COMMUNITY HEALTH NEEDS ASSESSMENT 2013

OSF HOLY FAMILY MEDICAL CENTER

Knox County

Warren County

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EXECUTIVE SUMMARY

The Knox and Warren Counties Community Health-Needs Assessment is a collaborative undertaking by OSF St. Mary Medical Center and OSF Holy Family Medical Center to highlight the health needs and well being of residents in Knox and Warren Counties. Through this needs assessment, collaborative community partners have identified numerous health issues impacting individuals and families in the Knox and Warren Counties region. Several themes are prevalent in this health-needs assessment – the demographic composition of Knox and Warren Counties, the predictors and prevalence for 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 hospitals, as well as perceptions of targeted stakeholder groups. Specifically, this assessment provides a detailed analysis of: (1) the Knox and Warren Counties community health needs using secondary data; and (2) an assessment of perceptions and behaviors regarding health-related challenges in the community, including accessibility to needed health care.

PHASE I – USE OF SECONDARY DATA TO IDENTIFY NEEDS

Chapters 1-5 include 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. Strategic implications are discussed at the end of each chapter. Specifically, Phase I of the study highlights several critical areas of community needs:

Demographics – With the changing demographics, forecasts indicate increase in chronic conditions such as diabetes, asthma, heart disease, and obesity. Three specific demographic trends in the region will have a significant impact on health issues, including:

Elderly Population – Individuals in Knox County aged 60-64 increased from 5.9% to 6.4% between 2009 and 2011 and individuals aged 65-74 increased from 8.8% to 9.1% between 2009 and 2011. Individuals in Warren County aged 60-64 increased from 5.5% to 6.7% between 2009 and 2011 and individuals aged 65-74 increased from 8.1% to 8.4% between 2009 and 2011.

Mental health rates – There was a significant increase for both Knox County residents and Warren County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (Knox: 13.7%; Warren: 10.8%) and 2009 (Knox: 19.1%; Warren: 14.1%). For comparison, there was an only a modest increase Illinois residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (12.4%) and 2009 (13.8%).

Poverty – Families living in poverty is 10.9% in Knox County and 11.0% in Warren County. These figures exceed the State of Illinois average (9.2%). For 2010, the Knox County ($39,545) and Warren County ($41,636) median household income are significantly less than the State of Illinois median household income ($55,735).

Accessibility to Health Care – The lack of insurance coverage is more prevalent among socioeconomically disadvantaged groups that are often at high risk for disease and illness. Thus, a vicious cycle results where individuals who are at the highest risk for diseases are unable to receive screenings, thus perpetuating a cycle of disease. This is compounded by unhealthy lifestyles.

Obesity – Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within the Knox and Warren Counties region. In terms of obesity, the Knox County area as a whole (32.2%) is significantly higher than the State average (26.8%) and growing rapidly. Considering that Illinois has the 6th highest obesity rate in the U.S., this is an important issue.

Risky Behavior – Youth substance usage in Knox County exceeds the State of Illinois averages for 12th graders (tobacco and marijuana usage). Youth substance usage in Warren County exceeds the State of Illinois averages for 8th graders (tobacco).

Women's Health – A total of 30.4% of Knox County female residents and 37.2% of Warren County female residents report more than one year has elapsed since their last pap smear. For comparison, 26.2% of female residents across the State of Illinois report more than one year have elapsed since their last pap smear for the same time period (2007-2009).

Morbidity Issues – Several different diseases have seen significant growth between 2008-2011.

Asthma – There was a 31% increase in the relative percentage of Knox County residents reporting they had asthma between 2006 (10.4%) and 2009 (13.6%). Similarly, there was a 6% growth in the percentage of Warren County residents reporting they had asthma between 2006 (12.4%) and 2009 (13.1%). For comparison, there was only a 2% increase in the relative percentage of Illinois residents reporting they had asthma between 2006 (13.0%) and 2009 (13.3%). Rates in Knox County now exceed the State of Illinois average.

Diabetes – There was a 33% increase in the relative percentage of Knox County residents reporting they were informed they had Type II diabetes between 2006 (8.0%) and 2009 (10.6%). For comparison, the percentage of Illinois residents reporting they were informed they had diabetes remained steady between 2006 (8.2%) and 2009 (8.2%). Rates in Knox County now exceed the State of Illinois average.

Hypertension – A total of 34.8% of Knox County residents reported they were told their blood pressure was too high compared to 29.0% of residents across the State of Illinois during the same time period (2007-2009).

Cardiovascular Disease – The number of cases of inpatient dysrhythmia and cardiac arrest at Galesburg-area hospitals from the Warren and Knox Counties region has increased 33% between 2009 (39 cases) and 2012 (52 cases) for individuals 45 to 64 years of age.

Mortality – The leading causes of death include diseases of the heart, malignant neoplasm and coronary heart disease.

PHASE II – COLLECTION, ANALYSIS AND INTERPRETATION OF PRIMARY DATA

A comprehensive understanding of targeted stakeholders was completed in Chapters 6-9. Specifically, it was important to understand how "at risk" or economically disadvantaged people perceived: (1) relative importance of health issues; (2) relative importance of unhealthy behaviors; (3) access to health care, dental care, counseling and prescription medications. Through this type of research, opportunities were identified for improving how community health needs are addressed; and insights into how perceptions are affected by demographic characteristics. Critical findings include:

Misperceptions of community health issues – inconsistencies exist between people's perception of health issues and actual data.

Based on results from the survey, respondents incorrectly perceived "diabetes", "heart disease", "teen pregnancy," and "dental" as being relatively less important health concerns to the community. These results conflict with:

- morbidity data that suggest diabetes growth rates in Knox County are higher than growth rates across the State of Illinois and mortality data indicating diabetes is the 5th leading cause of death in Warren County;
- mortality data that indicates heart disease is the leading cause of death in both Knox and Warren Counties;
- teen pregnancy rates in Knox County (11.6%) that exceed the State of Illinois rate (9.6%) for 2009;
- and the aforementioned dental data suggesting nearly 25% of Knox and Warren Counties residents have not seen a dentist in two or more years.

Perceptions of the importance of access to health services – Access to health services is rated as one of the highest determinants to quality of life across all categories.

Access to Medical Services – Several issues relating to health service access were identified.

Choice of Medical Care – Results from survey respondents living in poverty indicated that access to healthcare is limited. This includes medical, dental and mental healthcare. Poverty is a key factor, as 13% of people living in poverty in the Area consider the Emergency Department their primary source of health care.

Access to Medical Care and Prescription Medications – Approximately 23% of the population living in deep poverty indicated there was a time in the last year when they were not able to get medical care when needed. The leading causes were lack of insurance and inability to

afford a copayment or deductible. Similar results were found for access to prescription medication.

Access to Dental Care – While significant research exists linking dental care to numerous diseases, including heart disease, 35% of individuals living in poverty in the Area needed dental care, but were unable to have access.

Access to Counseling -- Approximately 15% of people living in deep poverty indicated they were not able to get counseling when they needed it over the last 12 months. While affordability and insurance were the leading reasons, fear and embarrassment were also significant.

Access to Information – Across categories, residents of Knox and Warren Counties get most of their medical information from doctors and the next most prevalent is the Internet.

Type of Insurance – Across both counties, the most prevalent type of insurance is private or commercial; however, those living in (where?) are disproportionately more reliant on Medicaid. Also for those living in poverty, 26% do not have any type of insurance at all.

Healthy Behaviors – Several issues relating to healthy behaviors were identified.

Physical Exercise –Younger people and non-white people are more likely to engage in physical exercise. Although only 7% of the population engages in exercise at least 5 times a week.

Healthy Eating – Only 3% of the population exceeds the minimum recommended servings of fruits/vegetables in a day. Those that are more likely to have healthy eating habits include women, people with higher educations and more income.

Decrease Smoking – Smoking is on the decline, however, less educated people, men, younger people, lower income respondents and homeless people are still more likely to smoke. Latino/a residents are less likely to smoke.

Self-Perceptions of Health – In terms of self-perceptions of physical and mental health, over 90% of the population indicated that they were in average or good physical health. Similar results were found for residents' self-perceptions of mental health.

PHASE III – PRIORITIZATION OF HEALTH-RELATED ISSUES

The identification and prioritization of the most important health-related issues in the Knox and Warren Counties region are identified in Chapter 10. After summarizing all of the issues in the Community Health Needs Assessment, a comprehensive analysis of existing community resources was performed to identify the efficacy to which health-related issues were being addressed. Finally, a collaborative team of leaders in the healthcare community used an importance/urgency methodology to identify the most critical issues in the area, including:

- **Obesity**
- **Risky Behavior-Substance Abuse**
- **Mental Health**
- **Healthy Behavior/Nutrition**
- **Access to Health Services**
- **Diabetes**
- **Dental**

Specific criteria used to identify these issues included: (1) magnitude to the community; (2) strategic importance to the community; (3) existing community resources; (4) potential for impact; and (5) trends and future forecasts.

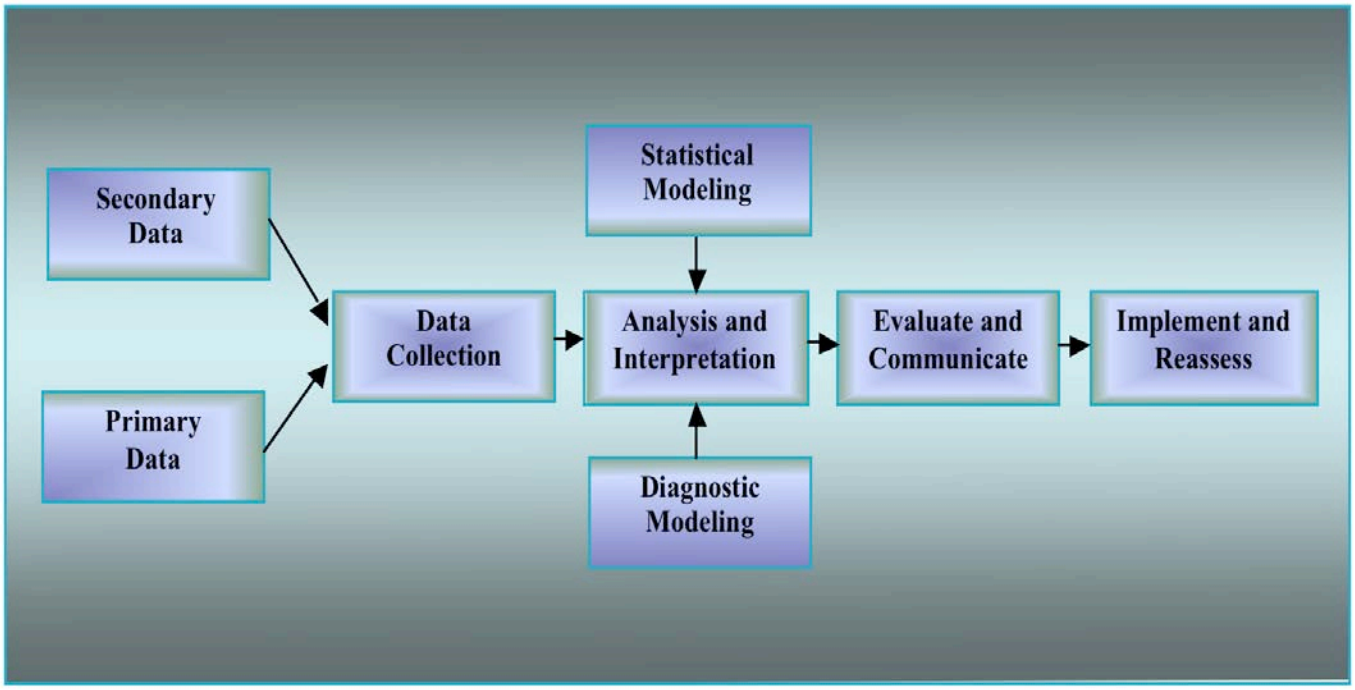
I. INTRODUCTION

Background

The Patient Protection and Affordable Care Act (Affordable Care Act), enacted March 23, 2010 adds new requirements on 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 interest of the community served by OSF St. Mary Medical Center and 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, and to 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 needs assessment are illustrated in Figure 1.

Figure 1. Community Needs Assessment Framework



The community health-needs assessment is divided into three distinct phases. **Phase I** focuses on collection of existing secondary data relating to a comprehensive health profile and drawing strategic inferences. **Phase II** focuses on primary data collection to assess perspectives of key stakeholders, including those with special knowledge of the health community. Primary data collection includes a concerted effort to target the at-risk population in the region. **Phase III** focuses on the prioritization of needs within the community.

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 for the Collaborative team were carefully selected to ensure representation of the broad interests of the community. Specifically, team members included representatives from OSF St. Mary Medical Center and OSF Holy Family Medical Center, administrators from the Knox and Warren Counties Health Departments, as well as community experts that serve various segments of the population. Note that numerous partner and agency organizations also participated in this study. Specific discussion of these organizations can be found in the METHODS section. Engagement occurred throughout the entire process, resulting in shared ownership of the assessment. The entire collaborative team met in November of 2012 and in March 2013. 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 health care of the community. Individuals, affiliations, titles and expertise are as follows:

> **Dr. Robert Ayers** graduated from the University of Illinois and completed his residency in Cedar Rapids, IA. He began his family practice in 1983 and joined the OSF Medical Group in 1994. He has been the Medical Director of the Occupational Health Clinic at OSF St. Mary Medical Center since 1995.
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> **Heidi Britton**, MPH, CPHA is currently Public Health Administrator at Knox County Health Department overseeing a staff of 35 full time equivalents and a budget of $2.5 million. Ms. Britton is a Certified Public Health Administrator with a Master of Public Health in 2003 and Bachelors in Biochemistry in 1999 both from University of Illinois at Chicago. After graduating with her MPH, she served 27 months as a Peace Corps Volunteer in Turkmenistan as a health volunteer from 2004-2006. Upon reentering the United States she relocated in Champaign, Illinois and worked at the Champaign-Urbana Public Health District as the Project Coordinator of the Urbana School Based Health Center. In 2009 she joined the staff at Knox County Health Department as their second Administrator since the referendum vote in 1992. Throughout her career her focus has been on promoting healthy lifestyles and wellness for the community through public health initiatives and quality improvement.
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> **Josh Gibb** has been the Executive Director of the Galesburg Community Foundation (GCF) since 2008. The Galesburg Community Foundation is a collection of

permanently endowed funds that support philanthropic work in communities of Knox and Warren counties. Currently Josh serves as a Director on the Galesburg Area Chamber of Commerce Board. He also serves on the Public Policy Committee for the Council on Foundations – the national association for foundations. He is very active in his community through various other organizations including the Galesburg Lions Club. Josh has an Associates Degree from Carl Sandburg College, where he was honored as the 2009 Distinguished Alumnus and degree in Political Science from Western Illinois University. Recently he earned his Certificate in Strategic Management from the Association of Strategic Planners. Before coming to the GCF, Joshua worked for the Knox County Farm Bureau.

Monica Hendrickson graduated from the University of Michigan in 2008 with a MPH in Epidemiology. Ms. Hendrickson has served as the Director of Health Protection at the Knox County Health Department since 2010. As Director of Health Protection she is responsible for the Environmental Health, Communicable Diseases, Emergency Preparedness, and Wellness Promotion programs. In 2011 she assisted in the completion of the Knox County Healthy Community Project Health Improvement Plan, and has since worked with the We Choose Health Subcommittee on writing for the We Choose Health grant and American Cancer Society Youth Obesity Prevention grant, both of which were awarded to Knox County.

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 Chief Executive Officer 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. Ms. Luker is a member of the American College of Healthcare Executives, and is a member of the Illinois Hospital Association's Small & Rural Hospitals Constituency Section and Illinois Critical Access Hospital Network (ICAHN). She served as 2008 President of ICAHN. Ms. Luker was elected to CIMRO Board of Directors in 2005. She was elected as the Board's Secretary-Treasurer in 2007 and serves as the Chair of the Finance Committee since 2007.

Shannon McVey is the Discharge Planner and in charge of Activities at OSF Holy Family Medical Center. She graduated in 2006 from Western Illinois University with Bachelors of Social Work Degree and has been at OSF Holy Family for 7 years. During Shannon's seven years, she has done Discharge Planning, Social Services and Activities for both Acute and Long Term care units.

Rhonda Nelson has been employed with Bridgeway for 25 years and currently the Vice President of Behavioral Health Services. She is a Licensed Clinical Professional Counselor and also a Certified Mental Health First Aid Trainer.

Terri Springer is the Chief Financial Officer and the Vice President of Finance of OSF Holy Family Medical Center in Monmouth, Illinois. 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.

Jennifer Talbert is the Director of Decision Support & Metrics at OSF St. Mary Medical Center. She has been with OSF for 13 years. Jennifer was hired as a mammography tech and also did diagnostic radiology and CT exams for 8 years. She was the Director of Central Scheduling for 3 years and Director of Decision Support & Metrics for 2 years. She is currently working on her MBA through Western Governors University.

Jack Toal attended Carl Sandburg, Monmouth College and Antioch University. He and his wife run the 1st Street Armoury, a nonprofit community action agency serving the homeless and low-income families within Monmouth and the surrounding communities. He also serves as a community outreach Pastor with Countryside Bible Church and has over 12 years of addressing community needs and grass roots organization experience.

Ann Tucker has been Executive Director of the United Way of Knox County since 2006. Prior to working at United Way she earned an Associate's Degree in Paralegal Studies from Illinois Central College and was a paralegal for 14 years. Ann is currently pursuing her Bachelor's Degree from Western Illinois University. Since she started at United Way, Ann has raised nearly $2.5 M in a very depressed economy and works with 23 nonprofit agencies on a daily basis.

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 Director of Debt Management and Revenue Cycle for OSF Healthcare System, a position she has served in since 2002. Michelle has over 27 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 FHFMA certification in 2011. Currently, she serves on the Revenue Cycle Key Performance

Indicator Task Force and the National Advisory Council for HFMA National. Michelle chaired the Illinois Hospital Association Medicaid Cost Work Group and was a member of the IHA task force that developed the statewide Community Benefit Report that is submitted to the Attorney General's Office.

Dawn Irion (Coordinator) is the Community Benefits Coordinator at OSF Healthcare System. She has worked for OSF Healthcare system since 2004 and has helped coordinate the submission of the Community Benefit Attorney General report since 2008. She has coordinated and gathered information used in filing IRS Form 990 Schedule H since 2009 and is a member of Healthcare Financial Management Association.

