

Community Health Needs Assessment 2016

OSF HOLY FAMILY MEDICAL CENTER

WARREN COUNTY

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Community Health Needs Assessment

July 2016

Collaboration for sustaining health equity

Executive Summary

The Warren County Community Health-Needs Assessment is a collaborative undertaking by OSF Holy Family Medical Center to highlight the health needs and well-being of residents in Warren County. Through this needs assessment, collaborative community partners have identified numerous health issues impacting individuals and families in the Warren County region. Several themes are prevalent in this health-needs assessment – the demographic composition of the Warren County region, the predictors for and prevalence of diseases, leading causes of mortality, accessibility to health services and healthy behaviors.

Results from this study can be used for strategic decision-making purposes as they directly relate to the health needs of the community. The study was designed to assess issues and trends impacting the communities served by the collaborative, as well as perceptions of targeted stakeholder groups.

This study includes a detailed analysis of secondary data to assess information regarding the health status of the community. In order to perform these analyses, information was collected from numerous secondary sources, including publically available sources as well as private sources of data. Additionally, primary data were collected for the general population and the at-risk or economically disadvantaged population. Areas of investigation included perceptions of the community health issues, unhealthy behaviors, issues with quality of life, healthy behaviors and access to medical care, dental care, prescription medications and mental-health counseling. Additionally, demographic

characteristics of respondents were utilized to provide insights into why certain segments of the population responded differently.

Ultimately, the identification and prioritization of the most important health-related issues in the Warren County region were identified. The collaborative team considered health needs based on: (1) magnitude of the issue (i.e., what percentage of the population was impacted by the issue); (2) severity of the issue in terms of its relationship with morbidities and mortalities; (3) potential impact through collaboration. Using a modified version of the Hanlon Method, the collaborative team prioritized three significant health needs:

- ***Healthy behaviors – defined as active living and healthy eating, and their impact on obesity***
- ***Use of the emergency department as a primary source of medical care***
- ***Heart disease***

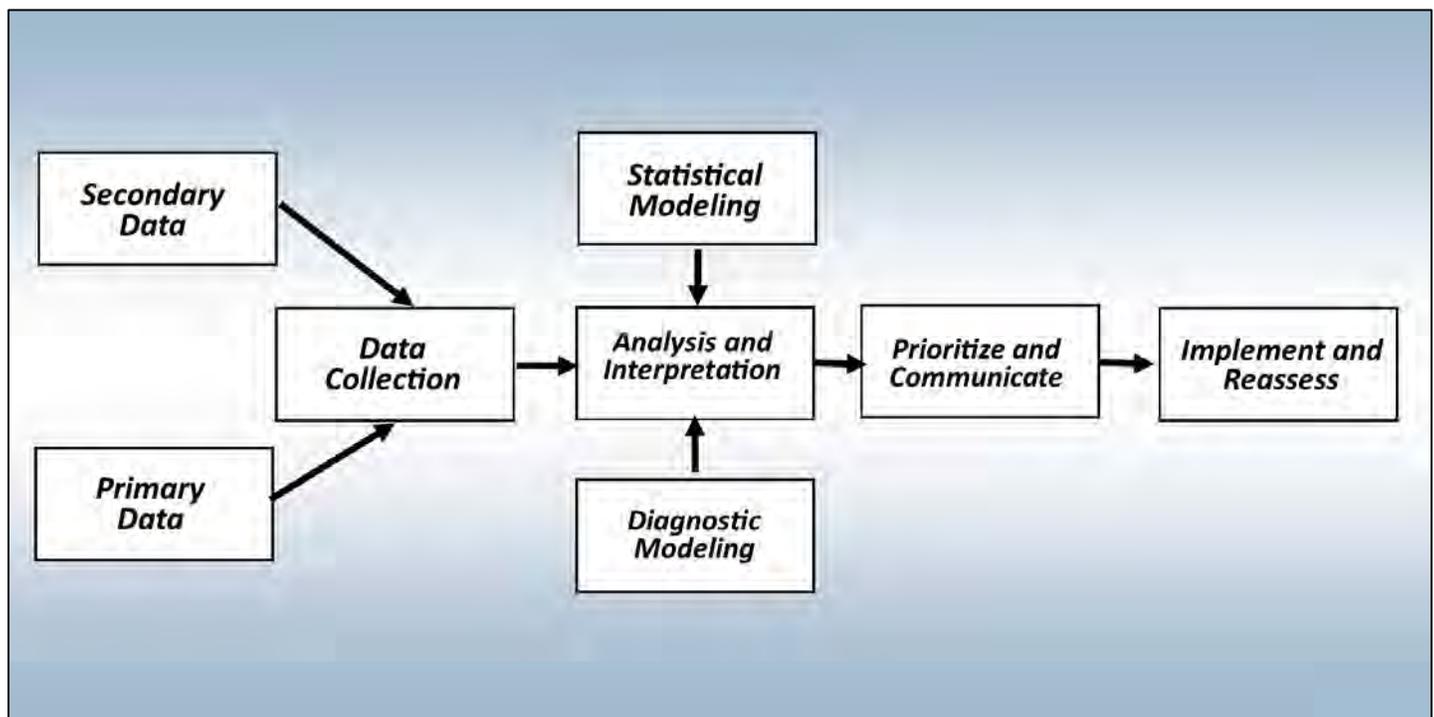
I. INTRODUCTION

Background

The Patient Protection and Affordable Care Act (Affordable Care Act), enacted March 23, 2010, added new requirements for tax-exempt hospitals to conduct community health-needs assessments and to adopt implementation strategies to meet the community health needs identified through the assessments. This community health-needs assessment (CHNA) takes into account input from specific individuals who represent the broad interests of the community served by OSF Holy Family Medical Center including those with special knowledge of or expertise in public health. For this study, a community health-needs assessment is defined as a systematic process involving the community, to identify and analyze community health needs and assets in order to prioritize these needs, create a plan, and act upon unmet community health needs. Results from this assessment will be made widely available to the public.

The structure of the CHNA is based on standards used by the Internal Revenue Service to develop Form 990, Schedule H–Hospitals, designated solely for tax-exempt hospitals. The fundamental areas of the community health-needs assessment are illustrated in Figure 1.

Figure 1. Community Health Needs Assessment Framework



Design of the Collaborative Team: Community Engagement, Broad Representation and Special Knowledge

In order to engage the entire community in the CHNA process, a collaborative team of health-professional experts and key community advocates was created. Members of the collaborative team were carefully selected to ensure representation of the broad interests of the community. Specifically, team members included representatives from OSF Holy Family Medical Center, members of the Warren

County Health Department, and administrators from key community partner organizations. Engagement occurred throughout the entire process, resulting in shared ownership of the assessment. The entire collaborative team met in April and July 2015 and in the first quarter of 2016. Additionally, numerous meetings were held between the facilitators and specific individuals during the process.

Specifically, members of the **Collaborative Team** consisted of individuals with special knowledge of and expertise in the healthcare of the community. Note that the collaborative team provided input for all sections of the CHNA. Individuals, affiliations, titles and expertise can be found in Appendix 1.

Definition of the Community

In order to determine the geographic boundaries for OSF Holy Family Medical Center, analyses were completed to identify what percentage of inpatient and outpatient activity was represented by Warren County. Data show that Warren County alone represents 75% of all patients for the hospital.

In addition to defining the community by geographic boundaries, this study targets the at-risk population as an area of potential opportunity to improve the health of the community.

Purpose of the Community Health-Needs Assessment

In the initial meeting, the collaborative committee identified the purpose of this study. Specifically, this study has been designed to provide necessary information to health-care organizations, including hospitals, clinics and health departments, in order to create strategic plans in program design, access and delivery. Results of this study will act as a platform that allows health-care organizations to orchestrate limited resources to improve management of high-priority challenges. By working together, hospitals, clinics, agencies and health departments will use this CHNA to improve the quality of healthcare in Warren County.

Community Feedback from Previous Assessments

The 2013 CHNA was made widely available to the community to allow for feedback. Specifically, the hospital posted both a full version and a summary version of the 2013 CHNA on its website. While no written feedback was received by individuals from the community via the available mechanism, verbal feedback was provided by key stakeholders from community-service organizations and incorporated as part of the collaborative process.

Summary of 2013 CHNA Identified Health Needs and Implementation Plans

The 2013 CHNA for Warren County identified 7 significant health needs. These included: access to health services, dental health, diabetes, healthy behaviors, mental health, obesity and substance abuse. Specific actions were taken to address these needs. Detailed discussions of goals and strategies to improve these health needs can be seen in Appendix 2.

II. METHODS

To complete the comprehensive community health-needs assessment, multiple sources were examined. Secondary statistical data were used to assess the community profile, morbidity rates and causes of mortality. Additionally, based on a sample of 552 survey respondents (19 respondents used a version translated into Spanish) from Warren County, a study was completed to examine perceptions of the community health issues, unhealthy behaviors, issues with quality of life, healthy behaviors and access to healthcare.

Secondary Data for the Community Health Needs Assessment

We first used existing secondary statistical data to develop an overall assessment of health-related issues in the community. Within each section of the report, there are definitions, importance of categories, data and interpretations. At the end of each chapter, there is a section on key takeaways.

Based on several retreats, a separate OSF Collaborative Team used COMP data to identify six primary categories of diseases, including: age related, cardiovascular, respiratory, cancer, diabetes and infections. In order to define each disease category, we used modified definitions developed by Sg2. Sg2 specializes in consulting for healthcare organizations. Their team of experts includes MDs, PhDs, RNs and healthcare leaders with extensive strategic, operational, clinical, academic, technological and financial experience.

Primary Data Collection

In addition to existing secondary data sources, primary survey data were also collected. This section describes the research methods used to collect, code, verify and analyze primary survey data. Specifically, we discuss the research design used for this study: survey design, data collection and data integrity.

A. Survey Instrument Design

Initially, all publicly available health-needs assessments in the U.S. were assessed to identify common themes and approaches to collecting community health-needs data. By leveraging best practices from these surveys, we created our own pilot survey in 2012, designed for use with both the general population and the at-risk community. To ensure that all critical areas were being addressed, the entire OSF collaborative team was involved in survey design/approval through several fact-finding sessions. Additionally, several focus groups were used to collect the qualitative information necessary to design survey items. Specifically, for the community health-needs assessment, five specific sets of items were included:

Ratings of health issues in the community – to assess the importance of various community health concerns. Survey items included assessments of topics such as cancer, diabetes and obesity. In all, there were 16 choices provided for survey respondents.

Ratings of unhealthy behaviors in the community – to assess the importance of various unhealthy behaviors. Survey items included assessments of topics such as violence, drug abuse and smoking. In all, there were 13 choices provided for survey respondents.

Ratings of issues concerning well-being – to assess the importance of various issues relating to well-being in the community. Survey items included assessments of topics such as access to healthcare, safer neighborhoods and effective public transportation. In all, there were 12 choices provided for survey respondents.

Accessibility to healthcare – to assess the degree to which residents could access healthcare when needed. Survey items included assessments of topics such as access to medical, dental and mental-healthcare, as well as access to prescription medications.

Healthy behaviors – to assess the degree to which residents exhibited healthy behaviors. The survey items included assessments of topics such as exercise and healthy eating habits.

Finally, demographic information was collected to assess background information necessary to segment markets in terms of the five categories discussed above.

After the initial survey was designed, a pilot study was created to test the psychometric properties and statistical validity of the survey instrument. The pilot study was conducted at the Heartland Community Health Clinic's facilities. The Heartland Clinic was chosen as it serves the at-risk population and also has a facility that serves a large percentage of the Latino population. A total of 230 surveys were collected. Results from the pilot survey revealed specific items to be included/excluded in the final survey instrument. Item selection criteria for the final survey included validity, reliability and frequency measures based on responses from the pilot sample. A copy of the final survey is included in Appendix 3.

B. Sample Size

In order to identify our potential population, we first identified the percentage of the Warren County population that was living in poverty. Specifically, we multiplied the population of the county by its respective poverty rate to identify the minimum sample size to study the at-risk population. The poverty rate for Warren County was 15.6 percent in 2014. The population used for the calculation was 17,874, yielding a total of 2,788 residents living in poverty in the Warren County area.

We assumed a normal approximation to the hypergeometric distribution given the targeted sample size.

$$n = (Nz^2pq)/(E^2 (N-1) + z^2 pq)$$

where:

n = the required sample size

N = the population size

pq = population proportions (set at .05)

z = the value that specified the confidence interval (use 90% CI)

E =desired accuracy of sample proportions (set at +/- .05)

For the total Warren County area, the minimum sample size for those living in poverty was 248. Note that for *aggregated* analyses (combination of at-risk and general populations); an additional 269 random surveys were needed from those not living in poverty in order to properly represent the views of the population in Warren County.

The data collection effort for this CHNA yielded a total of 552 usable responses. This met the threshold of the desired 90% confidence interval.

To provide a representative profile when assessing the aggregated population for the Warren County region, the general population was combined with a portion of the at-risk population. To represent the at-risk population as a percentage of the aggregate population, a random-number generator was used to select at-risk cases to include in the general sample. This provided a total usable sample of 350 respondents for analyzing the aggregate population. Sample characteristics can be seen in Appendix 4.

C. Data Collection

To collect data in this study, two techniques were used. First, an online version of the survey was created. Second, a paper version of the survey was distributed. In order to be sensitive to the needs of respondents, surveys stressed assurance of complete anonymity. Note that versions of both the online survey and paper survey were translated into Spanish.

To specifically target the at-risk population, surveys were distributed at all homeless shelters, food pantries and soup kitchens. Since we specifically targeted the at-risk population as part of the data collection effort, this became a stratified sample, as we did not specifically target other groups based on their socio-economic status.

D. Data Integrity

Comprehensive analyses were performed to verify the integrity of the data for this research. Without proper validation of the raw data, any interpretation of results could be inaccurate and misleading if used for decision-making. Therefore, several tests were performed to ensure that the data were valid. These tests were performed before any analyses were undertaken. Data were checked for coding accuracy, using descriptive frequency statistics to verify that all data items were correct. This was followed by analyses of means and standard deviations and comparison of primary data statistics to existing secondary data.

E. Analytic Techniques

To ensure statistical validity, we used several different analytic techniques. Specifically, frequencies and descriptive statistics were used for identifying patterns in residents' ratings of various health concerns. Additionally, appropriate statistical techniques were used for identification of existing relationships between perceptions, behaviors and demographic data. Specifically, we used Pearson correlations, χ^2 tests and tetrachoric correlations when appropriate, given characteristics of the specific data being analyzed.

CHAPTER 1 OUTLINE

- 1.1 Population
- 1.2 Age, Gender and Race Distribution
- 1.3 Household/Family
- 1.4 Economic Information
- 1.5 Education
- 1.6 Key Takeaways from Chapter 1

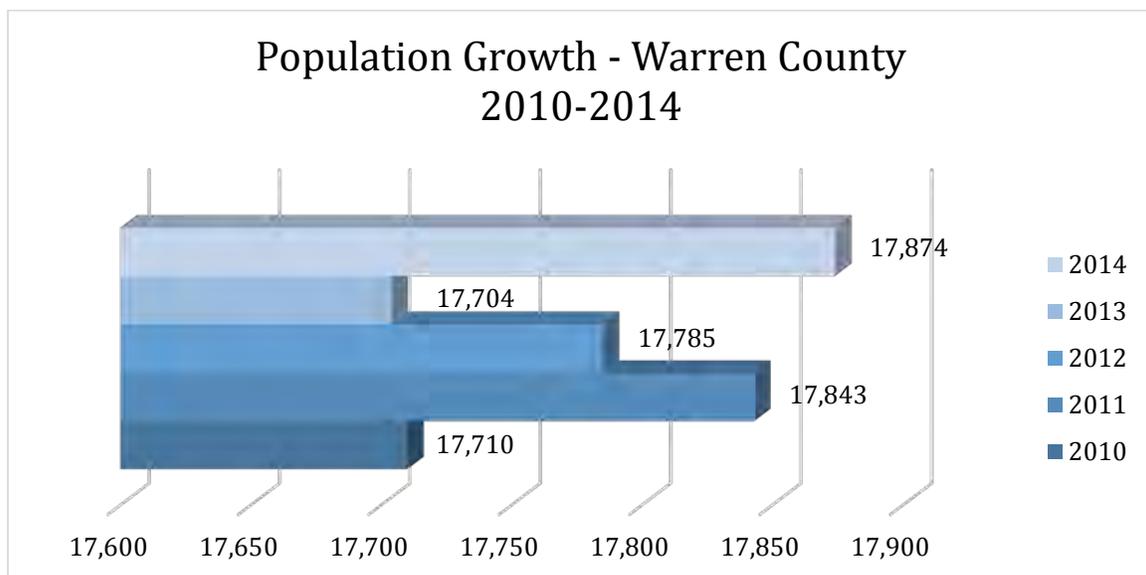
CHAPTER 1. DEMOGRAPHIC PROFILE

1.1 Population

Importance of the measure: Population data characterize individuals residing in Warren County. Population data provide an overview of population growth trends and build a foundation for additional analysis of data.

Population Growth

Data from the last census indicate the population of Warren County has seen a slight overall increase between 2010 and 2014.



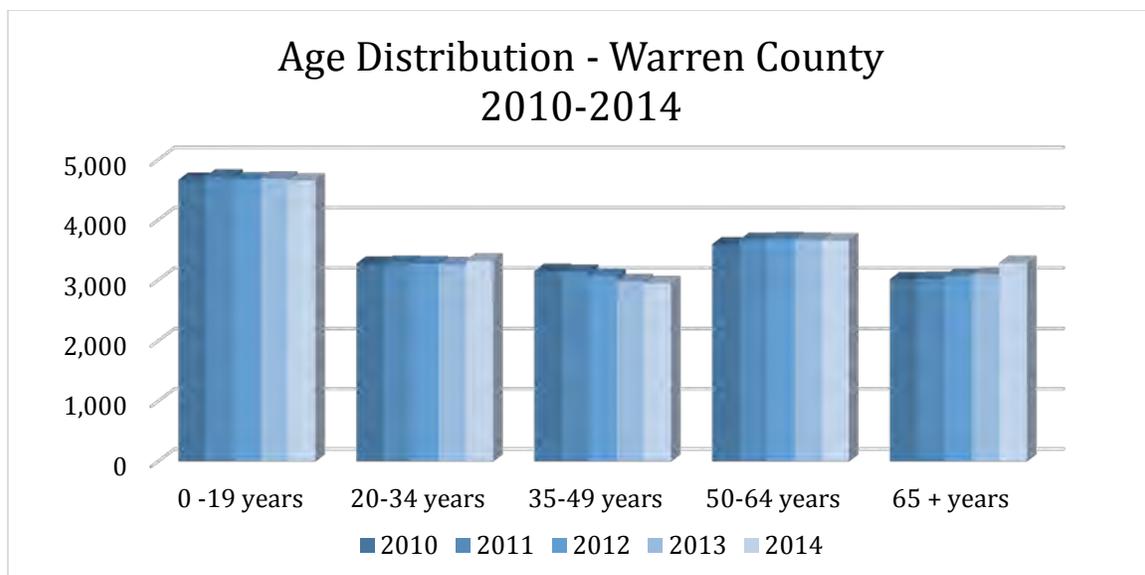
Source: US Census

1.2 Age, Gender and Race Distribution

Importance of the measure: Population data broken down by age, gender, and race groups provide a foundation to analyze the issues and trends that impact demographic factors including economic growth and the distribution of healthcare services. Understanding the cultural diversity of communities is essential when considering healthcare infrastructure and service delivery systems.

Age

As indicated in the graph below, the percentage of individuals in Warren County aged 50-64 increased slightly between 2010 and 2014, and the percentage of individuals aged 65 and older had the largest increase from 3,016 to 3,288 between 2010 and 2014.

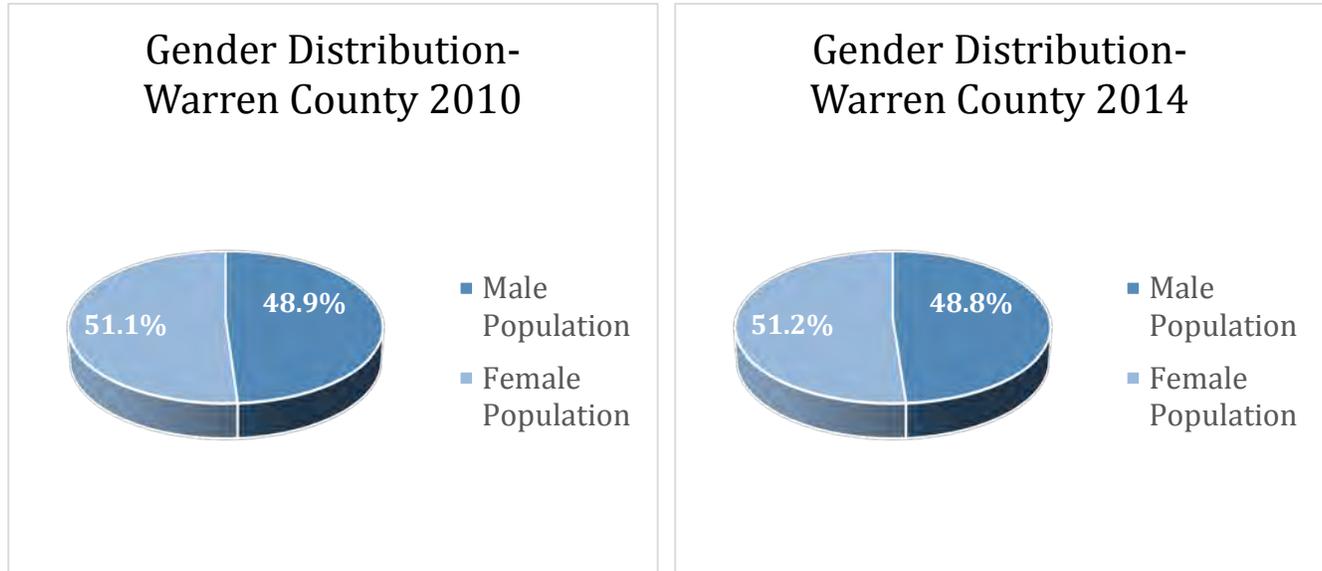


Age	2010	2011	2012	2013	2014
0 -19 years	4,667	4,723	4,674	4,687	4,653
20-34 years	3,275	3,289	3,281	3,265	3,324
35-49 years	3,153	3,140	3,074	2,984	2,948
50-64 years	3,596	3,670	3,680	3,672	3,661
65 + years	3,016	3,021	3,076	3,096	3,288

Source: US Census

Gender

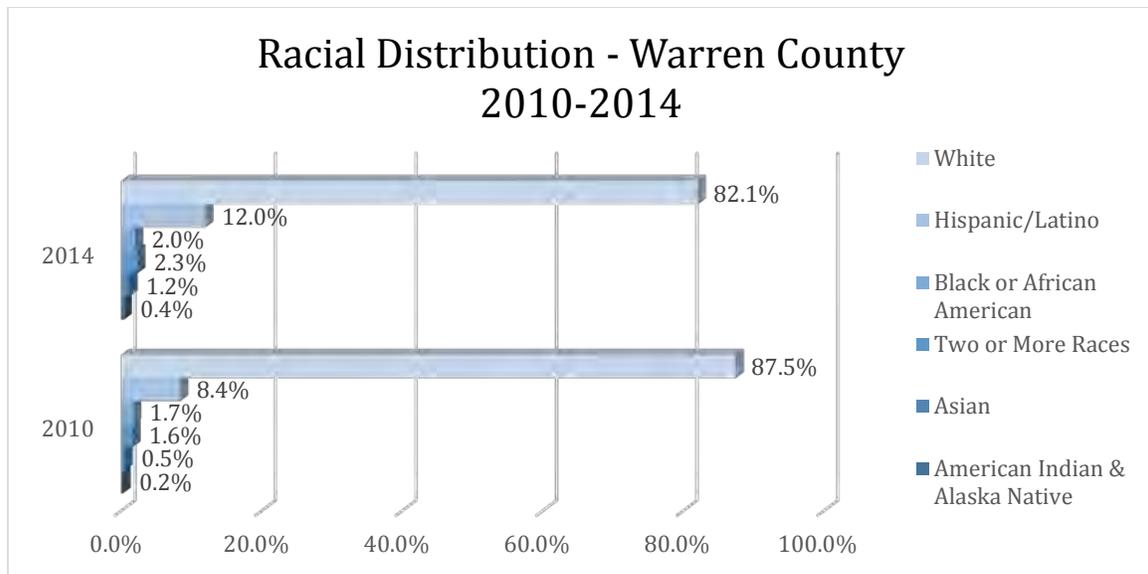
The gender distribution of Warren County residents has remained relatively consistent between 2010 and 2014.



Source: US Census

Race

With regard to race and ethnic background, Warren County is largely homogenous, yet in recent years, the county is becoming more diverse. Data from 2010 suggest that White ethnicity comprises nearly 90% of the population in Warren County. However, the non-White population of Warren County has been increasing (from 12.5% to 17.9% in 2014), with Hispanic/Latino ethnicity comprising 12% of the population, bi- or multi-racial ethnicities comprising 2.3% of the population, and Black ethnicity comprising 2.0% of the population.

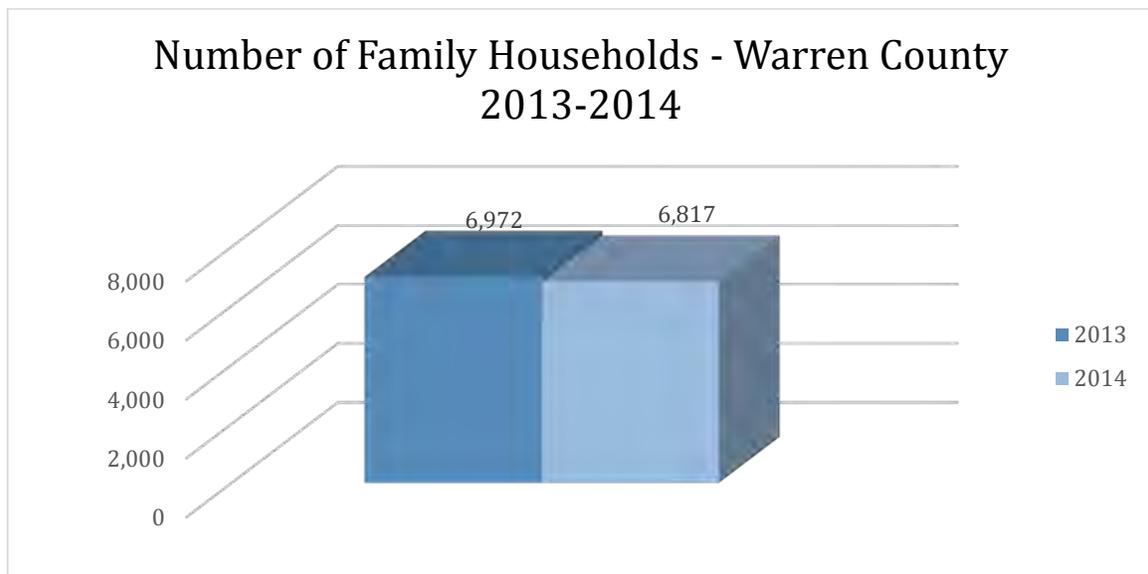


Source: US Census

1.3 Household/Family

Importance of the measure: Families are an important component of a robust society in Warren County, as they dramatically impact the health and development of children and provide support and well-being for older adults.

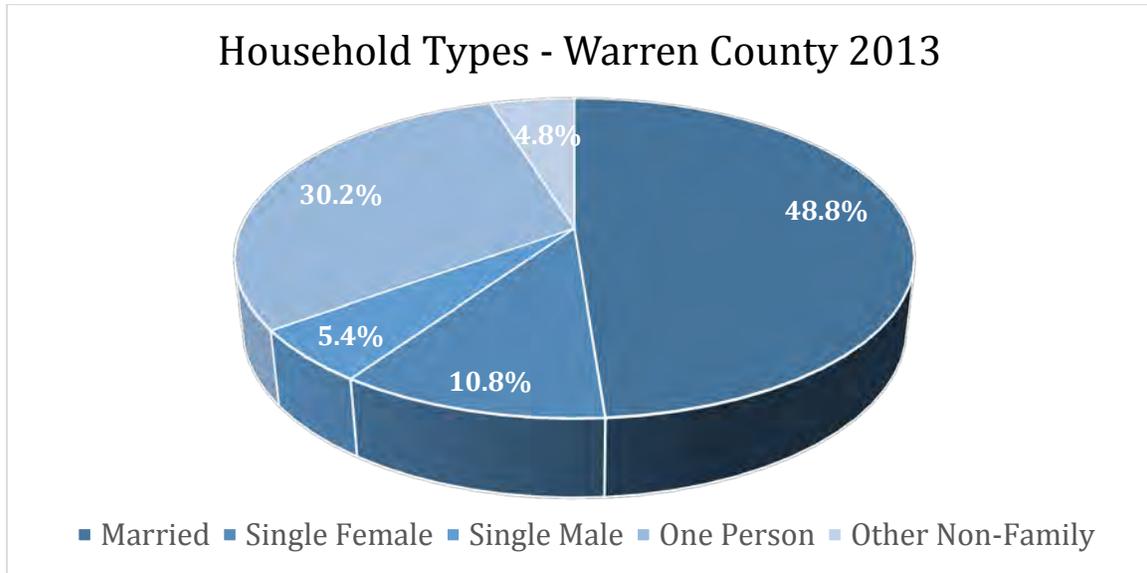
As indicated in the graph below, the number of family households within Warren County decreased by 2.2%.



Source: US Census

Family Composition

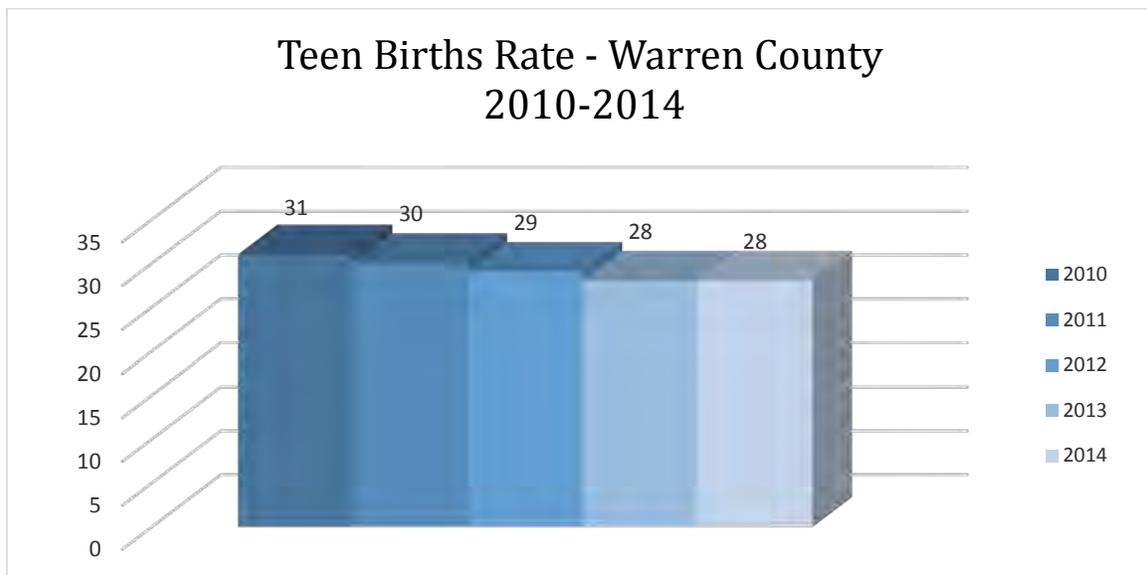
In Warren County, data from 2013 suggest the percentage of two-parent families in Warren County is just under 50%. One-person households represent 30.2% of the county population.



