: Illinios Department of Public Health

# 4.5 Osteoporosis

Of the estimated 10 million Americans who have osteoporosis, 80 percent are females. 40 Besides being female, other risk factors for osteoporosis include old age, family history of the disease, low levels of sex hormones, diet, inactive lifestyle and smoking. Osteoporosis increases the likelihood of fractures and is associated with high levels of disability and mortality in older populations. While osteoporosis is often thought to impact older individuals, 85 to 90 percent of bone mass is acquired by age 18 for girls and 20 for boys. Therefore, the building of strong bones during childhood and adolescence is important for prevention of osteoporosis. 41 With early diagnosis and aggressive treatment, bone loss may be stopped and in many cases reversed — thus lessening the chances of falls and fractures.

### 4.6 Asthma

Asthma is a disorder that causes the airways of the lungs to swell and narrow, leading to wheezing, shortness of breath, chest tightness and coughing. Asthma affects people of all ages, but it most often starts during childhood. In the United States, more than 22 million people are known to have asthma. Nearly 6 million of these people are children.<sup>42</sup> Among children, asthma is a leading cause of hospital stays and school absences. In 2009 the top three reasons for hospitalization of Kane County children younger than 5, apart from birth, were acute respiratory infections, pneumonia/influenza and asthma.

As with other chronic conditions, quality outcomes rely not only on the availability of proper treatment, but also on the proper use of medication and careful self-management by the patient. Patients with asthma need to avoid triggers such as extreme stress, tobacco smoke, allergens and environmental toxins.

# 4.7 Chronic Lower Respiratory Disease (CLRD)

Chronic lower respiratory disease, also known as COPD, is a progressive disease and the fourth leading cause of death in the United States.<sup>43</sup> The symptoms of CLRD typically worsen over time, especially if there is continued exposure to cigarette smoke or other environmental hazards. A person with CLRD is more susceptible to infections, which can damage lungs and airways. These infections may cause flare-ups, also known as exacerbations, which is a serious complication that can lead to hospitalization.

Each year, there is an average of 67,800 CLRD hospitalizations in Illinois. In 2009 the total hospitalization charges for CLRD in Illinois, excluding professional fees, was more than \$1.1 billion. Of the \$1.1 billion in charges, 80 percent were to Medicare or Medicaid, which makes it a taxpayer issue.<sup>44</sup> CLRD affects middle-age men and women, and 2007 was the first year that more females were hospitalized due to CLRD than males in Illinois, at a rate of 14.45 females per 1,000 population versus 14.38 for males. This trend continued during 2008 and 2009.<sup>45</sup>

# 4.8 Diseases of the Heart

In Kane County, the leading cause of hospitalization is heart disease. The highest numbers of adults who have been told by a doctor that they have coronary heart disease are those with the lowest income levels. Heart disease is one of the leading causes of death in Kane County, with an age-adjusted rate of 171.8 per 100,000. Although it has declined 15 percent in the last five years and is lower than the Illinois and U.S. rates of approximately 190 per 100,000, it singly accounts for 23 percent of total deaths. Coronary heart disease is the major subtype of heart disease, causing 411 deaths in 2007 and an age-adjusted rate of 116.3 per 100,000. Kane County has yet to achieve the Healthy People 2020 goal of 100.8 per 100,000.<sup>46</sup>

# 4.9 Stroke

Cerebrovascular disease, or stroke, was one of the leading causes of hospitalization in Kane County, with a mortality rate of 41.9 per 100,000 in 2007. The rate of cerebrovascular disease has decreased 19 percent in the last five years but Kane County still has not achieved the Healthy People 2020 objective of a mortality rate of 33.8 per 100,000.<sup>47</sup>

## 4.10 Cancer

There were 9,340 new cases of cancer in Kane County for 2003 to 2007 combined. The most common type of cancer was bronchus and lung cancer, with a total of 174 deaths or 27 percent of all cancer deaths, and an age-adjusted rate of 44.9 per 100,000.<sup>48</sup> Breast, prostate and colorectal cancers were also common. There is racial/ethnic disparity in cancer mortality in Kane County. The African-American age-adjusted cancer death rate was 200.4, compared with a Hispanic death rate of 90.2 and a white rate of 173.2 per 100,000. African-American males in Kane County had stomach, kidney, multiple myeloma, bronchus and lung cancer incidences at least two times higher compared to Caucasian males. For whites, Kane County rates were slightly higher for invasive breast cancer.<sup>49</sup>

In 2007 cancer was one of the leading causes of death with 24 percent of deaths in Kane County and an age-adjusted rate of 164.5 per 100,000. Although the Kane County rate was lower than Illinois and U.S. rates, the rate is higher than the Healthy People 2020 goal of reducing it to 160.6 per 100,000.<sup>50</sup>

# 4.11.1 Lung Cancer

The most common type of cancer in Kane County was bronchus and lung cancer, with a total of 174 deaths or 27 percent of all cancer deaths, and an age-adjusted rate of 44.9 per 100,000. There is a racial/ethnic disparity in lung cancer mortality in Kane County, with an African-American age-adjusted cancer death rate of 200.4, compared with a Hispanic death rate of 90.2 and a white rate of 173.2 (all per 100,000).

## 4.11.2 Colorectal Cancer

The third most commonly diagnosed cancer among men and women is colorectal cancer.<sup>51</sup> Between 2003 and 2007, the number of new cases of colon cancer in the United States fell from 52.3 per 100,000 people to 45.4 per 100,000. In Kane County, the colorectal cancer rate was 51.2 per 100,000.<sup>52</sup>

Although two-thirds of age-appropriate Americans were screened for colon cancer in 2010, 22 million more hadn't been, according to the CDC. According to the Kane County Community Health Survey, 64 percent adults stated they had a colonoscopy or sigmoidoscopy, while 31 percent had a blood stool test within the past two years.<sup>53</sup>

# 4.11.3 Breast Cancer

Breast cancer is the most common type of cancer among women and accounts for one of four cancer diagnoses in women in the United States.<sup>54</sup> In 2010 the Kane County breast cancer mortality rate was 19.99 per 100,000.<sup>55</sup> In looking at in-situ breast cancer, a sentinel event for lack of access to primary care for cancer, the incidence rate was 30.4 per 100,000 in Kane County. There was no racial disparity in breast cancer rates as the white and African-American rates were 30.3 and 30.1 respectively.

Mammography is the single most effective method for early detection of breast cancer. According to 2008 Behavioral Risk Factor Surveillance System (BRFSS) data, 76 percent of women older than 40 nationwide had a mammogram within the last two years, as have 75.8 percent of women from this same population in Illinois. In 2011 approximately 75.5 percent of Kane County women reported having a mammogram in the past two years. This is below the Healthy People 2020 objective of 81.1 percent.

### 4.11.4 Prostate Cancer

Prostate cancer is the most commonly diagnosed cancer among men and is the second leading cause of male cancer death. In Kane County, from 2003 to 2007 there were 42 deaths per 100,000 from prostate cancer. In 2011 only 66.5 percent of men older than 40 in the Delnor service area reported ever having a prostate exam.