Eric J. Michel (Research Associate) MBA, is a faculty member in Leadership at Christopher Newport University in Newport News, VA. Previously, he served on the faculty of the Foster College of Business at Bradley University in Peoria, IL. Professor Michel has coauthored over a dozen papers on leadership and organizational strategy for presentations at national conferences and for publication in academic journals. He serves as a consultant to not-for-profit and healthcare organizations in the areas of executive development and community assessment.

Dr. Laurence G. Weinzimmer (Principal Investigator) Ph.D. 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.

Definition of the Community

In order to determine the geographic boundaries for OSF St. Mary Medical Center and OSF Holy Family Medical Center, analyses were completed to identify what percentage of inpatient and outpatient activity was represented from specific counties. Data show that Knox and Warren Counties represent 81.4% of all patients for the two hospitals.

In terms of patient categories for this CHNA, in addition to defining the community by geographic boundaries, this study will target the at-risk populations as an area of potential opportunity to improve the health of this population.

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 the health departments, in order to create strategic plans in program design, access and delivery. Results of this study will act as the platform to allow health-care organizations to orchestrate limited resources to improve management of high-priority challenges. By working together, the hospitals, clinics and health departments will use this CHNA to help improve the quality of health care in the defined community. When feasible, data are assessed longitudinally to assess changes and patterns and benchmarked with state averages.

II. METHODS

To complete the comprehensive community health-needs assessment, multiple sources were examined. Secondary statistical data were used for the first phase of the project. Additionally, based on a sample of 1,447 survey respondents from Knox and Warren Counties, phase two focused on assessing perceptions of the community health issues, unhealthy behaviors, issues with quality of life, healthy behaviors and access to health care. Data were collected to assess the importance of specific issues, as well as access to health care.

Phase I. Secondary Data for Community Health Needs Assessment

We first used existing secondary statistical data to develop an overall assessment of the health-related issues in the community. Note that several tables were aggregated from numerous data sources. For example, educational report-card tables were compiled by collecting information from numerous individual school report cards and combining aggregated data into these tables.

Five chapters were completed based on assessment of secondary data. Each chapter contains numerous categories. Within each category, there are specific sections, including definitions, importance of categories, data and interpretations. At the end of each chapter there is a section on the key strategic implications that can be drawn from the data.

Note that most of the data used for this phase was acquired via publically available data sets. However, for specific sections of Chapter 2 and the majority of Chapter 4, the most recent data available were from 2009. Given a purpose of this assessment is to measure subsequent improvements to community health over time, using data that are three years old is not sufficient. Therefore we used COMPdata from 2008-2012 for all of our disease categories. This required manual aggregation of data from the hospitals serving the Knox and Warren Counties area.

Based on several retreats, a separate OSF Collaborative Team identified six primary categories of diseases, including: age related, cardiovascular, respiratory, cancer, type 2 diabetes and infections. We also identified secondary causes of diseases as well as intentional and unintentional injuries. In order to define each disease category, we used modified definitions

developed by Sg2. Sg2 specializes in consulting for health care organizations. Their team of experts includes MDs, PhDs, RNs and health care leaders with extensive strategic, operational, clinical, academic, technological and financial experience.

Phase II. Primary Data Collection

This section describes the research methods used to collect, code, verify and analyze primary data. Three specific areas include the research design used for this study: survey design, data collection and data integrity.

A. Survey Instrument Design

Initially, all surveys used in previous health-needs assessments in the U.S. that we were able to identify were assessed to identify common themes and approaches to collecting community health-needs data. In all, 15 surveys were identified. By leveraging best practices from these surveys, we created our own pilot survey. 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. Specifically, for the community health need assessment, five specific areas were included:

Ratings of health problems in the community – to assess the importance of various community health concerns. Survey items included areas assessing topics such as cancer, diabetes and obesity. In all, there were 20 choices provided for survey respondents.

Ratings of unhealthy behaviors in the community – to assess the importance of various unhealthy behaviors. Survey items included areas assessing topics such as violence, drug abuse and smoking. In all, there were 14 choices provided for survey respondents.

Ratings of issues with quality of life – to assess the importance of various issues relating to quality of life in the community. Survey items included areas assessing topics such as access to health care, safer neighborhoods and effective public transportation. In all, there were nine choices provided for survey respondents.

Accessibility to health care – to assess the degree to which residents could have access to health care when needed. Survey items included areas assessing topics such as access to medical, dental and mental care, as well as access to prescription drugs.

Healthy behaviors – to assess the degree to which residents exhibited healthy behaviors. The survey focused on areas such as exercise, healthy eating habits and smoking.

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 three 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 Hispanic population. A total of 130 surveys were collected. Results from the pilot survey revealed specific items to be included/excluded in the final survey instrument. Selection criteria for the final survey included validity, reliability and frequency measures based on responses from the pilot sample. Note that these surveys were not included in the final sample. A copy of the final survey is included in Appendix 1.

B. Sample Size

In order to identify our potential population, we first identified the percentage of the Knox and Warren Counties population that was living in poverty. Specifically, we multiplied the population of each county by its respective poverty rate to identify the minimum sample size to study the at-risk population. The poverty rate for Knox County was 15.5 percent. The population used for the calculation was 52,917 yielding a total of 8,203 residents living in poverty in Knox County. The poverty rate for Warren County was 13.4 percent. The population used for the calculation was 17,818 yielding a total of 2,388 residents living in poverty in Warren County. Note that surveys were created in both English and Spanish.

We assumed a normal approximation to the hypergeometric 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 95% CI)

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

For Knox County, the minimum sample size for those living in poverty was 368. Note that for *aggregated* analyses, an additional 271 random surveys were needed from those not living in poverty in order to identify and analyze general perspectives. For Warren County, the minimum sample size for those living in poverty was 332. Note that for *aggregated* analyses, an additional 267 random surveys were needed from those not living in poverty in order to identify and analyze general perspectives.

In order to satisfy sampling requirements for both those living in poverty as well as aggregate perspectives, the data collection effort for Knox County CHNA yielded a total of 726 usable responses. For Warren County, the survey yielded 721 usable responses. This met the threshold of the desired confidence interval. Final results for data collection yielded a total of 413 respondents living in poverty for Knox County and 419 respondents living in poverty for Warren County. This met the threshold of the desired 95% confidence interval. Specifically, these numbers also met the 99% confidence interval threshold.

C. Data Collection

Data was collected for both counties. 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 confidentiality and anonymity.

To specifically target the at-risk population, surveys were distributed at all homeless shelters and soup kitchens. Specific partner organizations included:

- First Street Armory
- Warren County Housing Authority
- Center of Hope –Roseville
- Jamison Center
- The Galesburg Rescue Mission
- La Grace Hall of Hope
- Seminary Estate
- Faith Baptist Church
- Knox Prairie Community Kitchen
- Hy-Vee Food Store on East Main
- Warren County Jail
- Warren County Health Department
- Strom Center in Monmouth
- West Central Community Services Head Start Program
- Warren County Board of Health

Note that 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. However, when using convenience-sampling techniques, we made a concerted effort to assure randomness in order to mitigate potential bias in the sample.

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 coded correctly. This was followed by analyses of means and standard deviations and comparison of primary data statistics to existing secondary data. Additionally, for regression models, residual analyses were performed to ensure that the data met assumptions of the underlying models. Specifically, residuals were analyzed to make sure (1) the data were

normally distributed, (2) no patterns existed among residuals (e.g., heteroscedasticity) and (3) no significant outliers biased the outputs.

E. Analytic Techniques

In order to ensure statistical validity, we used several different analytic techniques to assess data. Specifically, frequencies and descriptive statistics were used for identifying patterns in residents' rating 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, x^2 tests and tetrachoric correlations when appropriate, given characteristics of the specific data being analyzed.

PHASE I – SECONDARY DATA RESEARCH FOR COMMUNITY HEALTH NEEDS

In this section of the community health needs assessment, there are five chapters that assess different aspects of the general community as well as specific health-related issues. All of the information in this section is taken from secondary data sources. As described in the METHODS section, some data sources are publically available and other data sources are comprised of aggregated hospital data from 2012.

The chapters are as follows:

CHAPTER 1. DEMOGRAPHIC PROFILE

CHAPTER 2. PREVENTION

CHAPTER 3. SYMPTOMS/PREDICTORS

CHAPTER 4. DISEASES/MORBIDITY

CHAPTER 5. MORTALITY

CHAPTER 1. DEMOGRAPHIC PROFILE

1.1 Population

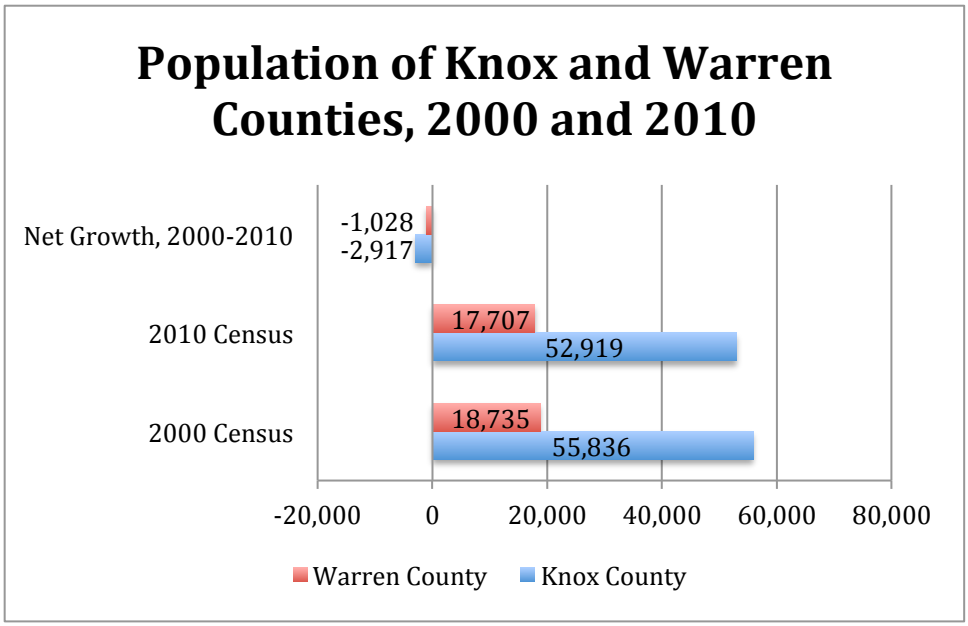
Importance of the measure: Population data characterizes the individuals residing within the jurisdictional boundaries the Knox and Warren Counties Region, defined as Knox and Warren Counties. Population data provides an overview of population growth trends and builds a foundation for additional analysis of these data.

1.1.1 Population by Municipality

The 2010 census of Knox County indicated a population of 52,919 residents. Compared to the 2000 census of the Knox County population, the 2010 census of the Knox County population shows a decrease of -2,917 residents. The vast majority of residents departing from Knox County in the last decade left Galesburg (-1,511), Abingdon (-293), and Knoxville (-272).

The 2010 census of Warren County indicated a population of 17,707 residents. Compared to the 2000 census of the Warren County population, the 2010 census of the Warren County population shows a decrease of -1,028 residents. The vast majority of residents departing from Knox County in the last decade left Monmouth (-397) and unincorporated areas of Warren County.

Table 1.1.1-1 Population of Knox and Warren Counties, 2000 and 2010



Source: 2010 US Census; 2000 US Census

Table 1.1.1-2 Population of Municipalities in Knox and Warren Counties, 2000 and 2010

County/Municipality	2000 Census	2010 Census	Net Growth, 2000-2010
Knox County	55,836	52,919	-2,917
Abingdon city	3,612	3,319	-293
Altona village	570	531	-39
East Galesburg village	839	812	-27
Galesburg city	33,706	32,195	-1,511
Gilson CDP	X	190	N/A
Henderson village	319	255	-64
Knoxville city	3,183	2,911	-272
London Mills village (part)	5	9	4
Maquon village	318	284	-34
Oak Run CDP	X	547	N/A
Oneida city	752	700	-52
Rio village	240	220	-20
St. Augustine village	152	120	-32
Victoria village	323	316	-7
Wataga village	857	843	-14
Williamsfield village	620	578	-42
Yates City village	725	693	-32
Warren County	18,735	17,707	-1,028
Alexis village (part)	499	498	-1
Avon village (part)	X	2	N/A
Kirkwood village	794	714	-80
Little York village	269	331	62
Monmouth city	9,841	9,444	-397
Roseville village	1,083	989	-94

Source: 2010 US Census; 2000 US Census

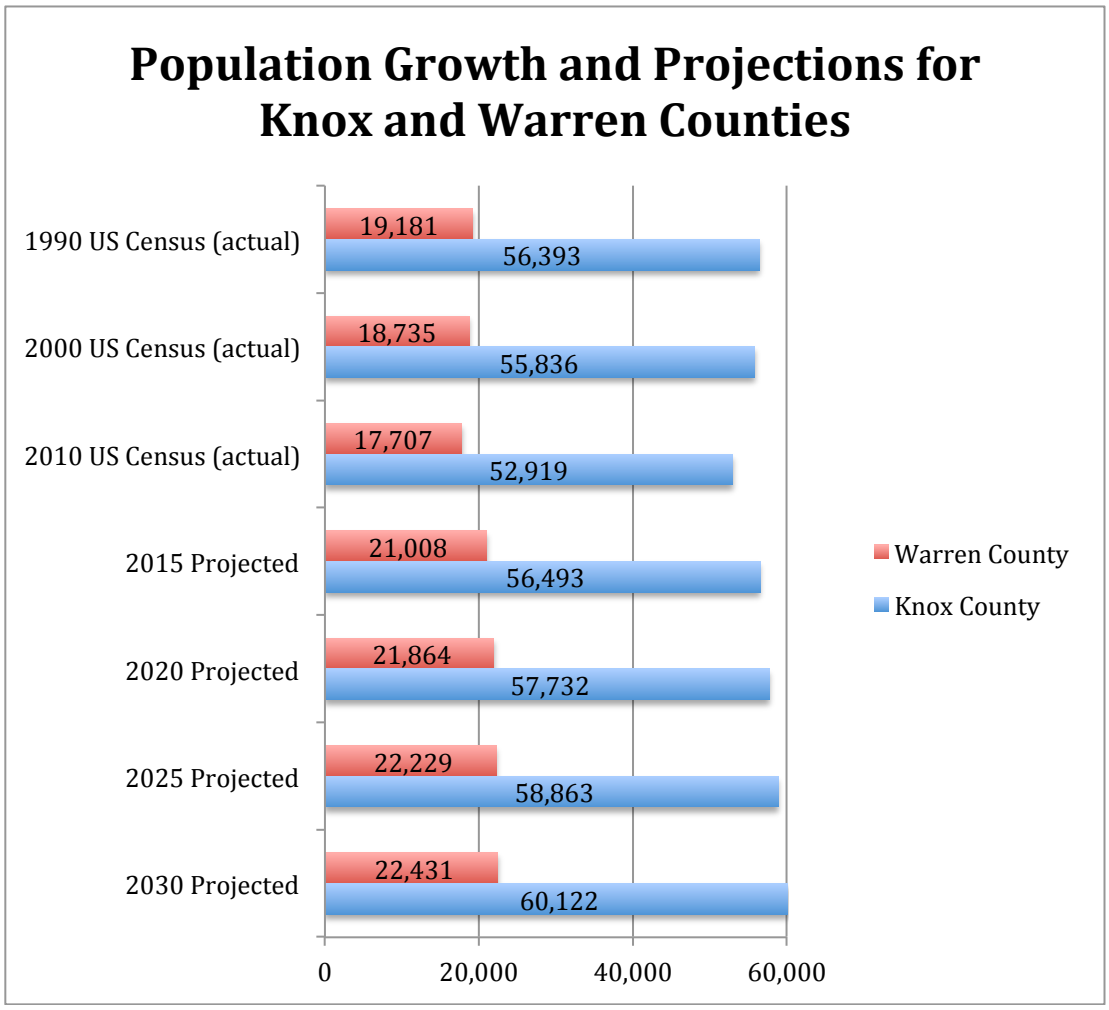
1.1.2 Growth Rates

Data from the last three censuses (1990, 2000, 2010) indicate negative population growth between 1990 and 2010 for both Knox and Warren Counties. Data and projections suggest that both Knox and Warren Counties will reverse the negative population growth experienced in the 1980s.

With regard to Knox County, fourteen municipalities experienced negative population growth between 2000 and 2010 and four municipalities Warren County experienced negative growth between 2000 and 2010.