Source: 2013 Statisticalatlas.com

Early Sexual Activity Leading to Births from Teenage Mothers

Warren County experienced a decrease in teenage birth rate per 100,000 women. Teen births are significantly lower than the Illinois average of 36 per 1,000 women.



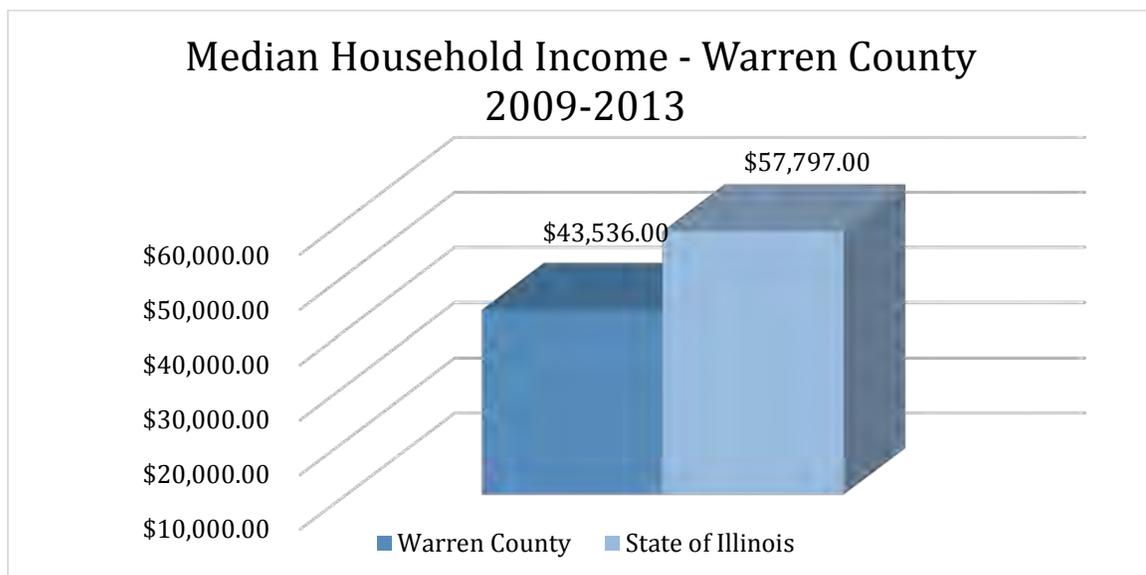
Source: Illinois Department of Public Health

1.4 Economic Information

Importance of the measure: Median income divides households into two segments with one-half of households earning more than the median income and the other half earning less. Because median income is not significantly impacted by unusually high or low-income values, it is considered a more reliable indicator than average income. To live in poverty means to lack sufficient income to meet one's basic needs. Accordingly, poverty is associated with numerous chronic social, health, education, and employment conditions.

Median Income Level

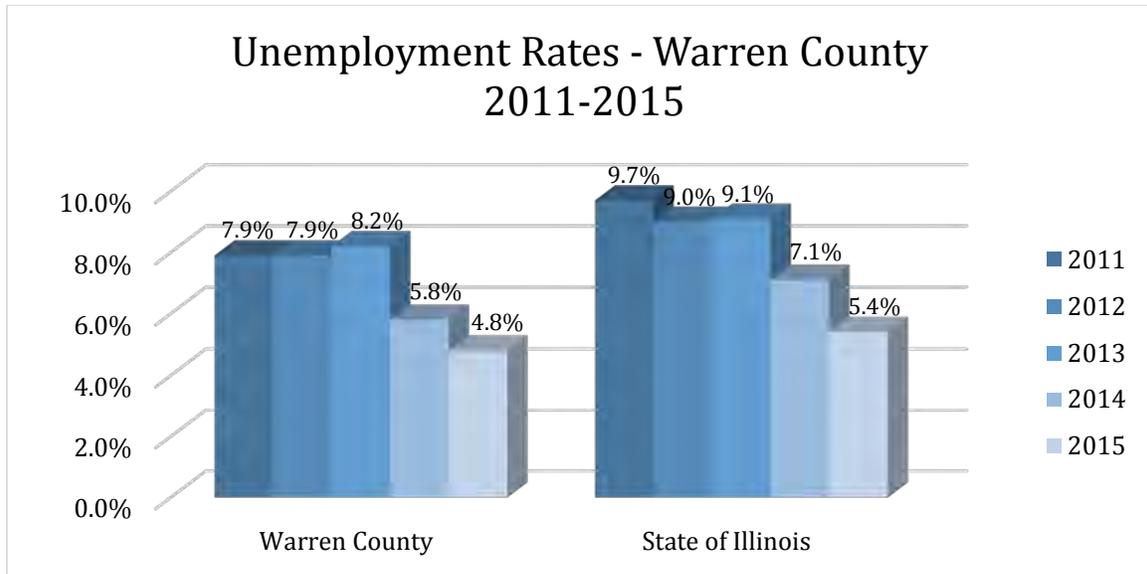
For 2009-2013, the median household income in Warren County was 23.4% lower than the State of Illinois.



Source: US Census

Unemployment

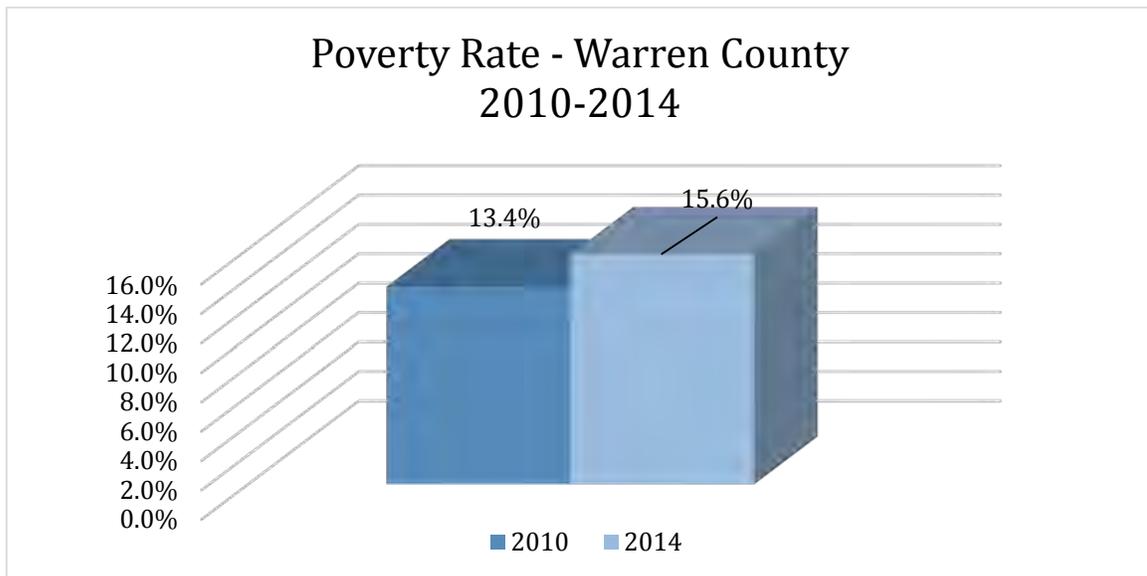
For the years 2011 to 2015, the Warren County unemployment rate has been lower than the State of Illinois unemployment rate. Between 2013 and 2015, unemployment decreased from 7.9% to 4.8%.



Source: Bureau of Labor Statistics

Families in Poverty

Poverty has a significant impact on the development of children and youth. In Warren County, the percentage of families living in poverty between 2010 and 2014 increased significantly. In Warren County, the overall poverty rate is 15.6%, which is higher than the State of Illinois poverty rate of 14.4%.



Source: US Census

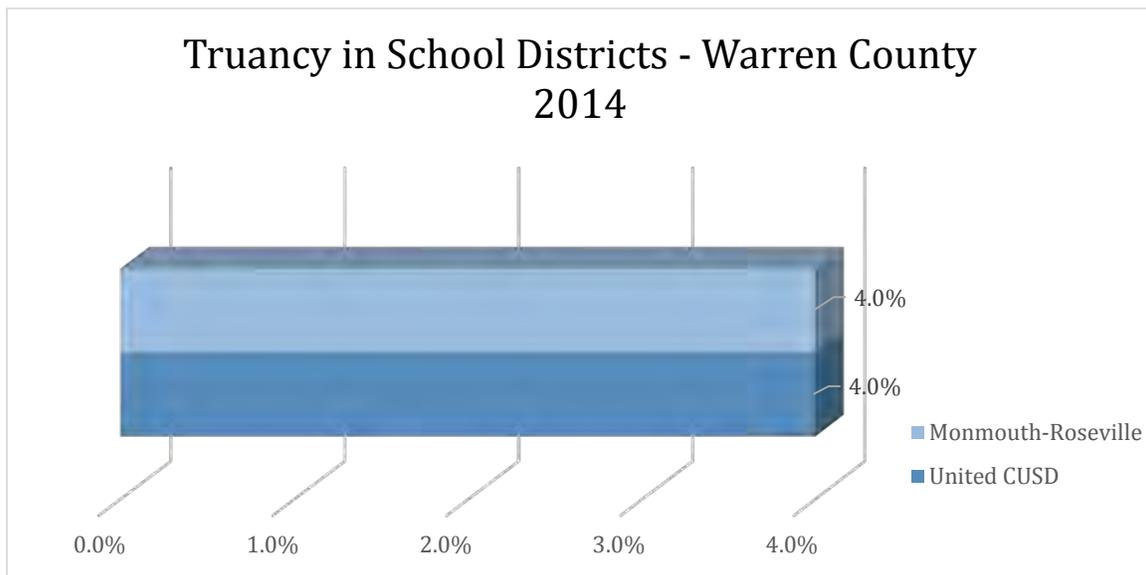
1.5 Education

Importance of the measure: According to the National Center for Educational Statistics¹, “The better educated a person is, the more likely that person is to report being in ‘excellent’ or ‘very good’ health, regardless of income.” Research suggests that the higher the level of educational attainment and the more successful one is in school, the better one’s health will be and the greater likelihood of one selecting healthy lifestyle choices. Accordingly, years of education is strongly related to an individual’s propensity to earn a higher salary, gain better employment, and foster multifaceted success in life.

Truancy

Chronic truancy is a major challenge to the academic progress of children and young adults. The causes of truancy vary considerably for young children. Truancy of middle- and high-school students is more likely a result of the inappropriate behavior and decisions of individual students. Primary school truancy often results from decisions and actions of the parents or caregivers rather than the students themselves. The State of Illinois defines truancy as a student who is absent without valid cause for 5% or more of the previous 180 regular attendance days.

Both school districts in Warren County reported 4% chronically truant students in 2014.

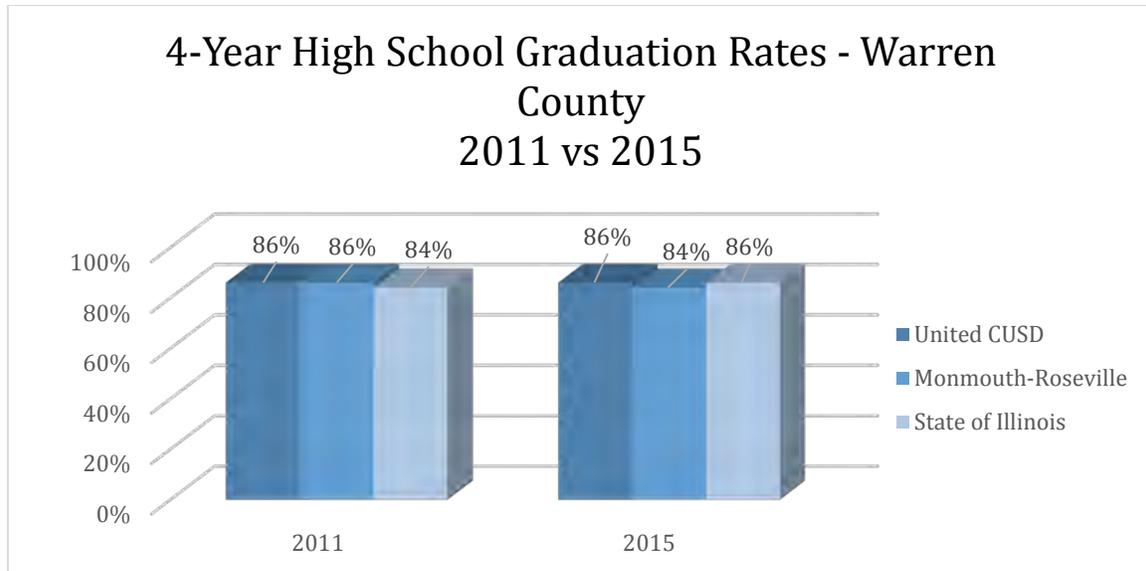


Source: Illinois Report Card

¹ NCES 2005

High School Graduation Rates

In 2015, the districts in Warren County reported comparable high school graduation rates to the State average of 86%.



Source: Illinois State Board of Education, School Year 2011 & 2015 District Report Card Summary

1.6 Key Takeaways from Chapter 1

- ✓ **POPULATION IS AGING. THE LARGEST PERCENTAGE INCREASE IS IN RESIDENTS OVER AGE 65**
- ✓ **DECREASING WHITE POPULATION, INCREASING LATINO POPULATION**
- ✓ **TEEN BIRTHS PER 1,000 FEMALE POPULATION, AGES 15-19 HAVE DECREASED OVER THE LAST FIVE YEARS AND ARE BELOW THE AVERAGE ACROSS THE STATE OF ILLINOIS**
- ✓ **SINGLE FEMALE HEAD-OF-HOUSE-HOUSEHOLD REPRESENTS 10.8% OF THE POPULATION. HISTORICALLY, THIS DEMOGRAPHIC INCREASES THE LIKELIHOOD OF FAMILIES LIVING IN POVERTY**
- ✓ **UNEMPLOYMENT HAS DECREASED AND IS LOWER THAN STATE AVERAGES**
- ✓ **WARREN COUNTY SCHOOL DISTRICTS HAVE COMPARABLE GRADUATION RATES TO THE STATE AVERAGE**

CHAPTER 2 OUTLINE

- 2.1 Accessibility
- 2.2 Wellness
- 2.3 Access to Information
- 2.4 Physical Environment
- 2.5 Health Status
- 2.6 Key Takeaways from Chapter 2

CHAPTER 2. PREVENTION BEHAVIORS

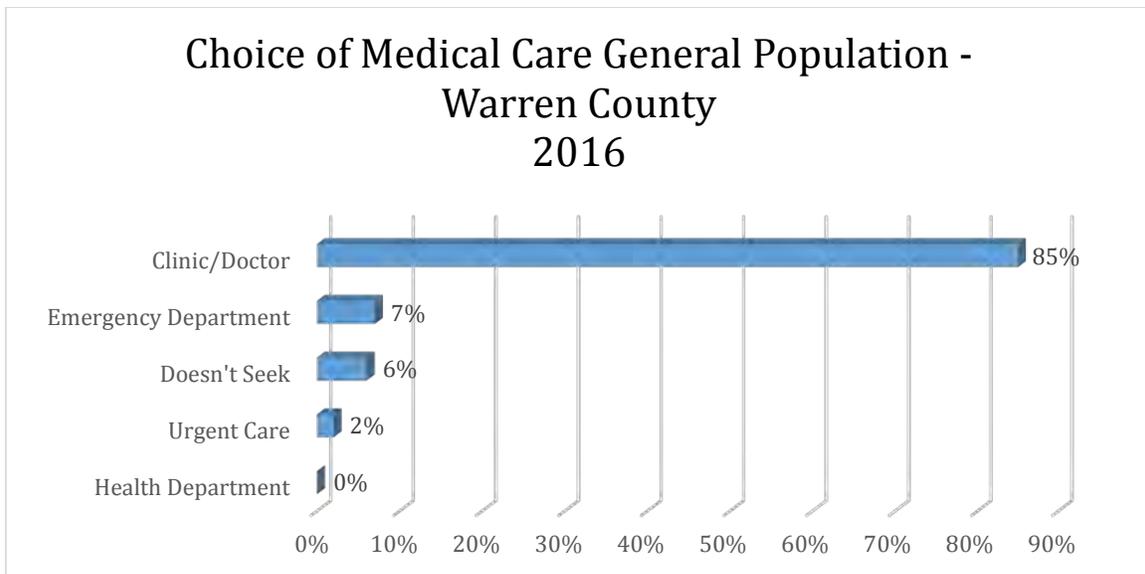
2.1 Accessibility

Importance of the measure: It is critical for healthcare services to be accessible. Therefore, accessibility to healthcare must address both the associated financial costs and the supply and demand of medical services.

Choice of Medical Care

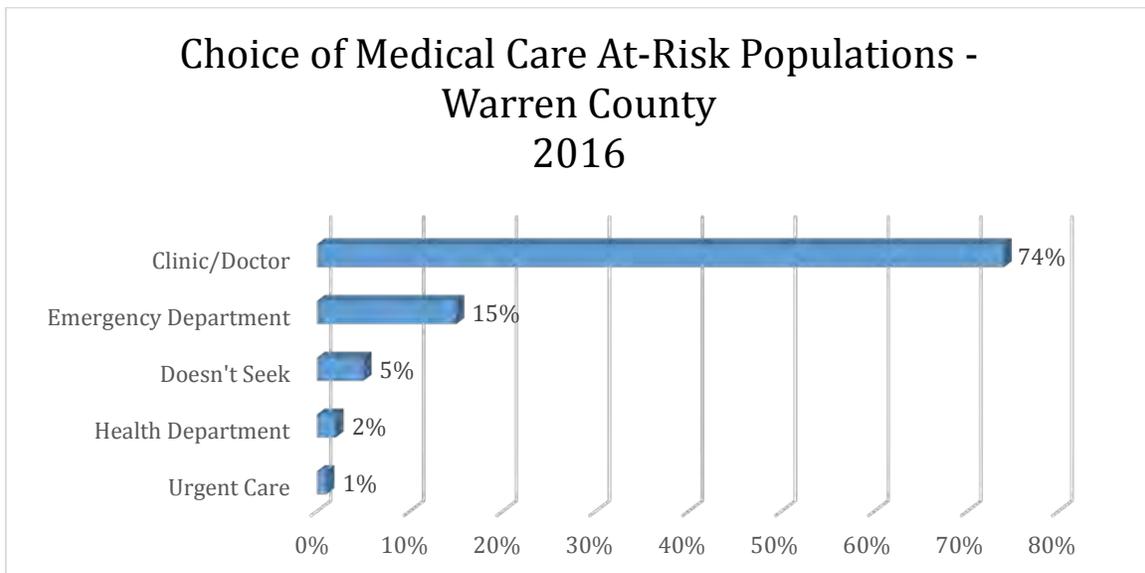
Survey respondents were asked to select the type of healthcare facility used when sick. Six different alternatives were presented, including clinic or doctor's office, emergency department, urgent-care facility, health department, no medical treatment, and other. The modified sample of 350 respondents was used for general population in order to more accurately reflect the demographic characteristics for Warren County.

The most common response for source of medical care was clinic/doctor's office, chosen by 85% of survey respondents. This was followed by emergency department at a hospital (7%), not seeking medical attention (6%), the emergency department at a hospital (2%), and urgent care (2%). This distribution of facility choice is quite different from more urban locations in the OSF system, where there has been more significant usage of urgent care facilities. This may be a result of the relatively small number of urgent care facilities in Warren County.



Source: CHNA Survey

For the at-risk population, the most common response for choice of medical care was also clinic/doctor's office (74%). This was followed by the emergency department at a hospital (15%), not seeking medical attention (5%), the health department (2%), and urgent care facilities (1%).



Source: CHNA Survey

Demographic Factors Related to Choice of Medical Care

Several demographic characteristics show significant relationships with an individual's choice of medical care. The following relationships were found using correlational analyses:

Clinic/Doctor's Office tends to be used more often by women and those with higher education and income. This option is used less often by homeless people.

Urgent Care did not show significant correlations.

Emergency Department tends to be used more often by people of men, and those with lower education and income.

Do Not Seek Medical Care is reported more often by the homeless.

Health Department does not show significant demographic correlations.

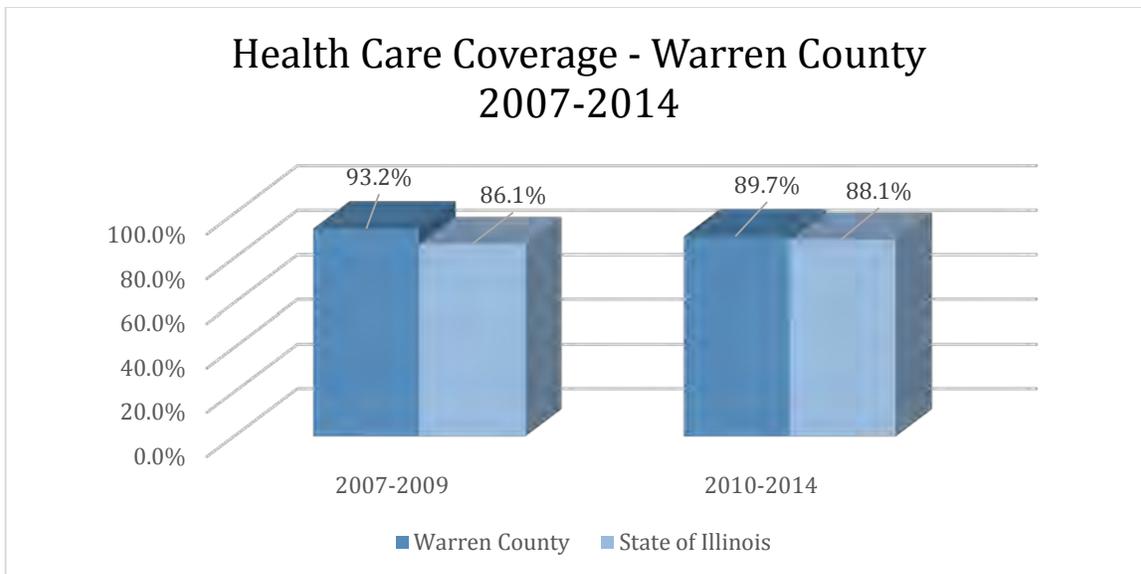
Comparison to 2013 CHNA Data

Compared to Warren 2013 CHNA survey data, for the general population, there was a slight increase in use of clinic/doctor's office, from 83% to 85%, which resulted in a lower percentage of people choosing not to seek care.

For the at-risk population, there was also an increase in use of clinic/doctor's office, from 68% to 74%. While there was an increase in ED usage from 13% to 15%, there was a reduction in the proportion of people who did not seek medical attention when needed. Specifically, choosing not to seek care declined from 13% in 2013 to 5% in 2016 for the at-risk population.

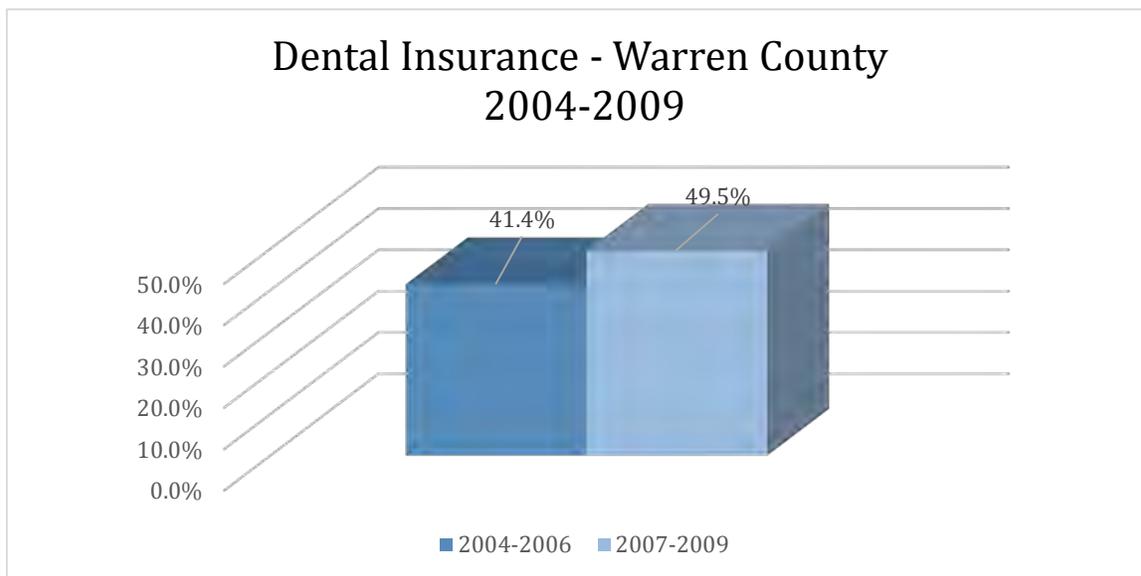
Insurance Coverage

With regard to medical insurance coverage, data gathered from the Illinois Behavioral Risk Factor Surveillance System show that residents in Warren County possess healthcare coverage at a higher rate (89.7%) compared to the State of Illinois (88.1%).



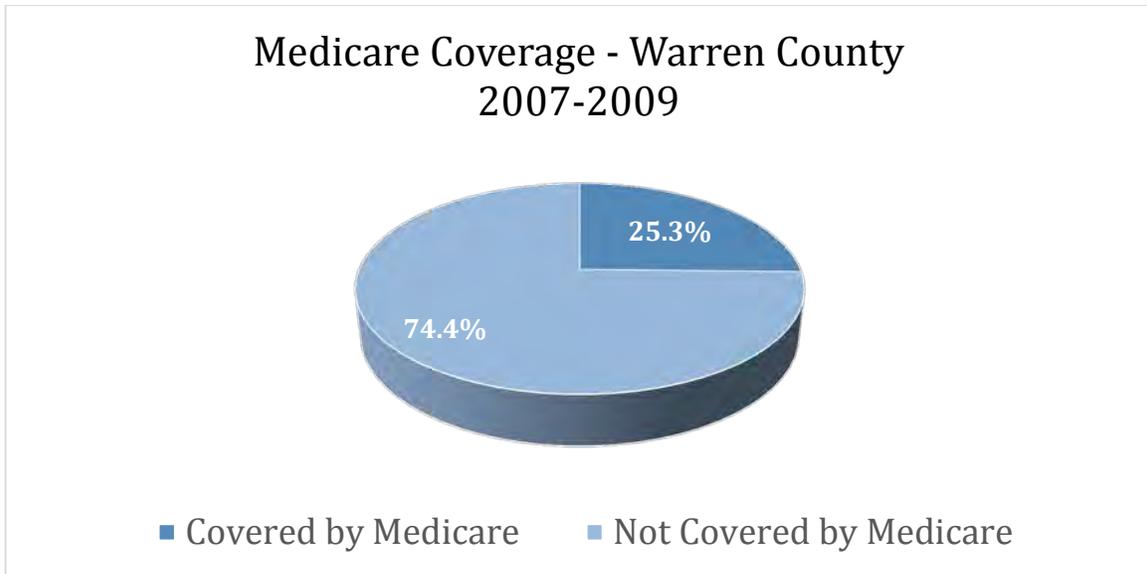
Source: Illinois Behavioral Risk Factor Surveillance System

With regard to dental insurance, 49.5% of Warren County residents possessed dental insurance coverage in 2007-2009 compared to 41.4% of Warren County residents in 2004-2006. These are the most recent data, as the BRFSS has not been updated for this metric since 2009.



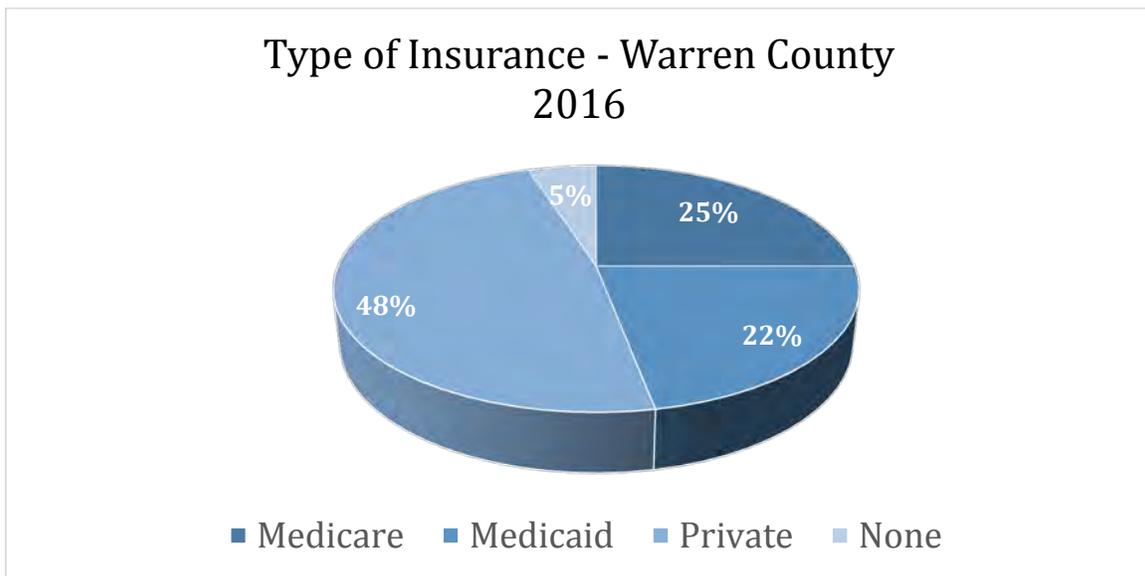
Source: Illinois Behavioral Risk Factor Surveillance System

With regard to Medicare Coverage, 25.3% of Warren County residents received Medicare coverage between 2007 and 2009. These are the most recent data, as the BRFSS has not been updated for this metric since 2009.