## 4.11.5 Cervical Cancer

There are many complex and interrelated factors that contribute to the risk of developing cancer. These same factors contribute to the observed disparities in cancer incidence and death among racial, ethnic and underserved groups. The most obvious factors are associated with a lack of healthcare coverage and low socioeconomic status. 60 Low socioeconomic status is often associated with an increased risk of cervical cancer. 61

In Kane County between the years 2004 and 2008, there were 90 incidences of cervical cancer reported, with an age-adjusted rate of 80 per 100,000 females.

In a given population, as the use of the Papanicolaou (Pap) test increases, cervical cancer mortality rates among women continue to decrease. A Pap test detects changes in the cervix before cancer develops and can discover cancer in its earliest, most curable stage.<sup>62</sup> In Kane County, 83.8 percent of women reported having a pap test within the last three years.<sup>63</sup> This is below the Healthy People 2020 goal of 93 percent.

# Implications of Chronic Diseases for Health Services Planning

There is an 81 percent death rate for chronic disease in Kane County. Not only does this have a major impact on the county's community health status and individual quality of life, it also increases the direct cost of healthcare services and indirect costs of lost income due to disability. As the population of Kane County ages, rates of chronic disease will also rise.

Chronic diseases, while among the most common and costly of all health problems, can be alleviated through prevention and remediation. CDC stresses that for chronic disease prevention to be most effective it must occur across the lifespan and consist of activities that include health promotion, early detection efforts and management of existing diseases and related complications.<sup>64</sup>

Providing public education and outreach to at-risk populations may help prevent chronic disease, while support for primary care and prevention-based care models may help provide the ongoing coordination of care required to address chronic disease. Additionally, social support services, such as transportation and lifestyle counseling, will be required to assist those disabled by chronic disease. Acute care facilities are also necessary to provide inpatient and advanced outpatient care for cancer, stroke, heart disease, pneumonia and other acute conditions resulting from chronic disease.

# Citations

- 35 Kane County Health Department
- 36 Community Health Assessment Databook
- 37 2012-2016 Community Health Improvement Plan
- 38 Illinois Department of Health
- 39 National Diabetes Information Clearinghouse
- 40 National Osteoporosis Foundation
- 41 National Osteoporosis Foundation
- 42 National Institutes of Health
- 43 Center for Disease Control
- 44 American Lung Association
- 45 American Lung Associate
- 46 2012-2016 Community Health Improvement Plan 47 Kane Count Community Health Assessment 2011-2012 48 Breast Cancer Facts & Figures 2007-2008
- 49 Kane County Health Department
- 50 Kane Count Community Health Assessment 2011-2012
- 51 American Cancer Society, Atlanta, Georgia
- 52 Kane County Health Department
- 53 Kane County Community Health Survey
- 54 American Cancer Society
- 55 Susan G. Komen for the Cure
- 56 Kane County Health Department
- 57 U.S. Department of Health and Human Services
- 58 Illinois Department of Health
- 59 Kane County Health Department
- 60 U.S. Department of Health and Human Services
- 61 Centers for Disease Control and Prevention, 2008
- 62 American Cancer Society
- 63 Kane County Community Health Survey
- 64 Centers for Disease Control and Prevention

## Section 5: Infectious and Sexually Trasmitted Diseases

## **OVERVIEW**

Outbreaks of traditional vaccine-preventable diseases, including pneumonia, measles, mumps, pertussis and the seasonal flu continue to surface. In recent years these have included West Nile virus, severe acute respiratory syndrome (SARS), avian influenza A and H1N1 influenza. Examination of cause of death and years of potential life lost data in Kane County reveals:

# Vaccine-preventable diseases remain prevalent

In 2011 there were 537 cases of reportable infectious diseases in Kane County. Among vaccine-preventable diseases, there were 51 cases of pertussis, two cases of mumps and 40 cases of chickenpox, suggesting a need for increased vaccination coverage. The 2010 immunization rate for Kane County among children 24 to 35 months was only 56 percent.65

## Significant health threats

Tuberculosis cases in Kane County increased 22 percent from 4.9 per 100,000 in 2000 to 6 per 100,000 in 2010. In 2009 there were 207 reported cases of the novel influenza H1N1. This indicates an ongoing need to guard against all types of infectious diseases.<sup>66</sup>

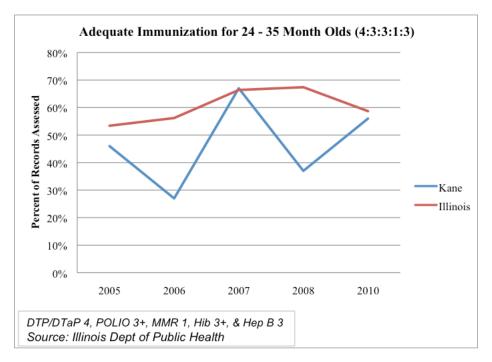
# Sexually transmitted diseases are decreasing

As of 2010 reportable sexually transmitted diseases had decreased during the last five years, including chlamydia and gonorrhea. HIV and AIDS, while below state levels, were higher than neighboring counties. Education and outreach as well as access to confidential and affordable treatment are needed to address these diseases.

Details of infectious diseases and sexually transmitted diseases and implications for planning follow.

## 5.1 Vaccine-Preventable Diseases

Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. While childhood immunization programs provide a very high return on investment, only 56 percent of 2-year-olds in Kane County received the recommended vaccinations in 2010.<sup>67</sup> Despite the availability of vaccines, outbreaks of diseases such as measles, mumps and pertussis continue in the United States and Kane County.



Adequate Immunization for 24-35 Months Old Source: Illinois Department of Public Health

## 5.1.1 Pertussis

Pertussis (whooping cough) is a highly communicable disease caused by bacteria that spreads through direct contact with discharges from respiratory mucous membranes of infected persons. Most common in children, symptoms of severe coughing or whooping can last many weeks. Although it is vaccine-preventable, pertussis is endemic in the United States where epidemics occur every three to five years. The most recent epidemic occurred in 2005 with 25,616 reported cases with in the nation. In Kane County, there were 51 cases of pertussis in 2011.<sup>68</sup> If adults and adolescents received booster shots of the combination vaccine Tdap, it could greatly reduce susceptibility to the disease.

## **5.1.2 Mumps**

Mumps is a contagious respiratory disease caused by a virus that spreads by mucus or droplets from the nose or throat of an infected person, usually when a person coughs or sneezes. Symptoms include fever, headache, muscle aches, tiredness and loss of appetite, followed by swelling of cheeks and jaw due to swelling of salivary glands. Because most people have now been vaccinated, mumps has become a rare disease in the United States.<sup>69</sup> In 2011 there were only two cases of mumps reported in Kane County.<sup>70</sup>

## 5.1.3 Measles

Measles is a highly contagious respiratory disease caused by a virus that spreads through the air by breathing, coughing or sneezing. Symptoms include fever, runny nose, cough and a rash all over the body. In one in 10 children, measles also results in an ear infection, one in 20 may get pneumonia and one or two in 1,000 die from the disease. This disease also can cause severe complications to pregnant women, including miscarriage or premature birth. Measles is very rare when vaccination rates are high; however, sporadic cases occur in the United States as a result of importation due to travel to countries where measles is endemic.<sup>71</sup> Based on a 2010 State Health Department Clinic Assessment Survey, immunization levels among the country's 3-year-olds getting the adequate number of doses of measles–mumps–rubella (4:3:1) was only at 55 percent, compared to Illinois at 59 percent.<sup>72</sup>

## **5.2 Vaccination Rates**

Kane County is currently above the U.S. percentage for childhood immunization rate, but is below the Kane County Health Department's 2015 goal to increase the rate of age-appropriate vaccination coverage to 90 percent for 2-year-olds. In 2011, 39.5 percent of the population reported having a flu shot in the past 12 months. Only 18.2 percent reported having ever had a pneumonia vaccine. The properties of the population reported having ever had a pneumonia vaccine.