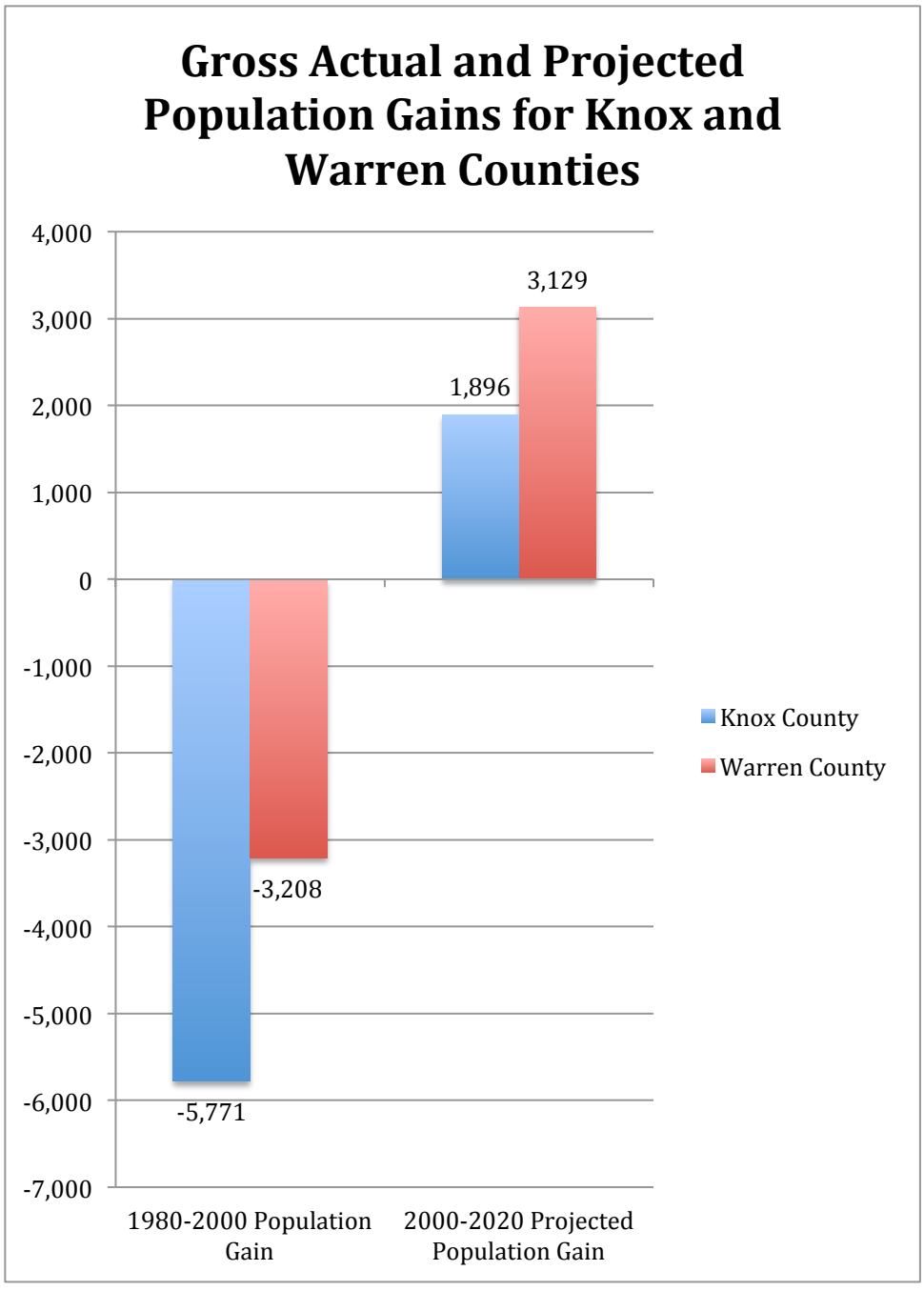
With regard to population projections for the next twenty years (2010 to 2030), both Knox and Warren Counties are expected to experience positive population growth through 2030.

Table 1.1.2-1 Population Growth and Projections for Knox and Warren Counties



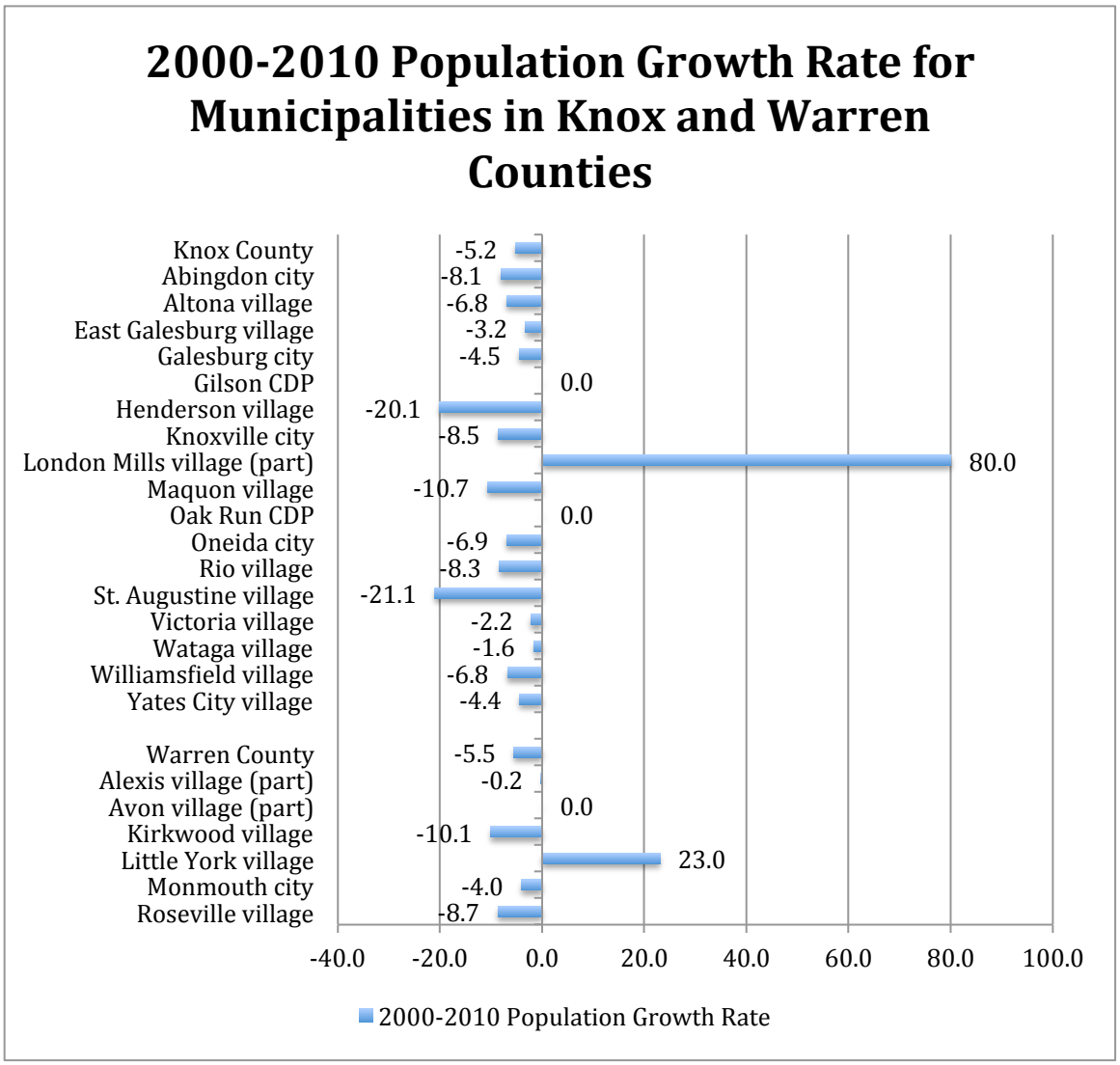
Source: 1990, 2000, & 2010 US Census;
Illinois Department of Commerce & Economic Opportunity

Table 1.1.2-2 Gross Actual and Projected Population Gains for Knox and Warren Counties



Source: 1990, 2000, & 2010 US Census;
Illinois Department of Commerce & Economic Opportunity

Table 1.1.2-3 2000-2010 Population Growth Rate for Municipalities in Knox and Warren Counties



Source: 2010 US Census; 2000 US Census

1.2 Age, Gender and Race Distribution

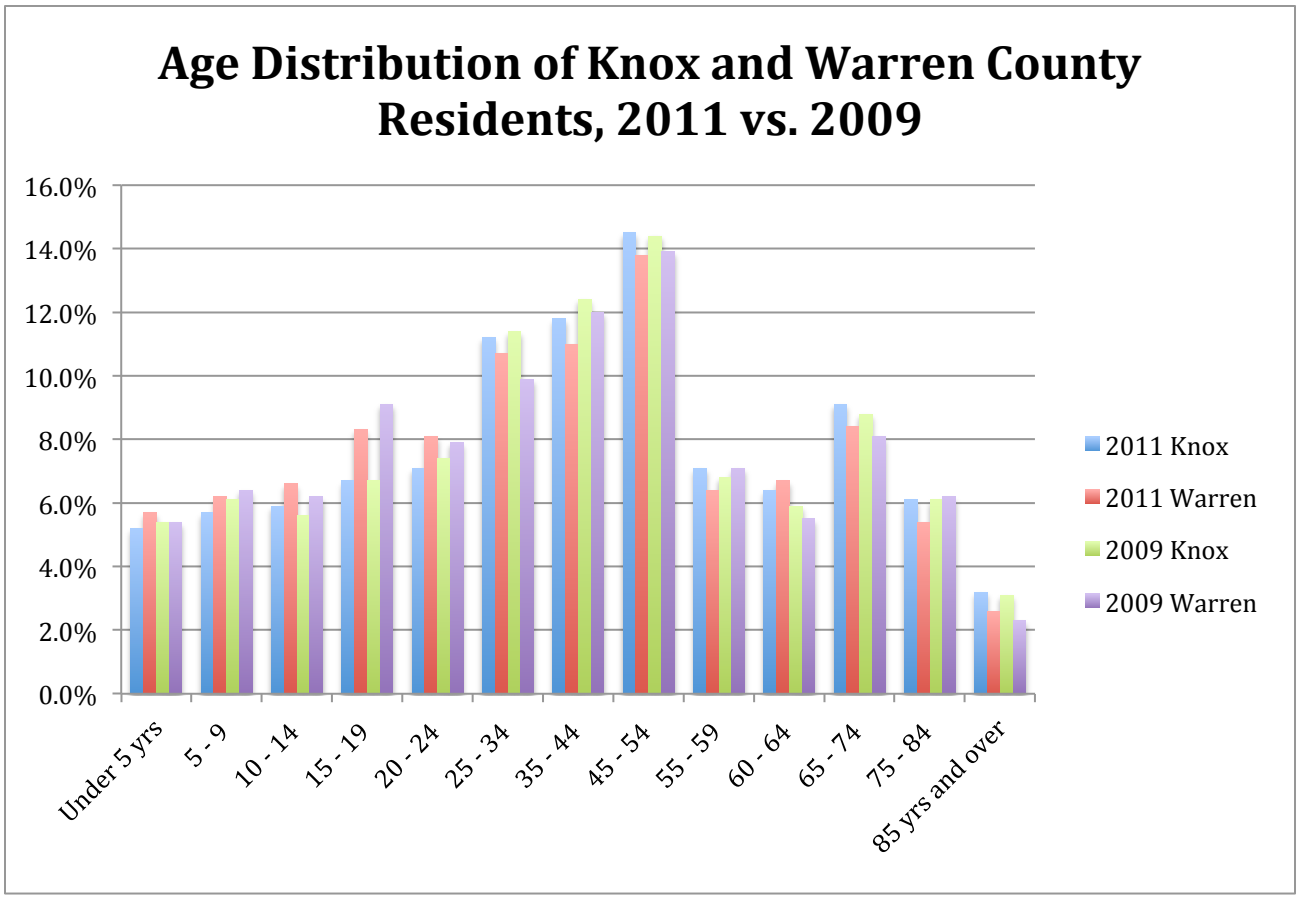
Importance of the measure: Population data broken down by age groups, gender, and race provides a foundation to analyze the issues and trends that impact demographic factors including economic growth and the distribution of health care services. Understanding the cultural diversity of communities is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

1.2.1 Age

As indicated in Table 1.2-1, individuals in Knox County aged 60-64 increased from 5.9% to 6.4% between 2009 and 2011 and individuals aged 65-74 increased from 8.8% to 9.1% between 2009 and 2011.

Individuals in Warren County aged 60-64 increased from 5.5% to 6.7% between 2009 and 2011 and individuals aged 65-74 increased from 8.1% to 8.4% between 2009 and 2011.

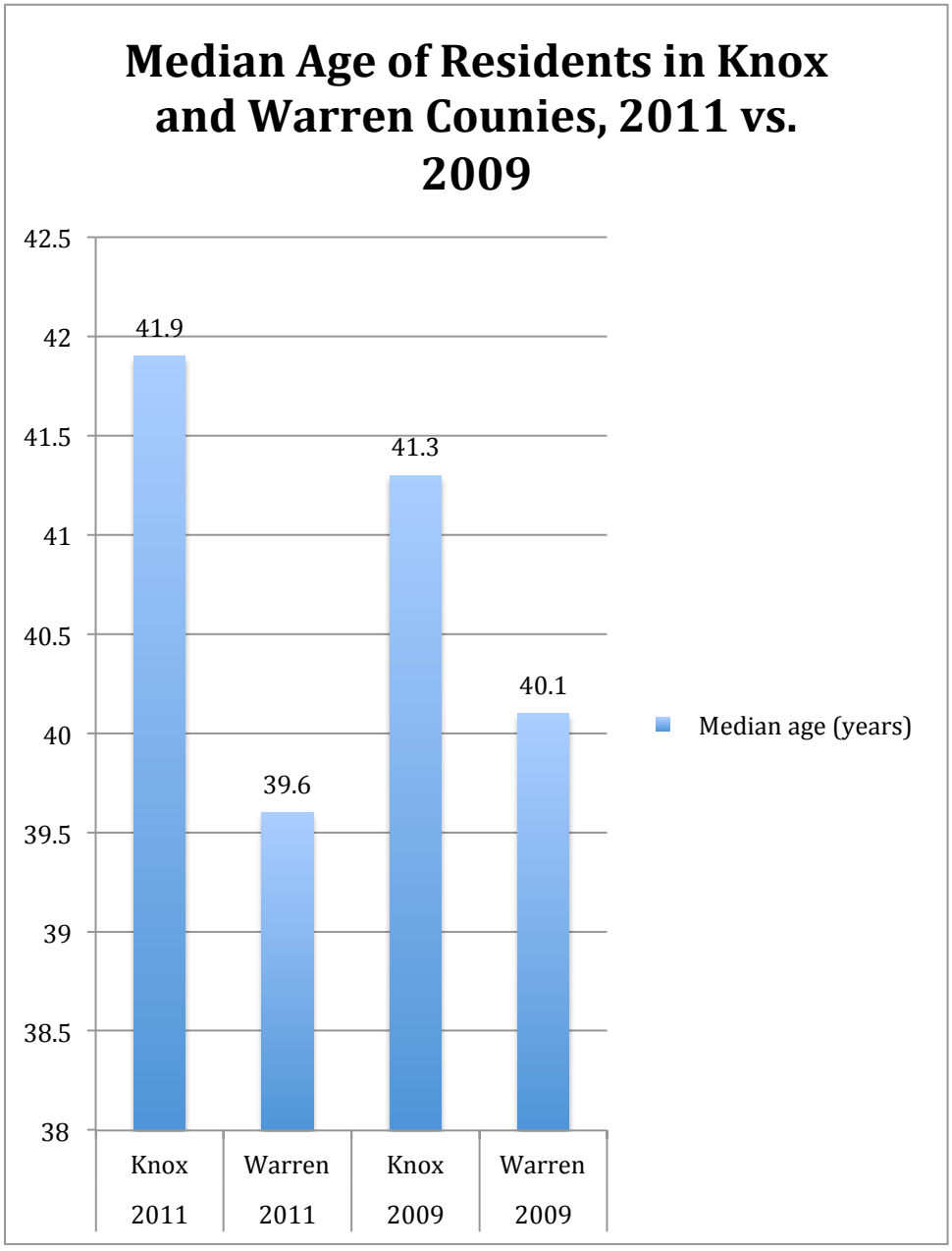
Table 1.2-1 Age Distribution of Knox and Warren Counties Residents, 2011 vs. 2009



Source: 2009 American Community Survey; 2011 American Community Survey

With the increase in the population of older individuals in the Knox and Warren Counties Region, the median age of residents has also increased. The median age of residents in Knox County in 2011 was 41.9 compared to 41.3 in 2009. Warren County has a median age of 40.1.

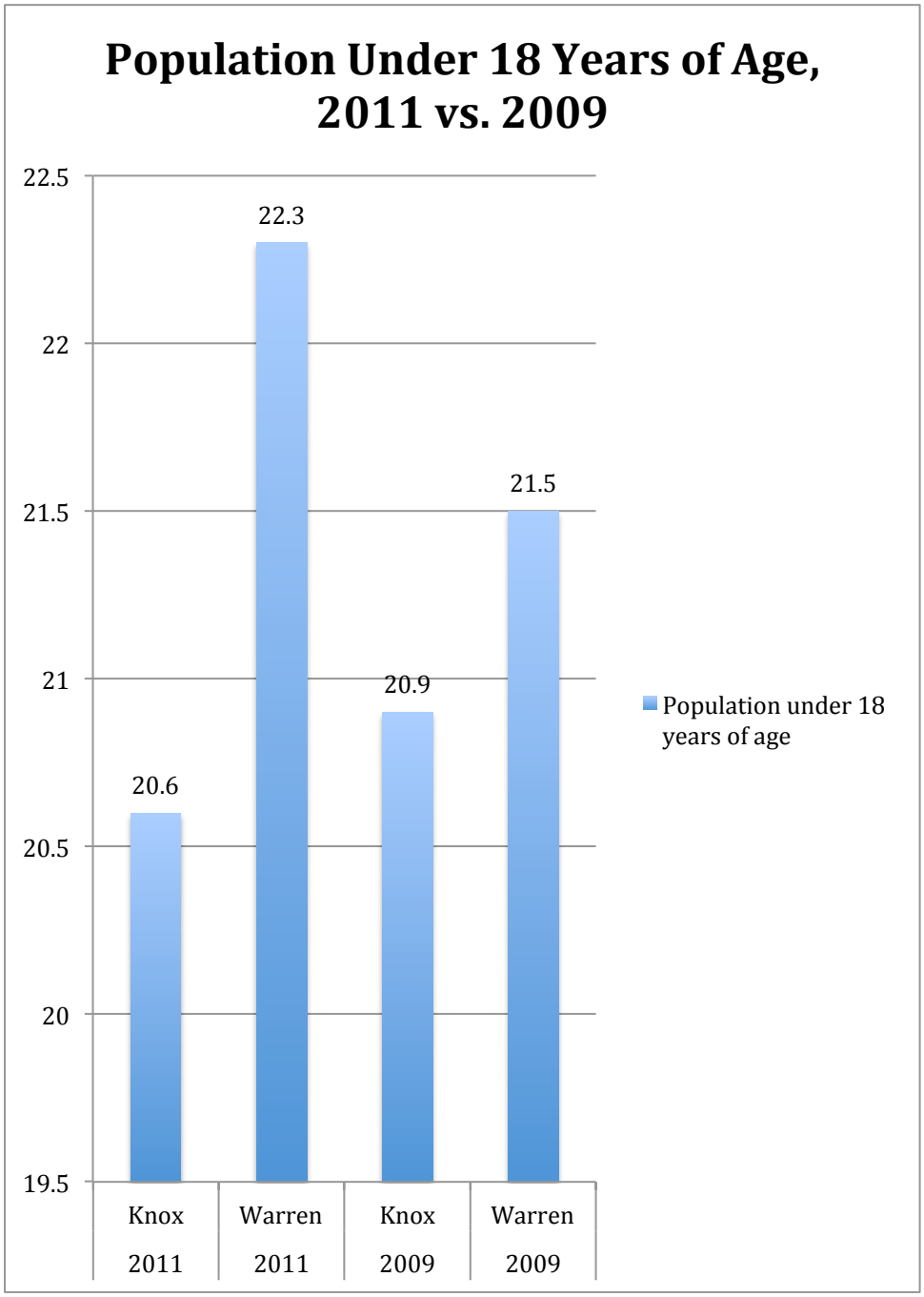
Table 1.2-2 Median Age of Residents in Knox and Warren Counties, 2011 vs. 2009



Source: 2009 American Community Survey; 2011 American Community Survey

Data from 2009 and 2011 suggest an increase in the populations of youths and older adults in Warren County and a slight decrease in the under 18 population in Knox County.