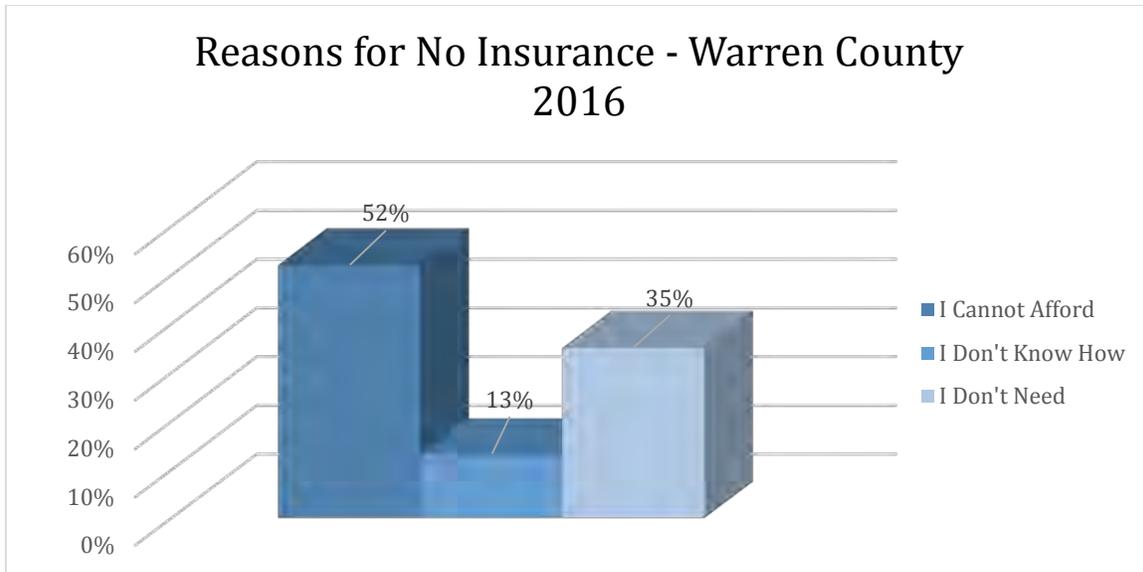
Source: Illinois Behavioral Risk Factor Surveillance System

A more precise analysis for insurance coverage is possible with data from the CHNA survey. According to survey data, 48% of the residents in Warren County are covered by private insurance.



Source: CHNA Survey

Data from the survey show that for the 5% of individuals who do not have insurance, the most common reason was cost.



Source: CHNA Survey

Demographic Factors Related to Type of Insurance

Several demographic characteristics show significant relationships with an individual's type of insurance. The following relationships were found using correlational analyses:

Medicare tends to be used more frequently by those who are older.

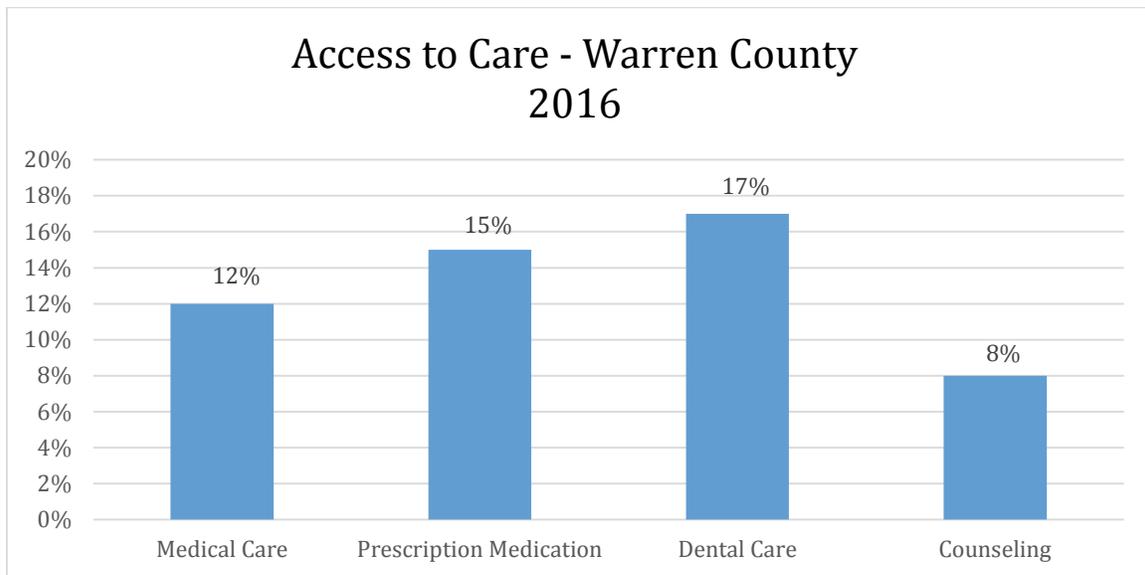
Medicaid tends to be utilized at higher rates by younger people and those with lower education levels.

Private Insurance is used more often by those with higher education and income.

No Insurance tends to be reported more often by younger people and the homeless.

Access to Care

In the CHNA survey, respondents were asked, “Was there a time when you needed care but were not able to get it?” Access to four types of care were assessed: medical care, prescription medications, dental care and counseling. Survey results show that 12% of the population did not have access to medical care when needed; 15% of the population did not have access to prescription medications when needed; 17% of the population did not have access to dental care when needed; and 8% of the population did not have access to counseling when needed.



Source: CHNA Survey

Demographic Factors Related to Access to Care

Several demographic characteristics show a significant relationship with an individual’s ability to access care when needed. The following relationships were found using correlational analyses:

Access to medical care tends to be higher for those with higher education and income.

Access to prescription medications tends to be higher for older people, and those with higher education and income.

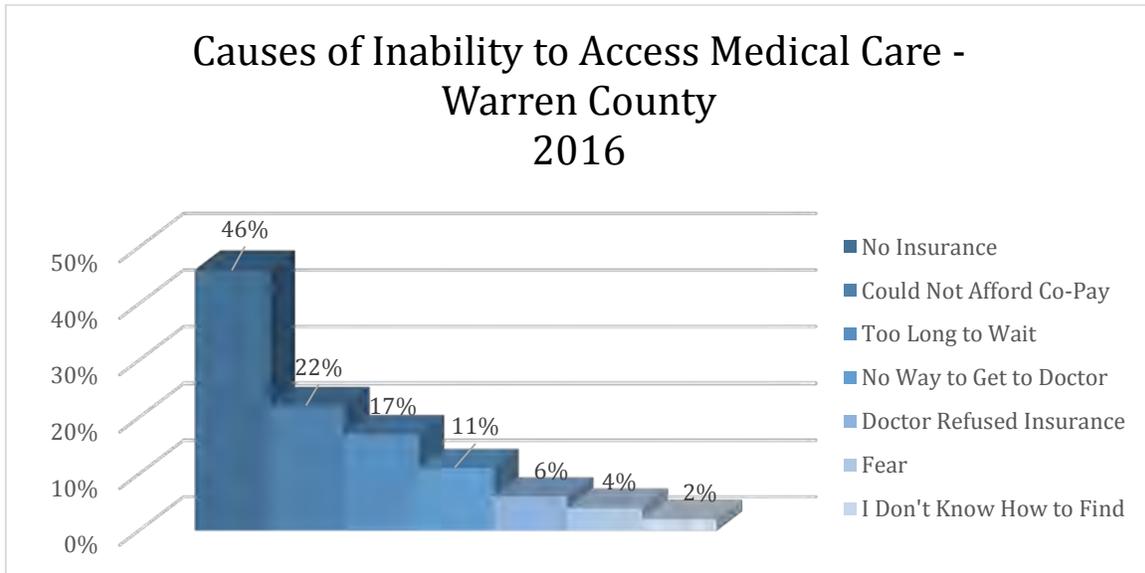
Access to dental care tends to be greater for people with the following characteristics: older people, White people, and those with higher education and higher income.

Access to counseling tends to be rated higher by people with higher income, but access is reported less often by Black and homeless individuals.

Reasons for No Access – Medical Care

Survey respondents who reported they were not able to get medical care when needed were asked a follow-up question. The leading causes of the inability to gain access to medical care were no insurance (46%), and the inability to afford copayments or deductibles (22%). This was followed by waiting too

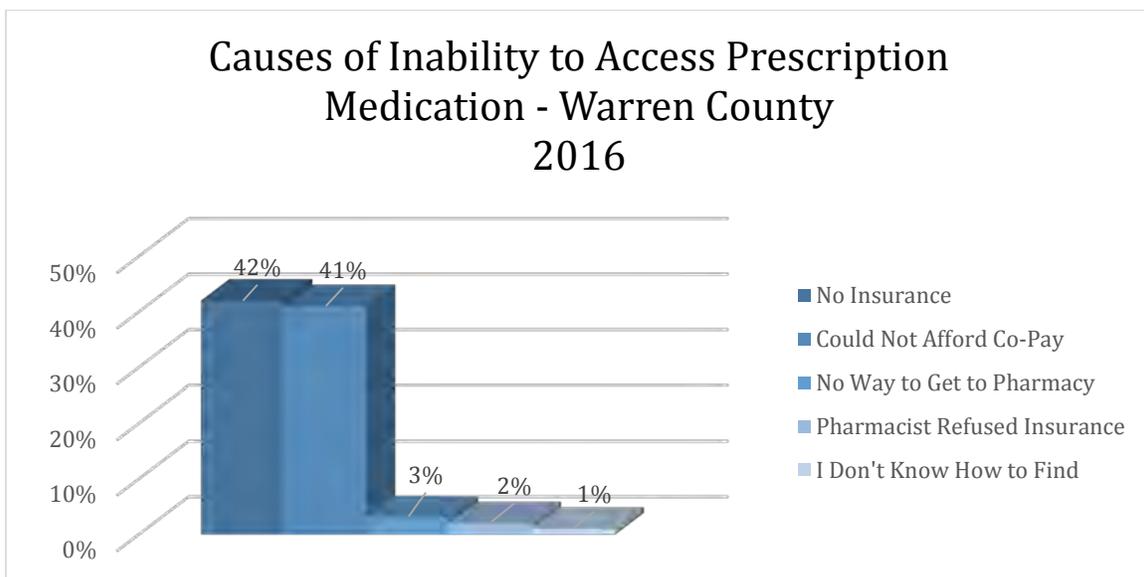
long (17%), and no way to get to a doctor (11%). Note that total percentages do not equal 100% as respondents could choose more than one answer or did not respond to the question.



Source: CHNA Survey

Reasons for No Access – Prescription Medication

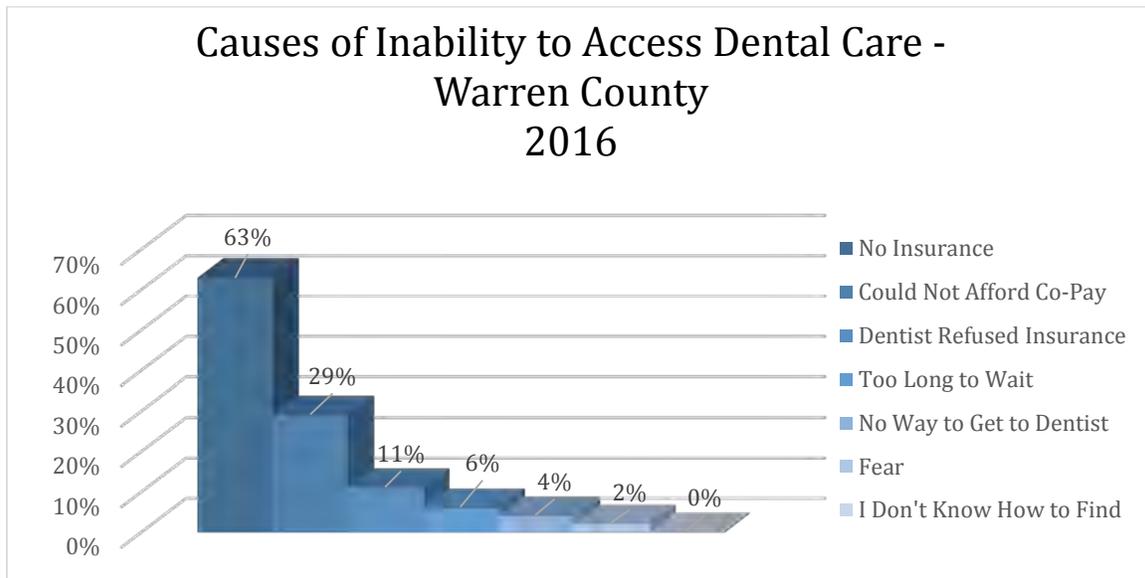
Survey respondents who reported they were not able to get prescription medications when needed were asked a follow-up question. In Warren County, the leading causes of the inability to gain access to prescription medicine were no insurance (42%) and the inability to afford copayments or deductibles (41%). Note that total percentages do not equal 100% as respondents could choose more than one answer or did not respond to the question.



Source: CHNA Survey

Reasons for No Access – Dental Care

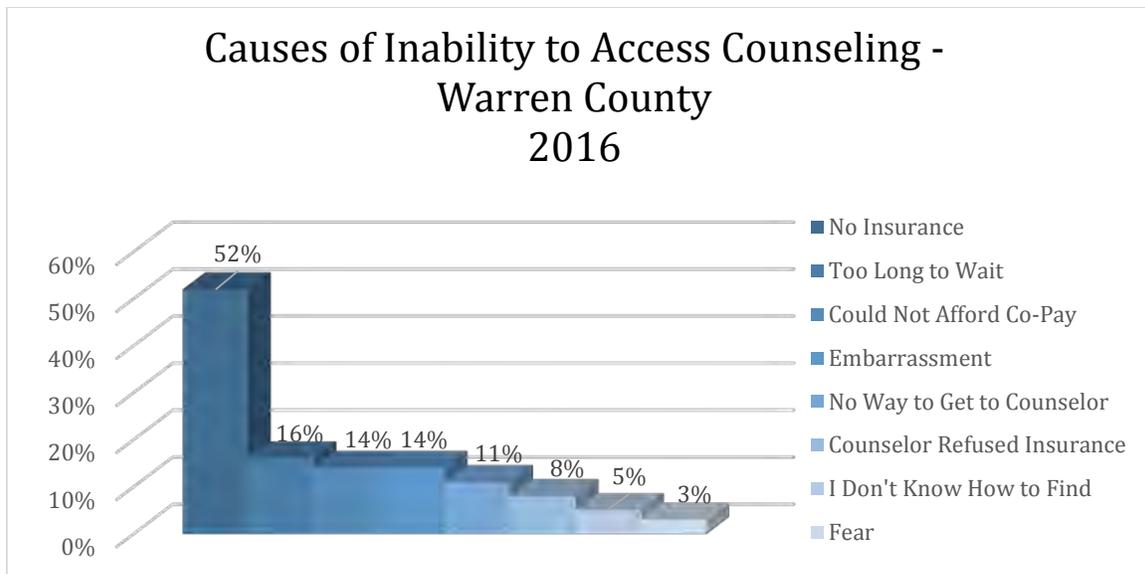
Survey respondents who reported they were not able to get dental care when needed were asked a follow-up question. The leading causes of inability to gain access to dental care were no insurance (63%), and the inability to afford copayments or deductibles (29%). These causes were followed by the dentist’s refusal of insurance (11%) having too long to wait (6%), no way to get to the dentist (4%) and fear (2%). Note that total percentages do not equal 100% as respondents could choose more than one answer or did not respond to the question.



Source: CHNA Survey

Reasons for No Access – Counseling

Survey respondents who reported they were not able to get counseling when needed were asked a follow-up question. In Warren County, the leading causes of the inability to gain access to counseling were no insurance (52%), too long to wait (16%), the inability to afford co-pay (14%), embarrassment (14%), no way to get to the counselor (11%), and counselor refusing insurance (8%). Note that total percentages do not equal 100% as respondents could choose more than one answer or did not respond to the question.



Source: CHNA Survey

Comparisons to 2013 CHNA Data

Access to Medical Care – Compared to 2013, survey results show a slight increase in those that were able to get medical care when they needed it. In 2013, 87% of residents were able to get medical care when needed. In 2016, the percentage increased to 88%.

Access to Prescriptions Medication – Compared to 2013, survey results show a slight increase in those that were able to get prescription medications when they needed it. In 2013, 83% of residents were able to get prescription medication when needed. In 2016, the percentage increased to 85%.

Access to Dental Care – Compared to 2013, results show a slight increase in those that were able to access dental care when needed. In 2013, 82% of residents were able to get dental care when needed. In 2016, the percentage increased to 83%.

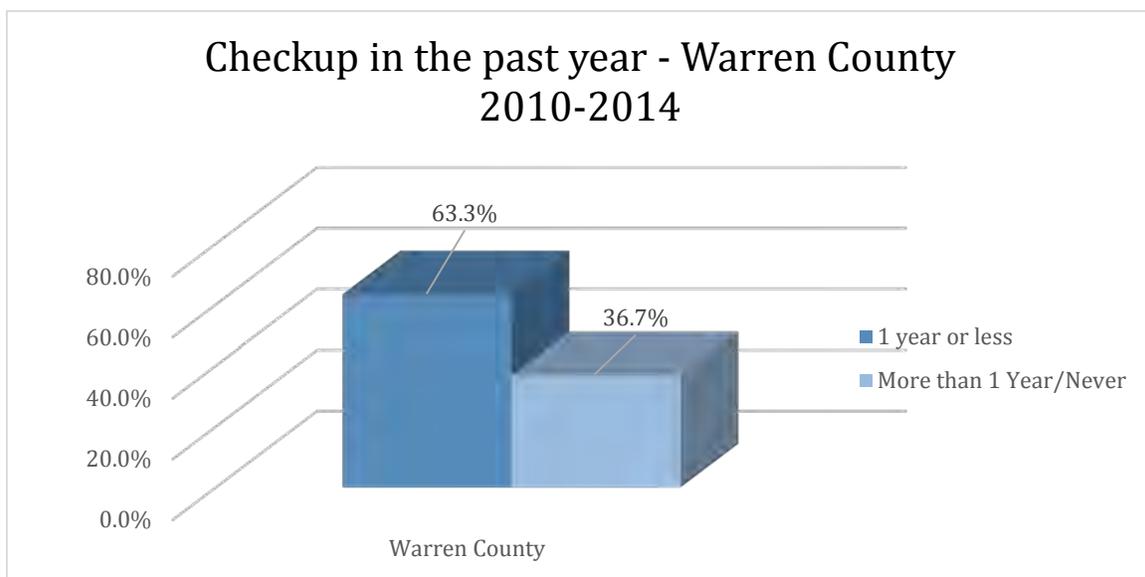
Access to Counseling – Compared to 2013, there was no change in access to counseling (92% in 2013 and 2016.)

2.2 Wellness

Importance of the measure: Preventative healthcare measures, including scheduling a routine well-visit, getting a flu shot, engaging in a healthy lifestyle, and undertaking screenings for diseases are essential to combating morbidity and mortality while reducing healthcare costs.

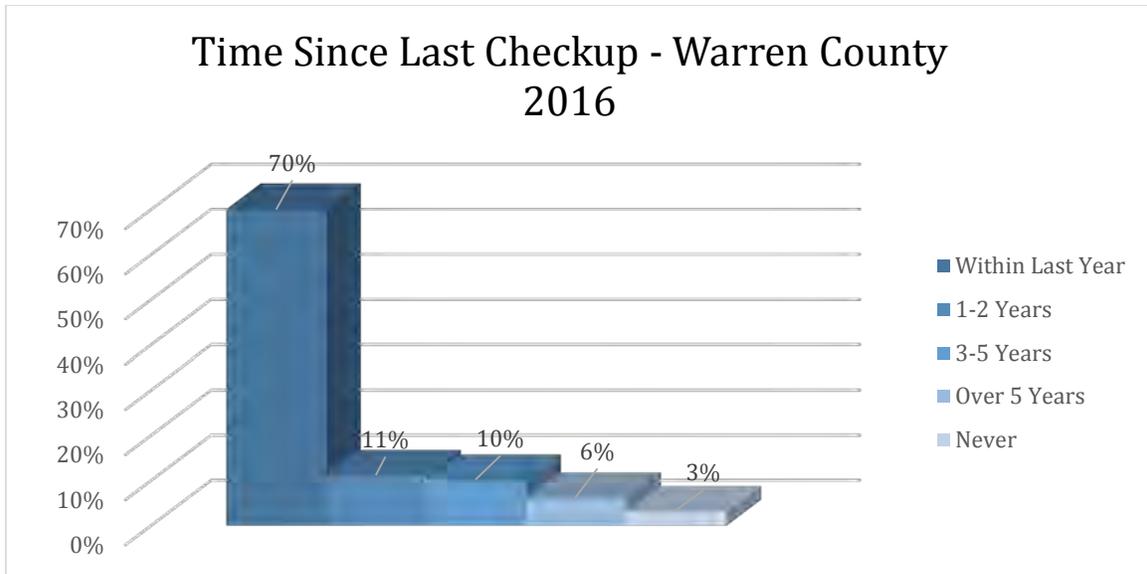
Frequency of Checkup

Numerous health problems can be minimized when detected early. Therefore, regularly scheduled checkups can be very important. According to the latest data from the Illinois BRFSS, 63.3% of residents in Warren County report having had a routine checkup within the last year.



Source: Illinois Behavioral Risk Factor Surveillance System

Results from the CHNA survey show slightly higher percentages of residents getting a checkup. Survey results show that 70% of Warren County residents have had a checkup in the last year.



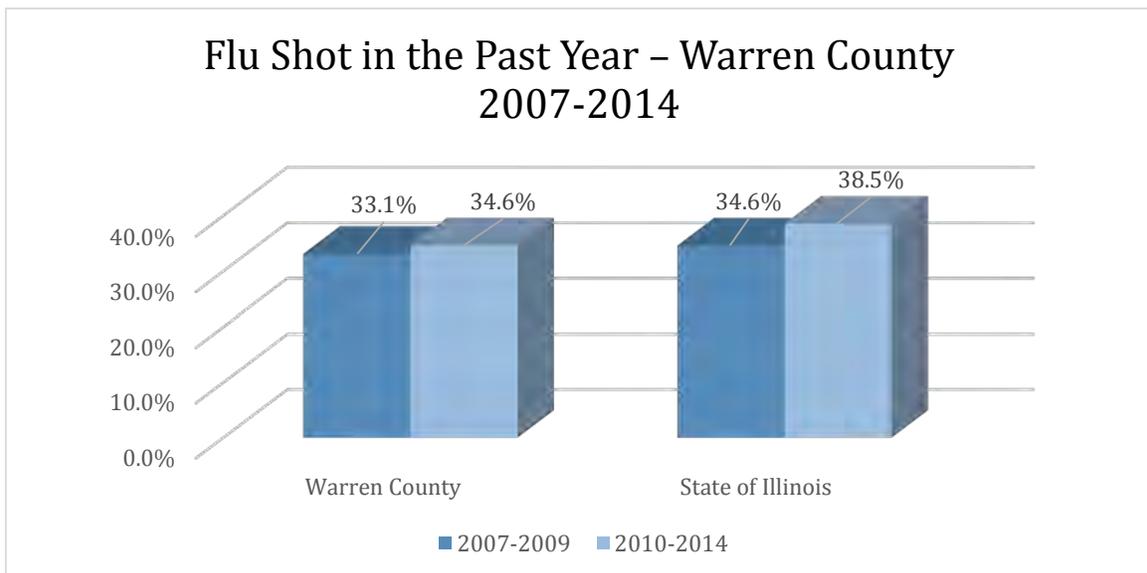
Source: CHNA Survey Data

Comparison to 2013 CHNA Data

There has been no change in the percentage of residents who have had a checkup in the past year.

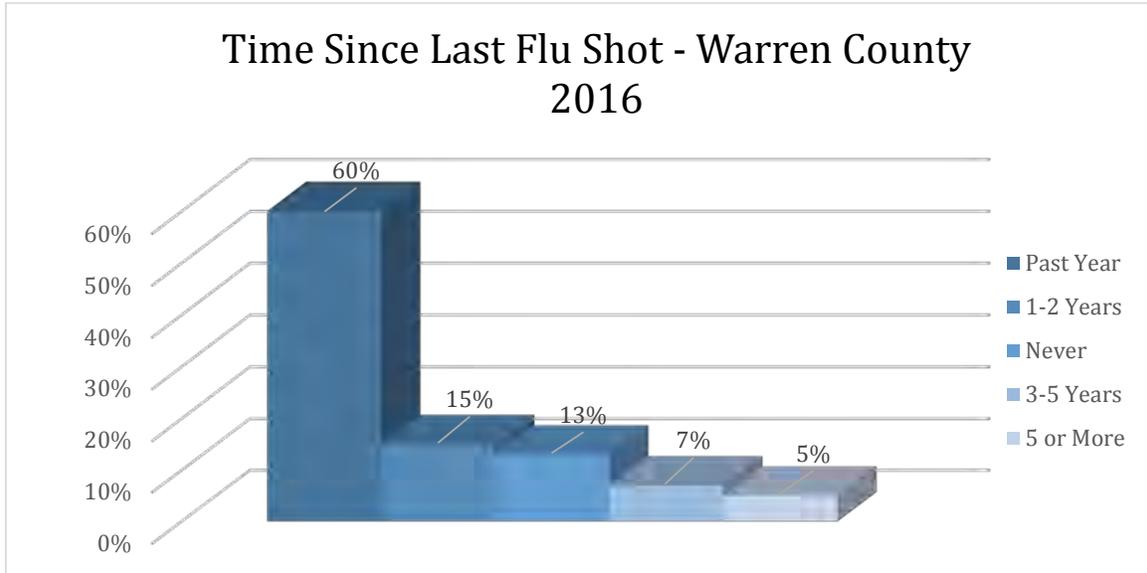
Frequency of Flu Shots

The overall health of a community is impacted by preventative measures including immunizations and vaccinations. The chart below shows that the percentage of people who have had a flu shot in the past year is 33.1% for Warren County in 2007-2009. No data are available for 2010-2014. During this timeframe, the State of Illinois realized an increase in the number of people who have had flu shots.



Source: Illinois Behavioral Risk Factor Surveillance System

CHNA survey data provide additional insights into prevalence of flu shots, and a more positive result for Warren County.



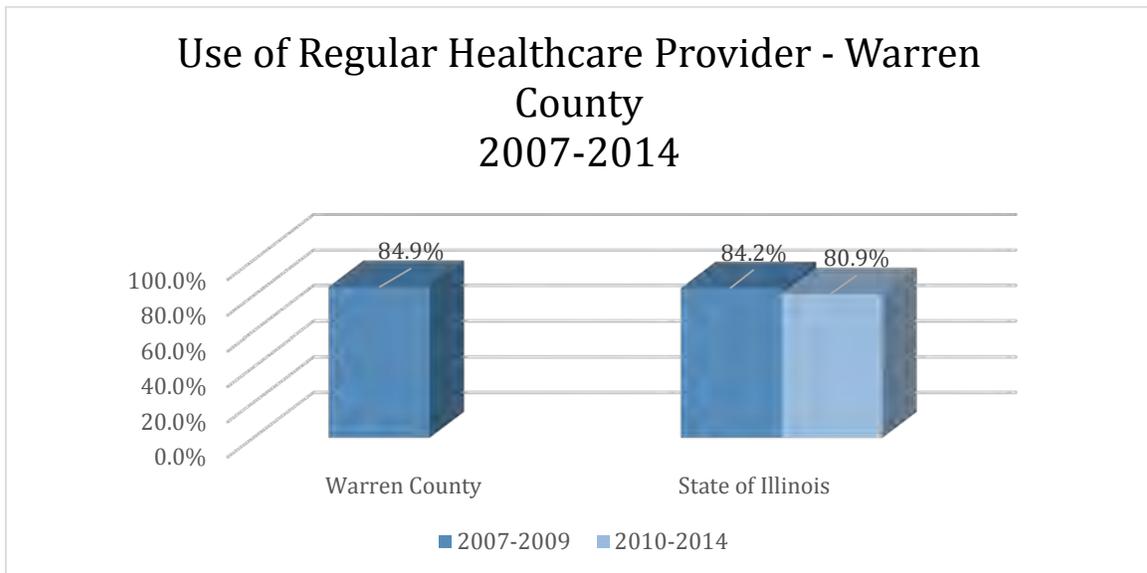
Source: CHNA Survey

Comparison to 2013 CHNA Data

There is no comparison with the 2013 CHNA, as the survey item for flu shot was added to the 2016 CHNA survey.

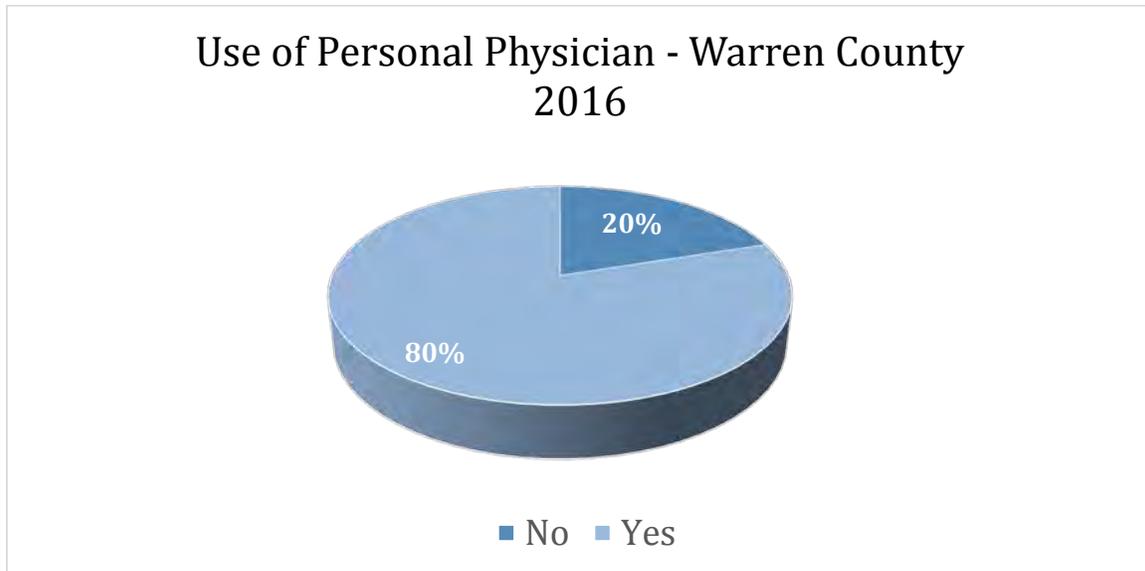
Usual Healthcare Provider

In Warren County, the most recent secondary data indicate 84.9% of residents utilize a regular healthcare provider; data were not collected in 2010-2014. The percentage of residents in Warren County reporting a usual healthcare provider is higher than the State of Illinois average, which fell slightly in 2010-2014.



Source: Illinois Behavioral Risk Factor Surveillance System

Similarly, the CHNA survey asked respondents if they had a personal physician. Having a personal physician suggests that individuals are more likely to get wellness check-ups and less likely to use an emergency department as a primary healthcare service. According to survey data, 80% of residents have a personal physician.



Source: CHNA Survey

Comparison to 2013 CHNA Data

The 2016 CHNA survey results for having a personal physician are equal to the 2013 CHNA. Specifically, 80% of residents reported a personal physician in 2013, the same as 2016.