## **5.3 Sexually Transmitted Diseases**

Sexually transmitted diseases (STD) refer to more than 25 diseases caused by pathogens transmitted primarily through sexual activity. With more than 19 million new infections occurring every year, the United States has the highest rate of STD infection of any industrialized country. Sexually transmitted diseases are widespread and can affect individuals from all backgrounds and economic levels, and almost half of all new cases occur in those 15 to 24 years of age.<sup>75</sup>

## 5.3.1 Chlamydia

The most commonly reported STD in the United States, chlamydia decreased by 19 percent in Kane County to 214.5 per 100,000 residents in 2010. The Kane County rate of reported cases of chlamydia was lower than Illinois, which was 289.9 per 100,000.<sup>76</sup>

## 5.3.2 Gonorrhea

In 2010 cases of gonorrhea in Kane County decreased by 57 percent to 31.6 per 100,000, as opposed to 2009, when there were 44.7 reported cases per 100,000.<sup>77</sup>

## 5.3.3 Syphilis

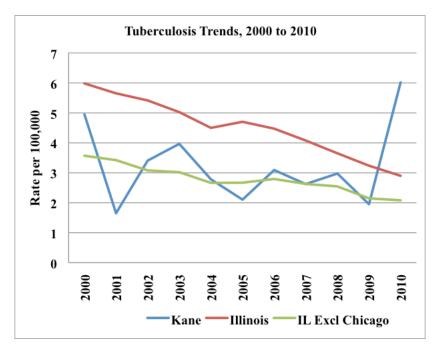
Although infectious syphilis is entirely preventable, it can lead to serious complications and even death. From 2006 to 2008, there was a steady decline of reported cases; however, in 2009 the rate increased slightly to 1.5 per 100,000. During the past two years there was a 15.9 percent increase in the rate of early syphilis, from a rate of 1.2 per 100,000 in 2009 to 1.4 per 100,000 in 2010.<sup>78</sup>

## 5.3.4 HIV/AIDS

Between 2005 and 2010 there were 104 cases of HIV (non-AIDS) diagnosed in Kane County. During the same period there were 137 cumulative cases of AIDS. Both HIV and AIDS rates were lower than Illinois rates, but higher than the surrounding counties.<sup>79</sup>

## 5.4 Tuberculosis

Tuberculosis (TB) is an airborne disease that can be spread to others when an individual with active TB disease of the lungs or throat coughs, sneezes, speaks or sings. Most people who have been infected with TB bacteria do not have any symptoms and will have latent TB infection (LTBI). People with LTBI are not infectious and cannot spread TB bacteria to others.<sup>80</sup> The rate of TB in Kane County increased from 3.1 to 6.0 per 100,000 from 2005 to 2010, which is significantly higher than the Healthy People 2020 goal of 1.0 per 100,000.



**Tuberculosis Trends 2000 to 2010**Source: Illinois Department of Public Health

40

## Implications of Infectious and Sexually Transmitted Diseases for Health Services Planning

The best way to control infectious diseases is to have as much of the population as possible receive vaccinations. Maintaining high levels of vaccination in the population requires public outreach, education and highly coordinated rapid mobilization of public health and provider resources to address emerging threats. Standby acute-care capabilities to address major outbreaks are also required.

One of the main reasons sexually transmitted diseases tend to be under-reported is the social stigma attached to them. Ensuring access to confidential affordable screening and treatment services, particularly for younger people, as well as providing outreach and education may improve prevention and treatment of sexually transmitted diseases.

## Citations

- 65 Kane County Health Department
- 66 Kane County Community Health Assessment 2011-2012
- 67 Kane County Health Department Epidemiology
- 68 Kane County Health Department Epidemiology
- 69 Centers for Disease Control and Prevention
- 70 Kane County Community Health Assessment 2011-2012
- 71 Centers for Disease Control and Prevention
- 72 Kane County Health Department Epidemiology
- 73 2012-2016 Community Health Improvement Plan
- 74 Kane County Community Health Survey
- 75 Centers for Disease Control and Prevention
- 76 Community Health Assessment Databook77 Community Health Assessment Databook
- 78 Community Health Assessment Databook
- 79 Kane County Health Department Epidemiology, 2011
- 80 Ceneters for Disease Control and Prevention

## Section 6: Mental Health

## **OVERVIEW**

According to the National Institute of Mental Health, one in four adults nationwide experience a mental health disorder in any given year. Examination of mental health data in Kane County reveals:

## Depression is prevalent

Depression affects between 10 percent and 20 percent of Kane County adult residents during their lifetime. In 2008 the percentage of adults feeling sad or depressed in the past 30 days increased to 40.6 percent.<sup>81</sup> In 2009 the number of high school students who felt sad or hopeless in the past 30 days increased to 27.8 percent.<sup>82</sup>

# Demand for services is rising and supply is not adequate

In 2010 five federally qualified health centers (FQHC) in Kane County provided mental health services for 6,038 patients, 15 percent of them with a diagnosed depressive disorder. Demand for these services, as well as support for less severe ongoing conditions, has risen in recent years and gaps exist. Services are in particularly short supply for children, psychotherapy for chronically mentally ill patients and ambulatory care for publicly insured patients.

## Suicide rate above national rate

The percentage of high school students in Illinois who attempted suicide in 2009 increased to 8 percent and was higher than the U.S. rate.<sup>84</sup>

Details of mental health data and implications for planning follow.

## 6.1 Depression

According to the 2011 Community Health Assessment, 9.2 percent of adults indicated they felt depressed, sad or blue more than 14 days in the previous month, below the Kane County Health Department 2015 goal of 7 percent of adults.<sup>85</sup> Only 6.6 percent of the Delnor service population of adults indicated they felt depressed, sad or blue more than 14 days in the previous month. Additionally, 13 percent of adults in the Delnor service area have a diagnosed depressive disorder.

Based on the 2009 U.S. Census County Business Patterns data, Kane County is home to 11 outpatient mental health and substance abuse centers. While Kane County does not have a community mental health center, there are 20 agencies coordinating the provisions of services through the Kane County Mental Health Council.<sup>86</sup>

## **6.2 Anxiety Disorders**

In Kane County 8.5 percent of the adult population was diagnosed by a physician as having generalized anxiety disorder in 2011.<sup>87</sup> In the Delnor service area, 12 percent of the adult population was diagnosed with an anxiety disorder.<sup>88</sup>

## 6.3 Substance Abuse

In Kane County alcohol use is a significant public health issue, with 18.2 percent of the population identifying themselves as binge drinkers, a 4.6 percent increase from 2002.<sup>89</sup>

Approximately 92 percent of U.S. adults who drink excessively report binge drinking in the past 30 days, according to the CDC. More than a quarter of Kane County adults reported a time in the last month when they consumed four (women), five (men) or more drinks on a single occasion.