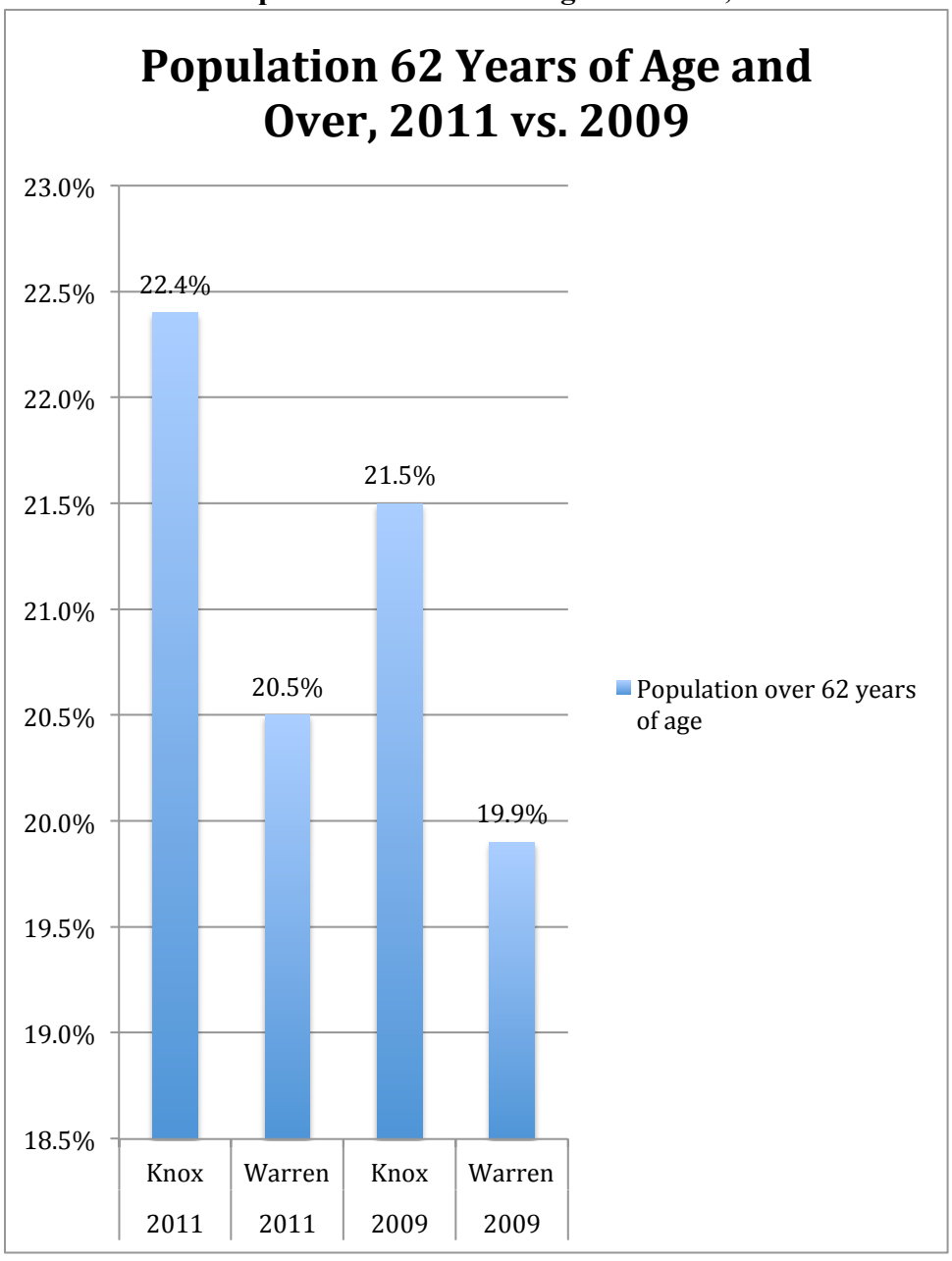
Table 1.2-3 Population Under 18 Years of Age, 2011 vs. 2009



Source: 2009 American Community Survey; 2011 American Community Survey

The national trend concerning the aging of the baby-boomer population is reflected in the 2011 data for the Knox and Warren Counties region, as over 20% of both Knox and Warren Counties are over 62 years of age.

Table 1.2-4 Population 62 Years of Age and Over, 2011 vs. 2009

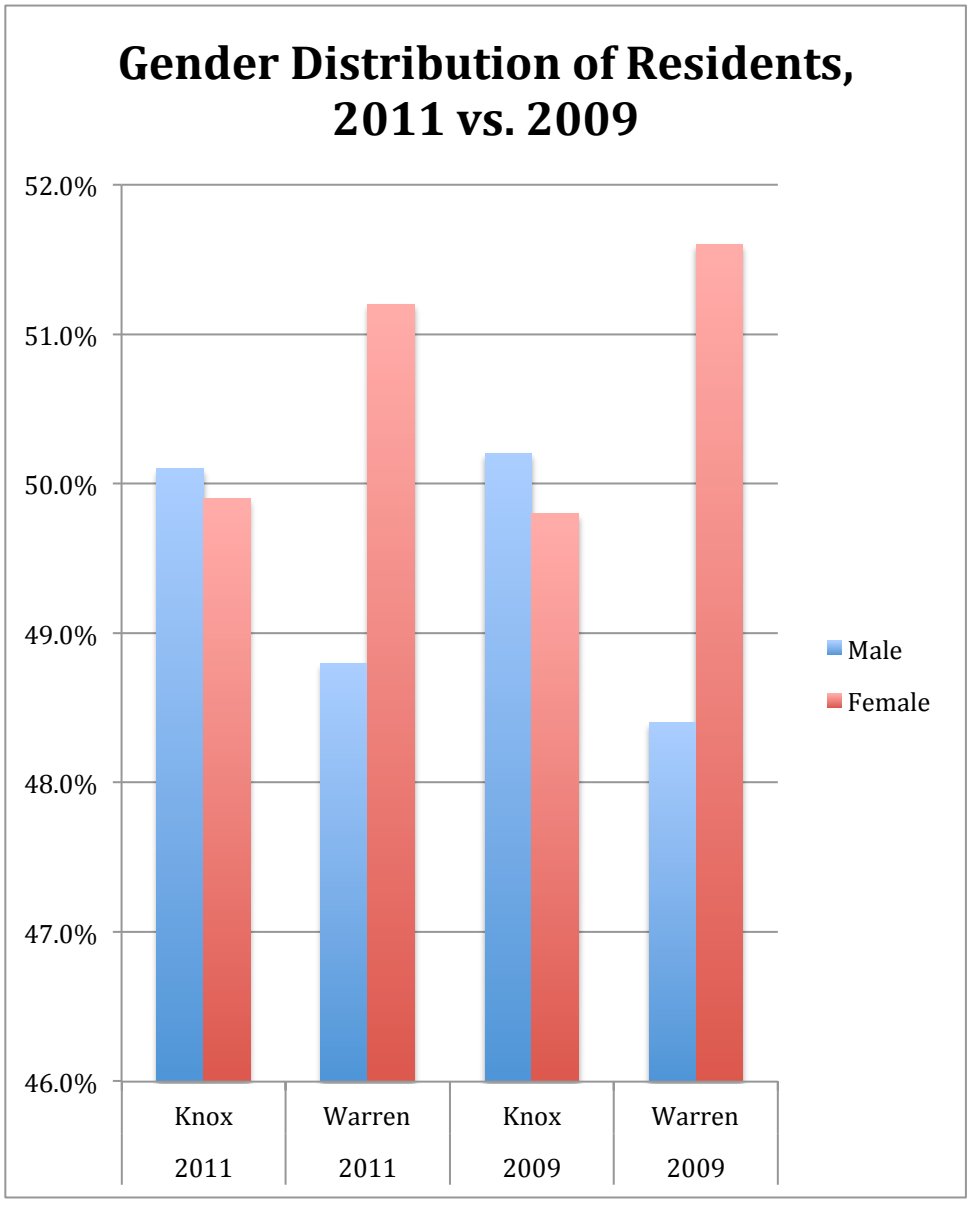


Source: 2009 American Community Survey; 2011 American Community Survey

1.2.2 Gender

The gender distribution of Knox and Warren Counties residents has remained relatively consistent between 2009 and 2011. Data indicates that there are more women than men in Warren County and data suggests men slightly outnumber women in Knox County.

Table 1.2.2-1 Gender Distribution of Residents, 2011 vs. 2009

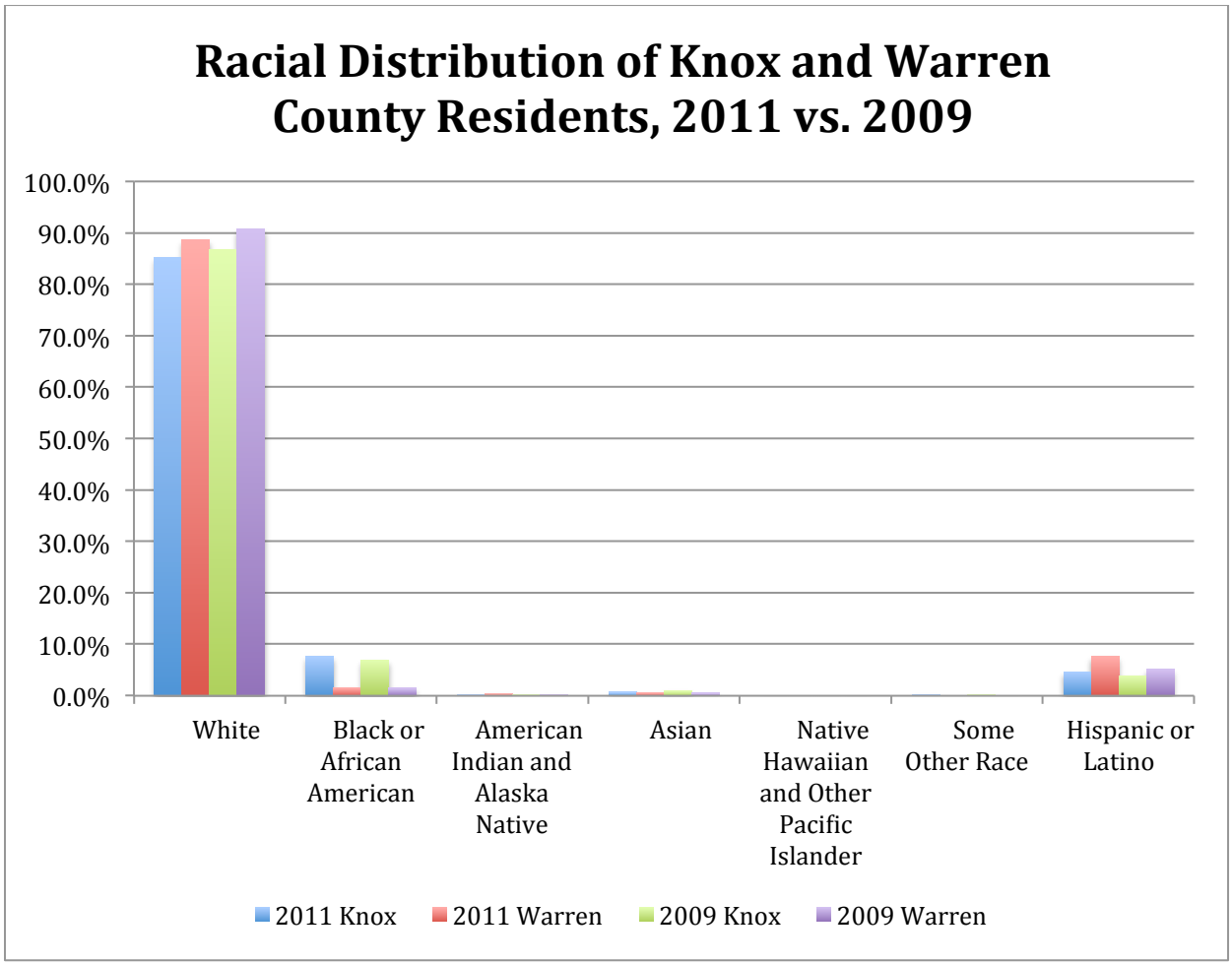


Source: 2009 American Community Survey; 2011 American Community Survey

1.2.3 Race

With regard to race and ethnic background, the Knox and Warren Counties region is largely homogenous, yet in recent years is becoming more diverse. Data from 2011 suggest that Whites comprise upwards of 90% of the population in both Knox and Warren Counties. However, the non-White population of the Knox and Warren Counties region has been slowly increasing since 2009, with individuals identifying with Black or African American ethnicity comprising approximately 8% of the population and individuals identifying with Hispanic ethnicity comprising nearly 6% of the population.

Table 1.2.3-1 Racial Distribution of Knox and Warren Counties Residents, 2011 vs. 2009



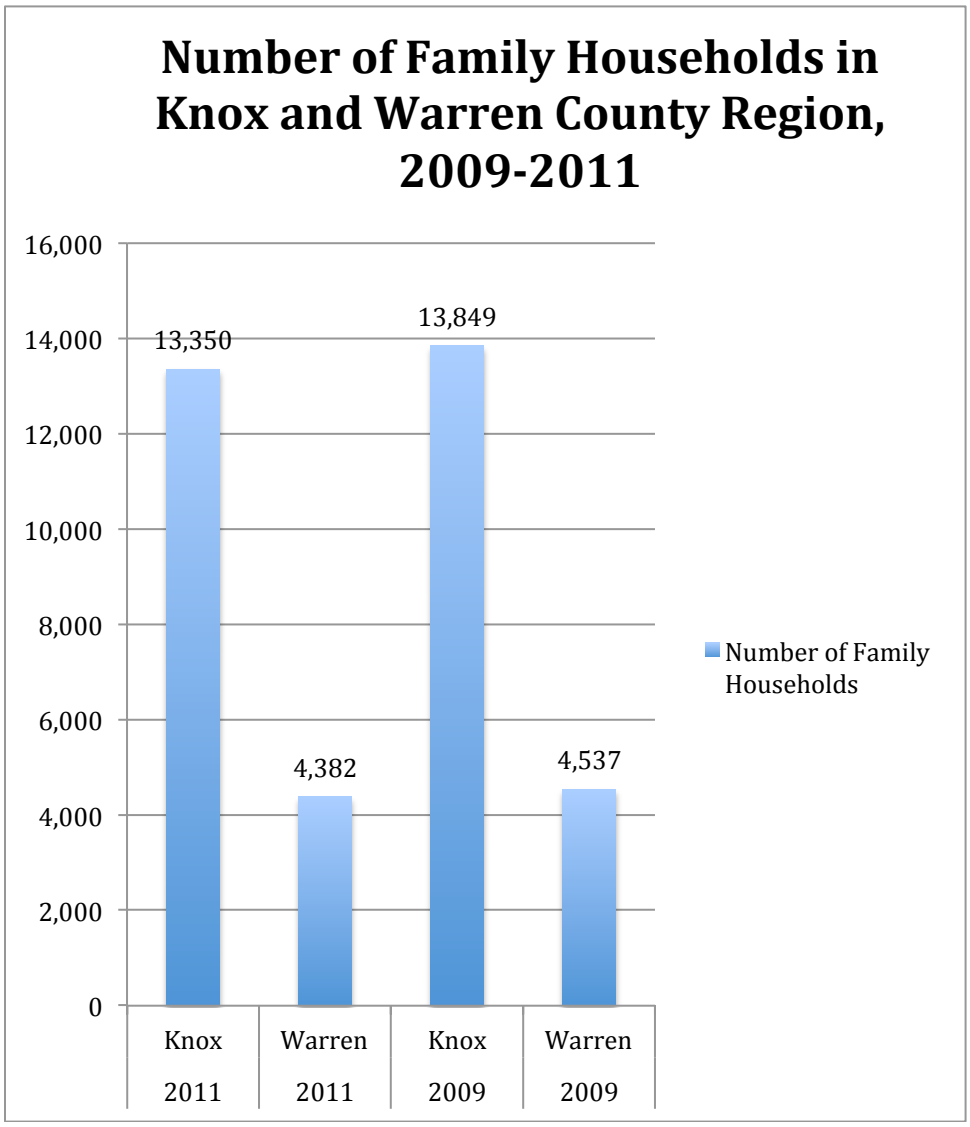
Source: 2009 American Community Survey; 2011 American Community Survey

1.3 Household/family

Importance of the measure: Families are the backbone of society in Knox and Warren Counties, as they dramatically impact the health and development of children and provide support and well-being for older adults.

As indicated in Table 1.3-1, the number of family households within both Knox and Warren Counties decreased between 2009 and 2011.