Demographic Factors Related to Wellness

Multiple demographic characteristics show significant relationships with wellness. The following relationships were found using correlational analyses:

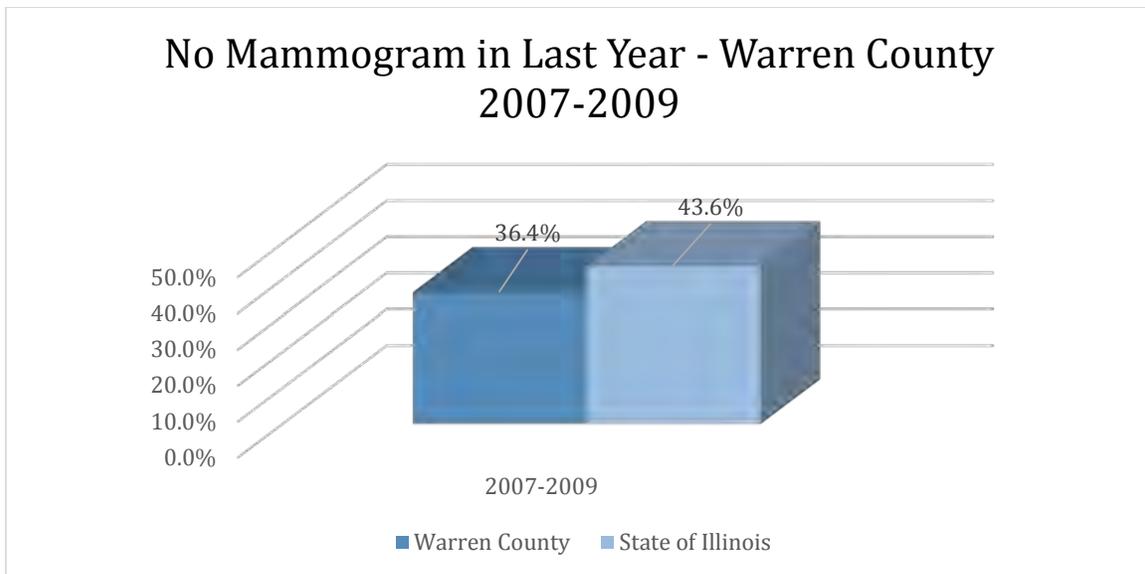
Frequency of checkup tends to be higher for women, older people and those with higher education. Black residents receive a checkup less frequently.

Frequency of flu shot tends to be higher for those with higher education and income.

Having a personal physician tends to be more likely for older people and those with higher education and income. Black residents and homeless people are less likely to report having a personal physician.

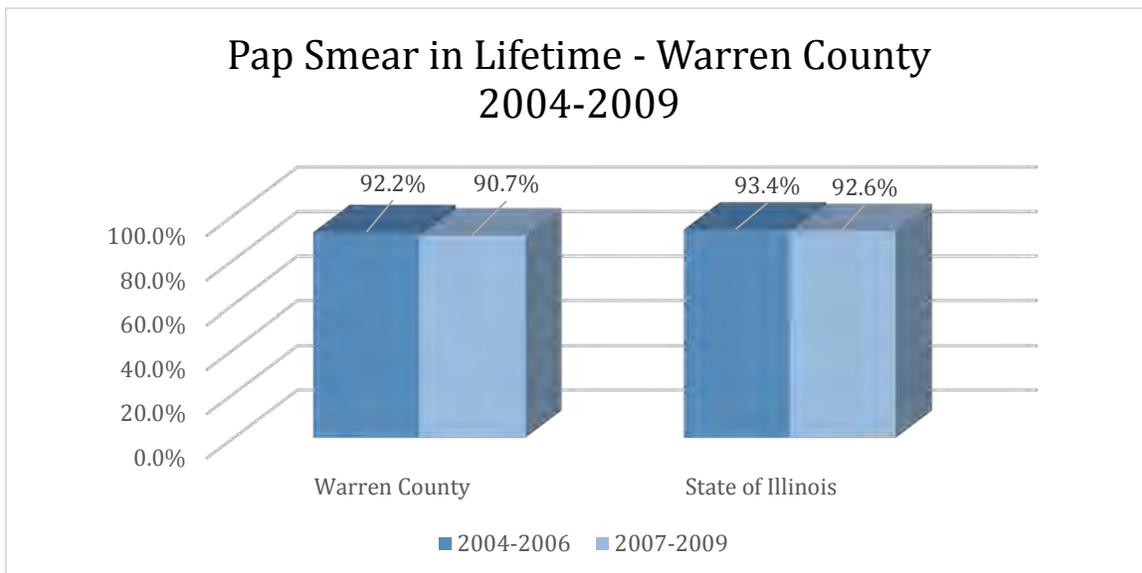
Women's Healthcare

Using the most recent available data from 2007-2009, 36.4% of residents from Warren County reported they had not had a mammogram within the last year.



Source: Illinois Behavioral Risk Factor Surveillance System

Research suggests pap smears are important in detecting pre-cancerous cells in the uterus and cervix. The percentages of women who have ever had a pap smear has increased slightly between 2004-2006 and 2007-2009. Compared to the State of Illinois, Warren County is slightly lower.



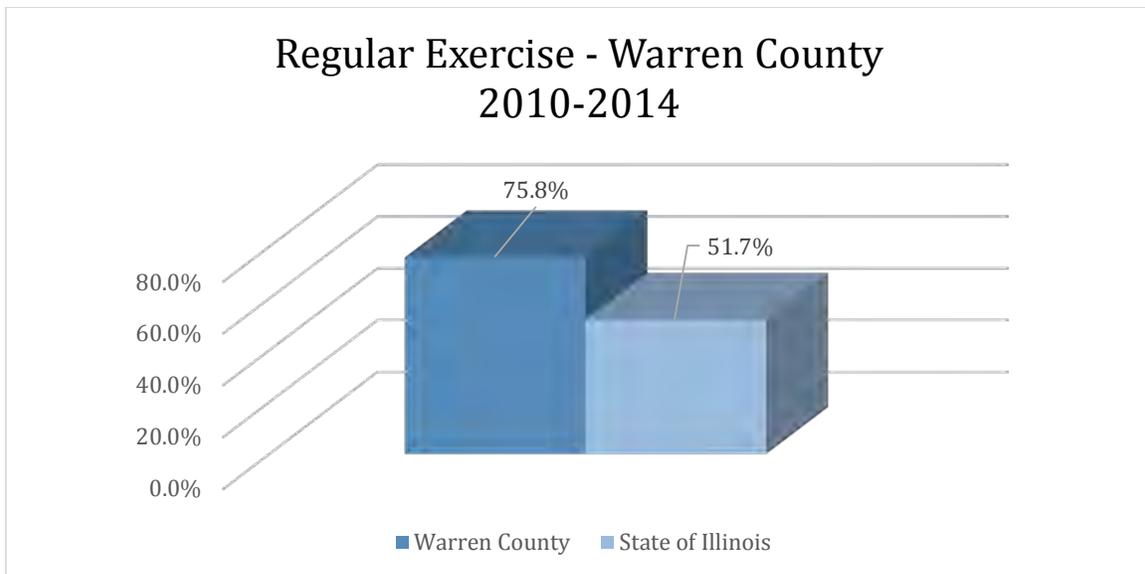
Source: Illinois Behavioral Risk Factor Surveillance System

Healthy Lifestyle

A healthy lifestyle, comprised of regular physical activity and balanced diet, has been shown to increase physical, mental, and emotional well-being.

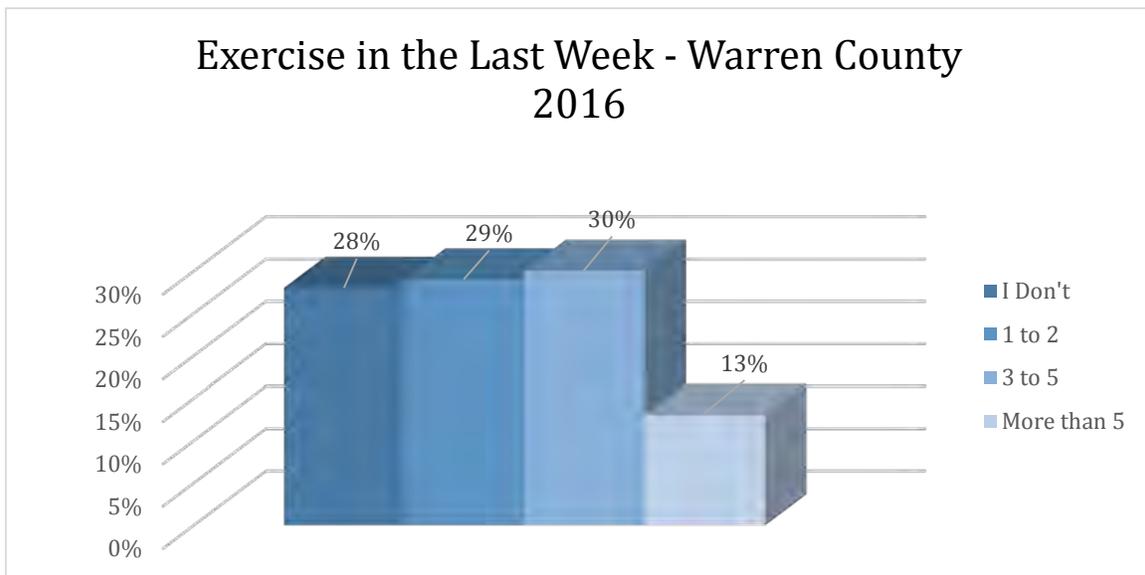
Physical Exercise

According to recent data, 75.8% of the residents in Warren County exercise. The percentage of individuals who exercise in Warren County is higher than the State of Illinois.



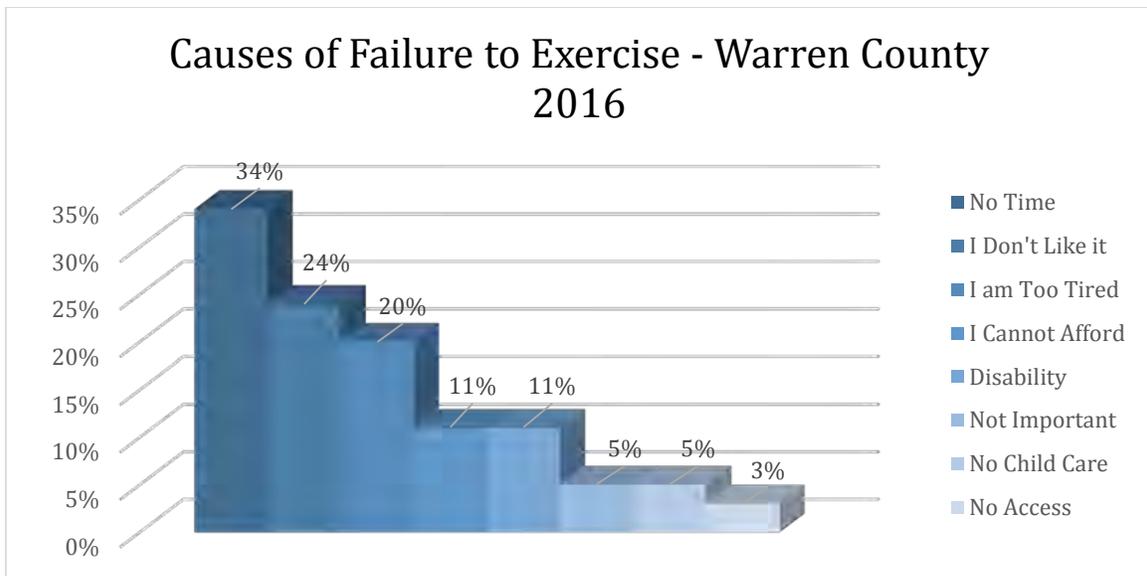
Source: Illinois Behavioral Risk Factor Surveillance System

CHNA survey data allow for a more detailed assessment of exercise. Specifically, 28% of respondents indicated that they do not exercise at all, while the largest percentage of residents exercise 3-5 times per week.



Source: CHNA Survey

To find out why some residents do not exercise at all, a follow up question was asked. The most common reasons for not exercising are not having enough time (34%), dislike of exercise (24%), and not having enough energy (20%).



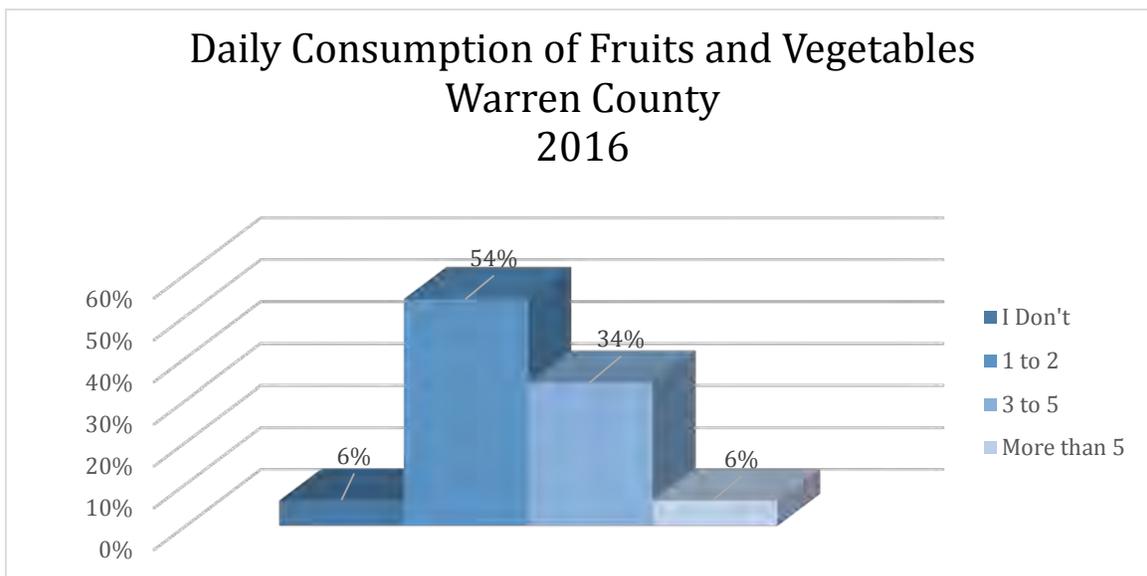
Source: CHNA Survey

Comparison to 2013 CHNA Data

Exercise behaviors have declined; data from the 2016 CHNA survey indicate that in 2013, 25.6% of survey respondents indicated they did not exercise. In 2016, 28% of respondents indicated they did not exercise.

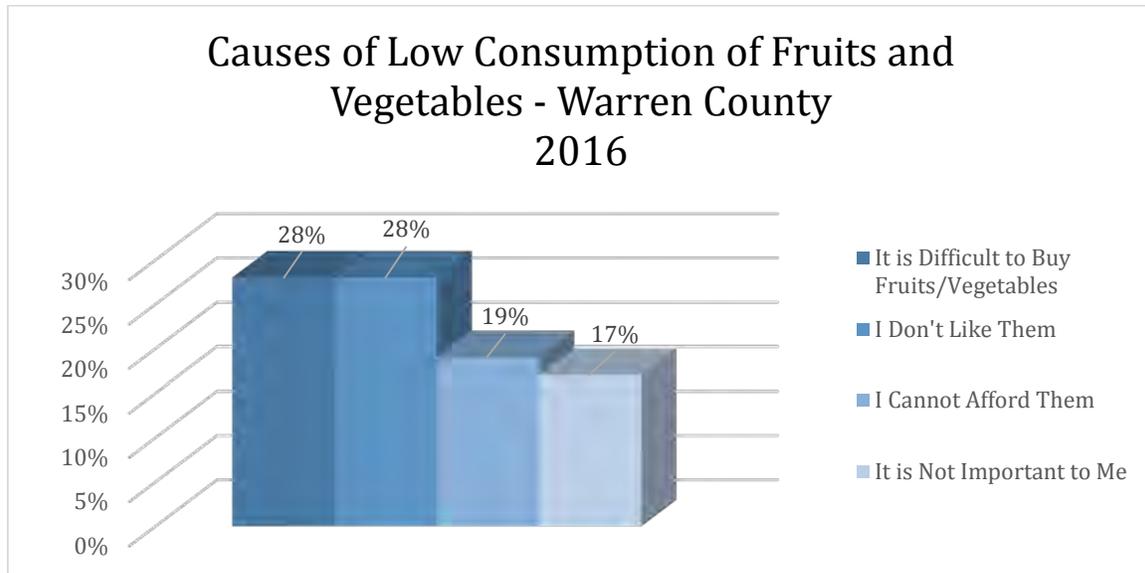
Healthy Eating

Nutrition and diet are critical to preventative care. Well over half (60%) of Warren County residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of Warren County residents who consume five or more servings per day is only 6%.



Source: CHNA Survey

Those individuals who indicated they do not eat any fruits or vegetables were asked a follow up question. Reasons most frequently given for failing to eat more fruits and vegetables are the difficulty to buy fruits and vegetables (28%), a lack of appeal (28%), the expense involved (19%), and a lack of importance (17%).



Source: CHNA Survey

Comparison to 2013 CHNA Data

Compared to the 2013 CHNA, healthy eating is not improving. Specifically, in 2013, 55% of survey respondents ate two or fewer servings of fruits and vegetables per day. In 2016, 60% eat two or fewer servings of fruits and vegetables per day.

Demographic Factors Related to Healthy Lifestyle

There are multiple demographic characteristics showing significant relationships with healthy lifestyle.

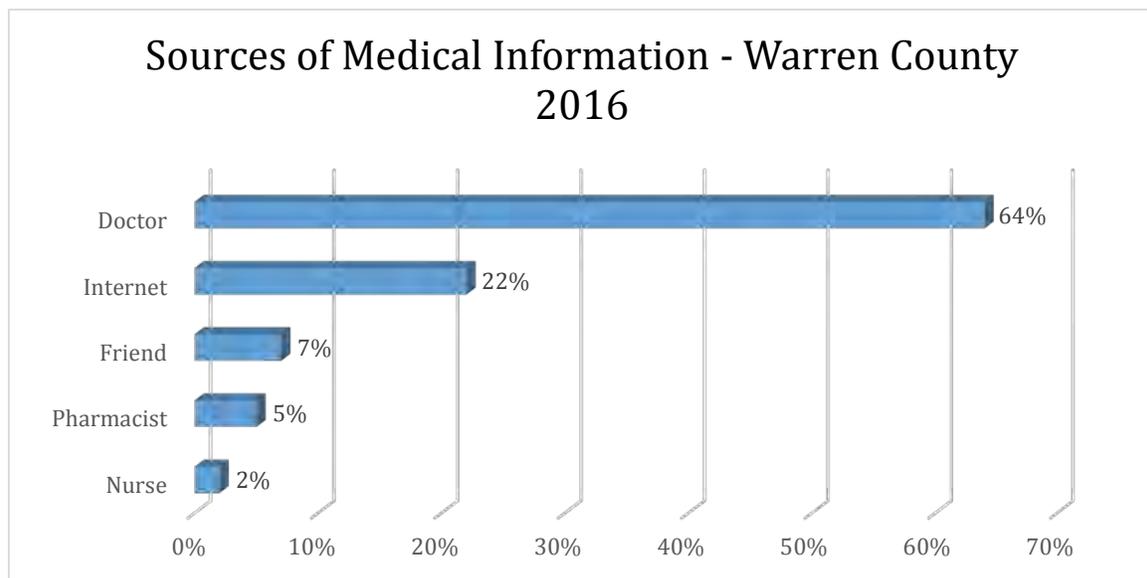
Frequency of exercise tends to be higher for men, older people, and people with higher income.

Frequency of fruit and vegetable consumption tends to be higher for women and people with higher education and higher income.

2.3 Access to Information

Importance of the measure: It is important to understand how people access medical information. The more proactive the population becomes in managing its own health, the more important access to accurate information becomes.

Respondents were asked, “Where do you get most of your medical information?” The vast majority of respondents obtained information from their doctor. While the Internet was the second most common choice, it was significantly lower than information from doctors.



Source: CHNA Survey

Demographic Factors Related to Access to Information

Several demographic characteristics show significant relationships with frequency of access to various sources of information. The following relationships were found using correlational analyses:

Access to Information from a Doctor tends to be higher for older people and those with higher income, and lower for Black people.

Access to Information from a Friend tends to be higher for Black people and those with low education.

Access to Information from the Internet tends to be higher for younger people and those with higher education.

Access to Information from a Pharmacy tends to be higher for those with lower education, income and the homeless.

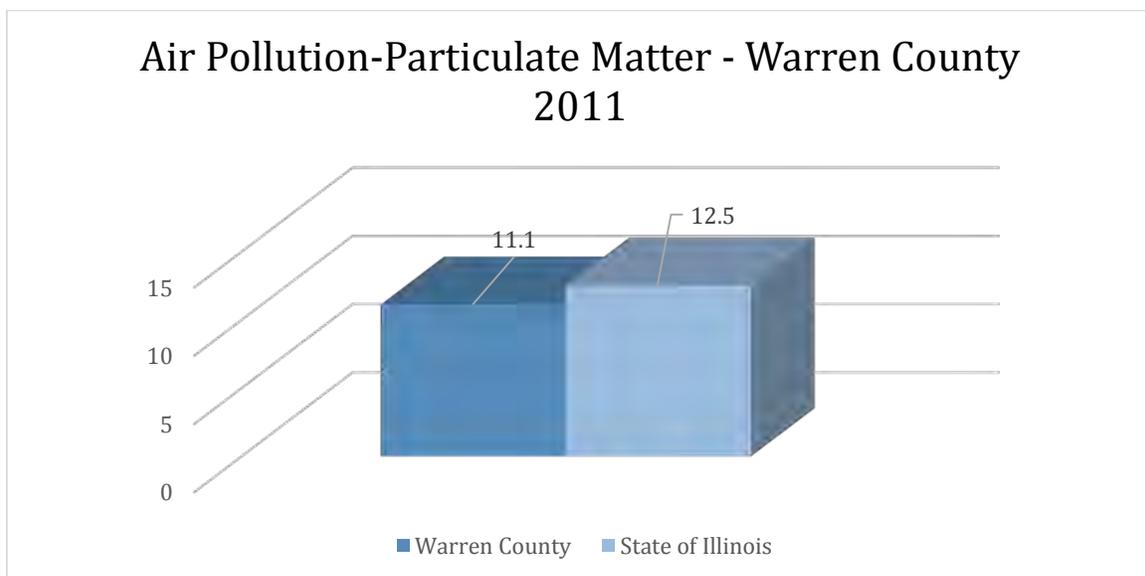
Access to Information from a Church Nurse does not show significant relationships.

2.4 Physical Environment

Importance of the measure:

According to the County Health Rankings, Air Pollution - Particulate Matter (APPM) is the average daily density of fine particulate matter in micrograms per cubic meter (PM2.5) in a county. Fine particulate matter is defined as particles of air pollutants with an aerodynamic diameter less than 2.5 micrometers. These particles can be directly emitted from sources such as forest fires, or they can form when gases are emitted from power plants, manufacturing facilities and automobiles.

The relationship between elevated air pollution, particularly fine particulate matter and ozone, and compromised health has been well documented. Negative consequences of ambient air pollution include decreased lung function, chronic bronchitis, asthma, and other adverse pulmonary effects. The APPM for Warren County (11.1) is slightly lower than the State average of 12.5.



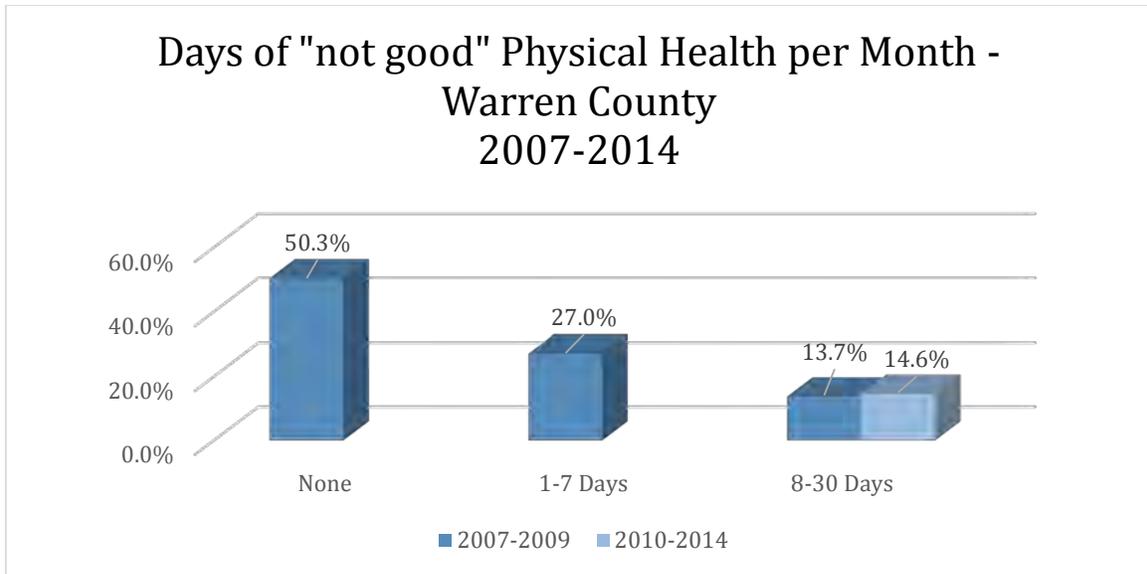
Source: County Health Rankings 2011 Data

2.5 Health Status

Importance of the measure: Self-perceptions of health can provide important insights to help manage population health. Not only do self-perceptions provide benchmarks regarding health status, but they can also provide insights into how accurately people perceive their own health.

Physical Health

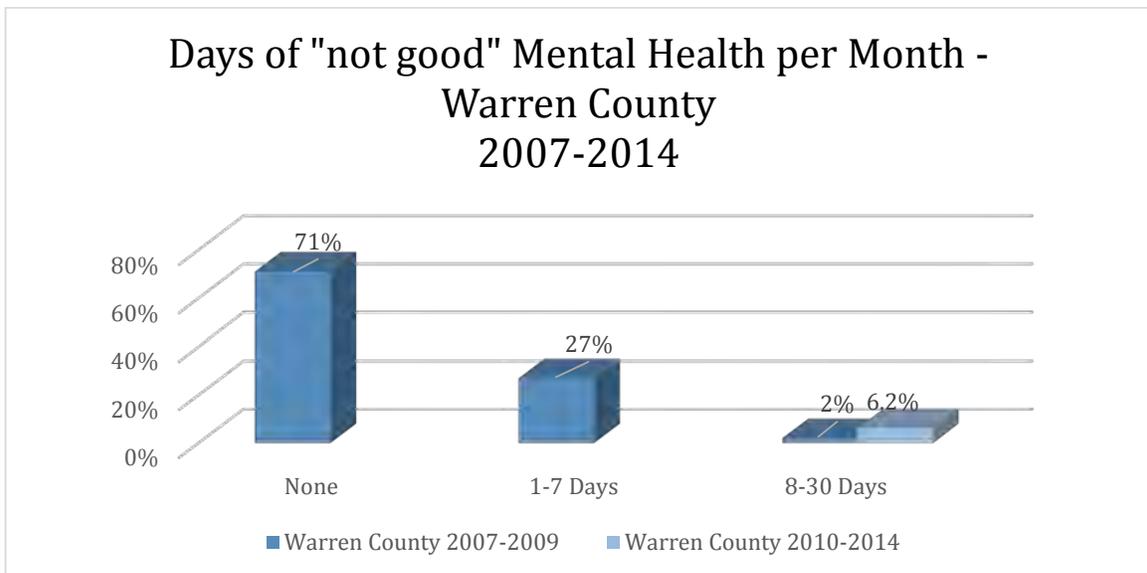
There was a decrease in the percentage of Warren County residents reporting they felt physically unhealthy on 8 or more days per month in 2009 (13.7%) versus 2014 (14.6%). Data were not available for choices less than 8 days for 2010-2014.



Source: Illinois Behavioral Risk Factor Surveillance System

Mental Health

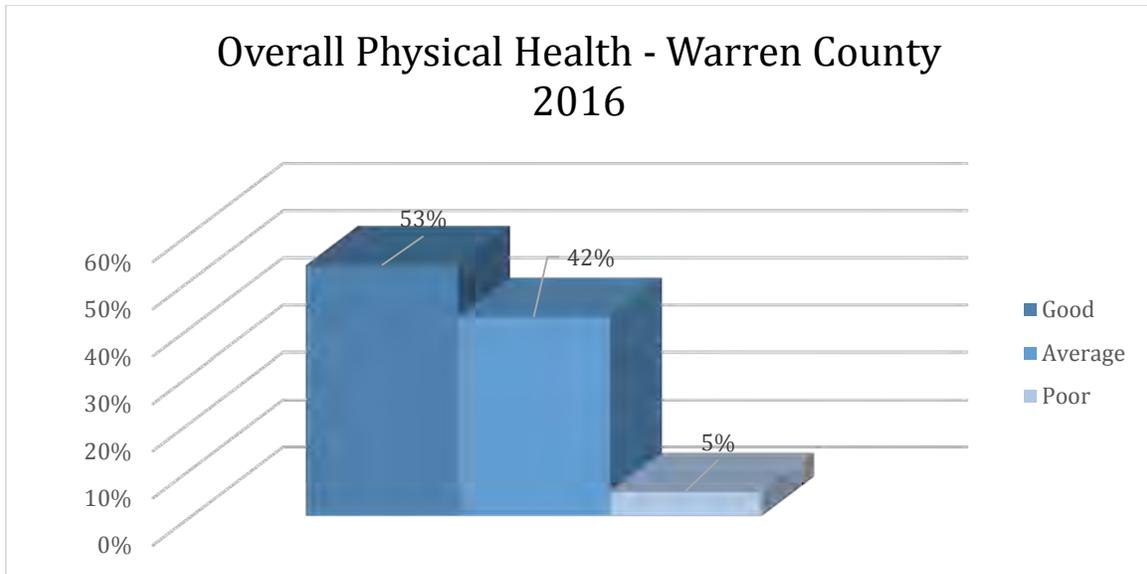
Approximately 27% of residents in Warren County reported they had experienced 1-7 days with poor mental health per month in 2007-2009, and 2% felt mentally unhealthy on eight or more days per month for 2009. In 2010-2014, there was a significant increase in the number of people who reported poor mental health for 8 or more days per month.



Source: Illinois Behavioral Risk Factor Surveillance System

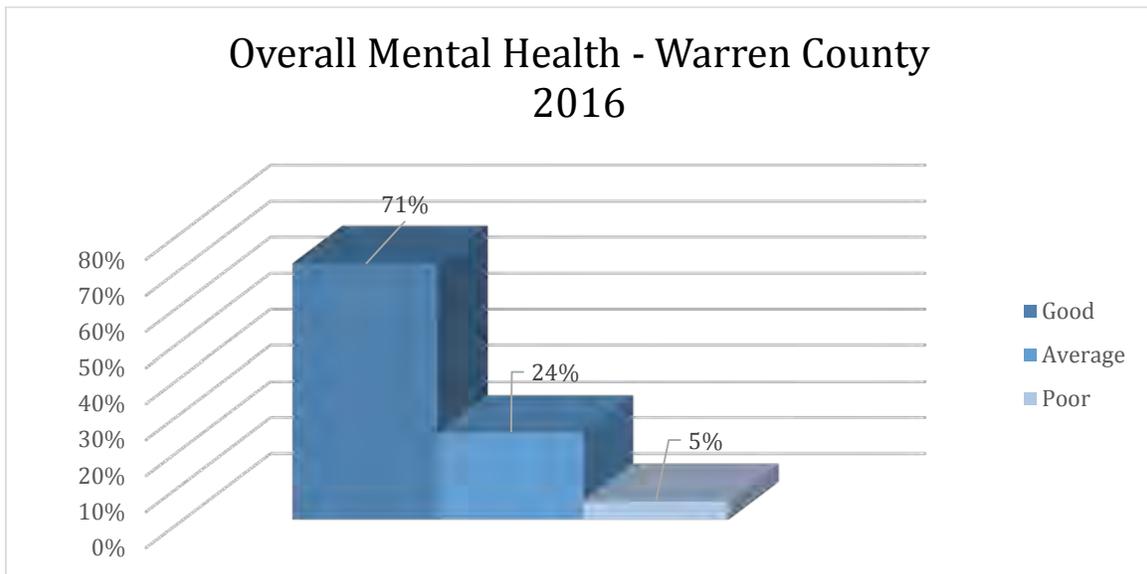
Self Perceptions of Overall Health

Over half (53%) of Warren County Residents report having good overall physical health, while 5% rated themselves as having poor physical health.