In 2001, 35.9 percent of 15- to 44-year-olds and 37.8 percent of 45- to 64-year-olds in Kane County were hospitalized for alcohol dependency. In 2006 the number of hospitalizations for both age groups had decreased during the five-year period. The younger age group decreased by 42 percent, and the older age group decreased by 23 percent.<sup>90</sup>

## 6.4 Fragmentation of Mental Health Services

Kane County has a wide array of private and public mental health services; however, in many cases they are not well coordinated, are unevenly distributed and under-funded, and often are not accessible to those without insurance. Awareness of mental health needs and available resources among members of the community is also relatively low.

## 6.5 Suicide

In 2007 the Kane County suicide rate was 8.4 per 100,000 people. In 2010 the suicide rate was 7.9 percent for Kane County and 7.1 percent for the Delnor service area. Kane County has met the Healthy People 2020 objective of less than 10.2 per 100,000 for suicide.

More than 90 percent of those who die by suicide have a diagnosable mental disorder. In 2008 an estimated 8.3 million adults in the United States had serious thoughts of suicide in the past year, with the rate being highest in young adults ages 18 to 25.91

## Implications of Mental Health Data for Health Services Planning

Four of the 10 leading causes of disability in the United States and other developed countries are mental disorders according to World Health Organization. By 2020 major depressive illness will be the leading cause of disability in the world for women and children. In the United States, the annual economic, indirect cost of mental illness is estimated to be \$79 billion. Most of that amount—approximately \$63 billion—reflects the loss of productivity as a result of illness.

A combination of pharmacological and psychosocial treatments and support has been known to reduce symptoms and improve quality of life for between 70 and 90 percent of individuals diagnosed with mental illness. With appropriate, effective medication and a wide range of services tailored to their needs, most people who live with serious mental illnesses can significantly reduce the impact of their illness and find a satisfying degree of achievement and independence.

Effective treatments for mental health conditions will help people achieve psychological, social and emotional well-being, which can lead to better overall health. Early identification and access to appropriate treatment and recovery options can accelerate the recovery process. Additional resources and coordination of medical, social and financial services are required. Access to a continuum of services and prevention are especially critical for children and adolescents.

While gaps in mental health care are evident, the scope and nature of the problem is not well understood. Kane County is involved in a countywide effort composed of government and private agencies to identify gaps in the current service delivery model. The goal is to move toward a seamless continuum of care for addressing mental health issues.

The prevalence of substance abuse in the county suggests a need for education and outreach. In particular, educating children on the consequences of alcohol and drug use, and helping them to develop coping skills to resist peer pressure may help reduce future substance abuse.

### Citations

- 81 Community Health Improvement Plan 2012-2016
- 82 Community Health Improvement Plan 2012-2016
- 83 Kane County Community Health Assessment 2011-2012 84 Community Health Improvement Plan 2012-2016
- 85 Kane County Health Department
- 86 Community Health Improvement Plan 2012-2016
- 87 Kane County Community Health Survey
- 88 Community Health Improvement Plan 2012-2016
- 89 CDC BRFSS Questionaire
- 90 Kane County Community Needs Assessment and Community Health Plan 2006
- 91 U.S. Department of Health and Human Services
- 92 Community Health Improvement Plan 2012-2016

# Section 7: Nutrition, Physical Activity and Obesity

### **OVERVIEW**

Obesity increases the risk of chronic diseases such as diabetes, heart disease, lung disease, stroke and cancer. Preventing and reducing the prevalence of obesity would greatly improve public health, reduce healthcare costs and restore economic losses due to disability. Examination of nutrition, physical activity and obesity data in Kane County reveals:

# Obesity rates are rising

More than 63.9 percent of adults countywide were overweight or obese in 2011, up from about 57 percent in 2002. Rates among children are also high, with 14.7 percent of children considered overweight and another 21.8 percent of children considered obese.<sup>93</sup>

# Obesity rates vary with income and education

Lower-income and less-educated populations within the county have higher rates of obesity. Targeted outreach may help alleviate this condition.

# Poor nutrition and limited physical activity are factors

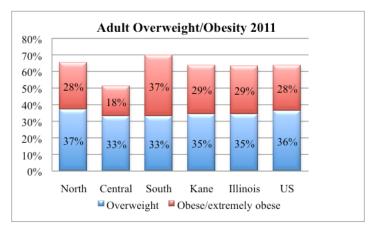
Increased calorie intake, less walking and more time in front of televisions and computer screens contribute to obesity. Lack of access to fresh fruits and vegetables and other nutritionally dense foods may be a concern for lower-income residents.

Details of nutrition, physical activity and obesity and implications for planning follow.

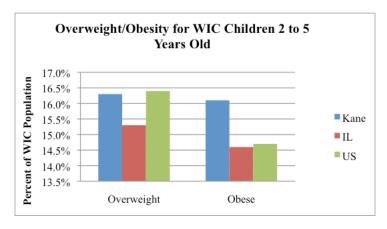
## 7.1 Obesity Rates

Nationally, during the past 30 years, adult obesity rates have doubled and childhood obesity rates have more than tripled. Adult overweight obesity rates in Kane County have risen steadily, with 34.5 percent of adults in Kane County currently overweight. Those who are obese make up 29.4 percent of the population, which means that 63.9 percent of adults in Kane County in 2011 were overweight or obese. In the Delnor service area, 51 percent of the adult population was overweight or obese. The Healthy People 2020 target is 30.6 percent or less in the population.

In 2000 it was estimated that overweight and obesity medical expenses accounted for 9.1 percent of total U.S. medical expenditures, reaching \$78.5 billion. Illinois accounted for \$3.4 billion of this amount. Additionally, the cost of lost productivity for Americans between the ages 17 and 64 is estimated at \$3.9 billion yearly due to overweight and obesity.<sup>95</sup>



Adult Overweight/Obesity
Source: Kane County Health Department



Overweight/Obesity for WIC Population Younger Than 5
Source: CDC Pediatric Nutrition

46

## 7.2 Childhood Obesity

Childhood obesity is threatening to make the current younger generation the first in history to have a shorter life expectancy than their parents. Overweight and obese children and adolescents face the increased risk of weight-related health issues as adults, including cardiovascular disease and Type 2 diabetes. They're also more likely to experience psychological stress, social stigmatization and low self-esteem. The long-term effects include problems with academics and social functioning.

In Kane County the problem of childhood obesity is alarming: 14.7 percent of children are considered overweight and another 21.8 percent are considered obese. <sup>96</sup> The Healthy People 2020 target for youths 2- to 19-years-old is 14.6 percent. Fit Kids 2020 is a comprehensive community-developed 10-year plan to reduce childhood obesity.

## 7.3 Nutrition and Activity

Poor nutrition is a major cause of obesity. In recent Kane County community focus groups, participants pointed to mediocre lunch offerings in school cafeterias, unhealthful food being the easy choice, and portion control as key contributors to poor nutrition. Nutritious foods are often more expensive than calorie-dense, less-nutritious foods, and in many economically depressed communities fresh fruits and vegetables, and other essentials of a healthful diet are not available.