Table 1.3-1 Number of Family Households in Knox and Warren Counties Region, 2009-2011

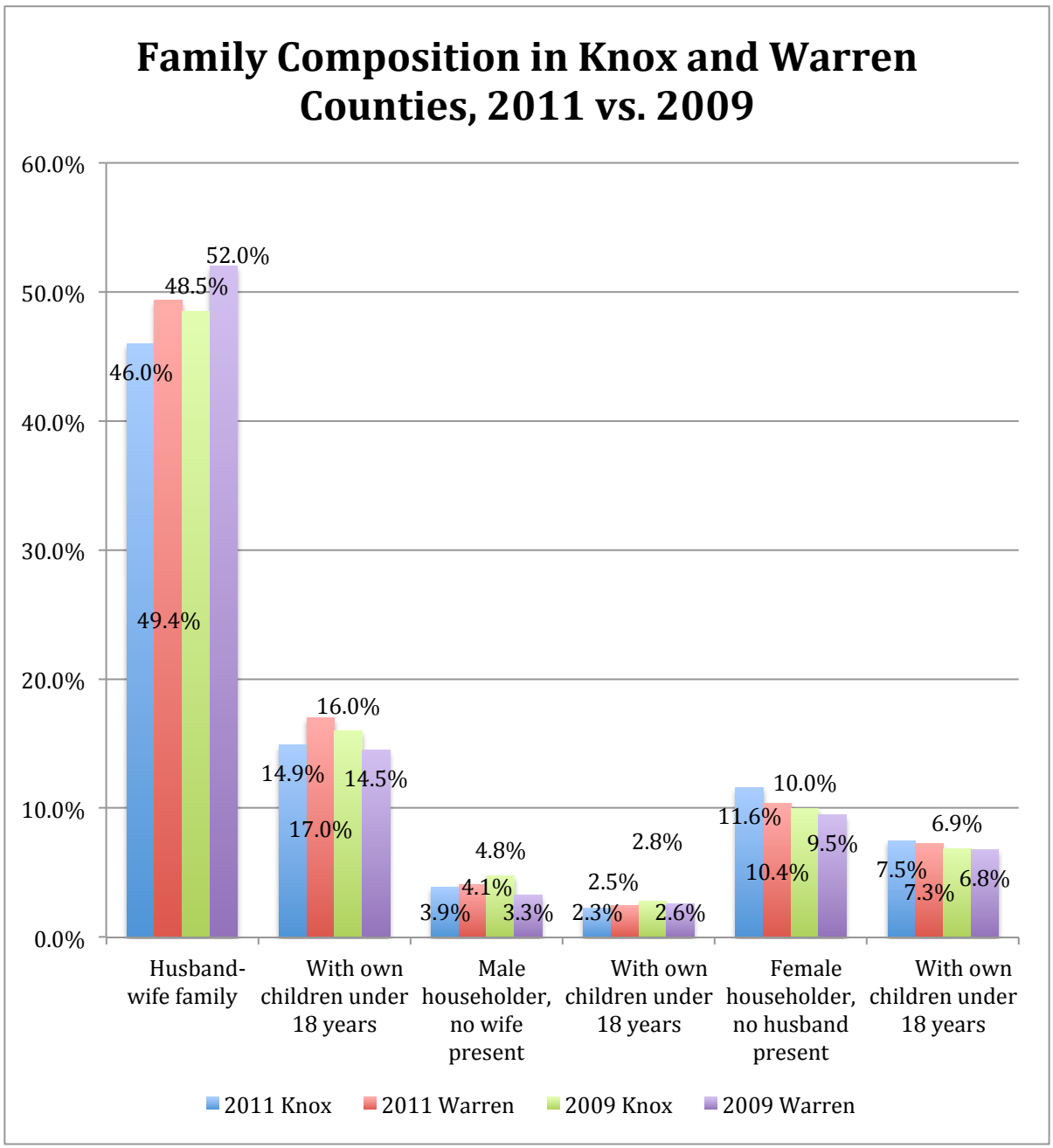


Source: 2009 American Community Survey; 2011 American Community Survey

1.3.1 /1.3.2 Single and Related Family

In the Knox and Warren Counties region, data from 2011 suggest an increase from 2009 in the number of female households with no husband present. For both Knox and Warren Counties, there was a decrease in the number of married-couple families between 2009 and 2011

Table 1.3.1-1 Family Composition in Knox and Warren Counties, 2011 vs. 2009

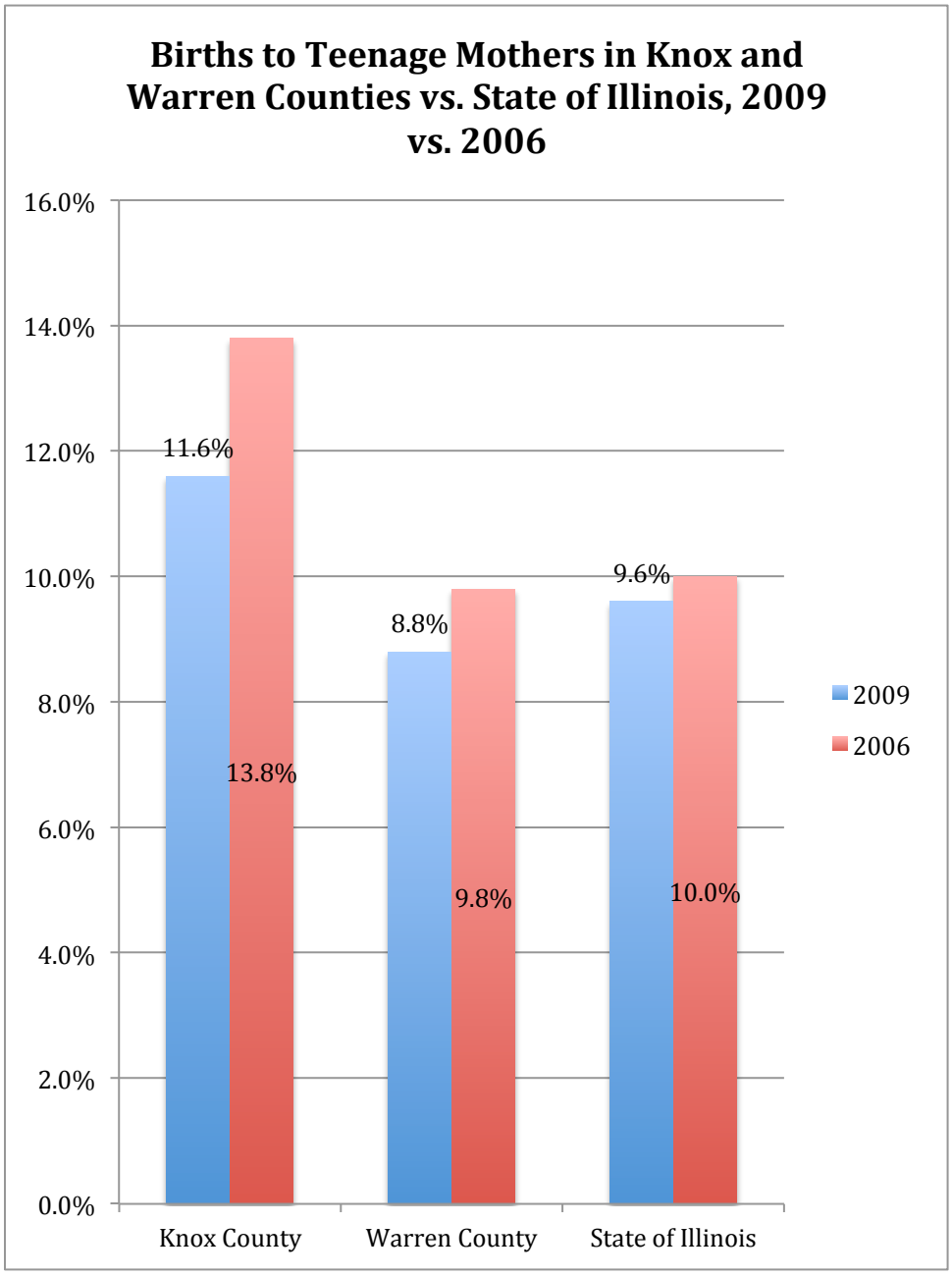


Source: 2009 American Community Survey; 2011 American Community Survey

1.3.4 Early Sexual Activity Leading to Births from Teenage Mothers

With regard to teenage birth rates, Knox County has a higher teen birth rate than the State of Illinois for both 2006 and 2009.

Table 1.3.4-1: Births to Teenage Mothers in Knox and Warren Counties vs. State of Illinois, 2009 vs. 2006



Source: Illinois Department of Public Health

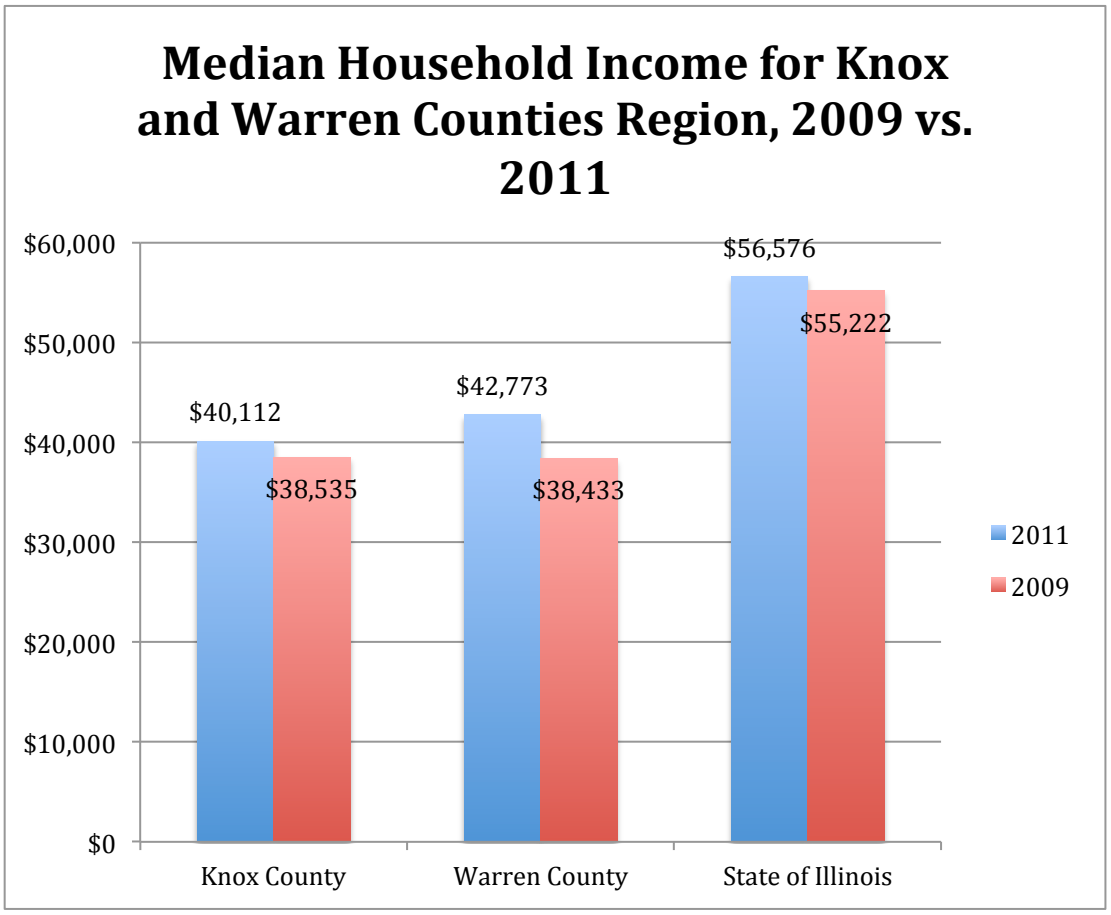
1.4 Economic information

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 to be a more reliable indicator than average income. To live in poverty means to not have enough income to meet one's basic needs. Accordingly, poverty is associated with numerous chronic social, health, education, and employment conditions.

1.4.1 Median income level

For 2009 and 2011, the median household income in both Knox and Warren Counties lagged behind the State of Illinois median household income.

Table 1.4.1-1: Median Household Income for Knox and Warren Counties Region, 2009 vs. 2011

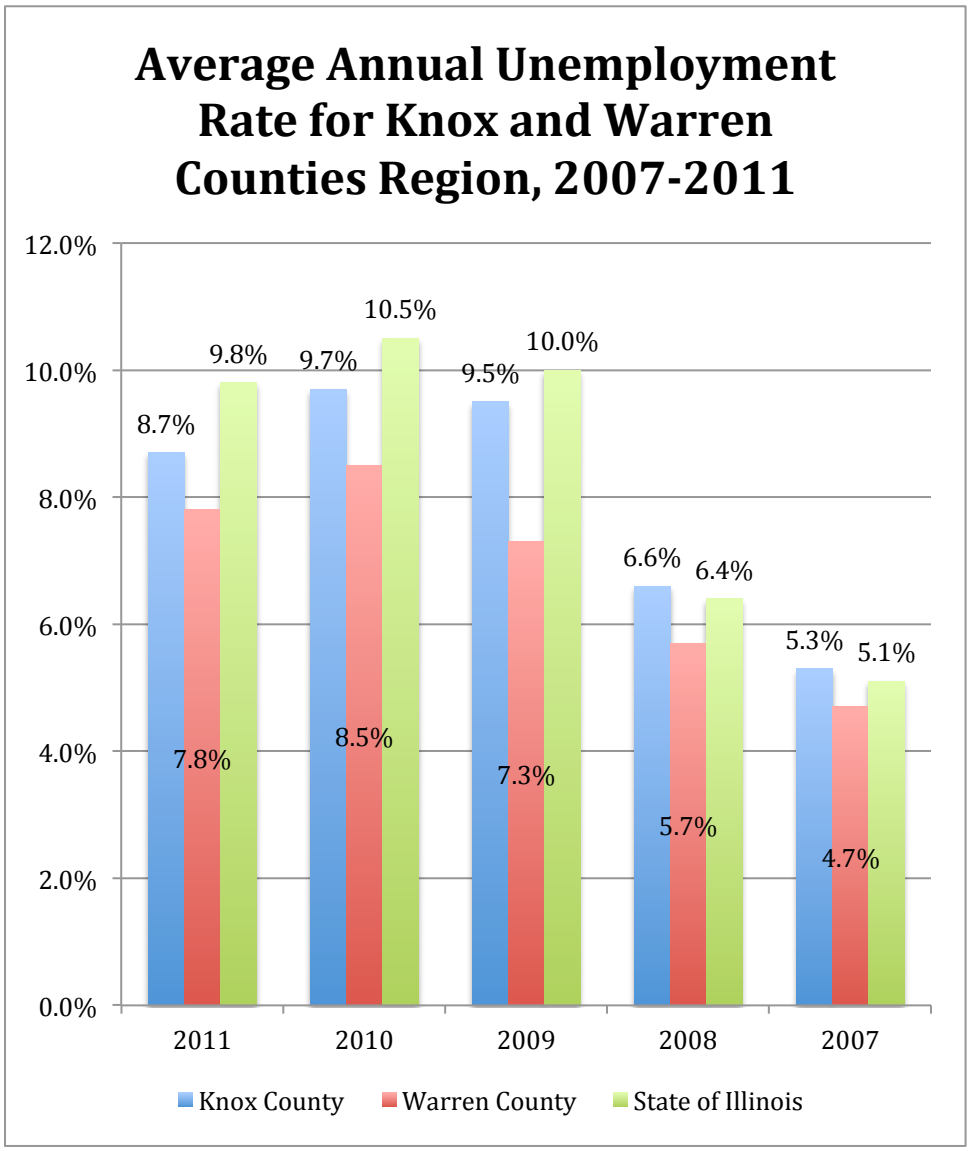


Source: 2009 & 2011 American Community Survey

1.4.2 Unemployment

Since 2008, the Knox and Warren Counties region unemployment rate has been lower than the State of Illinois unemployment rate for both Knox and Warren Counties. Between 2007 and 2008, the unemployment steadily increased for both Knox and Warren Counties and exceeded the State of Illinois average.

Table 1.4.2-1: Average Annual Unemployment Rate for Knox and Warren Counties region, 2007-2011

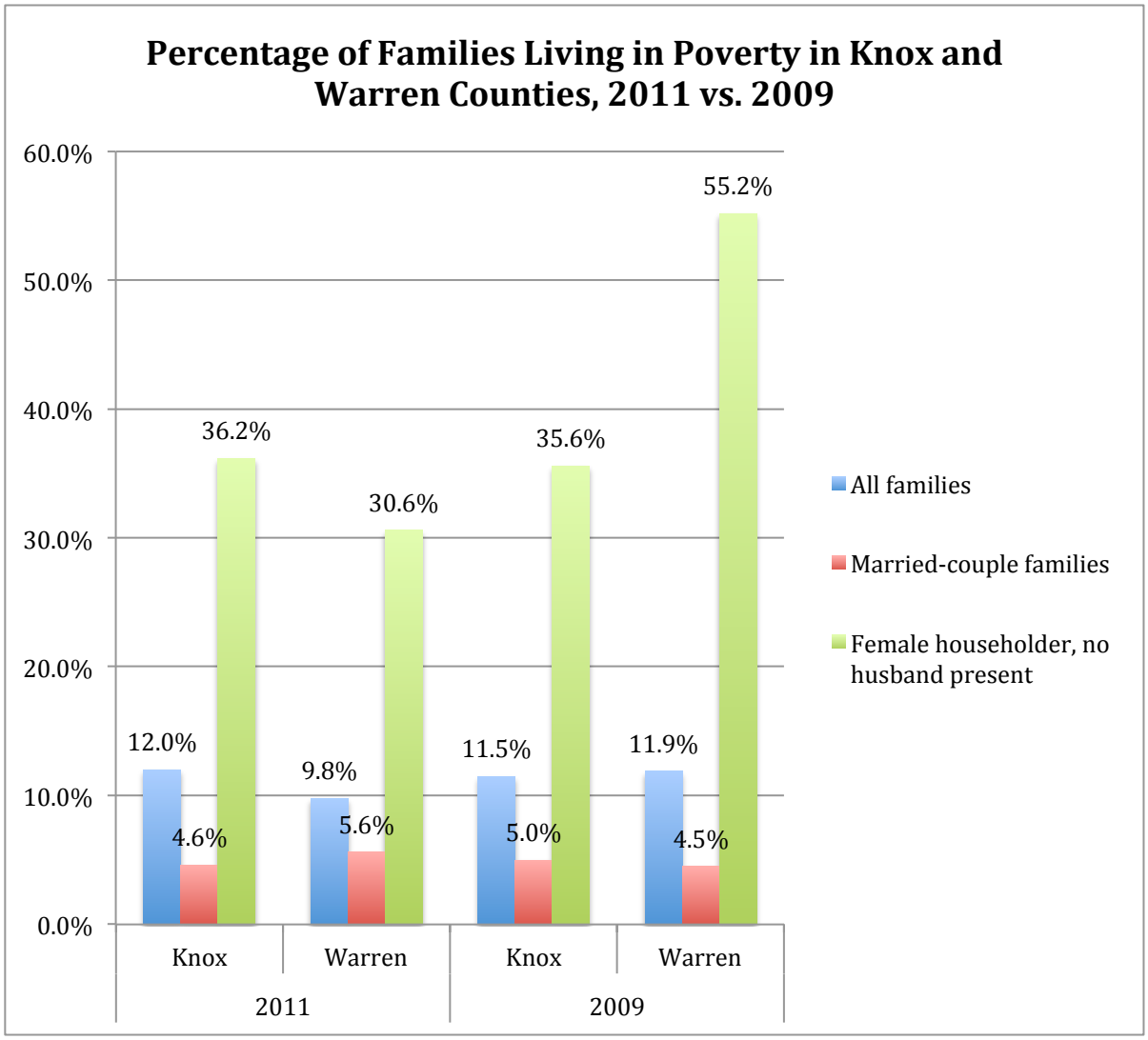


Source: Bureau of Labor Statistics

1.4.3 Families in poverty

Poverty has a significant impact on the development of children and youth. Poverty rates are significantly higher for single-mother led households compared to married-couple families and all families.