Source: CHNA Survey

In regard to overall mental health, 71% of respondents stated they have good overall mental health and 5% stated it is poor.



Source: CHNA Survey

Demographic Factors Related to Self Perceptions of Health

Demographic characteristics show significant relationships with self-perceptions of health. The following relationships were found using correlational analyses:

Perceptions of physical and mental health tend to be higher for those with higher education and income.

2.6 Key Takeaways from Chapter 2

- ✓ **ED IS CHOSEN BY 15% OF THE AT-RISK POPULATION AS THE PRIMARY SOURCE OF HEALTHCARE**
- ✓ **FOR THE AT-RISK POPULATION, 5% CHOOSE NOT TO RECEIVE MEDICAL CARE**
- ✓ **ACCESS TO MEDICAL CARE, PRESCRIPTION MEDICATIONS AND DENTAL CARE ALL IMPROVED OR HELD STEADY COMPARED TO THE 2013 CHNA**
- ✓ **THE MAJORITY OF THE POPULATION EXERCISES TWO OR FEWER TIMES PER WEEK**
- ✓ **WARREN RESIDENTS ARE EATING FEWER FRUITS AND VEGETABLES COMPARED TO THE 2013 CHNA; THE MAJORITY OF RESIDENTS STILL EAT 2 OR FEWER SERVINGS OF FRUITS AND VEGETABLES PER DAY.**
- ✓ **MOST RESIDENTS HAVE HIGH SELF-PERCEPTIONS OF BOTH PHYSICAL AND MENTAL HEALTH**

CHAPTER 3 OUTLINE

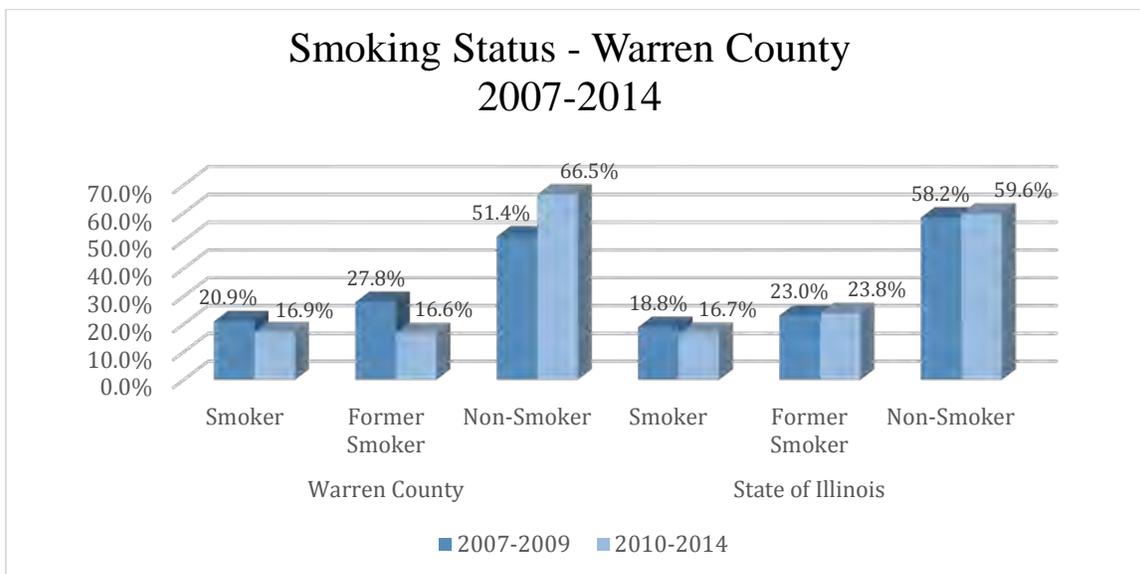
- 3.1 Tobacco Use
- 3.2 Drug and Alcohol Use
- 3.3 Overweight and Obesity
- 3.4 Predictors of Heart Disease
- 3.5 Key Takeaways from Chapter 3

CHAPTER 3. SYMPTOMS AND PREDICTORS

3.1 Tobacco Use

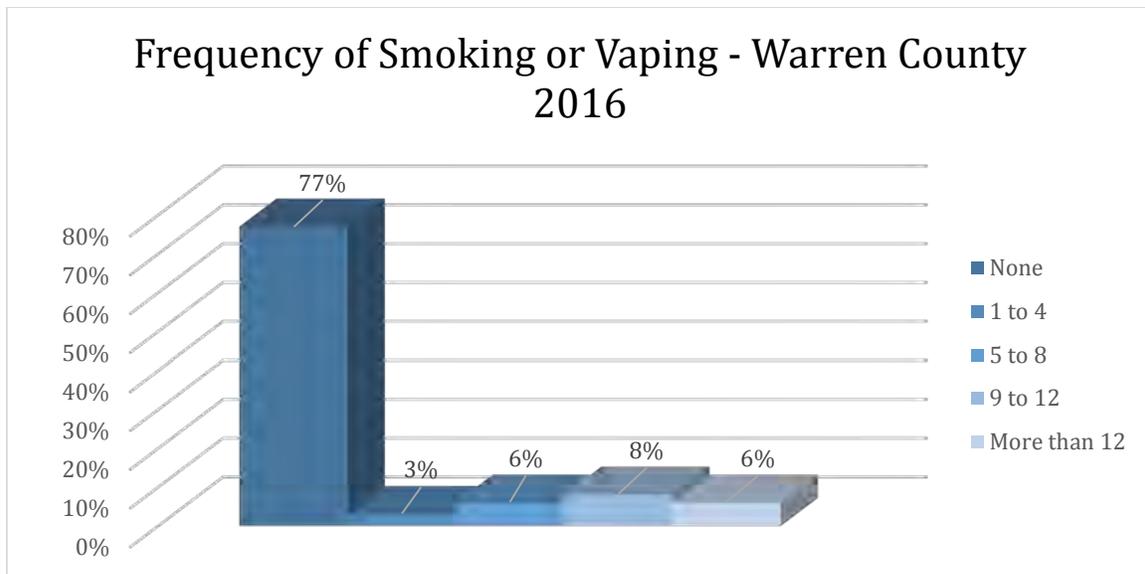
Importance of the measure: In order to appropriately allocate healthcare resources, a thorough analysis of the leading indicators regarding morbidity and disease must be conducted. In this way, healthcare organizations can target affected populations more effectively. Research suggests tobacco use facilitates a wide variety of adverse medical conditions.

Smoking rates have decreased in Warren County and are now closer to the State of Illinois averages. There was a significant decrease in the percentage of Warren County residents reporting they were current smokers between 2007-2009 (20.9%) and 2010-2014 (16.9%). There was an increase in the percentage of Warren County residents reporting they were current non-smokers between 2007-2009 (51.4%) and 2010-2014 (66.5%).



Source: Illinois Behavioral Risk Factor Surveillance System

CHNA survey data show 77% of Warren County Respondents do not smoke and only 6% state they smoke more than 12 cigarettes (or vape) per day.



Source: CHNA Survey

Comparison to 2013 CHNA Data

Compared to data from the 2013 CHNA, the percentage of smokers has decreased. Specifically, in 2013, 51.4% of people indicated they didn't smoke. In 2016, 77% of people indicated they did not smoke.

Demographic Factors Related to Smoking

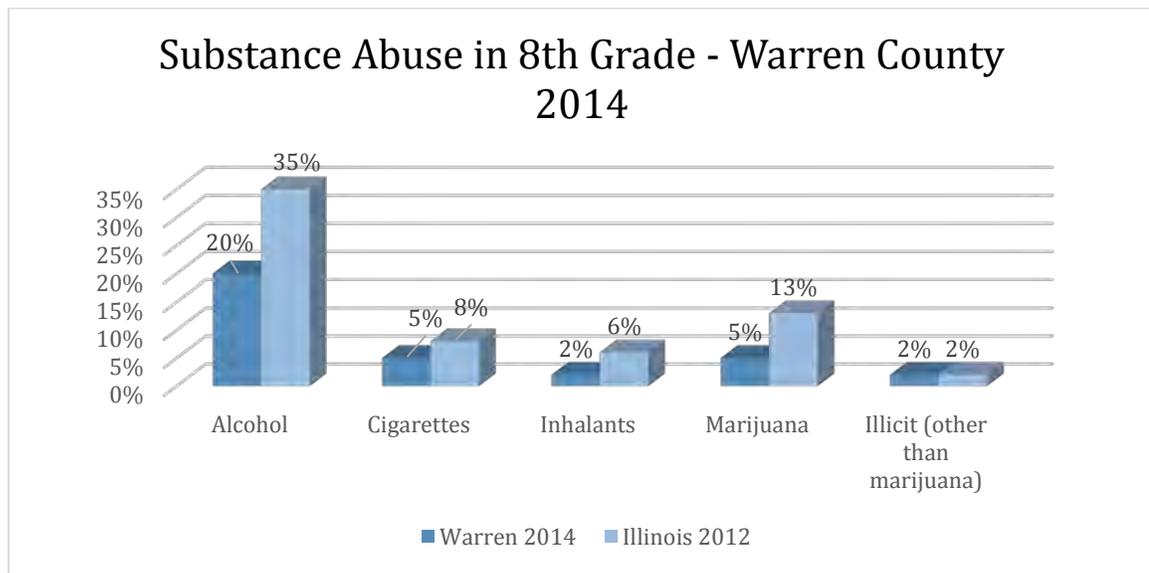
Several demographic characteristics show significant relationships with incidence of smoking or vaping. The following relationships were found using correlational analyses:

Frequency of smoking or vaping was higher among women and those with lower education and income. Latino residents reported they smoked less often.

3.2 Drug and Alcohol Abuse

Importance of the measure: Alcohol and drugs impair decision-making, often leading to adverse consequences and outcomes. Research suggests that alcohol is a gateway drug for youth, leading to increased usage of controlled substances in adult years. Accordingly, the substance abuse values and behaviors of high school students is a leading indicator of adult substance abuse in later years.

Data from the 2014 Illinois Youth Survey measures illegal substance use (alcohol, tobacco, and other drugs – mainly marijuana) among adolescents. Warren County is at or below State averages in all categories among 8th graders. Note that data are not available for Illinois in 2014; therefore, 2012 benchmarks are used. Data are not available in Warren County for 12th graders.



Source: https://iys.cprd.illinois.edu/UserFiles/Servers/Server_178052/File/2014/cnty14_Warren.pdf

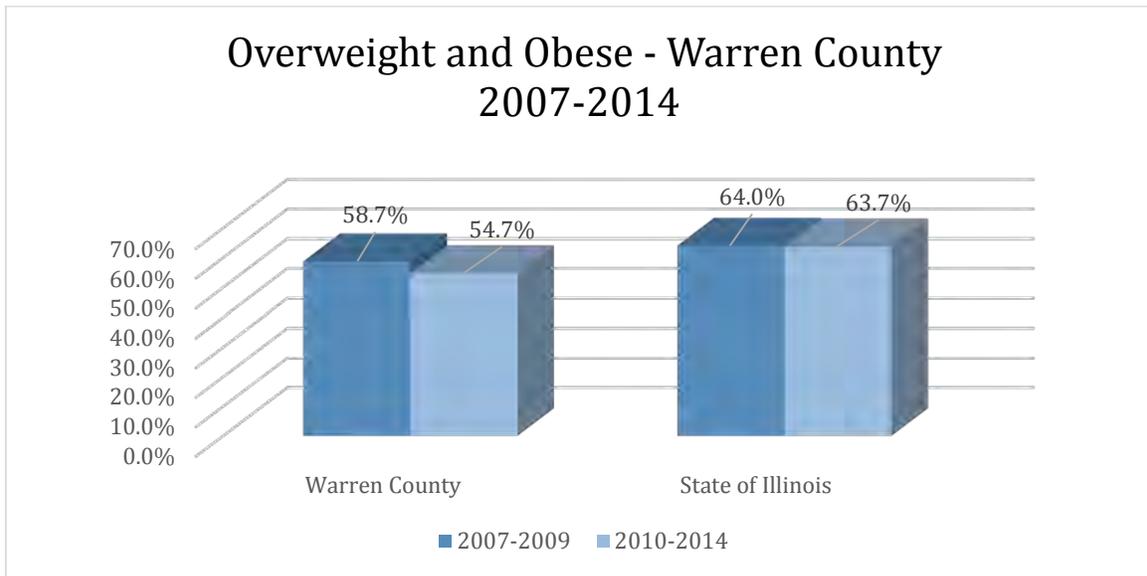
3.3 Overweight and Obesity

Importance of the measure: Individuals who are overweight and obese place greater stress on their internal organs, thus increasing the propensity to utilize health services. Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within Warren County. The US Surgeon General has characterized obesity as “the fastest-growing, most threatening disease in America today.” According to the Obesity Prevention Initiative from the Illinois General Assembly, 20% of Illinois children are obese. The financial burden of overweight and obese individuals is staggering, as the estimated annual medical costs attributed to obesity in Illinois for 1998-2000 exceeded \$3.4 billion, ranking Illinois 6th in the nation for obesity-attributed medical costs.

With children, research has linked obesity to numerous chronic diseases including Type II diabetes, hypertension, high blood pressure, and asthma. Adverse physical health side effects of obesity include orthopedic problems due to weakened joints and lower bone density. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation. Obesity impacts educational performance as well; studies suggest school absenteeism of obese children is six times higher than that of non-obese children.

With adults, obesity has far-reaching consequences. Testimony to the Illinois General Assembly indicated that obesity-related illnesses contribute to worker absenteeism, slow workflow, and high worker compensation rates. A Duke University study on the effects of obesity in the workforce noted 13 times more missed workdays by obese employees than non-obese employees. Nationwide, lack of physical activity and poor nutrition contribute to an estimated 300,000 preventable deaths per year.

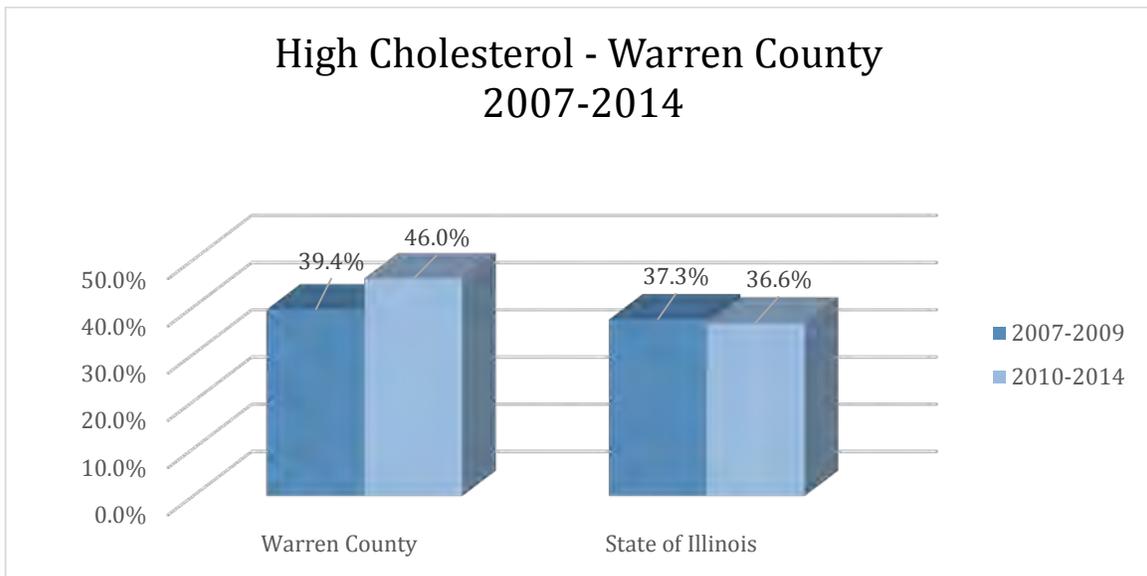
In Warren County, the number of people diagnosed with obesity and being overweight has decreased over the years from 2007-2009 to 2010-2014. Note specifically that the percentage of obese and overweight people has decreased from 58.7% to 54.7%. Overweight and obesity rates in Illinois have decreased from 2009 (64.0%) to 2014 (63.7%).



Source: Illinois Behavioral Risk Factor Surveillance System

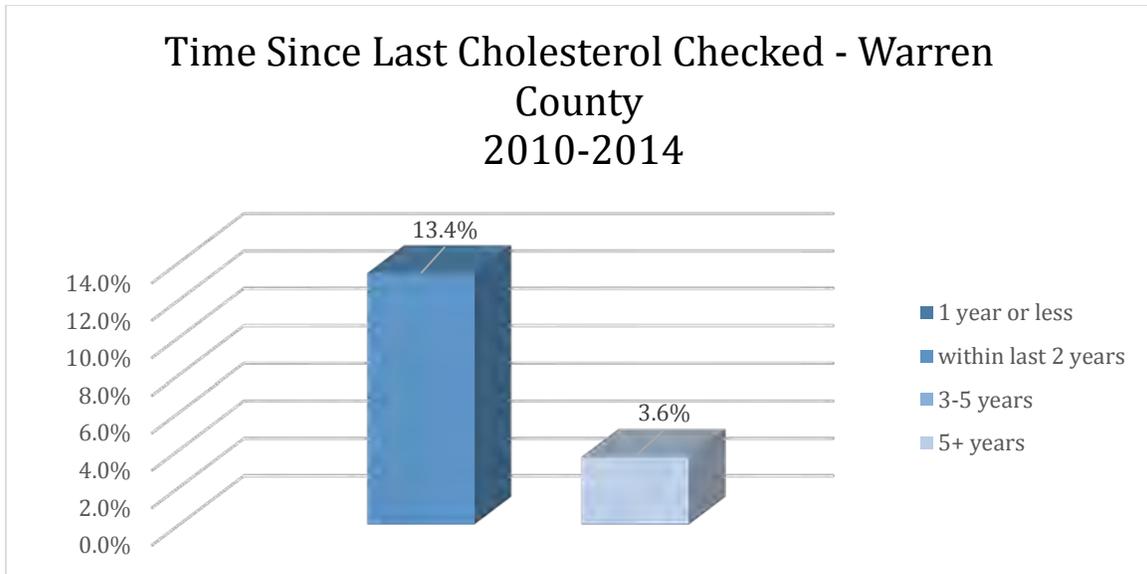
3.4 Predictors of Heart Disease

Residents in Warren County report a higher than State average prevalence of high cholesterol. The percentage of residents who report they have high cholesterol is higher in Warren County (46%) than the State of Illinois average of 36.6%.



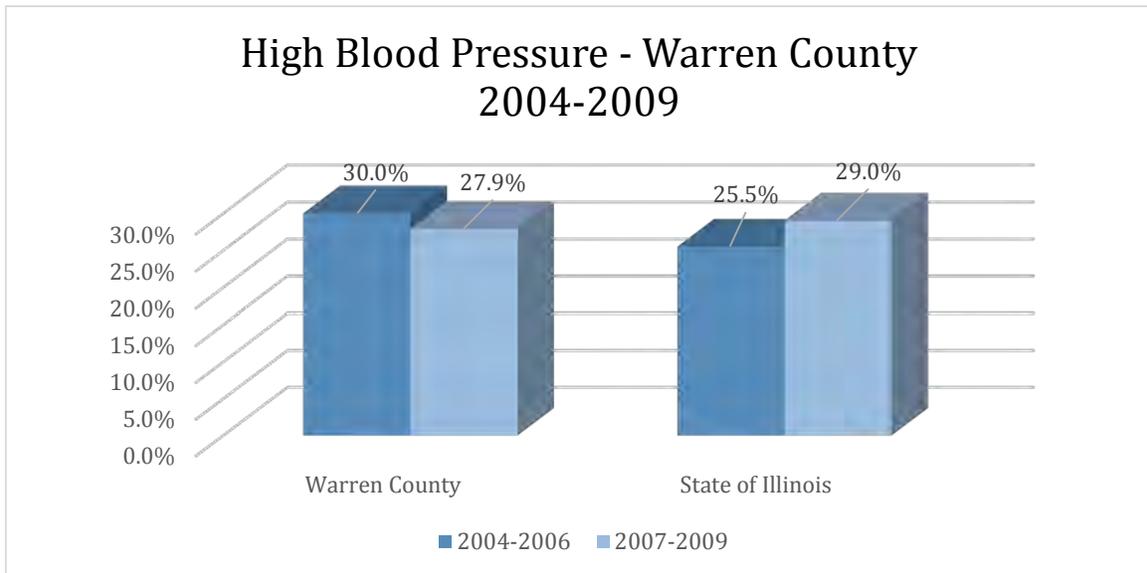
Source: Illinois Behavioral Risk Factor Surveillance System

However, some residents of Warren County report having their cholesterol checked. In 2010-2014, data are only available on residents who have had cholesterol checked between 1-2 years ago (13.4%) and over 5 years ago (3.6%).



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to high blood pressure, Warren County has a lower percentage of residents with high blood pressure than residents in the State of Illinois as a whole. The percentage of Warren County residents reporting they have high blood pressure in 2009 decreased from 30% to 27.9%.



Source: Illinois Behavioral Risk Factor Surveillance System

3.5 Key Takeaways from Chapter 3

- ✓ **TOBACCO USAGE HAS DECREASED IN WARREN COUNTY COMPARED TO THE 2013 CHNA**
- ✓ **SUBSTANCE USE AMONG 8TH GRADERS IS LOWER THAN STATE AVERAGES AND ALL CATEGORIES**
- ✓ **THE PERCENTAGE OF PEOPLE WHO ARE OVERWEIGHT AND OBESE HAS DECREASED IN WARREN COUNTY AND IS LOWER THAN THE STATE AVERAGE**
- ✓ **SOME RISK FACTORS FOR HEART DISEASE ARE INCREASING AND HIGHER THAN STATE AVERAGES**

CHAPTER 4 OUTLINE

- 4.1 Healthy Babies
- 4.2 Cardiovascular
- 4.3. Respiratory
- 4.4 Cancer
- 4.5 Diabetes
- 4.6 Infectious Disease
- 4.7 Injuries
- 4.8 Mortality
- 4.9 Key Takeaways from Chapter 4

CHAPTER 4. MORBIDITY AND MORTALITY

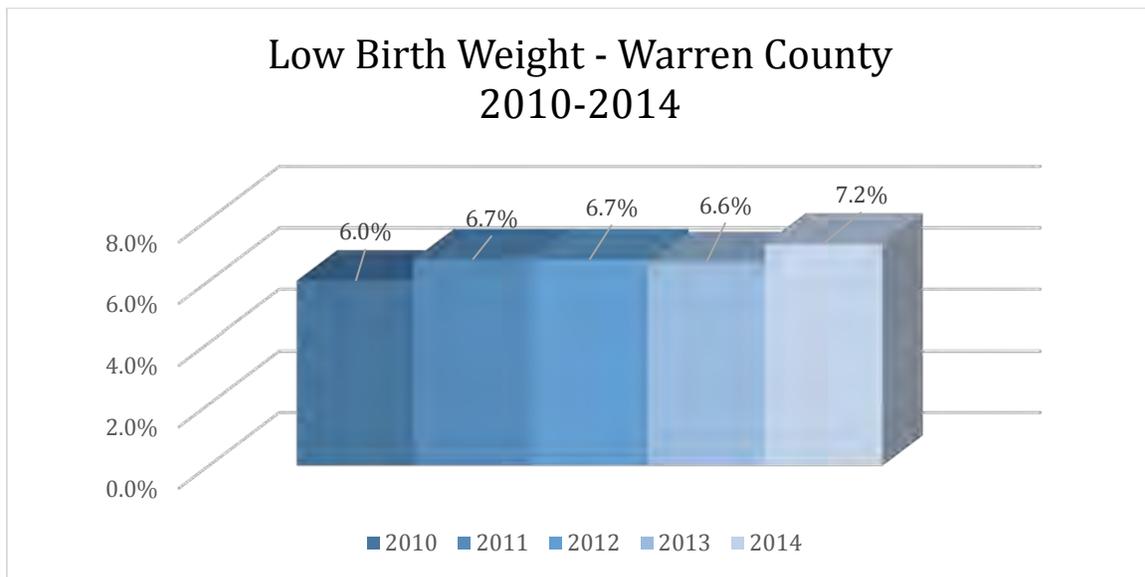
Given the lack of recent disease/morbidity data from existing secondary data sources, much of the data used in this chapter was manually gathered from Warren County hospitals using COMP data. Note that hospital-level data only show hospital admissions and do not reflect outpatient treatments and procedures.

4.1 Healthy Babies

Importance of the measure: Regular prenatal care is a vital aspect in producing healthy babies and children. Screening and treatment for medical conditions as well as identification and interventions for behavioral risk factors associated with poor birth outcomes are important aspects of prenatal care. Research suggests that women who receive adequate prenatal care are more likely to have better birth outcomes, such as full term and normal weight babies. Prenatal care can provide health risk assessments for the mother and fetus, early intervention for medical conditions and education to encourage healthy habits, including nutritional and substance-free health during pregnancy.

Low Birth Weight Rates

Low birth weight rate is defined as the percentage of infants born below 2,500 grams or 5.5 pounds. Very low birth weight rate is defined as the percentage of infants born below 1,500 grams or 3.3 pounds. In contrast, the average newborn weighs about 7 pounds. The percentage of babies born with low birth weight in Warren County increased from 2010 (6%) to 2014 (7.2%).

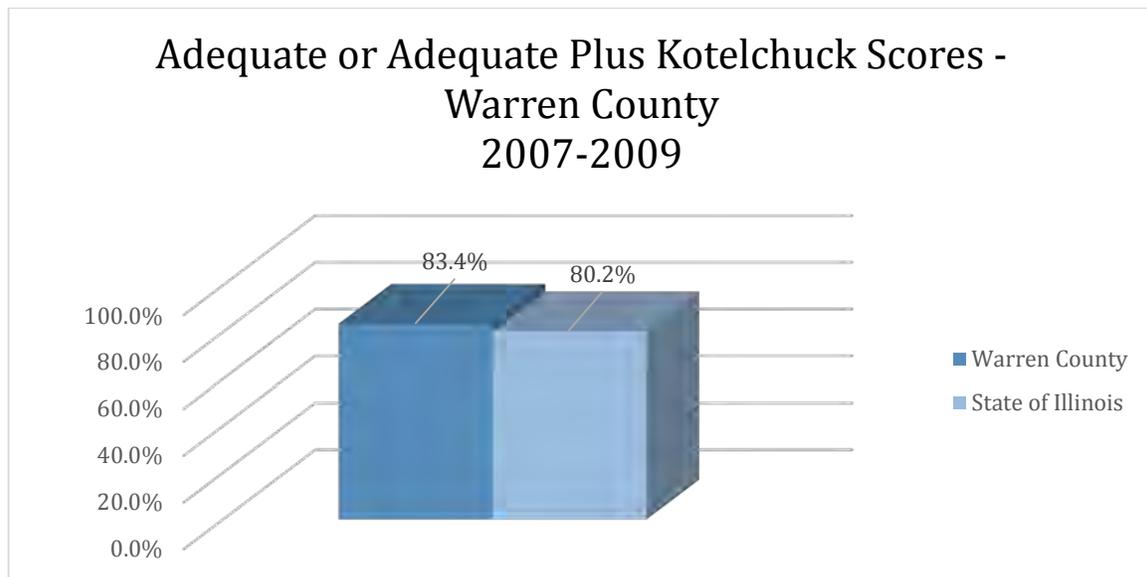


Source: <http://www.countyhealthrankings.org>

Initiation of Prenatal Care

Prenatal care is comprehensive medical care provided for the mother and fetus, which includes screening and treatment for medical conditions as well as identification and interventions for behavioral risk factors associated with adverse birth outcomes. Kotelchuck Index Scores are used to determine the quantity of prenatal visits received between initiation of services and delivery. Adequate (80%-109% of expected visits) and Adequate Plus (receiving 110% of recommended services) of received services is compared to the number of expected visits for the period when care began and the delivery date.

Of the babies born in 2009 in Warren County, 83.4% were born with “Adequate” or “Adequate Plus” prenatal care. This figure is higher than the State of Illinois average of 80.2% of babies born with similar prenatal care. These are the most recent data, and have not been updated since 2009.



Source: Illinois Department of Public Health

4.2 Cardiovascular Disease

Importance of the measure:

Cardiovascular disease is defined as all diseases of the heart and blood vessels, including ischemic (also known as coronary) heart disease, cerebrovascular disease, congestive heart failure, hypertensive disease, and atherosclerosis.

Coronary Atherosclerosis

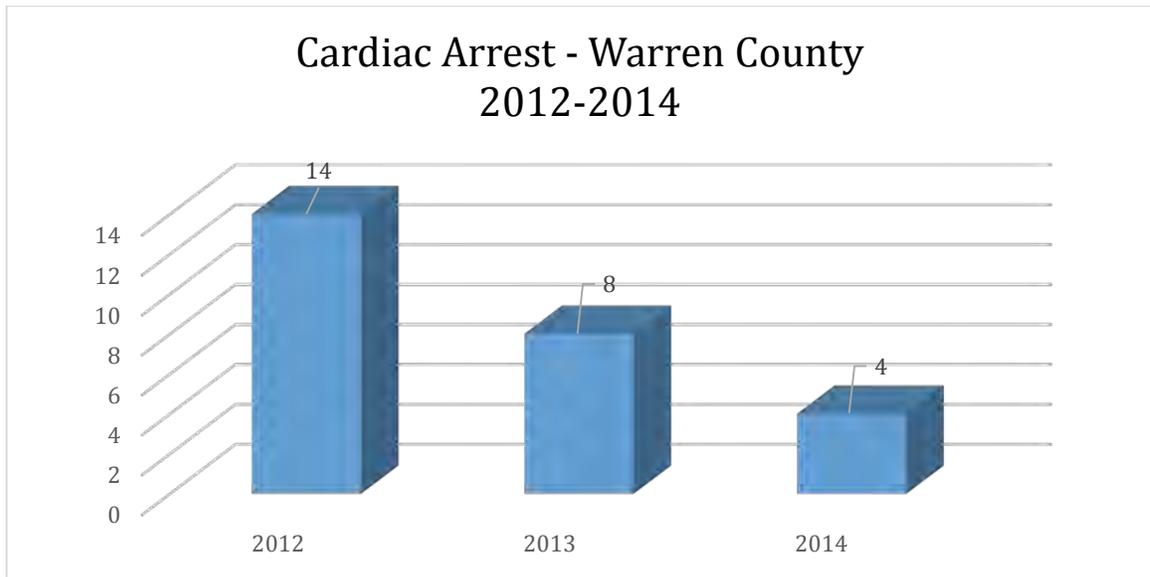
Coronary Atherosclerosis, sometimes-called hardening of the arteries, can slowly narrow and harden the arteries throughout the body. When atherosclerosis affects the arteries of the heart, it is called coronary artery disease.