All of these factors contribute to poor diet habits, particularly among low-income populations. Unemployment in particular has been shown to lead to an increase in unhealthful behaviors related to diet, alcohol and tobacco consumption, and exercise, which in turn can lead to increased risk for disease or mortality.<sup>97</sup>

Inactivity also promotes obesity. Children engage in less physical activity at school than in the past, and are less likely to spend time in public parks, which are often poorly maintained and unsafe in lower-income neighborhoods. American adults are more likely to drive for even short trips of a mile or less, and people of all ages spend more time in front of television, computers and video games.

## Implications of Nutrition, Activity and Obesity for Health Services Planning

Obesity increases the risk of diseases such as diabetes, heart disease, stroke and cancer. Preventing and reducing its prevalence would greatly improve public health, reduce healthcare costs and restore economic losses due to disability.

Outreach and interventions for children and high-risk adult populations are essential to reduce obesity in the community. In addition to medical care and nutrition counseling, resources to increase exercise, make healthful foods available and public education are required. Coordination with county health officials and private organizations, such as the interventions outlined in the Fit Kids 2020 plan, may help reduce obesity in the community.

### Citations

93 Community Health Assessment Primary Data

94 CDC BRFSS Questionaire

95 Centers for Disease Control and Prevention

96 Community Health Improvement Plan 2012-2016

97 Population Health Institute

# Section 8: Access to Care

## **OVERVIEW**

The majority of participants in the focus groups conducted as part of the Community Health Assessment agreed that the biggest healthcare issues in Kane County are healthcare access for the uninsured and the cost of health care. Access to care for low-income and uninsured patients as well as patients with mental health problems are also a growing issue in Kane County. Examination of access-related issues reveals:

# Increasing numbers of uninsured, unemployed and low-income residents.

In 2011 the County Health Rankings reported that 15 percent of Kane Poverty rates have increased by twothirds to 11.1 percent in Kane County. Twenty-seven percent of residents who were at 200 percent of the federal poverty level or lower were uninsured compared to 7 percent for those above 200 percent of the federal poverty level. The annual 150 percent from 4 percent in 2000 to 10.3 percent in 2010, higher than the U.S. rate of 9.6 percent. Medicaid enrollment in Kane County, which includes All Kids and Family Care, has risen sharply in recent years and stood at 116,707, or 23 percent, According to the Illinois Department of Human Services, Medicaid covers 96 percent of the 11,875 Kane County persons enrolled in Women Infants and Children (WIC).98

## Disproportionate access among minorities and non-English speakers

When viewed by race/ethnicity, one in every three African-Americans living in Kane County are below the poverty level as compared to one in five Hispanics and one in 20 whites. Seventeen percent of children younger than 18 lived below the poverty level while 24 percent of female-headed households were below the poverty level.

## Fragmented mental health services

While services exist for treating acute mental health episodes, access to counseling and psychiatric drugs on an outpatient basis is limited

Details of access to care and implications for planning follow.

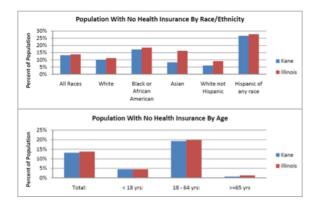
The Patient Protection and Affordable Care Act of 2010 highlights the importance of the access to healthcare issue on the national level. In Kane County access to care was found to be an important issue as well. Having access to health services is an important determinant of health status and is critical to eliminating health disparities and increasing years of healthy life.

According to the U.S. Department of Health and Human Services, financial, structural and personal barriers can limit access to health care. The key financial barriers that patients experience are a lack of health insurance and not having the financial capacity to cover health services outside their health plan or insurance program. Structural barriers include the lack of primary care providers, medical specialists or other healthcare professionals to meet special needs or the lack of healthcare facilities. Personal barriers include cultural or spiritual differences, language and transportation barriers, not knowing how or when to seek care or concerns about confidentiality or discrimination.

## 8.1 Uninsured and Medicaid

In Illinois 87 percent of adults reported having healthcare coverage, compared to 85 percent in the United States. There is a disparity in health insurance coverage for residents in the county: Only 73 percent of Hispanics had health insurance and 83 percent of African-Americans, compared to 94 percent for non-Hispanic whites.<sup>99</sup> In the 2011 Community Health Assessment phone survey, 89 percent of Kane County adult residents reported that they had health insurance coverage compared to 87.8 percent in 2002.

There is a strong correlation between employment and health, particularly in access to care and mental health. Unemployment in particular has been shown to lead to an increase in unhealthy behaviors related to alcohol and tobacco consumption, diet, exercise and other health-related behaviors, which in turn can lead to increased risk for disease or mortality. Studies have also shown that people who lose a job through no fault of their own were twice as likely to develop a new health problem, such as high blood pressure, diabetes or heart disease over the next year and a half compared with those who were continuously employed. Through coordination of job training programs and increasing job skills, we can address all of the six top threats to community health in Kane County.



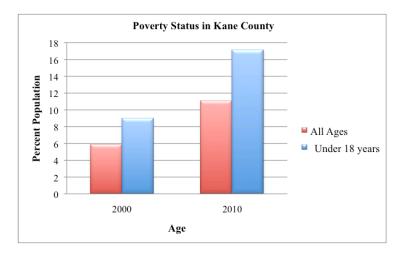
Population with No Health Insurance by Race/Ethnicity
Population with No Health Insurance By Age
Source: U.S. Census Bureau

## 8.2 Unemployment

The unemployment rate, at 10.3 percent in 2010, has increased significantly in the past few years, doubling from 1990 to 2010. This rate was similar to the overall Illinois rate but higher than the U.S. rate of 9.6 percent. Most municipalities in the county also experienced increased unemployment rates. Sections of Aurora and Elgin, as well as Carpentersville, had higher unemployment rates than Kane County overall.

## 8.3 Low Income

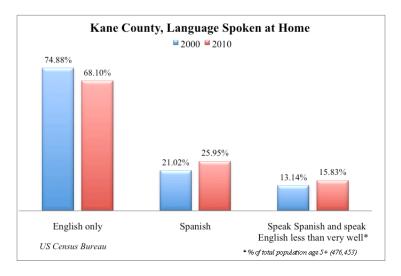
An increasing percentage of the state's poor are migrating to the suburbs. The poverty level in Kane County went from 5.9 percent in 2000 to 11.1 percent in 2011. The poverty level for residents younger than 18 grew from 9 percent to 17.1 percent



Poverty Status in Kane County Source: U.S. Census Bureau

## 8.4 Minority and non-English Speaking

Minorities, refugees and non-English speakers are disproportionately represented in the low-income uninsured and Medicaid-insured group. In Kane County, one in three African-Americans, one in five Hispanics and one in 20 whites are below the poverty level. Spanish is the primary language in 10.9 percent of households, while English is the primary language in 88.5 percent of households. At home 25.9 percent of the Kane County population spoke only Spanish, 61 percent spoke English less than "very well." 100



Kane County Language Spoken at Home Source: U.S. Census Bureau

## 8.5 Fragmented Mental Health Services

Improving availability of community mental health services in Kane County is a priority. While services exist for acute episodes of mental illness, care for less severely ill patients is fragmented. There are no community mental health centers in Kane County, and many of the private and public services that are available are not accessible to those without insurance. Access to medications is also a problem for many patients outside crisis situations.