Table 1.4.3-1: Percentage of Families Living in Poverty in Knox and Warren Counties, 2011 vs. 2009



Source: 2009 American Community Survey; 2011 American Community Survey

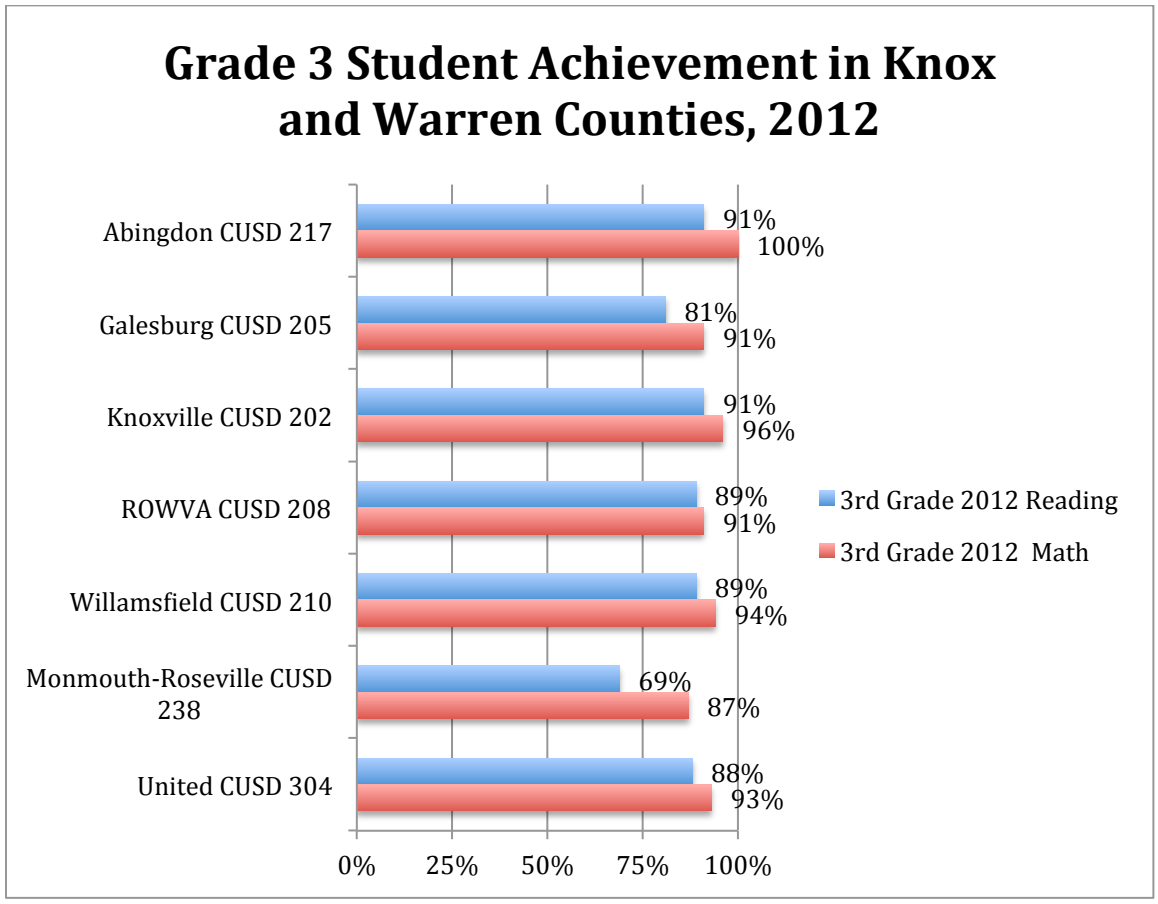
1.5 Education

Importance of the measure: According to the National Center for Educational Statistics, "the better educated a person is, the more likely that person is to report being in 'excellent' or 'very good' health, regardless of income" (NCES, 2005). Educational attainment and reading/math scores are well researched, with findings strongly related to an individual's propensity to earn a higher salary, gain better employment, and foster multifaceted success in life. As such, research suggests that the higher the level of educational attainment and the more successful children are in school, the better one's heath will be and the greater likelihood of one selecting healthy lifestyle choices.

1.5.1 3rd/8th grade reading and math

In 2012, most of the school districts in the Knox and Warren Counties region had higher averages than the State of Illinois averages. However, one district (Monmouth-Roseville) scored lower than the State of Illinois 3rd grade reading average (76.1%).

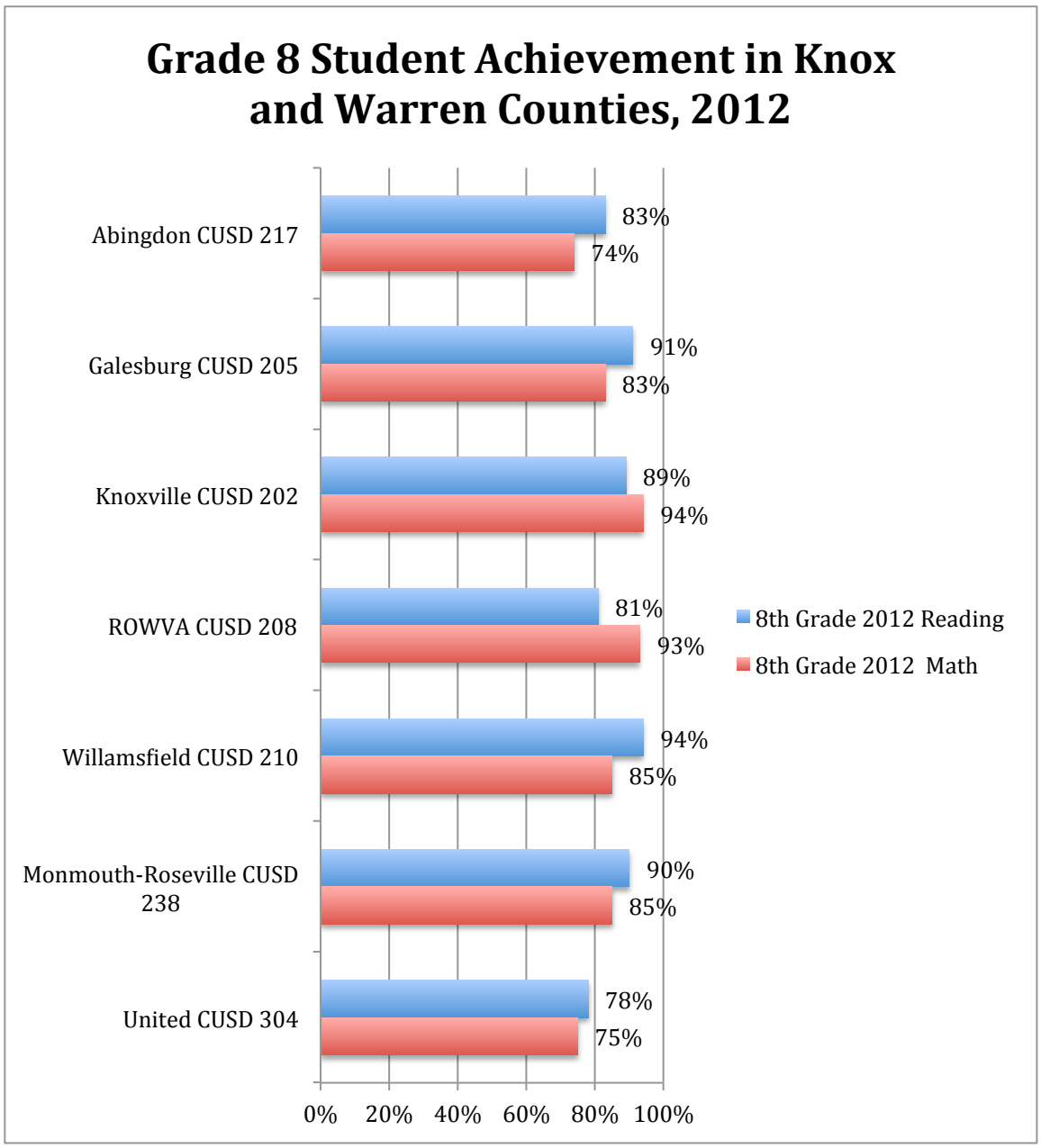
Table 1.5.1-1 Grade 3 Student Achievement in Knox and Warren Counties, 2012



Source: Illinois State Board of Education, School Year 2012 District Report Card Summary

Similar to the 3rd grade scores, most of the school districts in the Knox and Warren Counties region had higher averages than the State of Illinois averages for 8th grade students. However, two districts (Abingdon, Galesburg, and United) scored lower than the State of Illinois 8th grade math average (85.0%) and three districts (Abingdon, ROWVA, and United) scored lower than the State of Illinois 8th grade reading average (86.2%).

Table 1.5.1-2 Grade 8 Student Achievement in Knox and Warren Counties, 2012

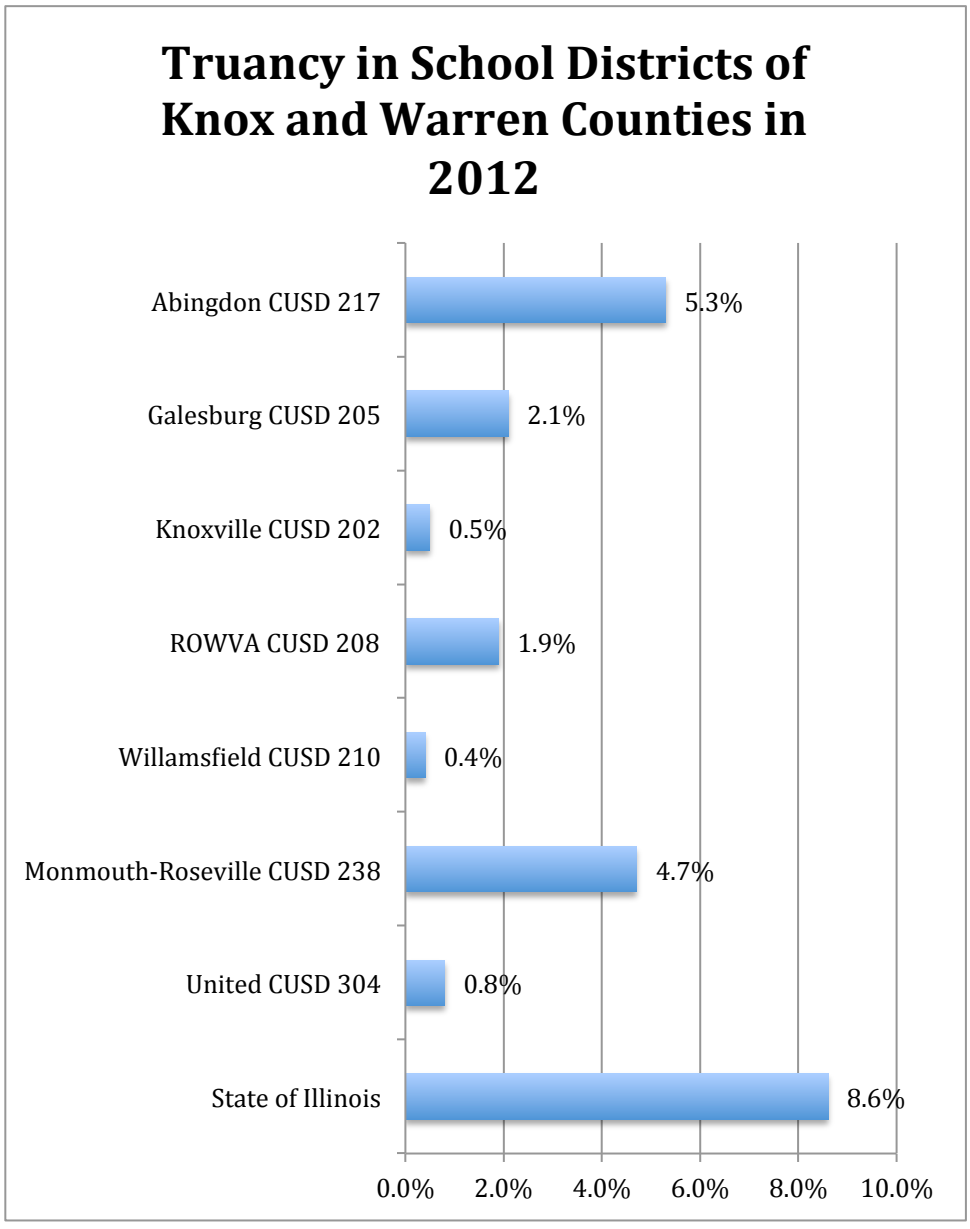


Source: Illinois State Board of Education, School Year 2010 District Report Card Summary

1.5.2 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; however, 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 of the children rather than the students. Zero school districts in the Knox and Warren Counties region exceed the State of Illinois average truancy rate for 2012.

Table 1.5.2-1 Truancy in School Districts of Knox and Warren Counties in 2012

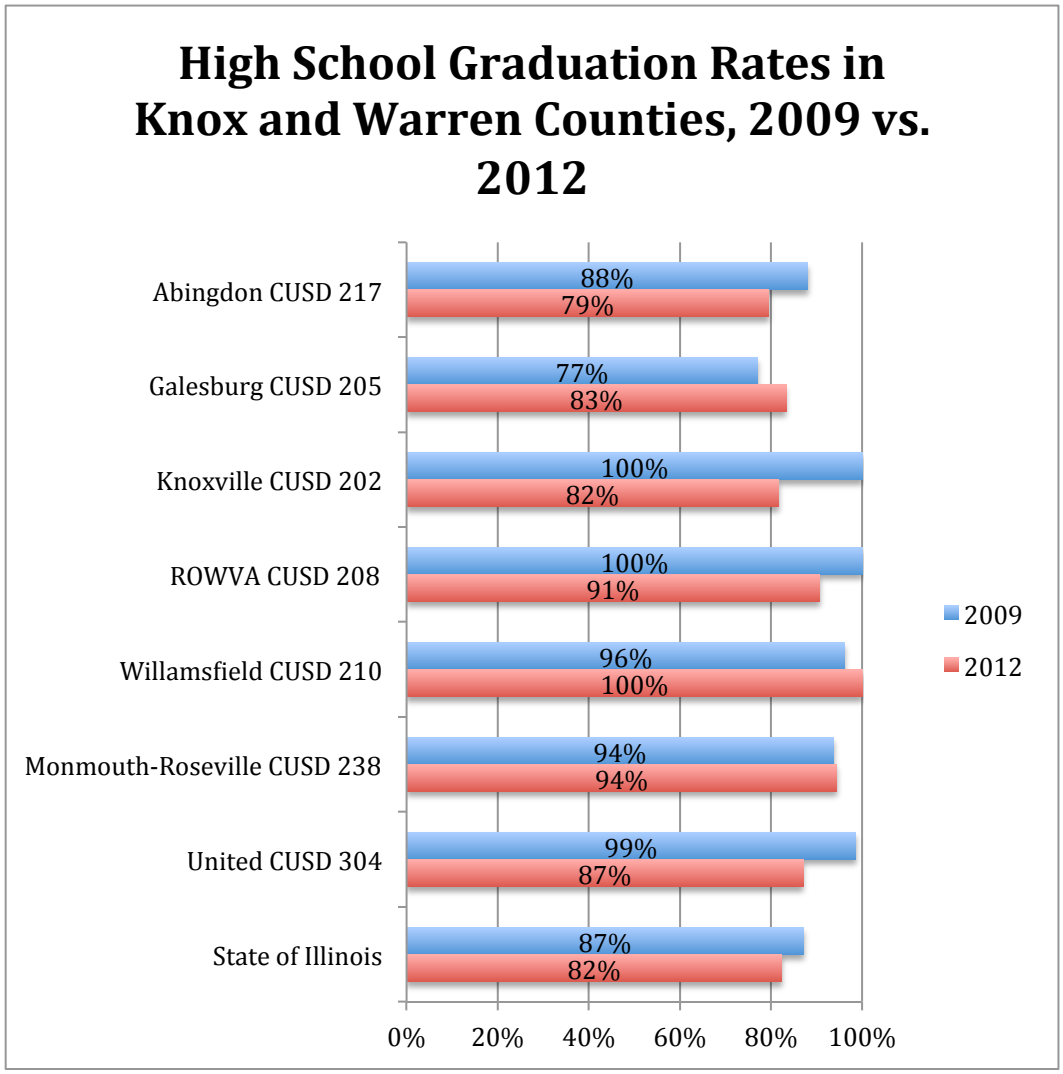


Source: Illinois State Board of Education, School Year 2012 District Report Card Summary

1.5.3 High School graduation rates

High school graduation rates in 2009 and 2012 in the Knox and Warren Counties region are above the state average (which is 87% and 82% for years 2009 and 2012, respectively), with the exception of the Abingdon (2012) and Galesburg (2009).