Coronary artery disease is a leading cause of death for Americans. Most of these deaths are from heart attacks caused by sudden blood clots in the heart's arteries.

The number of cases of coronary atherosclerosis complication at Warren County area hospitals has decreased from 2 cases in 2012 to 0 cases in 2013 and 2014. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

Cardiac Arrest

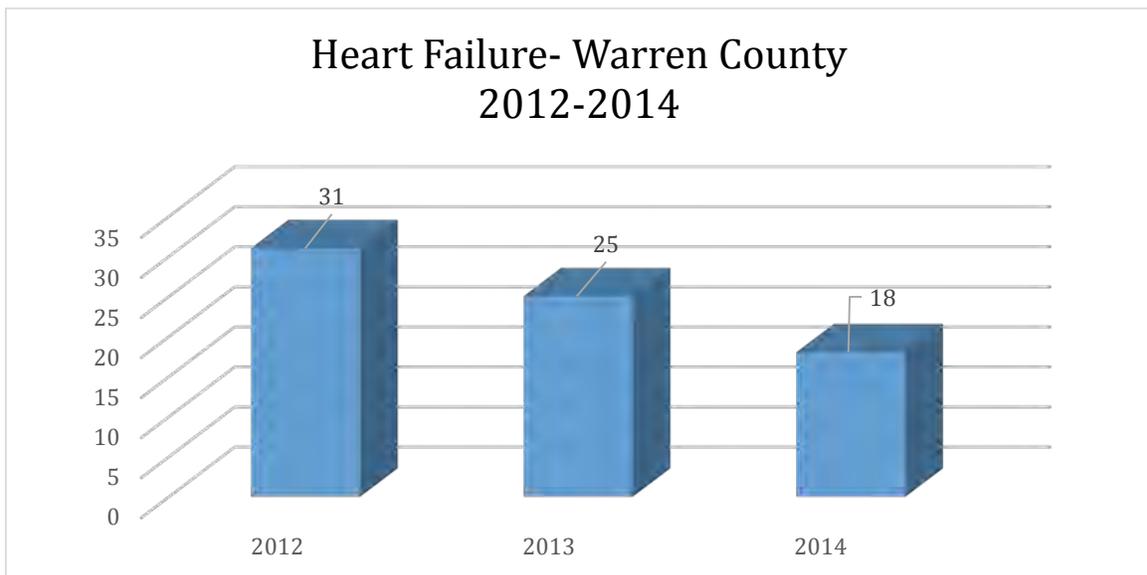
Cases of dysthymia and cardiac arrest at Warren County area hospitals has decreased by 10 cases between FY12 and FY14. Note that hospital-level data only show hospital admissions.



Source: COMPdata 2015

Heart Failure

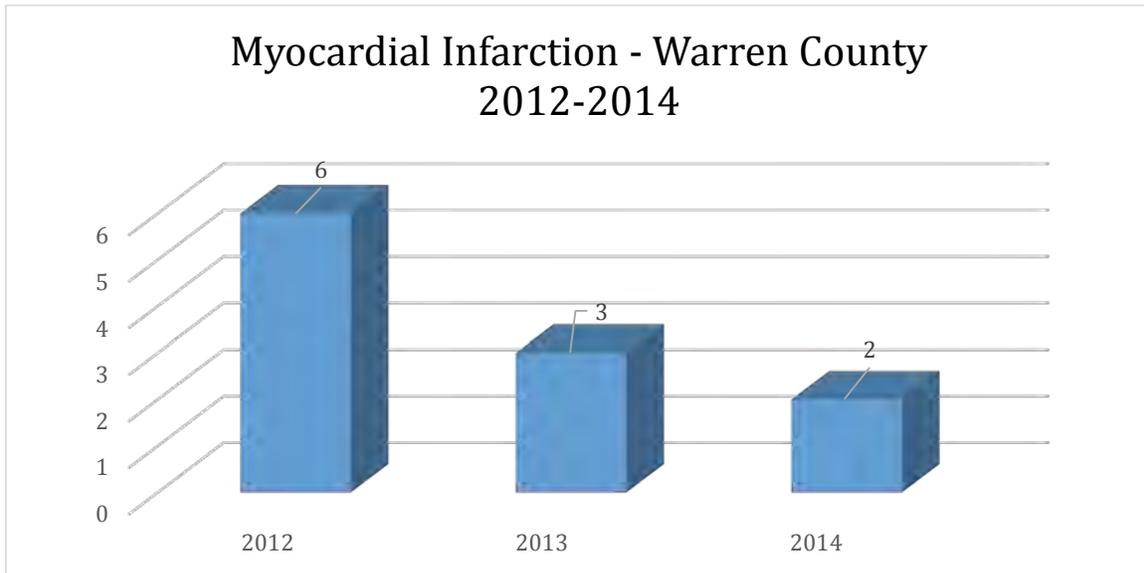
The number of treated cases of heart failure at Warren County area hospitals have decreased. In FY 2012, 31 cases were reported, and in FY 2014, there were 18 cases reported. Note that hospital-level data only show hospital admissions.



Source: COMPdata 2015

Myocardial Infarction

The number of treated cases of myocardial infarction at area hospitals in Warren County have decreased from 6 in 2012 to 2 in 2014. Note that hospital-level data only show hospital admissions.



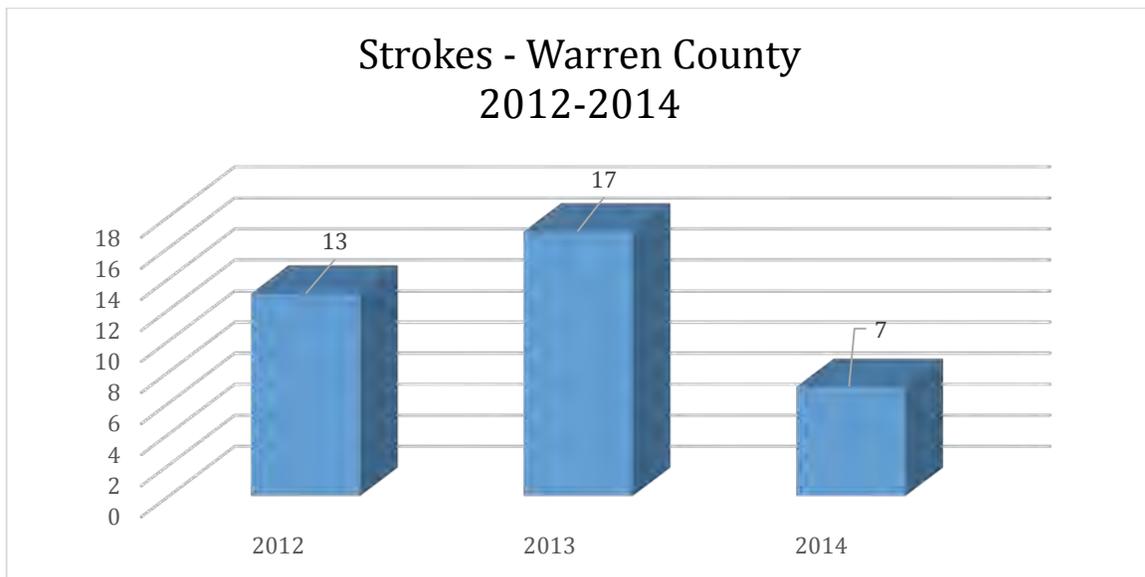
Source: COMPdata 2015

Arterial Embolism

One treated case of arterial embolism at Warren County area hospitals was reported in 2014. Note that hospital-level data only show hospital admissions.

Strokes

The number of treated cases of stroke at Warren County area hospitals have decreased between FY 2012 and FY 2014. Note that hospital-level data only show hospital admissions and do not reflect outpatient treatments and procedures.



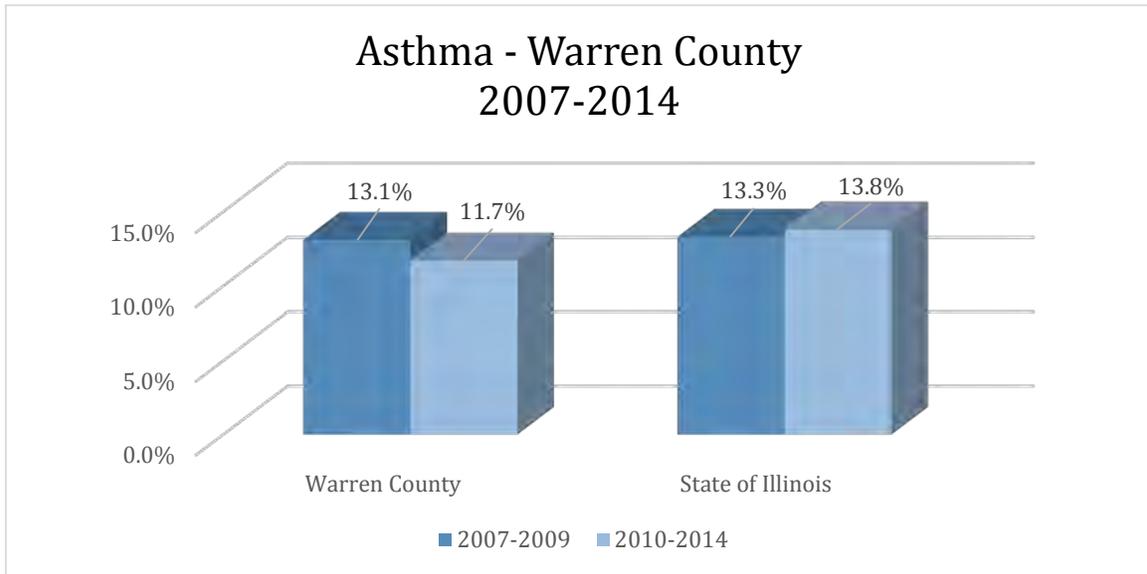
Source: COMPdata 2015

4.3 Respiratory

Importance of the measure: Disease of the respiratory system includes acute upper respiratory infections such as influenza, pneumonia, bronchitis, asthma, emphysema, and Chronic Obstructive Pulmonary Disease (COPD). These conditions are characterized by breathlessness, wheezing, chronic coughing, frequent respiratory infections, and chest tightness. Many respiratory conditions can be successfully controlled with medical supervision and treatment. However, children and adults who do not have access to adequate medical care are likely to experience repeated serious episodes, trips to the emergency room and absences from school and work. Hospitalization rates illustrate the worst episodes of respiratory diseases and are a proxy measure for inadequate treatment.

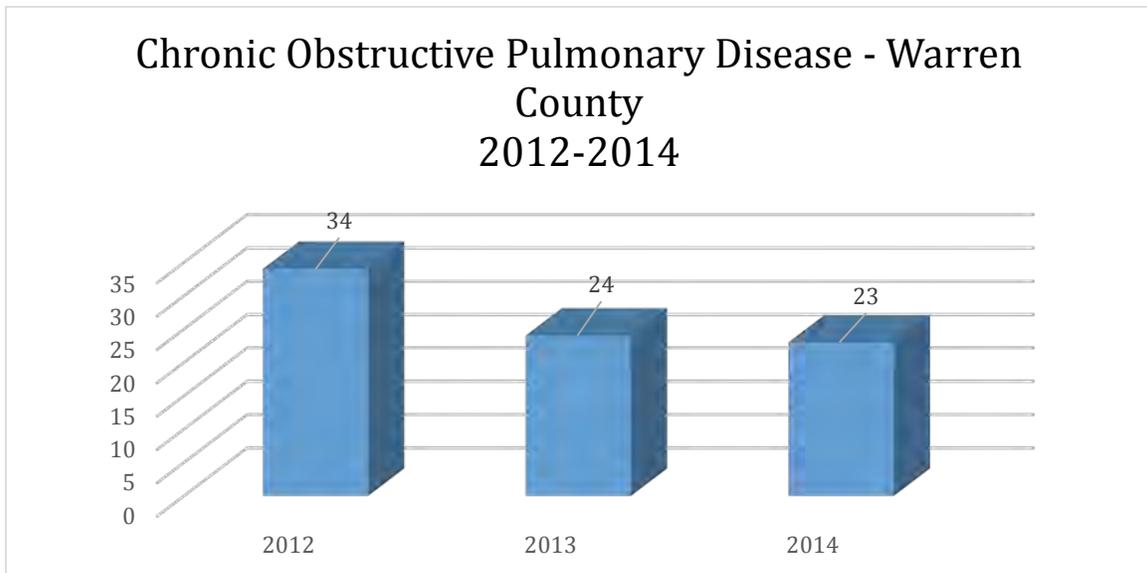
Asthma

The percentage of residents that have asthma in Warren County has decreased between 2007-2009 and 2010-2014, while State averages are increasing slightly. According to the Illinois BRFSS, asthma rates in Warren County (11.7%) are lower than the State of Illinois (13.8%).



Source: Illinois Behavioral Risk Factor Surveillance System

Treated cases of COPD at Warren County area hospitals have declined between FY 2012 and FY 2014. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

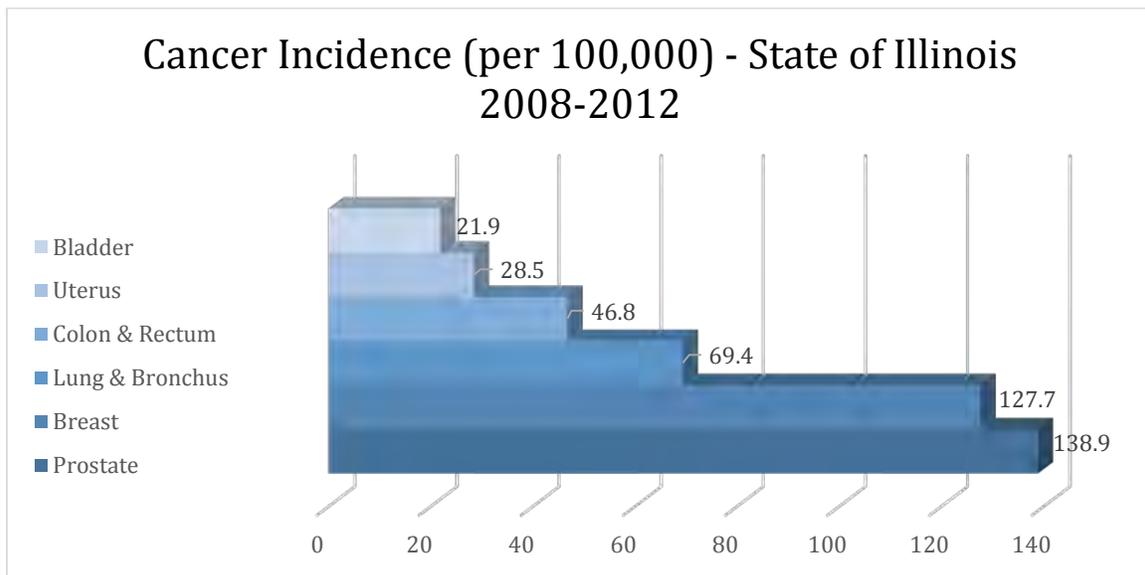


Source: COMPdata 2015

4.4 Cancer

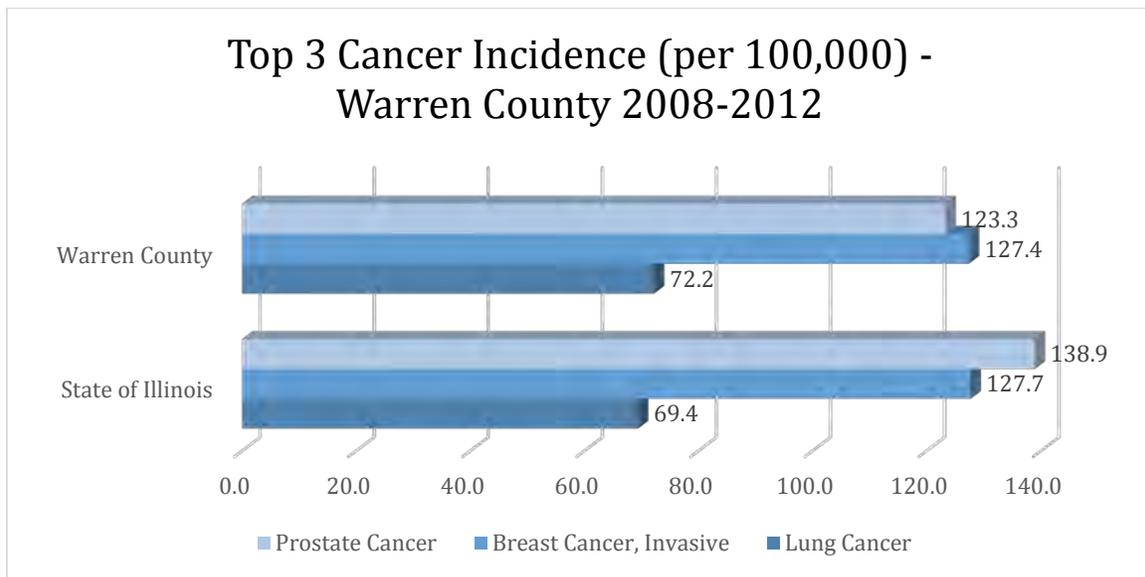
Importance of the measure: Cancer is caused by the abnormal growth of cells in the body and many causes of cancer have been identified. Generally, each type of cancer has its own symptoms, outlook for cure, and methods for treatment. Cancer is one of the leading causes of death in Warren County.

The top six cancers by treatment in the State of Illinois for 2008-2012 can be seen below. The most prevalent cancers in the State of Illinois are prostate cancer, breast cancer, and lung and bronchus cancer, respectively.



Source: http://www.idph.state.il.us/cancer/15/county_rpt/County_Section_I_Site_Specific_Cancer_Incidence.pdf

For the top three prevalent cancers in Warren County, comparisons can be seen below. Specifically, breast cancer and lung and bronchus cancer are higher than the State, while prostate cancer rates are lower than the State of Illinois.



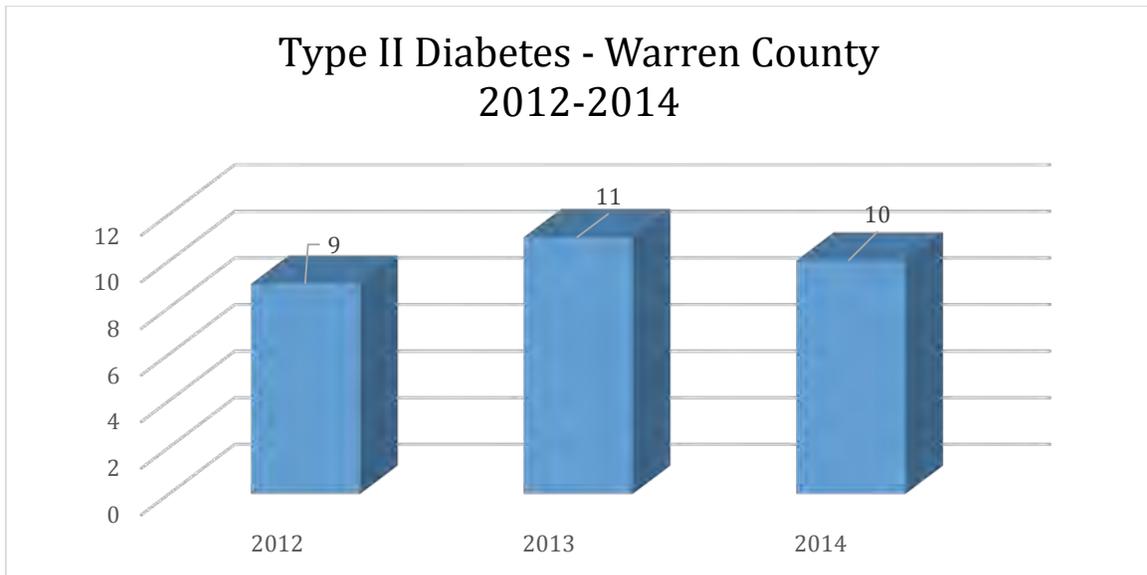
Source: http://www.idph.state.il.us/cancer/15/county_rpt/County_Section_I_Site_Specific_Cancer_Incidence.pdf

4.5 Diabetes

Importance of the measure:

Diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. It is estimated that 90-95% of individuals with diabetes have Type II diabetes (previously known as adult-onset diabetes). Only 5-10% of individuals with diabetes have Type I diabetes (previously known as juvenile diabetes).

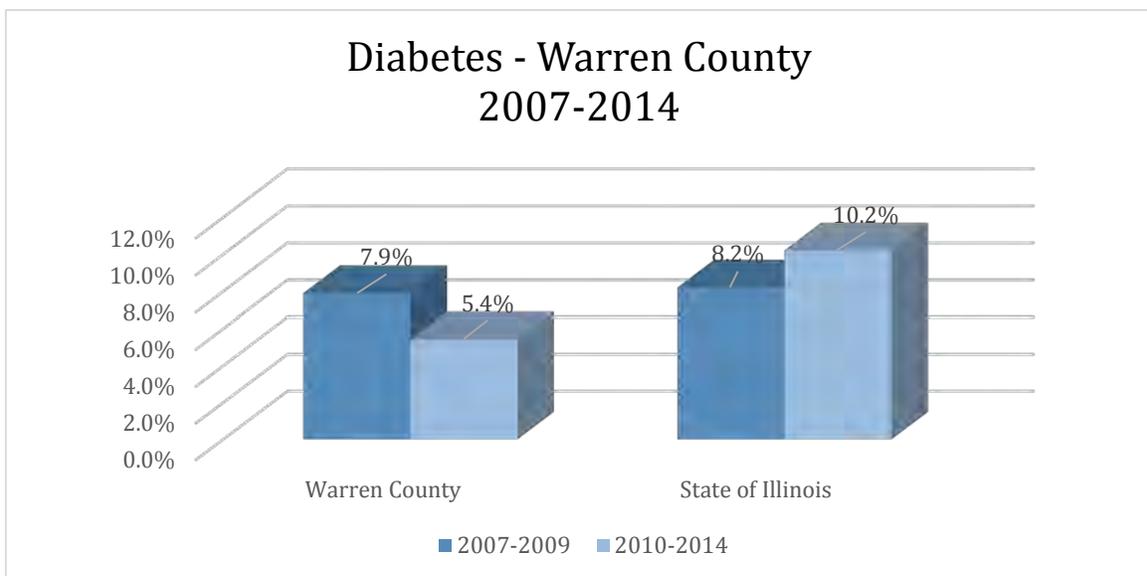
Inpatient cases of Type II diabetes from Warren County have held steady between FY 2012 (9 cases) and FY 2014 (10 cases). Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.



Source: COMPdata 2015

Inpatient cases of Type I diabetes were minimal for Warren County, with one case reported in 2012. Note that hospital-level data only show hospital admissions and do not reflect out-patient treatments and procedures.

Data from the Illinois BRFSS indicate that 5.4% of Warren County residents have diabetes. Trends are encouraging, as the prevalence of diabetes is decreasing and lower in Warren County compared to data from the State of Illinois.



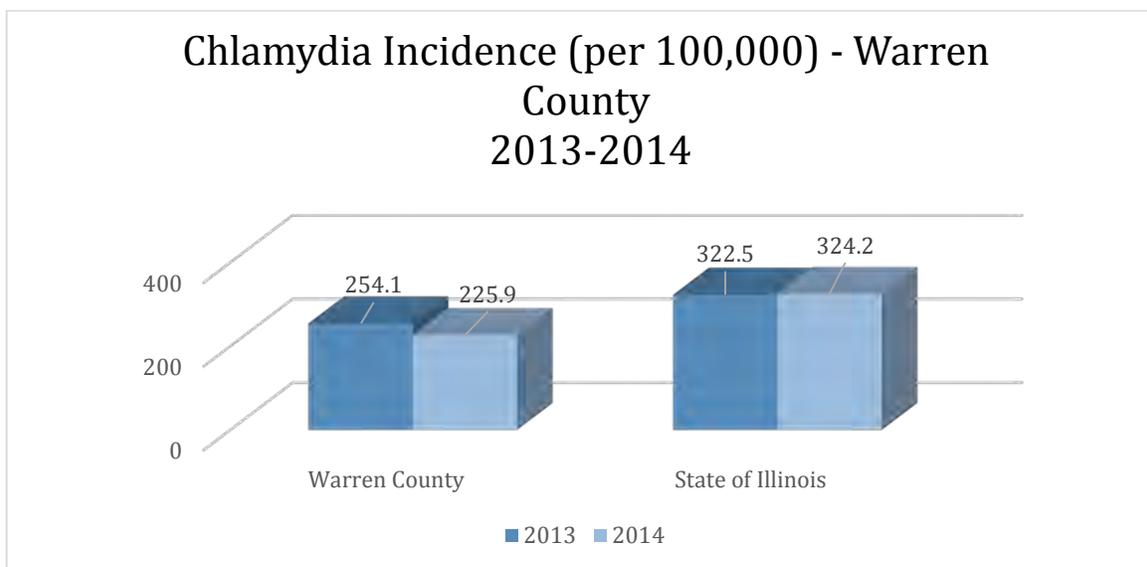
Source: Illinois Behavioral Risk Factor Surveillance System

4.6 Infectious Diseases

Importance of the measure: Infectious diseases, including sexually transmitted infections and hepatitis, are related to high-risk sexual behavior, drug and alcohol abuse, limited access to healthcare, and poverty. It would be highly cost-effective for both individuals and society if more programs focused on prevention rather than treatment of infectious diseases.

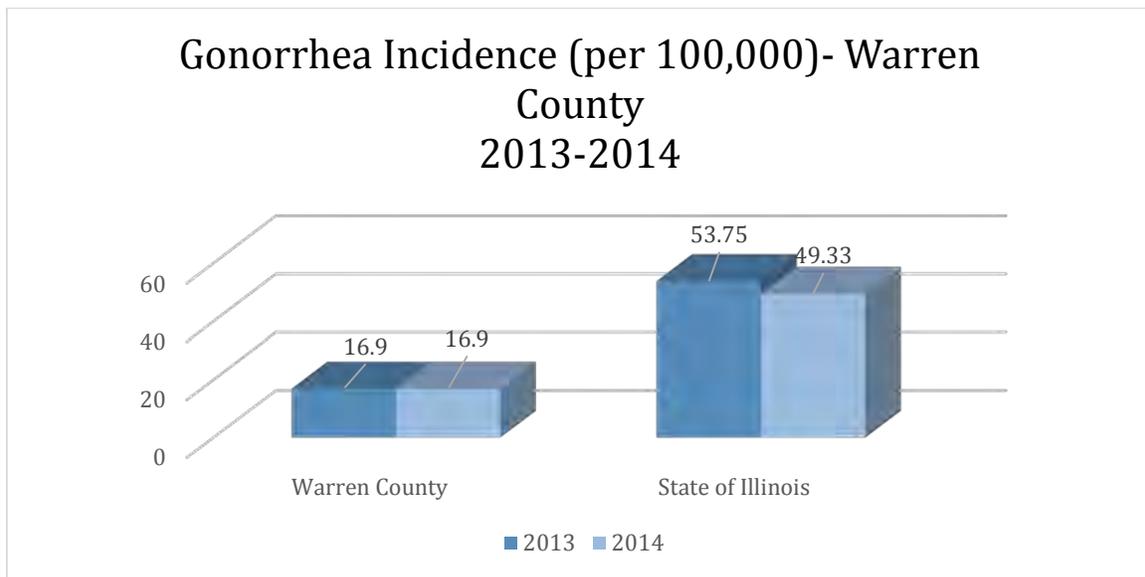
Chlamydia and Gonorrhea Cases

The data for the number of infections of chlamydia in Warren County from 2013-2014 indicate a significant increase. There is also an increase of incidence of chlamydia across the State of Illinois. Rates of chlamydia in Warren County are still slightly lower than State averages. Even though the Warren County population is less than 100,000 people, rates per 100,000 are used for comparison purposes between Warren County, the State and other OSF facilities.



Source: Illinois Department of Public Health

The data for the number of infections of gonorrhea in Warren County are stable from 2013-2014 compared to a decrease across the State of Illinois from 2013-2014. Even though the Warren County population is less than 100,000 people, rates per 100,000 are used for comparison purposes between Warren County, the State and other OSF facilities.



Source: Illinois Department of Public Health

Vaccine preventable diseases

A vaccine-preventable disease is an infectious disease for which an effective preventive vaccine exists. If a person acquires a vaccine-preventable disease and dies, the death is considered a vaccine-preventable death. According to the Illinois Public Health Department, the most common and serious vaccine-preventable diseases are: Varicella (chickenpox), Tetanus (lockjaw), Pertussis (whooping cough), Poliomyelitis (Polio), Measles (Rubella), Mumps, Rubella (German measles), Diphtheria, Hepatitis B, and Hemophilic Influenza Type B (HIB) Infections. These diseases used to strike thousands of children each year. Today there are relatively few cases, but outbreaks still occur each year because some babies are not immunized. Warren County has shown no significant outbreaks compared to state statistics, but there are limited data available.²

² Source: <http://www.idph.state.il.us/about/vpcd.htm>

Vaccine Preventable Diseases 2011-2014 Warren County Region

Mumps	2011	2012	2013	2014
Warren County	1	0	0	0
State of Illinois	78	32	26	142
Pertussis	2011	2012	2013	2014
Warren County	1	1	1	0
State of Illinois	1509	2026	785	764
Varicella	2011	2012	2013	2014
Warren County	3	5	1	0
State of Illinois	881	898	731	598

Source: <http://iquery.illinois.gov/DataQuery/Default.aspx>

Tuberculosis 2011-2014 Warren County Region

Tuberculosis	2011	2012	2013	2014
Warren County	0	0	0	0
State of Illinois	358	347	327	320

Source: Illinois Electronic Disease Surveillance System (I-NEDSS)

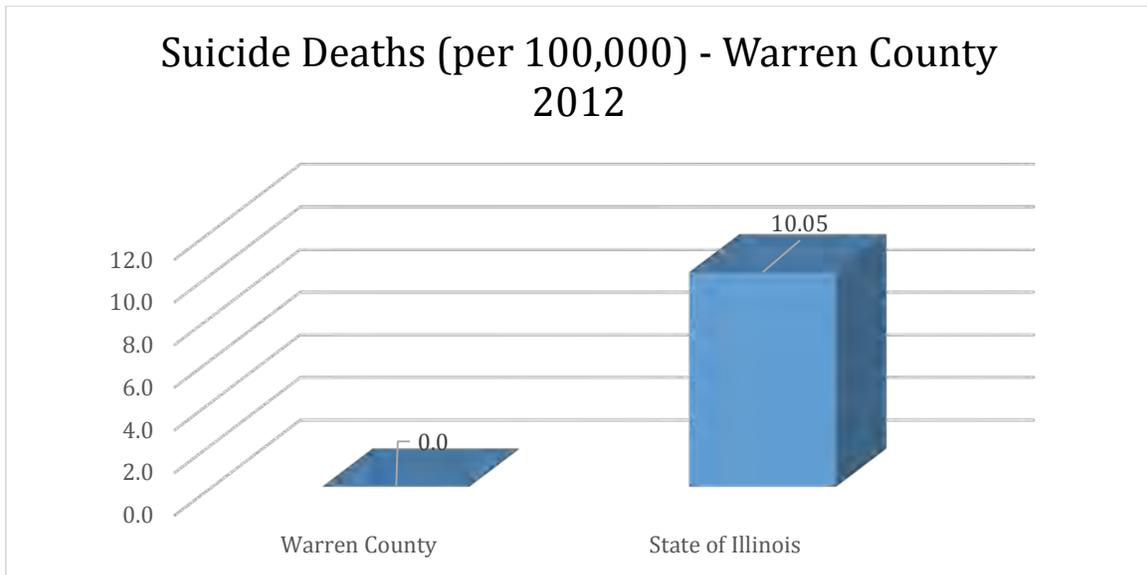
4.7 Injuries

Importance of the measure:

Unintentional injuries are injuries or accidents resulting from car accidents, falls and unintentional poisonings. In many cases, these types of injuries—and the deaths resulting from them—are preventable. Suicide is intentional self-harm resulting in death. These injuries are often indicative of serious mental health problems requiring the treatment of other trauma-inducing issues.