## Implications of Access Data for Health Services Planning

Access to care will be an increasing issue as the low-income, uninsured, minority and non-English speaking populations in Kane County grow. Delnor is a leading supporter of community efforts to provide services to uninsured and low-income individuals, and will continue to work with community partners to do so. In addition, Delnor is committed to lowering cultural and language barriers to care by continuing to provide interpretation services and culturally sensitive care in all settings. Delnor also supports efforts to define and address gaps in the continuum of care for mental health services.

## Citations

- 98 County Health Rankings 2011
- 99 Community Health Improvement Plan 2012-2016
- 100 Community Health Improvement Plan 2012-2016

# Section 9: Health Collaboratives and Key Community Stakeholders

## **OVERVIEW**

Cadence Health is committed to working collaboratively with other healthcare providers, community groups and key government/community stakeholders. Working collaboratively maximizes resources, eliminates duplication and allows for a maximum return on the investments committed to improving the health and well-being of the communities served. In 2011 the Kane County Health Department began the process of conducting a comprehensive Community Health Needs Assessment and (CHIP). This initiative was conducted in partnership with the county's five hospitals, the Mental Health Board (INC. board) and two local United Ways. The information yielded from this initiative has formed the basis of the information provided within this document.

## **Health Collaboratives**

In 2010 the Kane County Board became the only county government in Illinois to provide policy direction that was aimed at formally integrating health, land use and transportation into a comprehensive master plan. The collaboration between these planning disciplines is titled "Quality of Kane" and is rooted in the belief that the quality of the communities where residents live, work and play is as important to achieving good health as going to the doctor for regular checkups, proper nutrition and adequate physical exercise. Additionally, it is widely recognized by all community stakeholders that physical environment, social and economic factors, and clinical care also play a major role in an individual's health. The three key documents and their resultant initiatives identified below will be used to promote collaboration in planning and responding to community health needs within the county as the county strives to meets its goal of making Kane County residents the healthiest residents in Illinois. Additional ongoing collaboratives discussed in sections 9.4 through 9.7 also cumulatively support the county's overarching 2040 Plan.

## 9.1 2O12 – 2O16 Community Health Improvement Plan (CHIP)

As previously stated, Delnor Hospital actively participated in multiple phases of the community needs assessment and development of the CHIP. The hospital served as a site used by the CHIP subcontractor, Northern Illinois University, in which community members participated in health-related focus groups. Additionally, hospital leadership actively served on the Kane County Health Assessment Committee.

## 9.2 Kane County Health Department Strategic Plan

Both the Kane County Health Department and Kane County Board have historically encouraged participation and input from key community stakeholders to guide, implement and evaluate their strategic planning process. To that end, the county board chair has established and effectively uses a Public Health Advisory Board to elicit input into both the day-to-day programming and the overarching strategic planning process. Karin Podolski, RN MS MPH and Delnor's director of community health and outreach, serves as a member of the advisory board.

## 9.3 Fit Kids 2O2O Plan

The Making Kane County Fit for Kids (FFK) campaign was launched in 2008 to address the alarming concerns related to childhood obesity. The purpose of the plan was to provide a strategic framework to guide key stakeholder actions in an effort to reverse the toll of childhood obesity by the year 2020. Four strategic action principles guide this plan:

- 1. Provide parents and children with reliable, up-to-date information in multiple settings regarding healthful physical activity and eating habits
- 2. Support a culture of wellness and health promotion in our workplaces, schools and other institutions
- 3. Develop land use, planning and other public policies that foster and support physical activity for all in our community
- 4. Assure that fresh fruits and vegetables are affordable and accessible to all families

Delnor leadership and staff support the Fit Kids 2020 plan in multiple ways, including the provision of health education materials, community education programming for both adults and children, supporting a workplace wellness initiative

via the use of multiple walking paths throughout the hospital campus and serving on the county's community health and wellness committee.

## 9.4 Kane County Mental Health Council

People who need mental health services in Kane County frequently find themselves without timely access to most mental health providers. The Kane County Mental Health Council continuously works to coordinate available resources in addition to recruiting additional resources to Kane County in order to better serve county residents. Delnor Hospital serves as a member of the council.

## 9.5 Healthy Places Coalition

The Healthy Places Coalition is an essential health partnership aimed at promoting the health of indoor and outdoor environments, which are integral to the health of all members of the community. The coalition was formed by participants from diverse aspects of the community, including the U.S. Environmental Protection Agency, the Kane County Health Department, municipal governments, hospitals (including Delnor), fire departments, community advocacy groups and many others. Delnor's community educator serves on this coalition.

## 9.6 Kane Community Health Access Integrated Network (KCHAIN)

KCHAIN was formed in 2004 by Kane County health providers, advocates, the five hospitals and local federally qualified health centers. The projects primary purpose was to increase access to affordable health care for underserved residents in Kane County and to promote preventive treatment through the assignment of a medical home. Delnor's community health and outreach staff member Jennifer Simmons, MBA, represents the hospital on the committee.

## 9.7 All Our Kids Early Childhood Networks (AOK)

The AOK network is a maternal-child program that seeks to ensure that all families with children younger than 5 will receive needed services including but not limited to prenatal care, well baby checkups and parenting education. Delnor staff from the prenatal education department take an active role in supporting this initiative in addition to participating on the Kane County Perinatal Committee and Breastfeeding Coalition.

In summary, Delnor Hospital is committed to working collaboratively in both leadership and supportive roles within the community to strengthen the healthcare safety net of residents residing within the hospital's primary and secondary service areas. Special emphasis is always placed on responding to the needs of the poor and vulnerable.

## **Key Community Stakeholders**

Leadership and staff at Delnor Hospital are firmly committed to the belief that no one entity or organization can effectively meet all the needs of an individual receiving health care. Patients frequently present during a healthcare visit with complex biologic, socioeconomic, financial and multiple other needs that may be more effectively addressed by working in tandem with other key community stakeholders. In doing so providers maximize resources, limit duplication and promote an effective continuum of care that results in shorter inpatient stays, smoother transition back into a home setting, enhanced self-care behaviors and decreased readmission rates.

Throughout the county, there exists an abundance of resources and support services offered by key community stakeholders including but not limited to domestic violence shelters, food pantries, PADS overnight shelters, mental health services for the underserved, school districts and faith community nurses. Within the central Kane County region, the following key stakeholders work closely with Delnor staff to provide support to patients residing within the hospital's service area.

## Lazarus House

Lazarus House is a nonprofit charitable organization serving persons who are homeless or at risk of homelessness and connected to central Kane County. The program serves men, women and children by providing emergency shelter, transitional living services and an outreach assistance program when funds are available. Delnor staff frequently reaches out to Lazarus House staff for assistance when caring for homeless or near-homeless individuals.