Table 1.5.3-1 High School Graduation Rates in Knox and Warren Counties, 2009 vs. 2012



Source: Illinois State Board of Education, School Year 2009 & 2012 District Report Card Summary

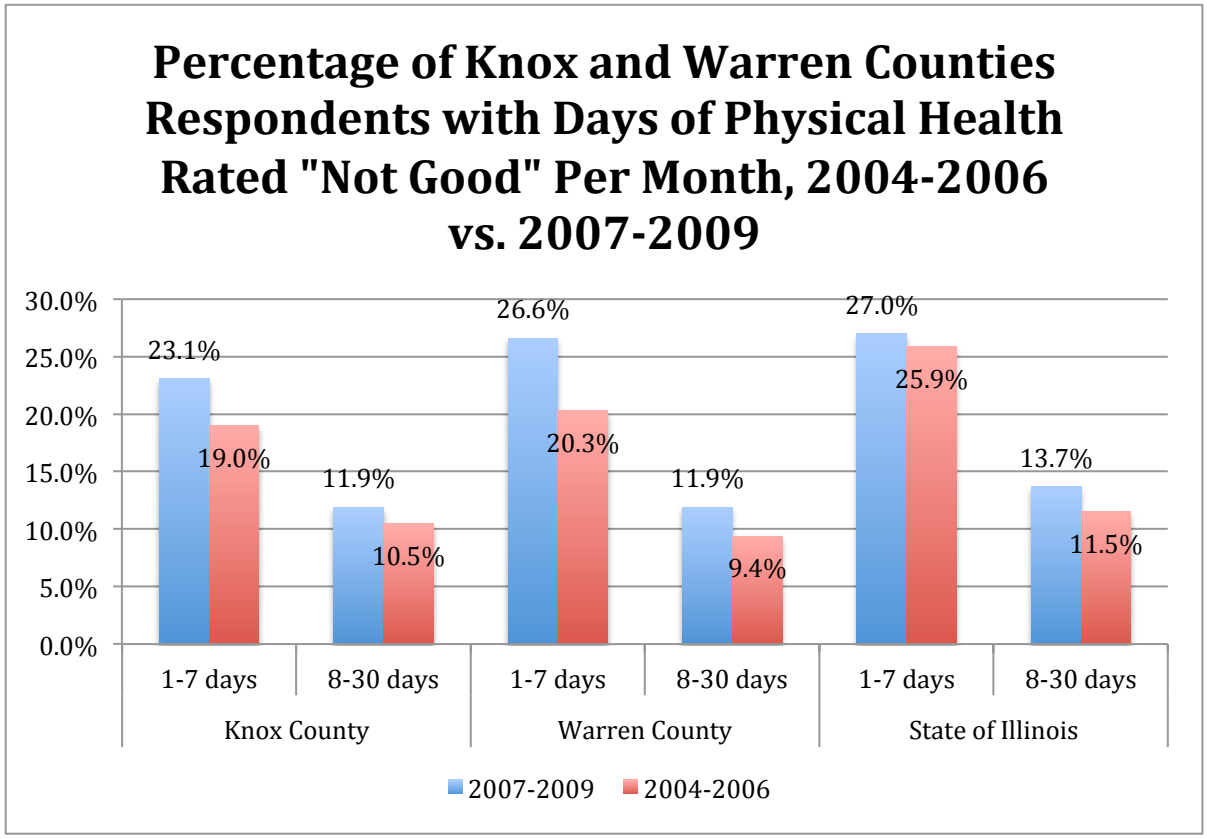
1.6 People with Disabilities

Importance of the measure: According to the US Census Bureau, a disability can be a long-lasting physical, mental or emotional condition. This condition can make it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition can also impede a person from being independent, from being able to go outside the home alone or to work at a job or business. This condition can also impact a person's ability to achieve an education and can influence a person's ability to access appropriate health care.

1.6.1 Physical

There was a 27% growth in the percentage of Warren County residents reporting they felt physically unhealthy on 8 or more days per month between 2006 (9.4%) and 2009 (11.9%). For comparison, there was a 19% growth in the percentage of Illinois residents reporting they felt physically unhealthy on 8 or more days per month between 2006 (11.5%) and 2009 (13.7%). Rates for Knox County are below the State of Illinois averages.

Table 1.6.1-1 Percentage of Knox and Warren Counties Respondents with Days of Physical Health Rated "Not Good" Per Month, 2004-2006 vs. 2007-2009

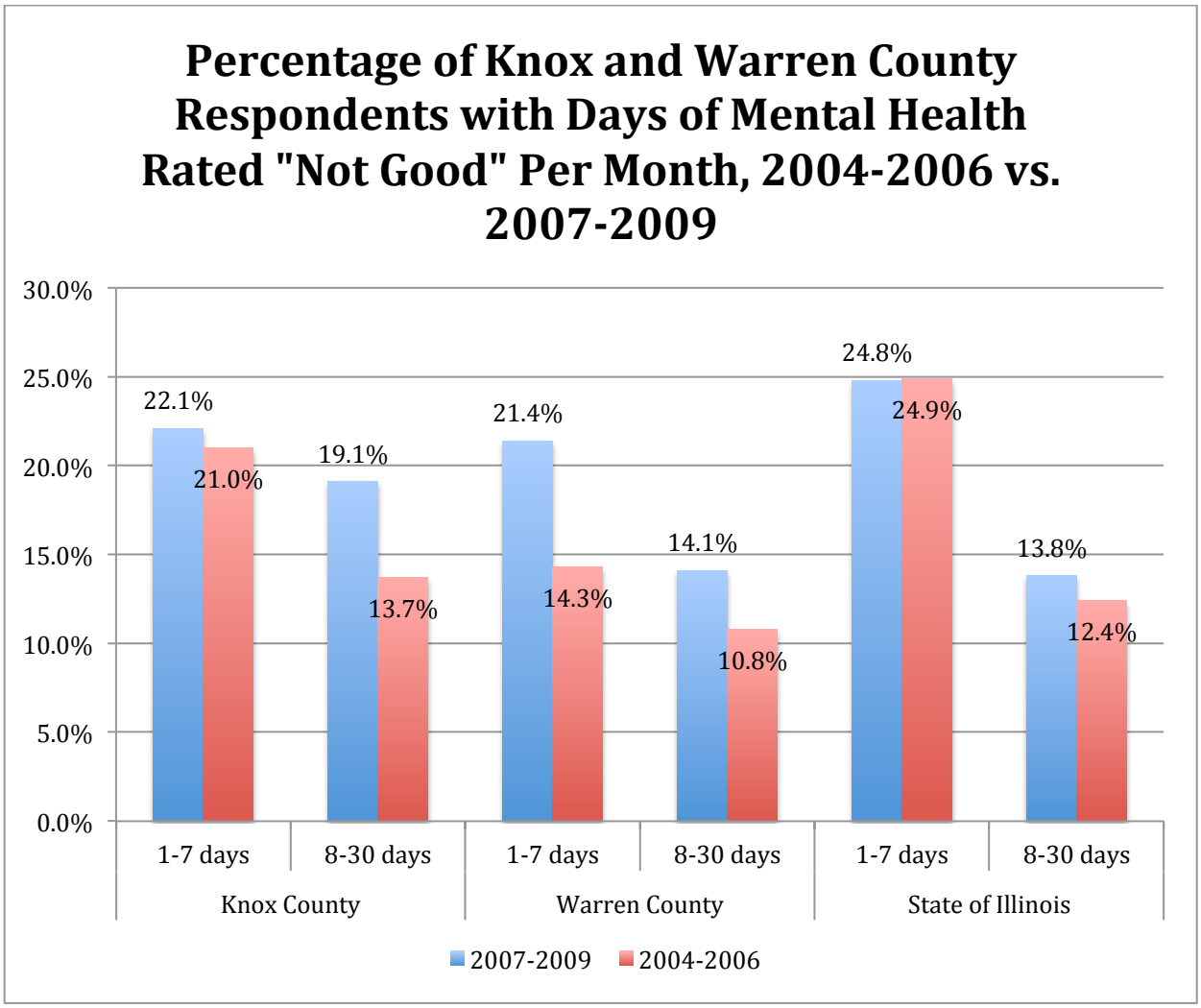


Source: Illinois Behavioral Risk Factor Surveillance System

1.6.2 Mental

There was a 39% growth in the percentage of Knox County residents and a 31% growth in the percentage of Warren County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (Knox: 13.7%; Warren: 10.8%) and 2009 (Knox: 19.1%; Warren: 14.1%). For comparison, there was an 11% growth in the percentage of Illinois residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (12.4%) and 2009 (13.8%). Furthermore, rates in Knox County (19.1%) and Warren County (14.1%) exceed the state average (13.8%).

Table 1.6.1-2 Percentage of Knox and Warren Counties Respondents with Days of Mental Health Rated "Not Good" Per Month, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

Demographic Profile: Strategic Implications

Changing demographics and health care:

Recent data in May 2012 from the Kaiser Family Foundation[1] and Congressional Budget Office[2] suggest that the number of individuals 65 years and older in the United States will increase by one-third between 2012 and 2022. With the changing demographics, it is anticipated an increase in chronic conditions such as diabetes, asthma, and heart disease, and obesity will contribute to the growing cost of health care[3]. In addition, advances in medical technology and medicine may enable individuals to live longer, thus requiring extensive medical care.

These national trends are prevalent in the State of Illinois and Knox and Warren Counties region as seen in Chapter 1. Individuals in Knox County aged 60-64 increased from 5.9% to 6.4% between 2009 and 2011 and individuals aged 65-74 increased from 8.8% to 9.1% between 2009 and 2011. Individuals in Warren County aged 60-64 increased from 5.5% to 6.7% between 2009 and 2011 and individuals aged 65-74 increased from 8.1% to 8.4% between 2009 and 2011. Finally, the median age of individuals in Knox County increased from 41.3 years to 41.9 years between 2009 and 2011.

As individuals age and live with disabilities, it greatly impacts the degree of self-sufficiency and medical care required to maintain satisfactory well-being. With the changing demographics resulting from the aging of baby boomers, it is anticipated the Knox and Warren Counties region will experience an increase in the number of elderly individuals living with disabilities and chronic conditions.

Educational attainment and health care:

For over two decades, empirical research strongly suggests a positive relationship between education and health[4,5,6,7] (Adams, 2002; House et. al, 1990; Ross & Wu, 1995; Sander, 1999). The predominant way education impacts better health is through enhancing the decision-making capabilities of an individual. In this way, when an individual is better educated, he or she tends to have a better understanding of symptoms, is better equipped to explain symptoms to a doctor, and make better choices with regard to individual health inputs. Accordingly, more effective treatments and positive outcomes result later in life.

A symbiotic relationship exists between health and education. Consider that healthier children miss fewer days of school and are more "ready to learn." Success in school begins prior to kindergarten as new research on cognitive development shows the importance of health, nutrition, and intellectual stimulation during the first years of life. To be prepared to learn in kindergarten, children need pre-literacy skills. They must also be able to make and keep friends, develop positive relationships with adults, and feel a sense of opportunity and excitement for the world around them. As their child's first teacher, much of this responsibility falls upon parents.

Research tells us the most reliable predictor of educational success for children is whether they are reading at grade level by the end of 3rd grade. Note that according to data presented in Chapter 1, while most school districts are above the State of Illinois averages, certain school

districts (e.g., Monmouth-Roseville) scored lower than the State of Illinois 3rd grade reading average.

According to research, a child from a low-income family who completes algebra has virtually the same chance of going to college as a child from an upper-income family who passes the course. Thus, it is not about the math, it's about learning to problem solve.

Economic well-being and health care:

Educational attainment also impacts economic well-being. Research suggests that the more education obtained by individuals, the better jobs these individuals earn[8]. Better jobs yield greater earning and benefits, including health insurance. Furthermore, if educated individuals are unemployed, research suggests that these individuals are unemployed for shorter durations than less educated individuals[9]. For many individuals, insurance coverage is a primary consideration when evaluating whether or not to seek medical treatment. Using health care appropriately, instead of the ER in non-emergencies, is better for patients and lowers cost of health care to society. Accordingly, the uninsured are less likely to access preventive care or seek early treatment of illness and therefore may miss more time at work. Similarly, it is difficult to hold a job when a person is not healthy.

Unemployment leads to poverty and has far-reaching impacts within society. Poverty disproportionately impacts families and children. The percentage of families living in poverty has grown 2009 and 2011 in both Knox and Warren Counties. Additionally, in 2011 the Knox and Warren Counties region median household income was significantly less than the State of Illinois median household income. This is compounded by data suggesting a third of Knox and Warren Counties region families with a female head-of-household and no husband are living in poverty. Finally, early sexual activity can contribute to child poverty. The rates for births to teenage mothers in Knox County are still significantly higher than the State average.

Endnotes for Chapter 1

[1] Kaiser Family Foundation, "Health Care Costs: Key Information on Health Care Costs and Their Impact," May 2012.

[2] Congressional Budget Office, *CBO's 2011 Long-Term Budget Outlook*, June 2011, p.ix, http://www.cbo.gov/ftpdocs/122xx/doc12212/06-21-Long-Term_Budget_Outlook.pdf

[3] Kaiser Family Foundation, "Health Care Costs: Key Information on Health Care Costs and Their Impact," May 2012.

[4] Adams, S.J. (2002). Educational attainment and health: Evidence from a sample of older adults. *Education Economics*, 10(1), 97-109.

[5] House, J., Kessler, R., Herzog, A., Mero, R., Kinney, A. & Breslow, M. (1990). Age, socioeconomic status, and health. *The Milbank Quarterly*, 68, 383-411.

[6] Ross, C. & Wu, C. (1995). The links between education and health. *American Sociological Review*, 60, 719-745.

[7] Sander, W. (1999). Cognitive ability, schooling, and the demand for alcohol by young adults, *Education Economics*, 7, 53-66.

[8] Willis, R. (1986). Wage determinants: a survey and reinterpretation of human capital earnings functions. In: Ashenfelter, O. & Layard, R. (Eds). *Handbook of Labor Economics*, Volume I (Amsterdam, North-Holland Publishing Company).

[9] Moen, E. (1999). Education, ranking, and competition for jobs. *Journal of Labor Economics*, 17, 694-723.

CHAPTER 2. PREVENTION

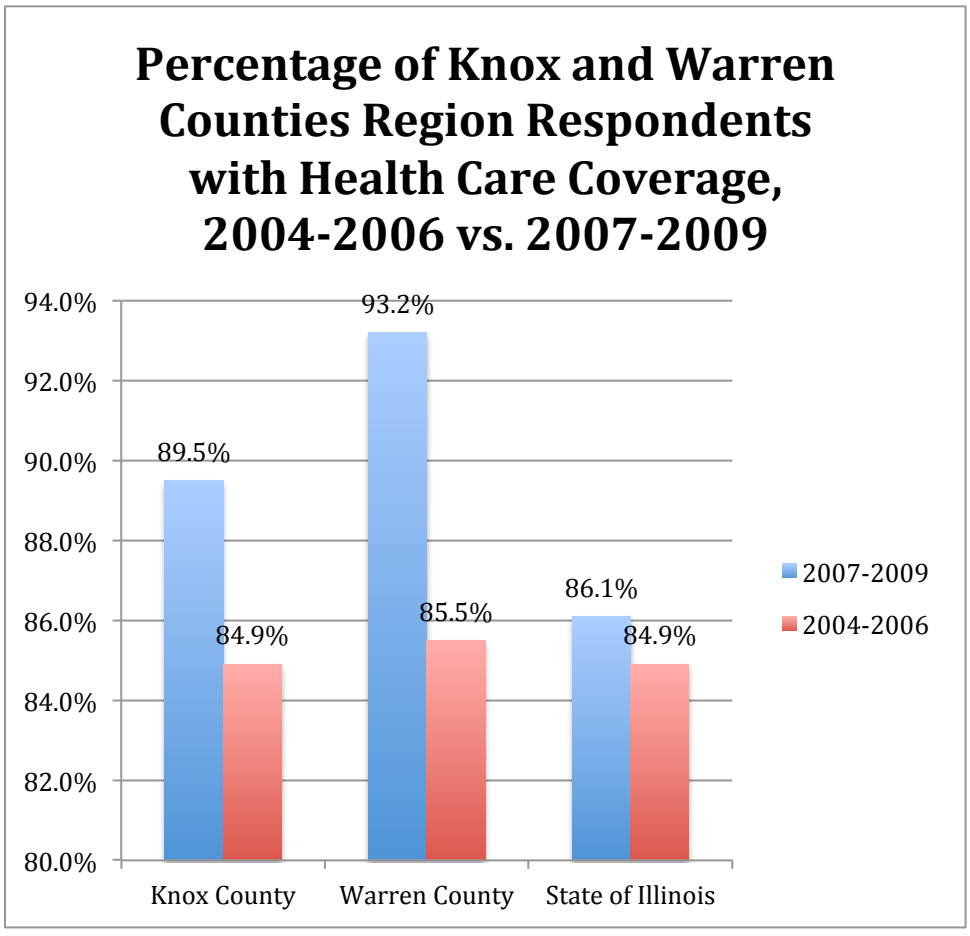
2.1 Accessibility

Importance of the measure: It is critical for health care services to be accessible to the constituencies who will take advantage of its benefits. Therefore, accessibility to health care must address both the financial costs associated with health care and the supply and demand of medical services.

2.1.1 Insurance Coverage

With regard to medical insurance coverage, data gathered from the Illinois Behavioral Risk Factor Surveillance System suggest that residents in both Knox and Warren Counties possess health care coverage at a higher percentage than the State of Illinois average.