Intentional – suicide

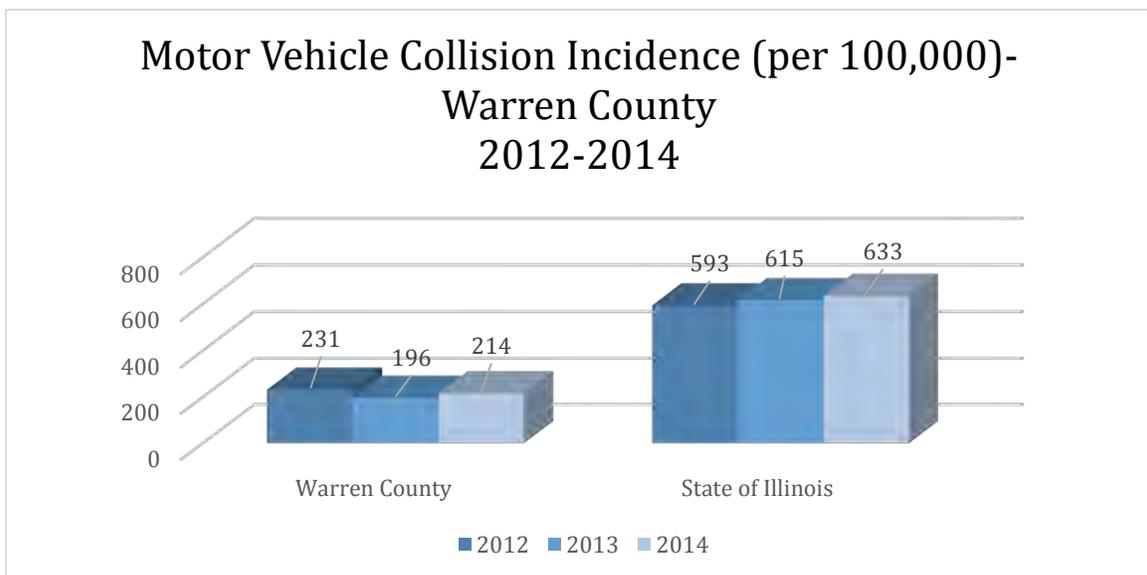
The number of suicides in Warren County indicate virtually no incidence, compared to the State of Illinois average of 10 per 100,000 people. Even though the Warren County population is less than 100,000 people, rates per 100,000 are used for comparison purposes between Warren County, the State and other OSF facilities.



Source: Illinois Department of Public Health

Unintentional – motor vehicle

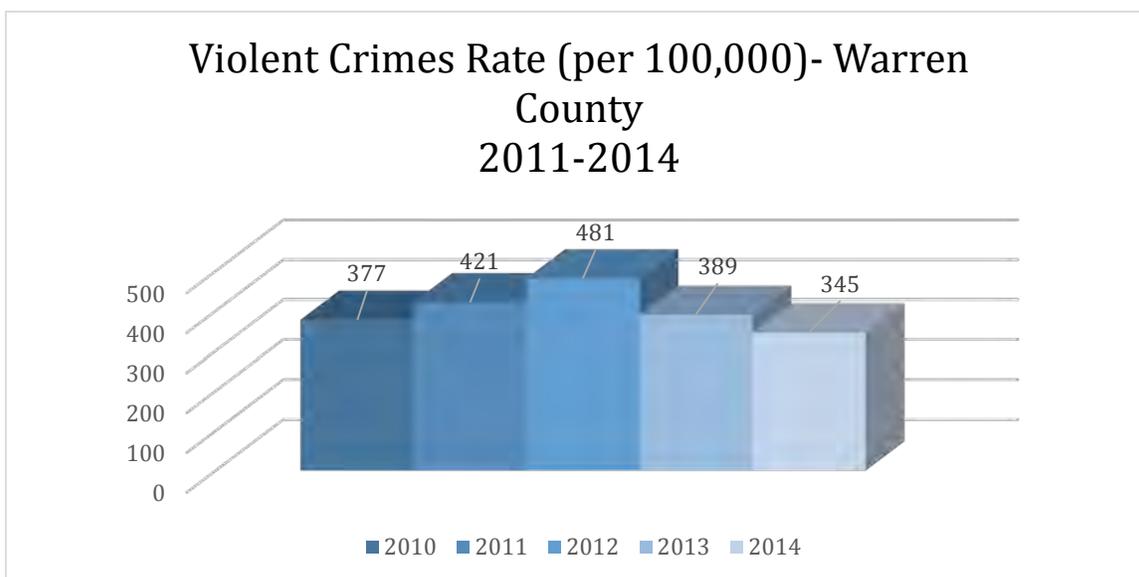
Research suggests that car accidents are a leading cause of unintentional injuries. In Warren County, the number of incidents between 2012 and 2014 for several types of motor vehicle collisions including vehicle overturn, railroad train, sideswipe, angle, parked motor vehicle, turning, and rear-end accidents has decreased slightly and is significantly lower than State of Illinois averages. Even though the Warren County population is less than 100,000 people, rates per 100,000 are used for comparison purposes between Warren County, the State and other OSF facilities.



Source: Illinois Department of Transportation

Violent Crimes

Violent crimes are defined as offenses that involve face-to-face confrontation between the victim and the perpetrator, including homicide, forcible rape, robbery, and aggravated assault. Violent crime is represented as an annual rate per 100,000 people. The number of violent crimes increased significantly from 2010-2012, but has declined in 2013-2014 in Warren County. Even though the Warren County population is less than 100,000 people, rates per 100,000 are used for comparison purposes between Warren County, the State and other OSF facilities.



Source: Illinois County Health Rankings and Roadmaps

4.8 Mortality

Importance of the measure: Presenting data that focuses on causes of mortality provides an opportunity to define and quantify which diseases are causing the most deaths.

The top two leading causes of death in the State of Illinois and Warren County are similar as a percentage of total deaths in 2013. Diseases of the Heart are the cause of 31.3% of deaths in Warren County and Cancer is the cause of 28% of deaths in Warren County.

Top 5 Leading Causes of Death for all Races by County, 2013		
Rank	Warren County	State of Illinois
1	Diseases of Heart (31.3%)	Diseases of Heart
2	Malignant Neoplasm (28%)	Malignant Neoplasm
3	Cerebrovascular Disease (7.4%)	Cerebrovascular Disease
4	Accidents (6.0%)	Chronic Lower Respiratory Disease
5	Chronic Lower Respiratory Disease (3.8%)	Accidents

Source: Illinois Department of Public Health

4.9 Key Takeaways from Chapter 4

- ✓ **LOW BIRTH WEIGHTS HAVE BEEN INCREASING SLIGHTLY IN WARREN COUNTY**
- ✓ **MOST VARIATIONS OF CARDIAC DISEASE HAVE SEEN A DECREASE SINCE 2012**
- ✓ **CANCER RATES LUNG CANCER IN WARREN COUNTY ARE HIGHER THAN STATE AVERAGES**
- ✓ **ASTHMA HAS SEEN A SIGNIFICANT REDUCTION IN WARREN COUNTY AND IS LOWER THAN STATE AVERAGES**
- ✓ **WHILE STATE AVERAGES HAVE SEEN A SLIGHT INCREASE, DIABETES IS TRENDING DOWNWARD SIGNIFICANTLY IN WARREN COUNTY AND IS LOWER THAN STATE AVERAGES**
- ✓ **HEART DISEASE AND CANCER ARE THE LEADING CAUSES OF MORTALITY IN WARREN COUNTY**

CHAPTER 5 OUTLINE

- 5.1 Perceptions of Health Issues
- 5.2 Perceptions of Unhealthy Behavior
- 5.3. Perceptions of Issues with Well Being
- 5.4 Summary of Community Health Issues
- 5.5 Community Resources
- 5.6 Significant Needs Identified and Prioritized

CHAPTER 5. PRIORITIZATION OF HEALTH-RELATED ISSUES

In this chapter, we identify the most critical health-related needs in the community. To accomplish this, we first consider community perceptions of health issues, unhealthy behaviors and issues related to well-being. Using key takeaways from each chapter, we then identify important health-related issues in the community. Next, we complete a comprehensive inventory of community resources; and finally, we prioritize the most significant health needs in the community.

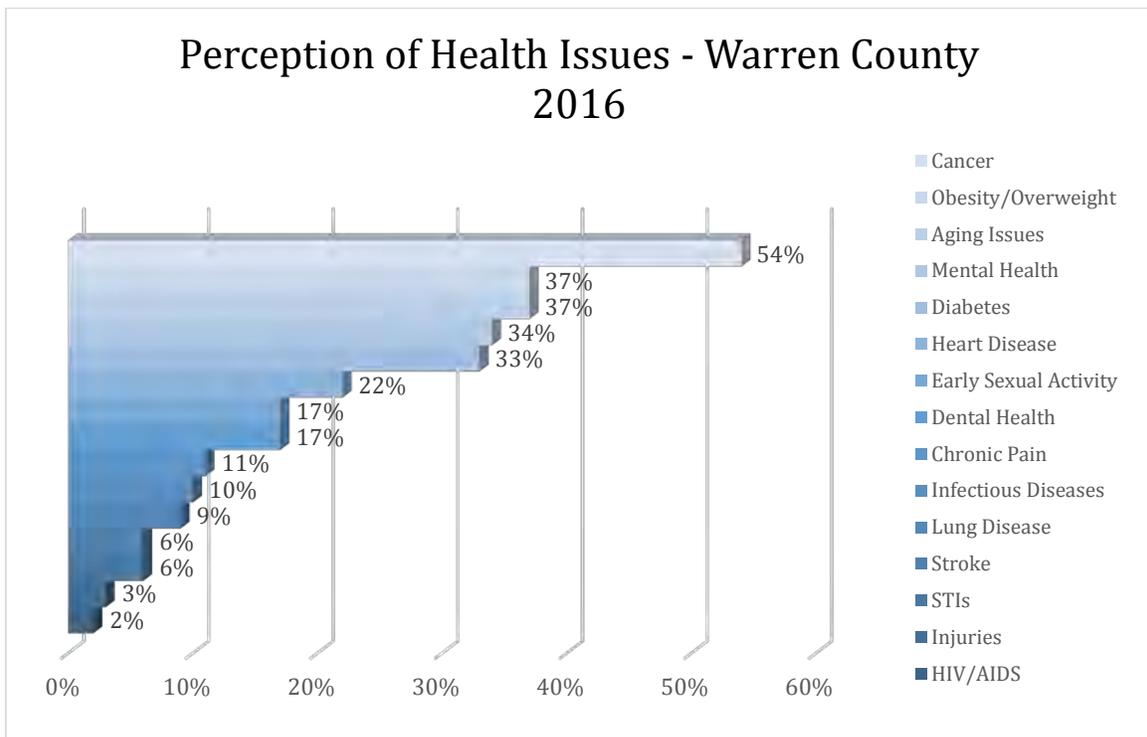
Specific criteria used to identify these issues included: (1) magnitude in the community; (2) severity in the community; (3) potential for impact to the community.

5.1 Perceptions of Health Issues

The CHNA survey asked respondents to rate the three most important health issues in the community. Respondents had a choice of 15 different options.

The health issue that rated highest was cancer. It was identified 54% of the time and was significantly higher than other categories based on *t-tests* between sample means. This was followed by obesity and aging issues.

Note that perceptions of the community were accurate in some cases, but inaccurate in others. For example, cancer is the second leading cause of mortality in Warren County. Also, obesity is an important concern and the survey respondents accurately identified these as important health issues. However, heart disease is rated relatively low, even though it is the leading cause of mortality in Warren County.



Source: CHNA Survey

Demographic Factors Related to Perceptions of Health Issues

Several demographic characteristics show significant relationships with perceptions of health issues. The following relationships were found using correlational analyses:

Aging issues tend to be rated higher by older people.

Cancer does not show significant correlations.

Chronic Pain is of greater concern to those with lower income.

Dental health tends to be rated higher by younger people.

Diabetes is more concerning to Latino people.

Heart disease tends to be rated higher by older people.

HIV tends to be rated higher by homeless people.

Early sexual activity tends to be rated higher by women.

Infectious disease does not show significant correlations.

Injury does not show significant correlations.

Lung disease does not show significant correlations.

Mental health does not show significant correlations.

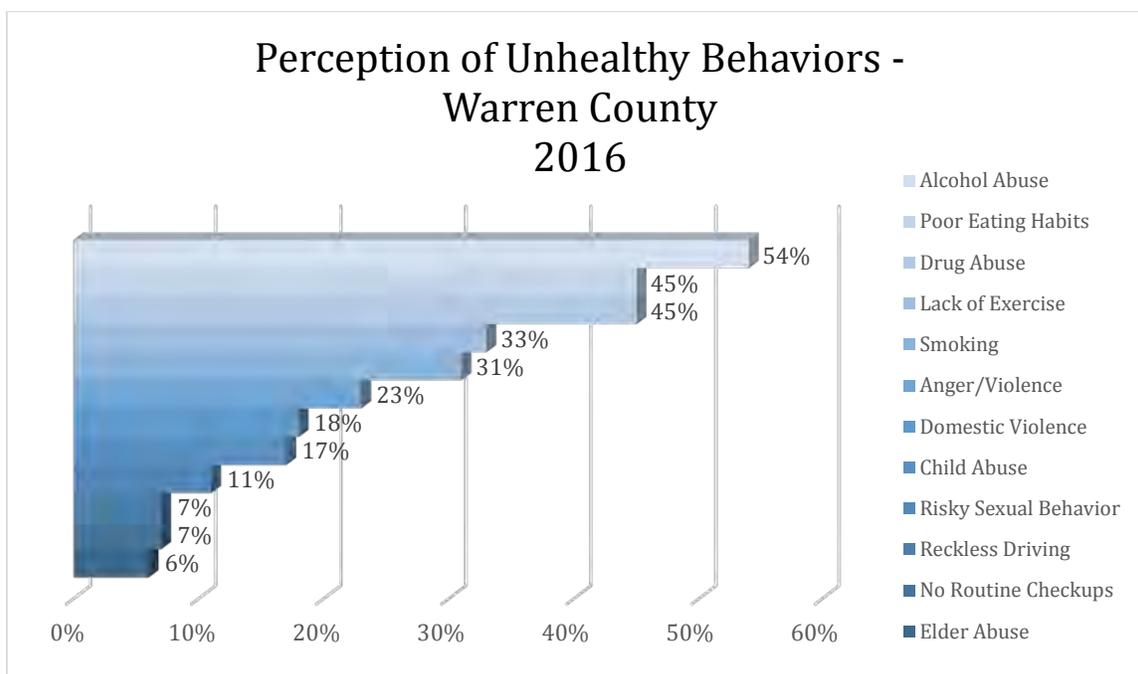
Obesity tends to be rated higher by those with higher education.

STIs tend to be rated higher by younger people and those with lower education.

Stroke does not show significant correlations.

5.2 Perceptions of Unhealthy Behaviors

Respondents were asked to select the three most important unhealthy behaviors in the community out of a total of 12 choices. The unhealthy behaviors that rated highest were alcohol abuse, poor eating habits, and drug abuse.



Source: CHNA Survey

Demographic Factors Related to Perceptions of Unhealthy Issues

Several demographic characteristics show significant relationships with perceptions of unhealthy behaviors. The following relationships were found using correlational analyses:

Anger/Violence does not show significant correlations.

Alcohol Abuse does not show significant correlations.

Child abuse tends to be rated higher by those with low income.

Domestic Violence does not show significant correlations.

Drug abuse tends to be rated higher by younger individuals and those with low education and income.

Elder abuse does not show significant correlations.

Lack of exercise tends to be rated higher by older people and those with high education and income.

No check-ups tends to be rated lower by White individuals.

Poor eating habits tends to be rated higher by those with high education and income.

Reckless driving tends to be rated higher by men and those with low education and income.

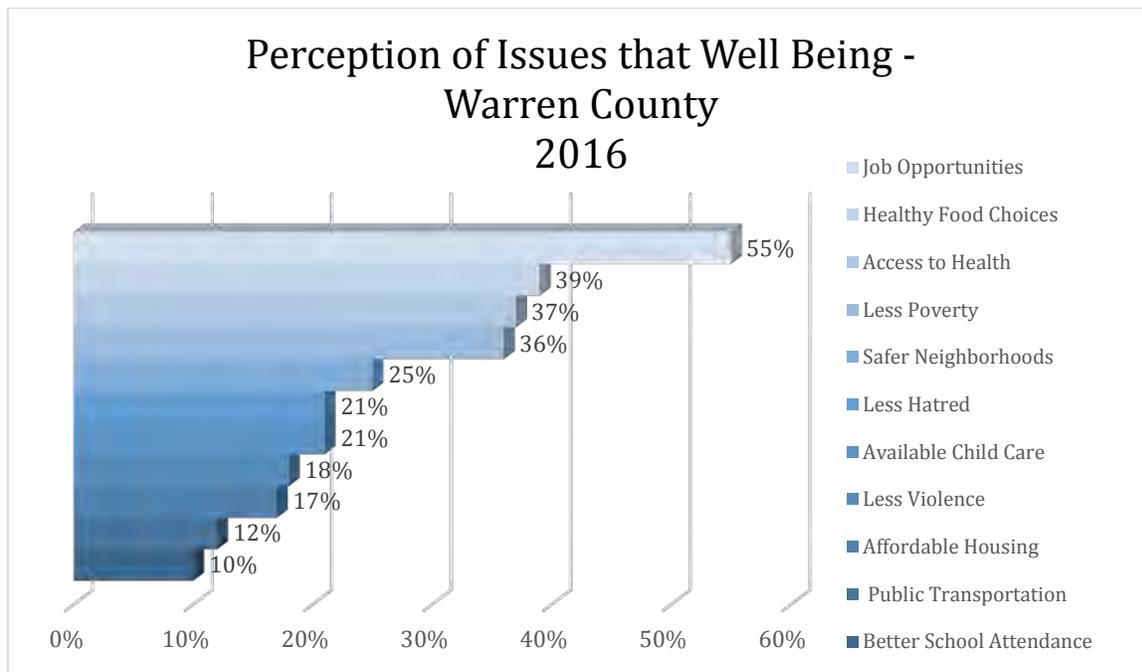
Smoking tends to be rated higher by Latino residents.

Risky Sex Behavior is rated higher by younger people and Black people.

5.3 Perceptions of Issues Impacting Well Being

Respondents were asked to select the three most important issues impacting well being in the community out of a total of 11 choices.

The issue impacting well being that rated highest was job opportunities. It is not surprising that job opportunities was rated high given unemployment rates in recent years. Job opportunities was followed by healthy food choices, access to health services, and poverty.



Source: CHNA Survey

Demographic Factors Related to Perceptions of Well Being

Several demographic characteristics show significant relationships with perceptions of well being. The following relationships were found using correlational analyses:

Access to health services tends to be rated higher by older individuals and those with high education.

Affordable housing does not show significant correlations.

Availability of childcare tends to be rated higher by younger individuals.

Better schools does not show significant correlations.

Job opportunities does not show significant correlations.

Public transportation tends to be rated higher by older individuals and Black individuals.

Access to healthy food does not show significant correlations.

Less poverty is rated higher by those with higher education and income.

Safer neighborhoods does not show significant correlations.

Less hatred does not show significant correlations.

Less violence tends to be rated higher by homeless people.

5.4 Summary of Community Health Issues

Based on findings from the previous analyses, a chapter-by-chapter summary of key takeaways is used to provide a foundation for identification of the most important health-related issues in the community. Considerations for identifying key takeaways include magnitude in the community, strategic importance to the community, existing community resources, and potential for impact and trends and future forecasts.

Demographics (Chapter 1) – Two factors were identified as the most important areas of impact from the demographic analyses:

- Aging population
- Changing population – increasing Black and Latino ethnicities

Prevention Behaviors (Chapter 2) – Six factors were identified as the most important areas of impact from the chapter on prevention behaviors:

- ED usage, particularly among the low-income population
- At-risk population that does not seek medical attention
- Overall, access has improved for medical care, prescription medicine, and dental care
- Lack of exercise
- Mental health
- Lack of healthy eating

Symptoms and Predictors (Chapter 3) – Five factors were identified as the most important areas of impact from the chapter on symptoms and predictors:

- Tobacco usage
- Drug abuse
- Alcohol abuse
- Obesity
- Risk factors for heart disease

Morbidity and Mortality (Chapter 4) – Four factors were identified as the most important areas of impact from the chapter on morbidity/mortality behaviors:

- Low birth weights
- Cancer
- STIs – chlamydia
- Heart Disease

Identification of Potential Health-Related Needs Considered for Prioritization

Before the prioritization of significant community health-related needs was performed, results were aggregated into 11 potential categories. Based on similarities and duplication, the 11 potential areas considered are:

- **Use of ED as primary source of medical care**
- **Not seeking healthcare when needed**
- **Poor healthy behaviors – healthy eating & exercise**
- **Access to health services**
- **Mental health**
- **Obesity**
- **Low birth weights**
- **Dental health**
- **Risky sexual behaviors – STIs**
- **Heart disease**
- **Cancer – Prostate and Lung**

5.5 Community Resources

After summarizing potential categories for prioritization in the Community Health Needs Assessment, a comprehensive analysis of existing community resources was performed to identify the efficacy to which these 11 health-related areas were being addressed. A resource matrix can be seen in Appendix 5 relating to the 11 health-related issues.

There are numerous forms of resources in the community. They are categorized as recreational facilities, county health departments, community agencies and area hospitals/clinics. A detailed list of community resources and descriptions appears in Appendix 6.

5.6 Significant Needs Identified and Prioritized

In order to prioritize the previously identified dimensions, the collaborative team considered health needs based on: (1) magnitude of the issues (e.g., what percentage of the population was impacted by the issue); (2) severity of the issues in terms of their relationship with morbidities and mortalities; (3) potential impact through collaboration. Using a modified version of the Hanlon Method (as seen in Appendix 7), the collaborative team identified three significant health needs and considered them priorities:

- ***Healthy behaviors (defined as active living and healthy eating)***
- ***Use of emergency department as a primary source of medical care***
- ***Heart disease***

HEALTH BEHAVIORS – ACTIVE LIVING AND HEALTHY EATING

ACTIVE LIVING. A healthy lifestyle, comprised of regular physical activity and balanced diet, has been shown to increase physical, mental, and emotional well-being. Note that 28% of respondents in Warren County indicated that they do not exercise at all, while a large percentage of residents only exercise 1-2 times per week.

HEALTHY EATING. Well over half (60%) of Warren County residents report no consumption or low consumption (1-2 servings per day) of fruits and vegetables per day. Note that the percentage of Warren County residents who consume five or more servings per day is only 3%.

USE OF THE EMERGENCY DEPARTMENT AS A PRIMARY SOURCE OF MEDICAL CARE

For the at-risk population, 15% use the emergency department as their primary source of medical care. This represents a 2 percentage point increase in emergency department utilization compared to the 2013 CHNA. For the overall population, 7% of residents use the emergency department as a primary source of medical care. The emergency department tends to be used more by men and those with lower income and education.

HEART DISEASE

Heart disease is the leading cause of mortality in Warren County. The majority of residents in the county are overweight or obese. Moreover, 46% of residents have high cholesterol. Interestingly, heart disease is only rated as the sixth most important community health-related issue according to residents.

APPENDIX 1. MEMBERS OF COLLABORATIVE TEAM

Members of the **Collaborative Team** consisted of individuals with special knowledge of and expertise in the healthcare of the community. Individuals, affiliations, titles and expertise are as follows:

Ruth Fluke RN, CDE graduated from Moline Lutheran School for Nurses. Currently serves as Coordinator of Diabetes Services and Diabetic Educator at OSF Holy Family Medical Center. Has over 30 years' experience in wellness, specifically Cardiac Rehab as a Certified Exercise Specialist in Cardiac and Pulmonary Rehab and in diabetes education as a Certified Diabetic Educator.

Kelly Kendall has been with OSF Holy Family for the past 10 years and has just recently accepted the position of Community Relations Specialist for OSF Holy Family. Prior to the new position, Kelly oversaw the volunteer and pastoral care services department. Before moving to Illinois, Kelly spent 11 years in the funeral industry as a licensed funeral director and embalmer. She is married to her husband Matt for 15 years and they have two children.

Jenna Link is a graduate of Culver Stockton College with a BS in biology and psychology. After teaching two years at the Quincy Public Schools, she joined the Henderson County Health Department as the Director of Environmental Health. She supervises their environmental health programs as a Licensed Environmental Health Practitioner. In 2007, she became the administrator for Warren County Health Department. Throughout her 16 years of experience in public health, she has participated in four community assessments and plans. In addition, she is an IEPA certified water operator for both Oquawka and Gladstone Public Water Supplies.

Patricia Luker, M.H.A. graduated from Indiana University with a Bachelor of Science degree in Business Administration and a Master of Science degree in Health Care Administration. Ms. Luker is the President for OSF Holy Family in Monmouth, Illinois. She has served in that capacity since July 2009. She previously served as CEO of Dr. John Warner Hospital in Clinton, Illinois for six years and prior to that, she was employed by Quorum Health Resources, first as Assistant Administrator of Defiance Hospital in Defiance, Ohio, and then as CEO of Franklin Foundation Hospital in Franklin, Louisiana. Mr. Luker is a member of the American College of healthcare Executives and Illinois Critical Access Hospital Network (ICAHN). She served as 2008 President of ICAHN. Mr. Luker also serves as the chair of their External Peer Review Committee. Ms. Luker was elected to CIMRO Board of Directors in 2005. She was elected as the Board's Secretary-Treasurer in 2007 and has served as the Chair of the Finance Committee since 2007.

Terri Springer is the Chief Financial Officer and the Vice President of Finance of OSF Holy Family Medical Center. She received her bachelor's degree from St. Ambrose University in Davenport, Iowa. She has been with the facility for 11 years and a part of the OSF Ministry for 6 years. She currently resides in Monmouth with her husband Perry and her son Colby.

Angie Stewart currently serves as the Financial Analyst for OSF Holy Family Medical Center. She received her Bachelor of Arts degree from Monmouth College in 2002. She has been with OSF in the Accounting department since 2009. She has been working with the Community Health Needs Assessment team since the first survey in 2013.

Shelley Wiborg, MS RN graduated in 1989 with a B.S.N. from Northeast Missouri State University and in 2005 with a Master of Science in Health Services Administration from the University of St. Francis, Joliet. Throughout her nursing career she has primarily worked in critical care including the role of Trauma Coordinator and later advancing into Nursing Management. She has held the position as the Chief Nursing Officer at two Critical Access Hospitals and has been at OSF Holy Family Medical Center, Monmouth since 2013.

In addition to collaborative team members, the following **facilitators** managed the process and prepared the Community Health Needs Assessment. Their qualifications and expertise are as follows:

Michelle A. Carrothers (Coordinator) is currently the Vice President of Strategic Reimbursement for OSF Healthcare System, a position she has served in since 2014. She serves as a Business Leader for the Ministry Community Health Needs Assessment process. Michelle has over 32 years of health care experience. Michelle obtained both a Bachelor of Science Degree and Masters of Business Administration Degree from Bradley University in Peoria, IL. She attained her CPA in 1984 and has earned her Fellow of the Healthcare Financial Management Association Certification in 2011. Currently she serves on the National Board of Examiners for HFMA. Michelle serves on various Peoria Community Board of Directors and Illinois Hospital Association committees.

Dawn Irion (Coordinator) is a Strategic Reimbursement Analyst at OSF Healthcare System. She has worked for OSF Healthcare System since 2004 and has acted as the coordinator for 11 Hospital Community Health Need Assessments. In addition, she has coordinated the submission of the Community Benefit Attorney General report and the filing of the IRS Form 990 Schedule H since 2008. Dawn has been a member of the McMahon-Illini Chapter of Healthcare Financial Management Association for over ten years. Dawn will assume the responsibilities of President-Elect on the board of the McMahon-Illini HFMA Chapter starting in June of 2016.

Dr. Laurence G. Weinzimmer, Ph.D. (Principal Investigator) is the Caterpillar Inc. Professor of Strategic Management in the Foster College of Business at Bradley University in Peoria, IL. An internationally recognized thought leader in organizational strategy and leadership, he is a sought-after consultant to numerous *Fortune 100* companies and not-for-profit organizations. Dr. Weinzimmer has authored over 100 academic papers and four books, including two national best sellers. His work appears in 15 languages, and he has been widely honored for his research accomplishments by many prestigious organizations, including the Academy of Management. Dr. Weinzimmer has served as principle investigator for numerous community assessments, including the United Way, Economic Development Council and numerous hospitals. His approach to Community Health Needs Assessments was identified by the Healthcare Financial Management Association (HFMA) as a Best-in-Practice methodology. Dr. Weinzimmer was contracted for assistance in conducting the CHNA.

APPENDIX 2. ACTIVITIES RELATED TO 2013 CHNA PRIORITIZED NEEDS

Seven needs were identified in the Warren County 2013 CHNA. Below are examples of activities implemented during the last three years to address these needs:

Access to Health Services: Identified as Prioritized Health Need

- Held and provided flu shot at local clinics. Partnered with area groups to provide education on access to health.

Dental Health: Identified as Prioritized Health Need

- Partnered with local area dental providers to provide information and resources.

Diabetes: Identified as Prioritized Health Need

- Provided support groups to manage and prevent diabetes. Offered label reading classes to help community members understand nutritional information.

Healthy Behaviors: Identified as Prioritized Health Need

- Held various screenings and provided classes on many various health related needs.

Mental Health: Identified as Prioritized Health Need

- Provided local support groups and resources to community.

Obesity: Identified as Prioritized Health Need

- Provided nursing and counseling services for education and information in the community.

Substance Abuse: Identified as Prioritized Health Need

- Provided counselors to speak at local community engagements.