### Tri City Health Partnership

Tri City Health Partnership is a free medical clinic with a mission to provide quality health care in an environment of mutual respect to those members of the community who are without medical benefits. The clinic is staffed by dedicated volunteer nurses and physicians. Services include health care for children and adults, treatment for chronic and acute illnesses, limited diagnostics and specialty referrals. Delnor staff uses Tri City resources to ensure uninsured patients have access to ambulatory healthcare services.

## Tri-City, Elgin and Burlington School Districts

Delnor community health and outreach staff work closely with local school districts to provide multiple health promotion and disease prevention programs including but not limited to healthful eating, exercise and hygiene.

## Tri-City Salvation Army

The Tri-City Salvation Army is a faith-based organization offering multiple programs to the needy and vulnerable in the tri-city region. Services include a food and bread pantry, multiple health and education programs, summer day camps, after school programming, and services for women and youth. The organization also provides emergency assistance to residents of Geneva, Batavia, St. Charles and Campton Hills.

## Local Target, Walgreens and Wal-Mart Pharmacies

These local pharmacies provide a \$4 generic prescription program using a wide range of generics to help treat a variety of conditions and diseases. Programs such as these support the care provided by Cadence Health physicians and assist patients in being able to afford their medications, thus facilitating better compliance.

## Ecker Center for Mental Health

The Ecker Center for Mental Health provides an array of outpatient mental health services primarily to adults with mental illness. Services range from early intervention to recovery and include crisis, psychiatric care, case management, rehabilitation, residential and psychotherapy assistance.

In summary, Delnor Hospital works collaboratively with multiple key stakeholders not only to assess and respond to identified health priorities, but also to use the services provided by these organizations in an effort to enhance the quality of patient care provided.

# Section 10: Delnor Priority Initiatives

## **OVERVIEW**

Upon lengthy review of both the Community Health Assessment and Community Health Improvement Plan, along with an analysis specific to central Kane County, Delnor has identified four priority needs that will be addressed during FY 2011-2013. Each priority area will have specific and measurable goals, objectives and outcomes, which are outlined in our FY 2011-2013 Community Benefit Plan.

At Cadence Health, we believe that the most effective way to address needs in our community is to work collaboratively with our community partners and stakeholders. This approach allows us to maximize collective efforts and achieve the best use of our collective resources.

In selecting priorities we considered the degree of community need for additional resources, the capacity of other agencies to meet the need and the suitability of our own expertise and resources to address the issue. In particular, we looked for health needs that require a coordinated response across a range of healthcare and community resources. We believe that these needs can benefit most from the integrated nature of our organization and our provider and community partners. FY 2011-2013 priority initiatives are:

Access to care

Obesity/Nutrition

Chronic disease

Communicable disease

Details on the Delnor priority initiatives follow.

### 10.1 Access to Care

An aging population coupled with a flagging economy and an increasing prevalence of chronic disease create a variety of access-to-care issues relating to both the affordability and availability of care. Delnor seeks to promote access through a variety of initiatives that will be delineated within the Community Benefit Plan. Summarily, Delnor will continue to work with individuals and families to promote access to medically necessary inpatient services by maintaining an accessible financial assistance program. Additionally, staff and leadership will work collaboratively with key community partners to promote a seamless continuum of care into local medical home settings.

## 10.2 Obesity/Nutrition

The problem of adult/child obesity has reached epidemic levels, both nationally and in Kane County. Currently, 63.9 percent of Kane County adults are considered overweight and/or obese. It is widely recognized that being overweight or obese can lead to a variety of chronic diseases including heart disease, diabetes, hypertension, cancer, stroke and osteoarthritis. With both a large young population and an aging population, it is critical to address this issue to not only to enhance health and well-being but to reduce healthcare costs over the long term. Delnor will continue its partnership with Kane County's Fit Kids 2020 Plan in addition to working with local school and park districts.

### 10.3 Chronic Disease

As our nation and local communities continue to age, an increase in both the incidence and the provenance of chronic disease is expected. The existing healthcare delivery system is not prepared to provide comprehensive services that will be required to address these diseases. Nor is it prepared to respond to both the direct and indirect burden that chronic disease is likely to create—including the significant financial strains for individuals, families and healthcare providers. Public health experts speak to the importance of education to prevent the onset of disease and improvement of healthy lifestyles along with screening to promote early detection and prompt treatment of disease states in an effort to limit associated disability. Additionally, education of individuals with chronic diseases to assist in the self-management of the disease will improve outcomes, lessen acute exacerbated episodes and promote longer, healthier lives with an emphasis on living in an optimum state of wellness. Delnor is committed to providing care along all three levels of the chronic disease continuum—education, screening and management.

## 10.4 Communicable Disease

People in the United States continue to get diseases that are vaccine preventable. Vaccines are among the most cost-effective clinical preventive services and are a core component of any preventive services package. However, only 56 percent of 2-year-olds in Kane County received recommended vaccines in 2010. This problem is exacerbated in central Kane County as many healthcare providers do not participate in the state's Vaccine for Children (VFC) Program. In response, Delnor Hospital has become a VFC provider and offers regular immunization clinics for children and adolescents with limited access to vaccines. Additionally, Delnor continues to partner with the Kane County Health Department and local providers in the diagnosis and inpatient treatment of individuals with active tuberculosis.

## 10.5 Non-Prioritized Needs

Three additional needs were identified in the county Community Health Assessment data—infant mortality, childhood lead poisoning and poor social/emotional wellness. While we still consider these priority needs and will continue to participate in countywide initiatives to address these concerns, an analysis of central Kane data specific to these priorities did not demonstrate significant need at this time. We will, however, continue to monitor these trends and respond accordingly should they become a notable concern in central Kane County.

## Infant Mortality

There were a total of 1,023 births to Kane County residents at Delnor Hospital in 2008. Of these, 85 percent had adequate prenatal care. This represents the highest percentage in Kane County and exceeded Healthy People 2010 goals for early prenatal care. Additionally, infant mortality for Delnor residents was non-calculable due to small numbers.

## Childhood Lead Poisoning

While Kane County has one of the highest levels of childhood lead poisoning in the state, county data indicates the aggregation of this problem is concentrated in both the northern and southern parts of the county as evidenced by ZIP code tracking. We will continue to monitor this trend and assess VFC participants as needed for risk.

## Poor Social/Emotional Wellness

Residents in the Delnor service area had relatively better health outcomes than in other areas of the county. Survey data indicated that 61 percent of central Kane respondents reported their general health as excellent or very good, while 7 percent reported their mental health as not being good.

# **Bibliography**

2010 Illinois Employment Data. (n.d.). Retrieved from Illinois Department of Employment Security.

2012-2016 Community Health Improvement Plan. Kane County Health Department, Kane County Health Department. Kane County.

American Cancer Society. (n.d.). *Breast Cancer Facts & Figures 2007-2008*. Retrieved from American Cancer Society: http://www.cancer.org/downloads/stt/BCFF-Final.pdf.

American Cancer Society. (2008). *Colorectal Cancer Facts & Figures 2008-2010*. Retrieved from American Cancer Society: http://www.cancer.org/downloads/stt/f861708\_!nalforweb.pdf,

American Cancer Society. (2009). *Cancer Facts & Figures 2009*. Retrieved from http://www.cancer.org/downloads/STT/500809web.pdf.