APPENDIX 3. SURVEY

COMMUNITY HEALTH-NEEDS ASSESSMENT SURVEY

INSTRUCTIONS

We want to know how you view our community, so we are inviting you to participate in a research study for community health-needs. Your opinions are important. This questionnaire will take approximately 10 minutes to complete. All of your individual responses are confidential. We will use results of the surveys to improve our understanding of health needs in the community.

Please read each question and mark the response that best represents your views of community needs.

I. IMPORTANT HEALTH ISSUES IN OUR COMMUNITY

Please identify the three **(3) most important health issues** in our community.

- | | |
|--|--|
| <input type="checkbox"/> Aging issues, such as Alzheimer's disease, hearing loss, memory loss or arthritis | <input type="checkbox"/> Infectious/contagious diseases such as flu, pneumonia, food poisoning |
| <input type="checkbox"/> Cancer | <input type="checkbox"/> Injuries |
| <input type="checkbox"/> Chronic pain | <input type="checkbox"/> Lung disease (asthma, COPD) |
| <input type="checkbox"/> Dental health (including tooth pain) | <input type="checkbox"/> Mental health issues such as depression, hopelessness, anger, etc |
| <input type="checkbox"/> Diabetes | <input type="checkbox"/> Obesity/overweight |
| <input type="checkbox"/> Early sexual activity | <input type="checkbox"/> Sexually transmitted infections |
| <input type="checkbox"/> Heart disease/heart attack | <input type="checkbox"/> Stroke |
| <input type="checkbox"/> HIV/AIDS | <input type="checkbox"/> Other _____ |

II. UNHEALTHY BEHAVIORS

Please identify the three **(3) most important unhealthy behaviors** in our community.

- | | |
|---|--|
| <input type="checkbox"/> Angry behavior/violence | <input type="checkbox"/> Not able to get a routine checkup |
| <input type="checkbox"/> Alcohol abuse | <input type="checkbox"/> Poor eating habits |
| <input type="checkbox"/> Child abuse | <input type="checkbox"/> Reckless driving |
| <input type="checkbox"/> Domestic violence | <input type="checkbox"/> Risky sexual behavior |
| <input type="checkbox"/> Drug abuse | <input type="checkbox"/> Smoking |
| <input type="checkbox"/> Elder abuse (physical, emotional, financial, sexual) | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Lack of exercise | |

III. ISSUES WITH YOUR WELL BEING

Please identify the three **(3) most important factors that impact your well being** in our community.

- | | |
|---|---|
| <input type="checkbox"/> Access to health services | <input type="checkbox"/> Healthy food choices |
| <input type="checkbox"/> Affordable clean housing | <input type="checkbox"/> Less hatred & more social acceptance |
| <input type="checkbox"/> Availability of child care | <input type="checkbox"/> Less poverty |
| <input type="checkbox"/> Better school attendance | <input type="checkbox"/> Less violence |
| <input type="checkbox"/> Job opportunities | <input type="checkbox"/> Safer neighborhoods/schools |
| <input type="checkbox"/> Good public transportation | <input type="checkbox"/> Other _____ |

IV. ACCESS TO HEALTH CARE

The following questions ask about your own personal health and health choices. Remember, this survey will not be linked to you in any way.

1. When you get sick, where do you go? Please choose only one.

- Clinic/Doctor's office Emergency Department I don't seek medical attention
 Urgent Care Center Health Department Other _____

2. How long has it been since you have been to the doctor to get a checkup when you were well (not because you were already sick)?

- Within the last year 1-2 years ago 3-5 years ago
 5 or more years ago I have never been to a doctor for a checkup.

3. In the last year, was there a time when you needed medical care but were not able to get it?

- No (please go to question 5) Yes (please go to the next question)

4. If you just answered "yes" to question 3, why weren't you able to get medical care? Choose all that apply.

- I didn't have health insurance. The doctor or clinic refused to take my insurance or Medicaid.
 I couldn't afford to pay my co-pay or deductible. I didn't know how to find a doctor.
 I didn't have any way to get to the doctor. Too long to wait for appointment.
 Fear
 Other _____

5. In the last year, was there a time when you needed prescription medicine but were not able to get it?

- No (please go to question 7) Yes (please go to the next question)

6. If you just answered "yes" to question 5, why weren't you able to get prescription medication? Choose all that apply.

- I didn't have health insurance. The pharmacy refused to take my insurance or Medicaid.
 I couldn't afford to pay my co-pay or deductible. I didn't have any way to get to the pharmacy.
 I didn't know how to find a pharmacy. Other _____

7. About how long has it been since you have been to the dentist to get a checkup (not for an emergency)?

- Within the last year 1-2 years ago 3-5 years ago
 5 or more years ago I have never been to a dentist for a checkup.

8. In the last year, was there a time when you needed dental care but could not get it?

- No (please go to question 10) Yes (please go to the next question)

9. If you just answered "yes" to question 8, why weren't you able to get dental care? Choose all that apply.

- I didn't have dental insurance. The dentist refused to take my insurance or Medicaid.
 I couldn't afford to pay my co-pay or deductible. I didn't know how to find a dentist.
 I didn't have any way to get to the dentist. Too long to wait for appointment.
 Fear.
 Other _____

10. In the last year, was there a time when you needed mental-health counseling but could not get it?
 No (please go to question 12) Yes (please go to the next question)

11. If you just answered "yes" to question 10, why weren't you able to get mental-health counseling? Choose all that apply.

- | | |
|--|--|
| <input type="checkbox"/> I didn't have insurance. | <input type="checkbox"/> The counselor refused to take my insurance or Medicaid. |
| <input type="checkbox"/> I couldn't afford to pay my co-pay or deductible. | <input type="checkbox"/> I didn't know how to find a counselor. |
| <input type="checkbox"/> I didn't have any way to get to a counselor. | <input type="checkbox"/> Too long to wait for appointment. |
| <input type="checkbox"/> Fear. | <input type="checkbox"/> Other _____ |
| <input type="checkbox"/> Embarrassment. | |

12. In the last week how many times did you participate in deliberate exercise, (such as jogging, walking, golf, weight-lifting, fitness classes) that lasted for at least 30 minutes or more?

- None (please go to next question) 1 - 2 3 - 5 More than 5

13. If you answered "none" to the last question, why **didn't** you exercise in the past week? Choose all that apply.

- | | |
|---|---|
| <input type="checkbox"/> I don't have any time to exercise. | <input type="checkbox"/> I don't like to exercise. |
| <input type="checkbox"/> It is not important to me. | <input type="checkbox"/> I can't afford the fees to exercise. |
| <input type="checkbox"/> I don't have access to an exercise facility. | <input type="checkbox"/> I am too tired. |
| <input type="checkbox"/> I don't have child care while I exercise. | <input type="checkbox"/> I have a physical disability. |
| <input type="checkbox"/> Other _____ | |

14. On a typical day, how many servings of fruits and/or vegetables do you have?

- None (please go to next question) 1 - 2 3 - 5 More than 5

15. If you answered "none" to the last question, why **didn't** you eat fruits/vegetables? Choose all that apply.

- | | |
|--|--|
| <input type="checkbox"/> It is difficult to buy fruits and/or vegetables | <input type="checkbox"/> I don't like fruits/vegetables |
| <input type="checkbox"/> It is not important to me. | <input type="checkbox"/> I can't afford fruits/vegetables. |
| <input type="checkbox"/> Other _____ | |

16. On a typical day, how many cigarettes do you smoke (either actual or electronic/vapor)?

- None 1 - 4 5 - 8 9 - 12 More than 12

17. Where do you get most of your medical information (*check **only one***)

- Doctor Friends/family Internet Pharmacy Nurse at my church

18. Do you have a personal physician? No Yes

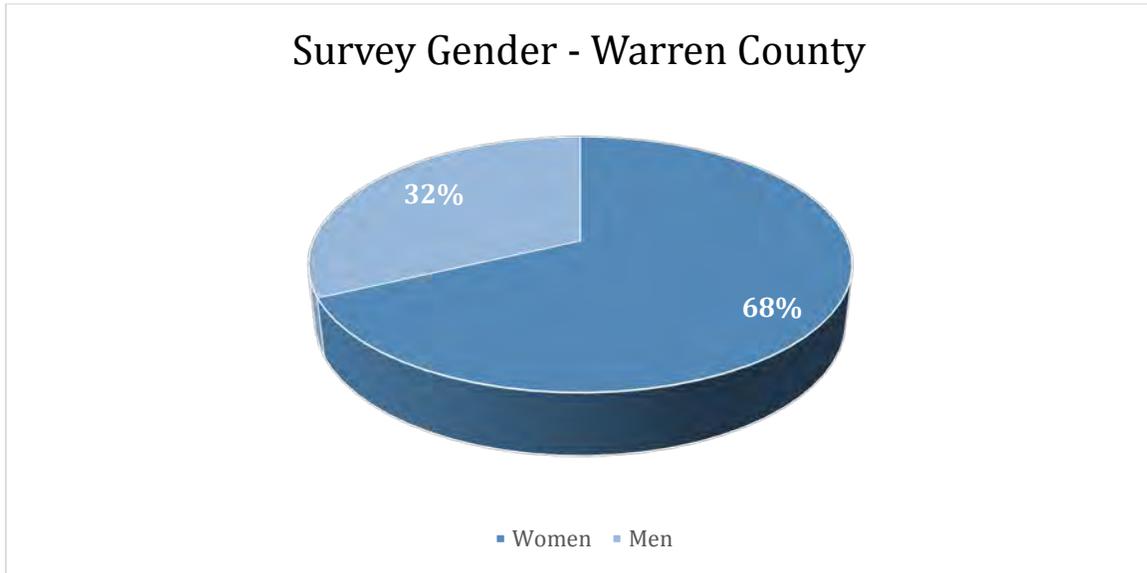
19. Overall, my physical health is: Good Average Poor

20. Overall, my mental health is: Good Average Poor

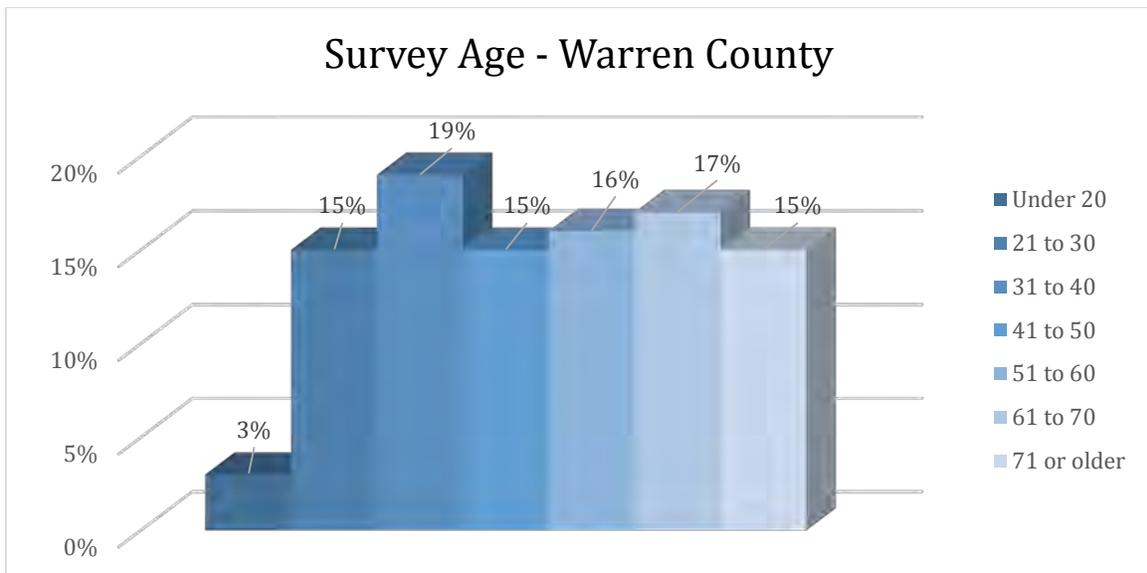
21. How long has it been since you have had a flu shot?

- | | | |
|---|--|--|
| <input type="checkbox"/> Within the last year | <input type="checkbox"/> 1-2 years ago | <input type="checkbox"/> 3-5 years ago |
| <input type="checkbox"/> 5 or more years ago | <input type="checkbox"/> I have never had a flu shot | |

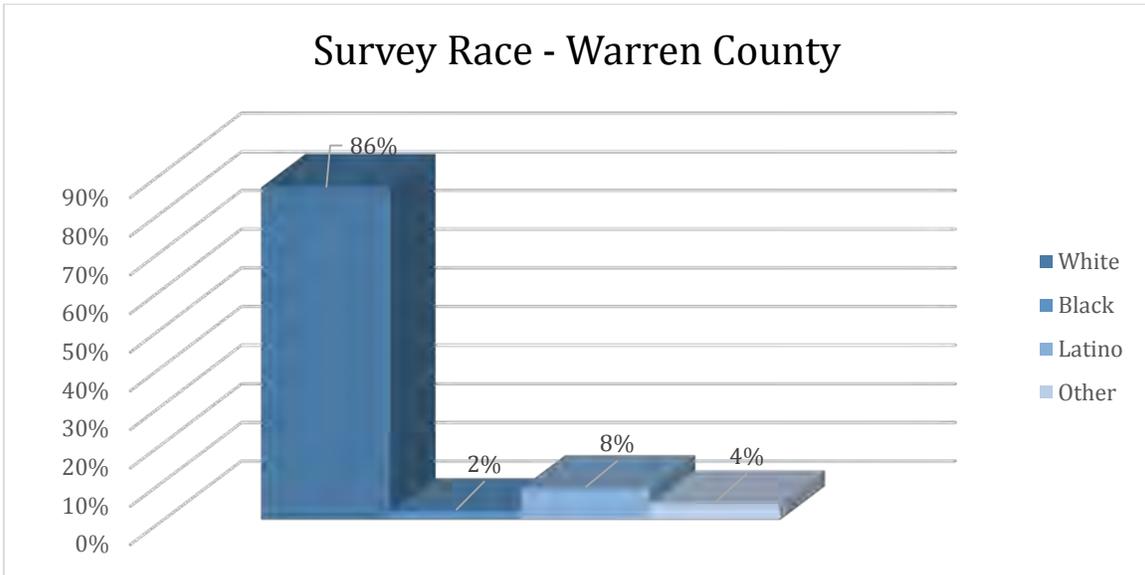
APPENDIX 4. CHARACTERISTICS OF SURVEY RESPONDENTS FOR GENERAL SAMPLE



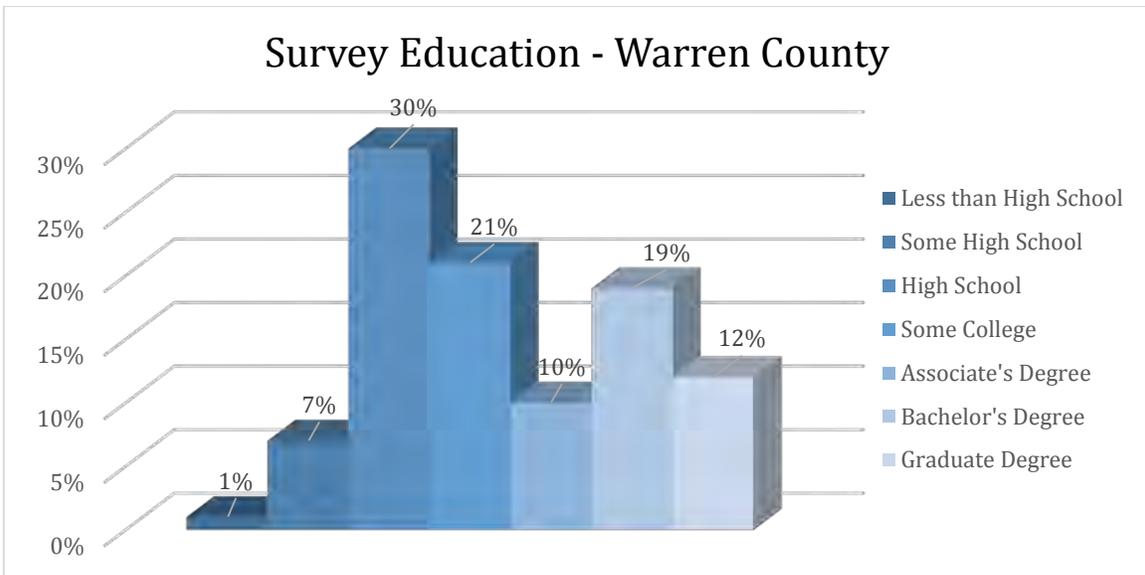
Source: CHNA Survey



Source: CHNA Survey

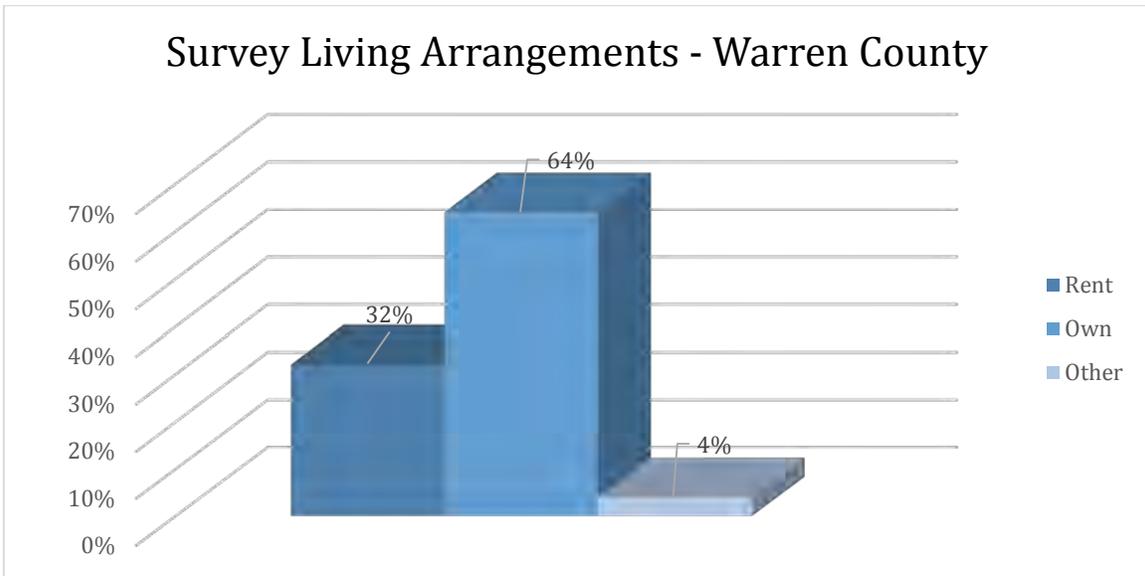


Source: CHNA Survey

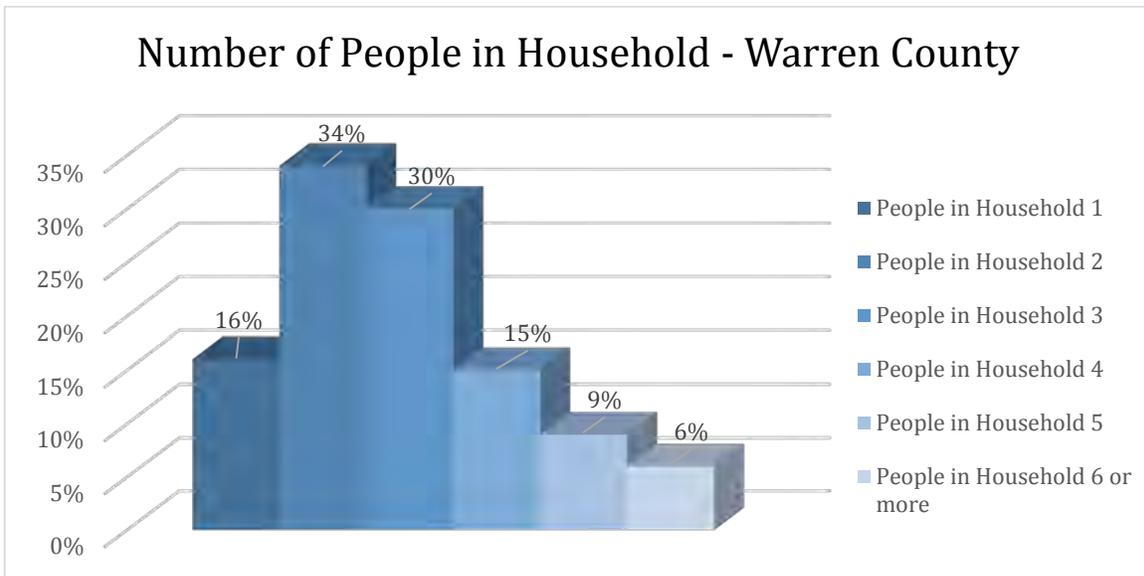


Source: CHNA Survey

Income: Mean income for sample was \$43,121.00



Source: CHNA Survey



Source: CHNA Survey

APPENDIX 5. RESOURCE MATRIX

	Organization name	Cancer	Heart Disease	Access to Health Services	Emergency Department Misuse	Healthy Behaviors/ Eating & Exercise	Mental Health	Obesity	Low Birth Weights	Seeking healthcare	Risky Sexual Behavior	Dental Health
Recreational Facilities	Warren County YMCA		X			X		X				
	City of Monmouth Parks Department					X		X				
Health	Warren County Health Department	X	X	X	X	X	X	X	X	X	X	X
Community Agencies	1st Street Armory			X						X		
	Jamieson Center		X	X	X	X	X	X		X		
	Bridgeway			X	X		X			X		
	Illinois Tobacco Quit Line	X	X									
	Illinois Breast and Cervical Cancer Program	X		X						X		
	United Way of Warren County			X						X		
	University of Illinois Warren County Extension					X		X				
	Women, Infants and Children Nutritional Program					X		X	X			
	Western Illinois Area Agency on Aging - RSVP		X		X	X				X	X	
	Strom Center			X	X					X		
	Western Illinois Head Start			X	X	X				X		
	Warren County Housing Authority			X	X	X	X			X		
	Hospitals /	OSF Medical Group Monmouth	X	X	X	X	X	X	X	X	X	X
OSF St. Mary Medical Center		X	X	X	X	X		X	X	X	X	
OSF Multi-Specialty Group		X	X	X	X	X	X	X	X	X	X	
OSF HomeCare and Hospice		X	X	X	X		X			X		
Cottage Hospital		X	X	X	X	X	X	X	X	X	X	X

APPENDIX 6. DESCRIPTION OF COMMUNITY RESOURCES

Recreational Facilities (2)

Warren County YMCA

Heart Disease, Healthy Behaviors, Obesity

The Warren County YMCA offers high quality after school programs, swimming and gymnastics instruction, youth sports, teen programs, Day Camp and a variety of recreational experiences for children and adults of all ages.

Monmouth Parks and Recreation

Healthy Behaviors, Obesity

The Monmouth Parks and Recreation Department maintains nine parks, the Gibson Woods golf course and the Municipal Pool.

Health Departments (1)

Warren County Health Department

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental Health, Obesity, Low Birth Weights, Seeking healthcare, Risky Sexual Behavior, Dental Health

The Warren County Health Department enhances the health and safety of the community by promoting public health education and awareness, providing essential health services, and encouraging collaborative efforts throughout Warren County.

Community Agencies (11)

1st Street Armory

Access to Health Services, Seeking healthcare

The 1st Street Armory strives to collaborate with local agencies and community members to address three main program areas: youth outreach, homeless recovery, and community engagement. Since opening its doors in 2009, the 1st Street Armory has focused on addressing community needs holistically, offering office space for human services agencies and event and meeting space for community groups. They also coordinate direct service programs that address the demands of poverty, hunger, and homelessness in our community. These programs include a monthly food pantry, a "back pack" program for food insecure school children, new immigrant engagement services, and a homeless recovery program.

Jamieson Center

Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental health, Obesity, Seeking Healthcare

Jamieson Community Center is a 501(c)3 non-profit primarily serving residents of Warren County. Their programs are designed to increase food security and help people with essential

services. More than 2,000 people receive some type of assistance from JCC each year. Some receive meals on a daily basis through the Senior Nutrition or Summer Meals programs, some are guests each month at our pantry, some receive seasonal help with school supplies or at Christmas, and some receive help on an annual basis through our Jingle Bills fund. Many more shop at the thrift store to buy clothing or household items at affordable prices. We are also an application site for WIRC's energy assistance program and administer Warm Neighbors Cool Friends energy assistance program.

Bridgeway Mental Health and Family Services

Access to Health Services, Emergency Department Misuse, Mental Health, Seeking Healthcare

Bridgeway is a comprehensive human services organization providing services to persons with disabilities and their families in order to create stronger communities as well as improving quality of life for the individuals we serve.

Illinois Tobacco Quit Line

Cancer, Heart Disease

Illinois Tobacco Quit Line provides free telephone counseling to assist individuals in quitting tobacco use. ITQL provides Nicotine Replacement Therapy in the form of patches, lozenges, and gum for qualified individuals (those that do not have access to those products thru insurance or Medicaid) for 8 weeks per 12-month period.

Illinois Breast and Cervical Cancer Program

Cancer, Access to Health Services, Seeking Healthcare

The Illinois Breast and Cervical Cancer Program, conducted by the Warren County Public Health Department, provides free mammograms and PAP test for all women who do not have health insurance.

United Way of Warren County

Access to Health Services, Seeking Healthcare

The United Way is a recognized leader in helping solve community problems by gathering and distributing, in an efficient and accountable manner, community resources which respond to priority health and human service needs.

University of Illinois Warren County Extension

Healthy Behaviors, Obesity

Warren County Extension office provides educational programs to the community on numerous subjects including health and nutrition to both youth and adult audiences.

Women, Infants, and Children's Nutrition Program

Healthy Behaviors, Obesity, Low Birth Weights

Women, Infants, and Children's (WIC) supplemental nutrition program is conducted by the Warren County Health Department. WIC encourages breastfeeding, proper nutrition during pregnancy; and nutrition for children from birth through age 5 for qualified women and children.

Western Illinois Area Agency on Aging – RSVP

Heart Disease, Emergency Department Misuse, Healthy Behaviors, Seeking Healthcare, Risky Sexual Behavior

Western Illinois Area Agency on Aging is an Aging and Disability Resource Center. They serve a 10 county area that includes: Bureau, Henderson, Henry, Knox, LaSalle, McDonough, Mercer, Putnam, Rock Island and Warren County. They ensure coordinated, accessible services for older persons to live independent, meaningful and dignified lives. The community focal points in each county that are senior centers serve as congregate meal sites as well as areas for seniors to go for activities and socialization. They advocate at local, state, and federal levels for seniors and adults with disabilities. WIAAA also funds Home Delivered Meal programs, transportation as well as respite for caregivers. Retired and Senior Volunteer Program is located in the building and is a great volunteer resource. WIAAA is a certified SHIP site and counselors are available to provide information and direct assistance regarding Medicare, Medicare D plans, Medicare supplements, Medicare Advantage plans, Medicaid, etc.

West Central Community Services Head Start

Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Seeking Healthcare

West Central Community Services, Inc. is the grantee for a federally funded preschool program called Head Start. We provide children with a center-based school readiness program. Head Start experience has shown that the needs of children vary considerably from community to community and that to serve those needs effectively, programs should be individualized. Head Start is successful in providing children and families with high-quality school readiness programs because it follows very specific guidance from the Office of Head Start.

Warren County Housing Authority

Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental Health, Seeking Healthcare

There are several services provided at Warren County Housing Authority including administer federal rental assistance programs and provide affordable apartments for low income families, elderly residents and persons with disabilities. HUD assists the housing authority by providing Housing Choice Vouchers, aka Section 8 vouchers and low income rent assistance.

Hospitals / Clinics (5)

OSF Medical Group Monmouth

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental Health, Obesity, Low Birth Weights, Seeking healthcare, Risky Sexual Behavior

The OSF Medical Group Clinic in Monmouth provides a wide range of medical care to the community focusing mainly on primary care. There are nine Physicians, four Physician Assistants and one Advanced Practice Nurse on staff. The facility is open 7 days a week and offers many same-day appointments to community members.

OSF Multi-Specialty Group

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental Health, Obesity, Low Birth Weights, Seeking healthcare, Risky Sexual Behavior

OSF Multi-Specialty Group offers a wide range of medical and surgical care, as well as other specialty and prompt care services, through provider offices located throughout Warren County.

OSF St. Mary Medical Center

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Obesity, Low Birth Weights, Seeking healthcare, Risky Sexual Behavior

OSF St. Mary Medical Center (SMMC) is located in Galesburg, Illinois, approximately 15 miles from Monmouth. There are many collaborative efforts between SMMC and HFMC due to the proximity of the locations. There are opportunities for resource sharing including personnel. SMMC is larger than HFMC, allowing us to send higher acuity there for more advanced care.

OSF Home Care and Hospice

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Mental Health, Seeking healthcare

OSF Home Care and Hospice offer health care and services to home bound individuals as well as services at end of life through Hospice.

Galesburg Cottage Hospital

Cancer, Heart Disease, Access to Health Services, Emergency Department Misuse, Healthy Behaviors, Mental Health, Obesity, Low Birth Weights, Seeking healthcare, Risky Sexual Behavior, Dental Health

Galesburg Cottage Hospital is a 173 bed facility located in Galesburg, Illinois. Skilled staff, more than 70 active medical staff members practiced in a variety of specialties, and technology come together at Galesburg Cottage to provide residents of West Central Illinois with compassionate, customer-focused care. Comprehensive services include inpatient and outpatient care; diagnostic imaging; medical and surgical care, including minimally-invasive surgery; and a Level II Trauma Center. The hospital is also proud to offer a Wound Healing Center, a Surgical Weight Loss Center, and a renal dialysis center.

APPENDIX 7. PRIORITIZATION METHODOLOGY

5-STEP PRIORITIZATION OF COMMUNITY HEALTH ISSUES

Step 1. Review Data for Potential Health Issues

Step 2. Briefly Discuss Relationships among Issues

Step 3. Apply “PEARL” Test from Hanlon Method³

Screen out health problems based on the following feasibility factors:

Propriety – Is a program for the health problem appropriate?

Economics – Does it make economic sense to address the problem?

Acceptability – Will a community accept the program? Is it wanted?

Resources – Is funding available for a program?

Legality – Do current laws allow program activities to be implemented?

Step 4. Use Voting Technique to Narrow Potential Issues

Step 5. Prioritize Issues. Use a weighted-scale approach (1-5 scale) to rate remaining issues based on:

1. Magnitude – size of the issue in the community. Considerations include, but are not limited to:

- *Percentage of general population impacted*
- *Prevalence of issue in low-income communities*
- *Trends and future forecasts*

2. Severity – importance of issue in terms of relationships with morbidities, comorbidities and mortality. Considerations include, but are not limited to:

- *Does an issue lead to serious diseases/death*
- *Urgency of issue to improve population health*

3. Potential for impact through collaboration – can management of the issue make a difference in the community?

Considerations include, but are not limited to:

- *Availability and efficacy of solutions*
- *Feasibility of success*

³ “Guide to Prioritization Techniques.” National Connection for Local Public Health (NACCHO)