American Cancer Society, Atlanta, Georgia. (2007). *Breast Cancer Facts & Figures 2007-2008*. Retrieved from American Cancer Society: http://www.cancer.org/Research/CancerFactsFigures/BreastCancerFactsFigures/breast-cancer-facts-figures-2007-2008

American Lung Association. (n.d.). *The Scope of COPD in Illinois*. Retrieved from American Lung Association: http://www.lung.org/associations/states/illinois/the-scope-of-copd-in-illinois.html.

CDC BRFSS Questionaire. (n.d.). Retrieved from http://www.cdc.gov/brfss/questionnaires/english.htm.

CDC Pediatric Nutrition Surveillance System. (2011). *Pediatric Nutrition Surveillance — 2009 Report*. Report, Centers for Disease Control and Prevention, Department of Health and Human Services.

CDC. Smoking-Attributable Mortality, Years of Potential Life Lost, and Productivity Losses—United States. CDC.

Centers for Disease Control and Prevention. (n.d.). *Obesity and Overweight for Professionals: Economic Consequences*. Retrieved from http://www.cdc.gov/obesity/causes/economics.html.

Centers for Disease Conrol and Prevention. (n.d.). *Tuberculosis*. Retrieved from http://www.cdc.gov/tb/topic/basics/default.htm.

59

Centers for Disease Control and Prevention. (2008). *Community Health and Health Equity Program.* Retrieved May 19, 2012, from U.S. Department of Health and Human Services, Centers for Disease Control and Prevention: http://www.cdc.gov/nccdphp/dach/chhep/pdf/SDOHworkbook.pdf.

Centers for Disease Control and Prevention. (n.d.). *Chronic Disease Prevention and Health Promotion*. Retrieved May 19, 2012, from Centers for Disease Control and Prevention: http://www.cdc.gov/chronicdisease/overview/index.htm.

Centers for Disease Control and Prevention. (n.d.). *Measles*. Retrieved from CDC: http://www.cdc.gov/measles/index. html.

Centers for Disease Control and Prevention. (n.d.). *Mumps*. Retrieved from http://www.cdc.gov/mumps/about/index. html.

Centers for Disease Control and Prevention. (2008). Smoking Attributable Mortality, Years of Potential Life Lost, and Productivity Losses — United States, 2000-2004. *Morbidity and Mortality Weekly Report, 57.* 

Centers for Disease Control and Prevention. (2011). Vital Signs: Colorectal Cancer Screening, Incidence, and Mortality — United States, 2002-2010. *Morbidity and Mortality Weekly Report*, 60 (26).

Chicago Metropolitan Agency for Planning. (2011, January). *Socioeconomic Inventory Validation and Forecasting Method*. Retrieved May 2012, from CMAP DATA: www.cmap.illinois.gov

Community Health Assessment Databook. Kane County.

Community Health Assessment Primary Data. Kane County Health Department.

County Health Rankings 2011. Retrieved from http://www.countyhealthrankings.org

Facing Homelessness, A Study of Homelessness in Chicago and the Suburbs. Regional Roundtable on Homelessness.

(2011). *Illinois County Cancer Statistics Review—Incidence*, 2004-2008. Illinois Department of Public Health, Illinois State Cancer Registry.

Illinois Department of Public Health. (n.d.). *Illinois Behavioral Risk Factor Surveillance System*. Retrieved 2012, from Illinois Department of Public Health: http://app.idph.state.il.us/brfss

Kane County Community Health Assessment 2011-2012. (n.d.).

Kane County Community Needs Assessment and Community Health Plan 2006. (n.d.). Retrieved from kanehealth.com/PDFs/Planning/IPLAN/The2006IPLAN.pdf.

Kane County. (2003). Continuum of Care for Kane County 2003 SuperNOFA Application. Kane County.

Kane County Health Department—Epidemiology. (2011, December). *The Epidemiology Program Office of Community Health Resources 2012*. Retrieved from Kane County Health Department: http://kanehealth.com/epidemiology.htm.

Kane County Health Department. Comprehensive Community Assessment 2011 - Delnor Hospital. Delnor Hospital. Kane County.

Kane County Health Department Progress Report 2007-2011.

Kane County Regional Planning Commission. (n.d.). 2030 Land Resource Management Plan. Retrieved from Kane County Illinois: http://www.co.kane.il.us/development/2030/index.htm.

National Diabetes Information Clearinghouse. (2008). *National Diabetes Statistics*. Retrieved from http://diabetes.niddk.nih.gov/DM/PUBS/statistics/#deaths.

National Institutes of Health. (n.d.). *Who is at Risk for Asthma?* Retrieved from National Heart Lung and Blood Institute: http://www.nhlbi.nih.gov/health/health-topics/topics/asthma/atrisk.html.

National Osteoporosis Foundation. (2008). *Fast Facts on Osteoporosis*. Retrieved from http://www.nof.org/osteoporosis/diseasefacts.htm.

Population Health Institute. (n.d.). *Health Factors—Employment*. Retrieved from County Health Rankings & Roadmaps: http://www.countyhealthrankings.org/health-factors/employment.

Ramirez, L. K., Baker, E. A., & Metzler, M. (2008). *Promoting Health Equity—A Resource to Help Communities Address Social Determinants of Health*. Centers for Disease Control and Prevention. U.S. Department of Health and Human Services.

*Youth Risk Behavior Surveillance System.* (2009). Retrieved from Centers for Disease Control and Prevention: http://www.cdc.gov/healthyyouth/yrbs/index.htm,

Susan G. Komen for the Cure. (2011). Community Profile Report.

- U.S. Census Bureau. (n.d.). State and County Quick Facts. Retrieved from: http://quickfacts.census.gov/qfd/states/17000. html.
- U.S. Census Bureau. (2009). American Community Survey.
- U.S. Department of Health & Human Services. (2009). *Community Health Status Indicators*. Retrieved 2012, from National Leading Causes of Death: http://www.communityhealth.hhs.gov/NationalLeadingCausesofDeath.aspx?GeogCD=17089&PeerStrat=10&state=Illinois&county=Kane.
- U.S. Department of Health and Human Services. (n.d.). General Health Status. Retrieved from HealthyPeople.org; http://

healthypeople.gov/2020/about/genhealthabout.aspx#years.

- U.S. Department of Health and Human Services. (2009). 2008 National Survey on Drug Use and Health: National Findings. Survey, Substance Abuse and Mental Health Services Administration.
- U.S. Department of Health and Human Services. (n.d.). *Cancer*. Retrieved from HealthyPeople.gov: http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=5
- U.S. Department of Health and Human Services. (2011). *Healthy People 2020*. Washington D.C: U.S. Government Printing Office.
- U.S. Department of Health and Human Services. (2012). *Maternal, Infant, and Child Health Objectives*. (U.D. Services, Ed.) Retrieved from HealthyPeople.org: http://healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=26.
- U.S. Department of Health and Human Services. (n.d.). *Sexually Transmitted Diseases*. Retrieved from HealthyPeople.org: http://www.healthypeople.gov/2020/topicsobjectives2020/objectiveslist.aspx?topicId=37.



Delnor Hospital 300 Randall Road Geneva, Illinois 60134

630.208.3000 TTY for the hearing impaired 630.208.4399

cadencehealth.org