Table 2.1.1-1 Percentage of Knox and Warren Counties Region Respondents with Health Care Coverage, 2004-2006 vs. 2007-2009

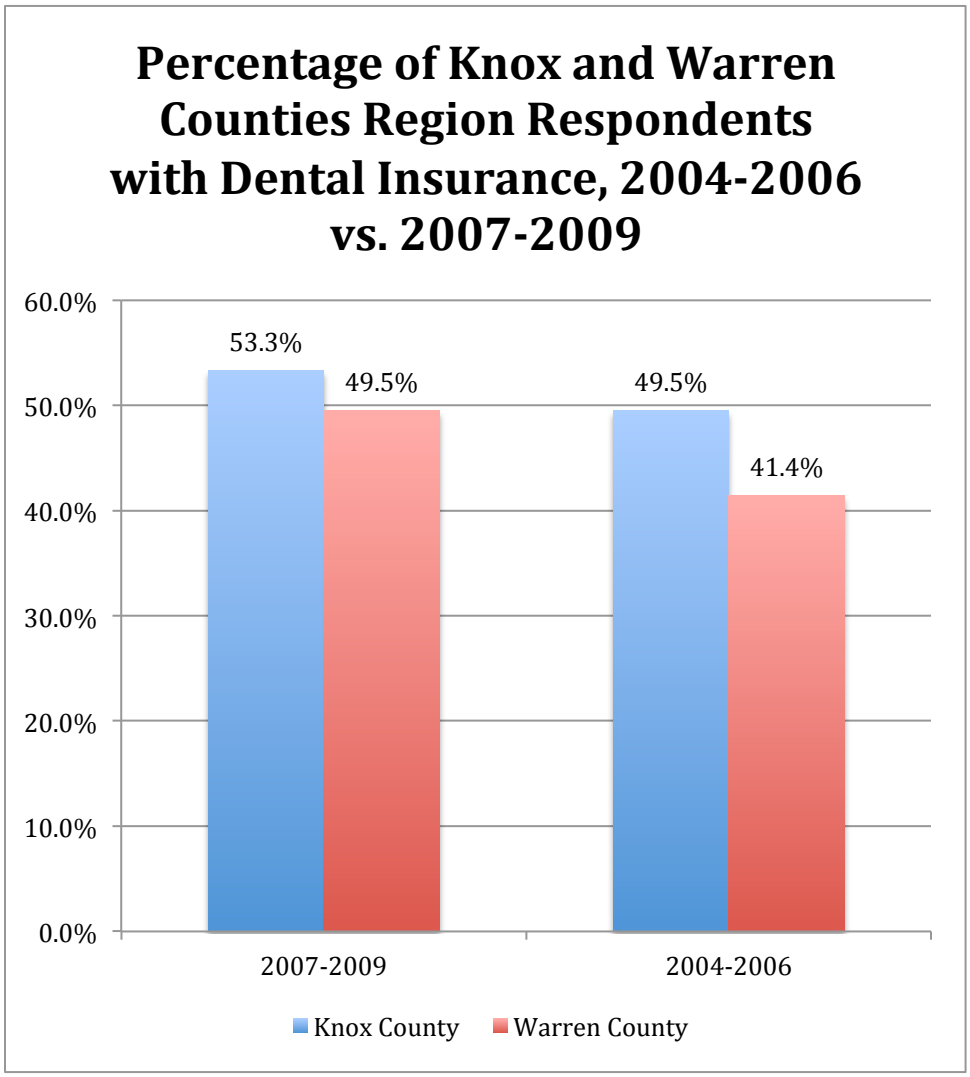


Source: Illinois Behavioral Risk Factor Surveillance System

With regard to dental insurance, the most recent data from the Illinois BRFSS indicate 53.3% of Knox County residents possessed dental insurance coverage in 2007-2009 compared to 49.5% of Knox County residents in 2004-2006.

The most recent data from the Illinois BRFSS indicate 49.5% of Warren County residents possessed dental insurance coverage in 2007-2009 compared to 41.4% of Warren County residents in 2004-2006.

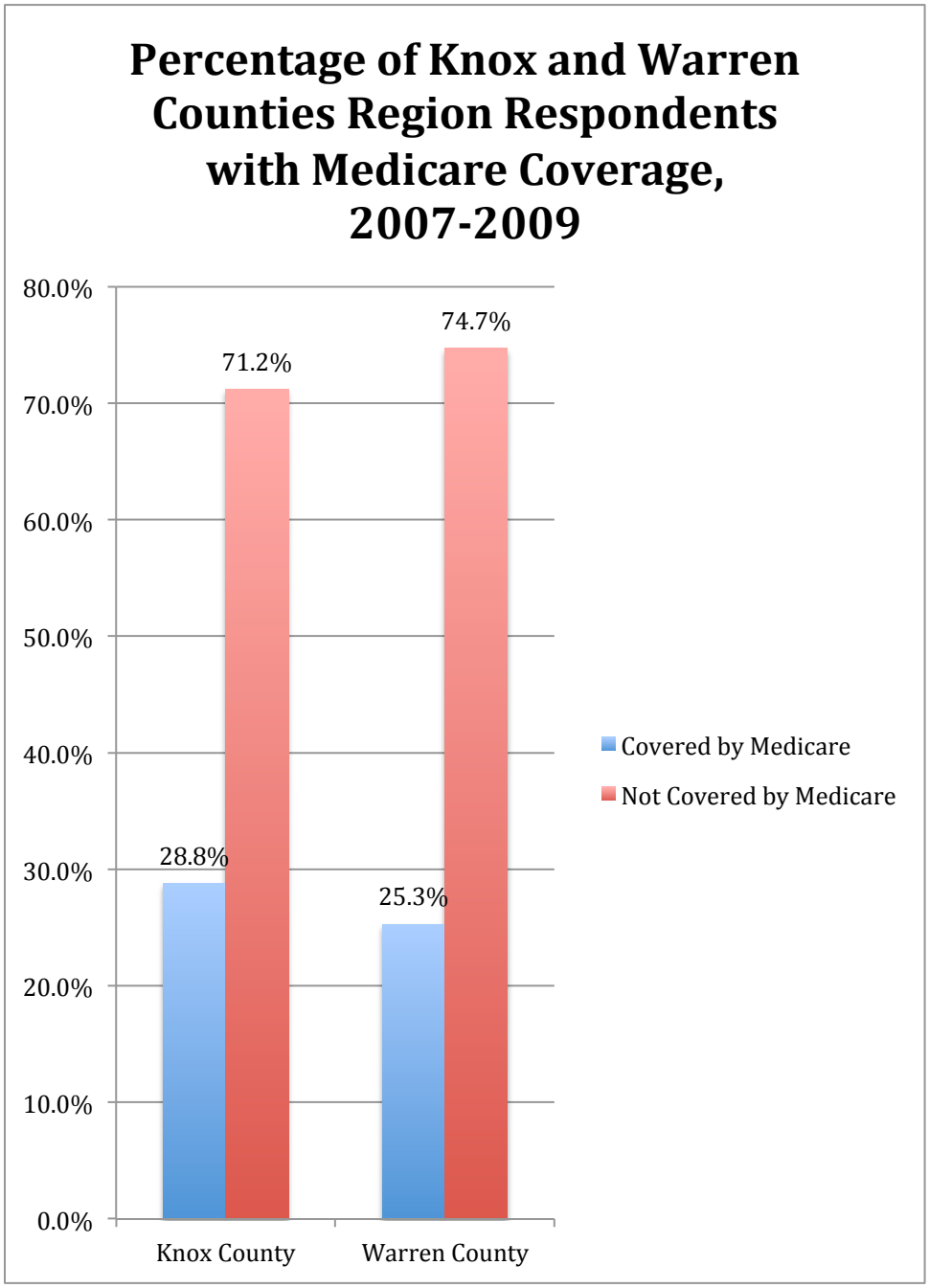
Table 2.1.1-2 Percentage of Knox and Warren Counties Region Respondents with Dental Insurance, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to Medicare Coverage, approximately 27% of Knox and Warren Counties' respondents received Medicare coverage between 2007 and 2009.

Table 2.1.1-3 Percentage of Knox and Warren Counties Region Respondents with Medicare Coverage, 2007-2009



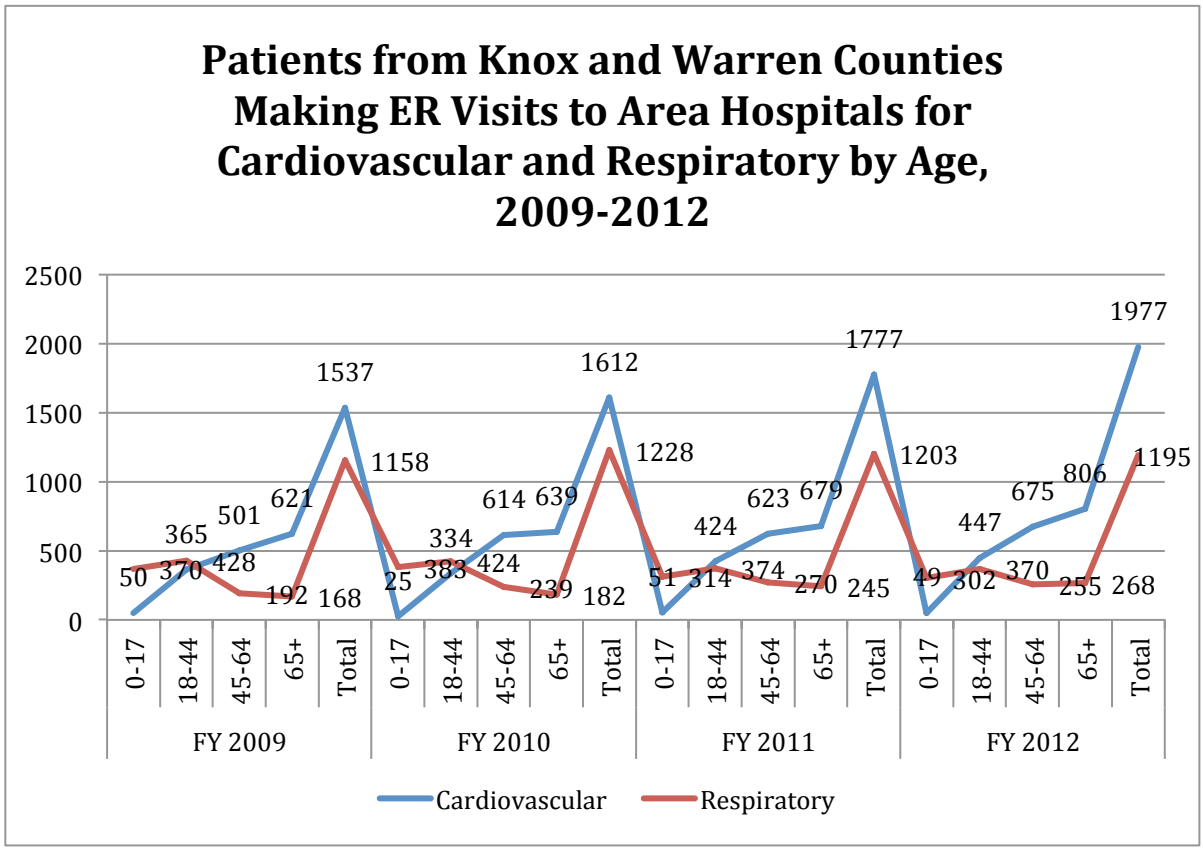
Source: Illinois Behavioral Risk Factor Surveillance System

2.1.2 Access and utilization

Physician capacity can be measured using various metrics. One commonly utilized method is to evaluate what percentage of individuals has a usual health care provider. A usual health care provider signifies that these individuals are more likely to partake in wellness check-ups and less likely to utilize emergency room visits as their primary health care service.

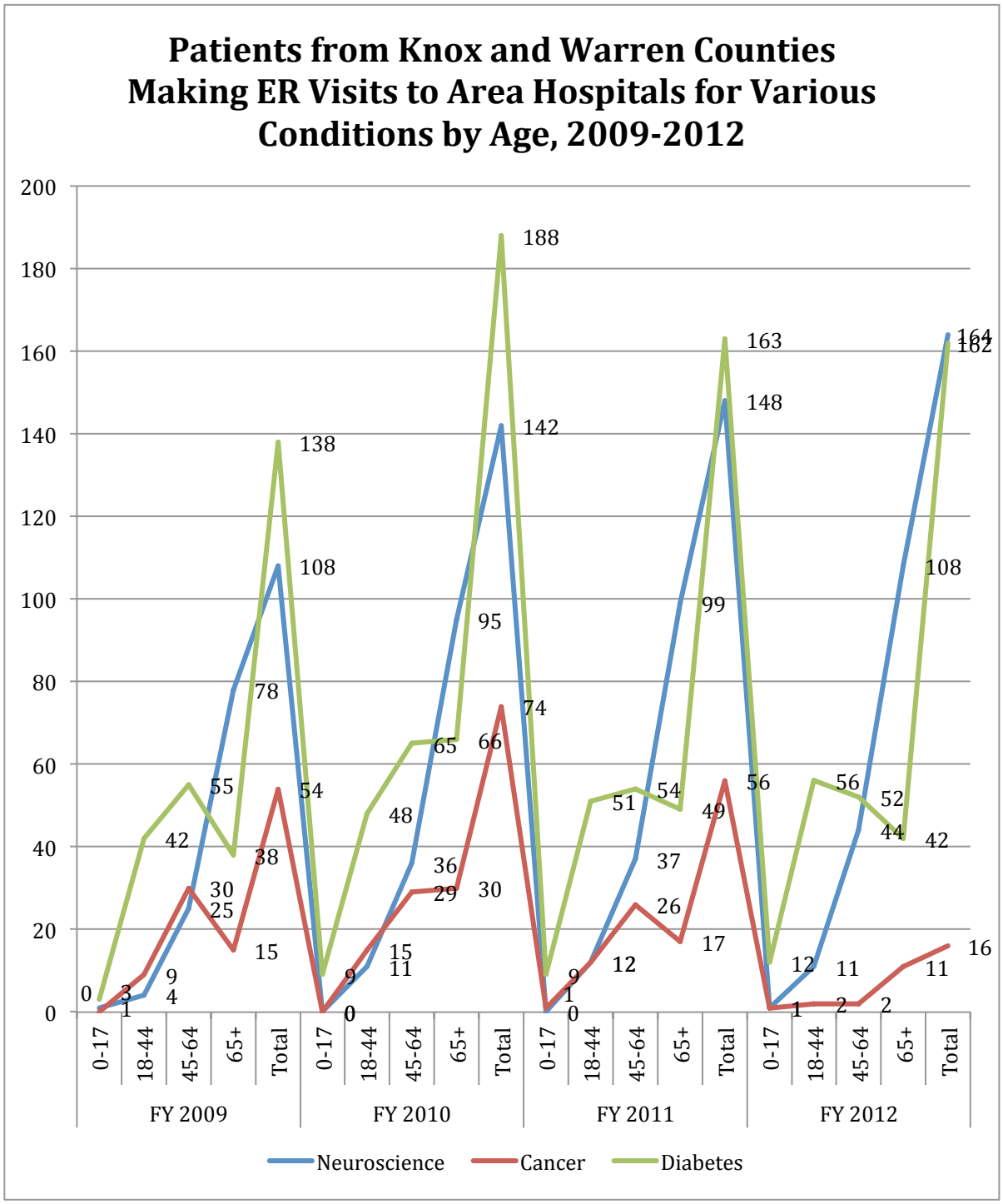
Tables 2.1.2-1 and 2.1.2-2 reflect the number of emergency room visits by condition. Of particular note, the number of emergency room visits for cardiovascular conditions has increased for the Knox and Warren Counties region by 29% between 2009 and 2012. Emergency room visits attributed to cancer have decreased from a high of 54 in 2009 to 16 in 2012. Note however that as of 2010, Prompt Care was no longer counted as ER visits. It now falls under physician office visits. This may impact year-to-year changes, so growth rates should be interpreted with caution.

Table 2.1.2-1 Patients from Knox and Warren Counties Making ER Visits to Area Hospitals for Cardiovascular and Respiratory by Age, 2009-2012



Source: COMPData 2012

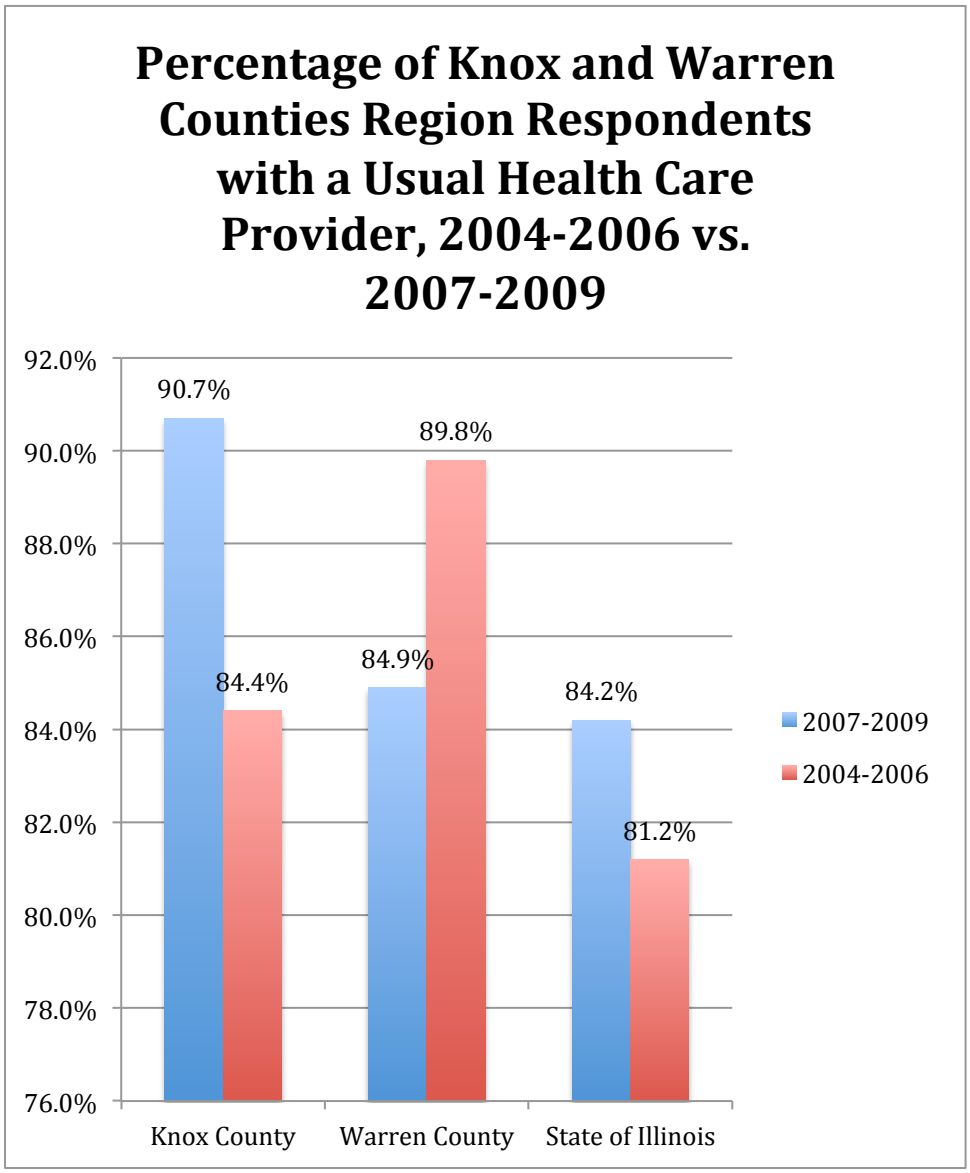
Table 2.1.2-2 Patients from Knox and Warren Counties Making ER Visits to Area Hospitals for Various Conditions by Age, 2009-2012



Source: COMPData 2012

In the Knox and Warren Counties region, the most recent data indicate approximately 90% of residents utilize a regular health care provider. Between 2004-2006 and 2007-2009, the percentage of residents in Warren County reporting a usual health care provider decreased by nearly -5.0%. On the contrary, the percentage of State of Illinois residents increased by 3.0% during the same time frame.

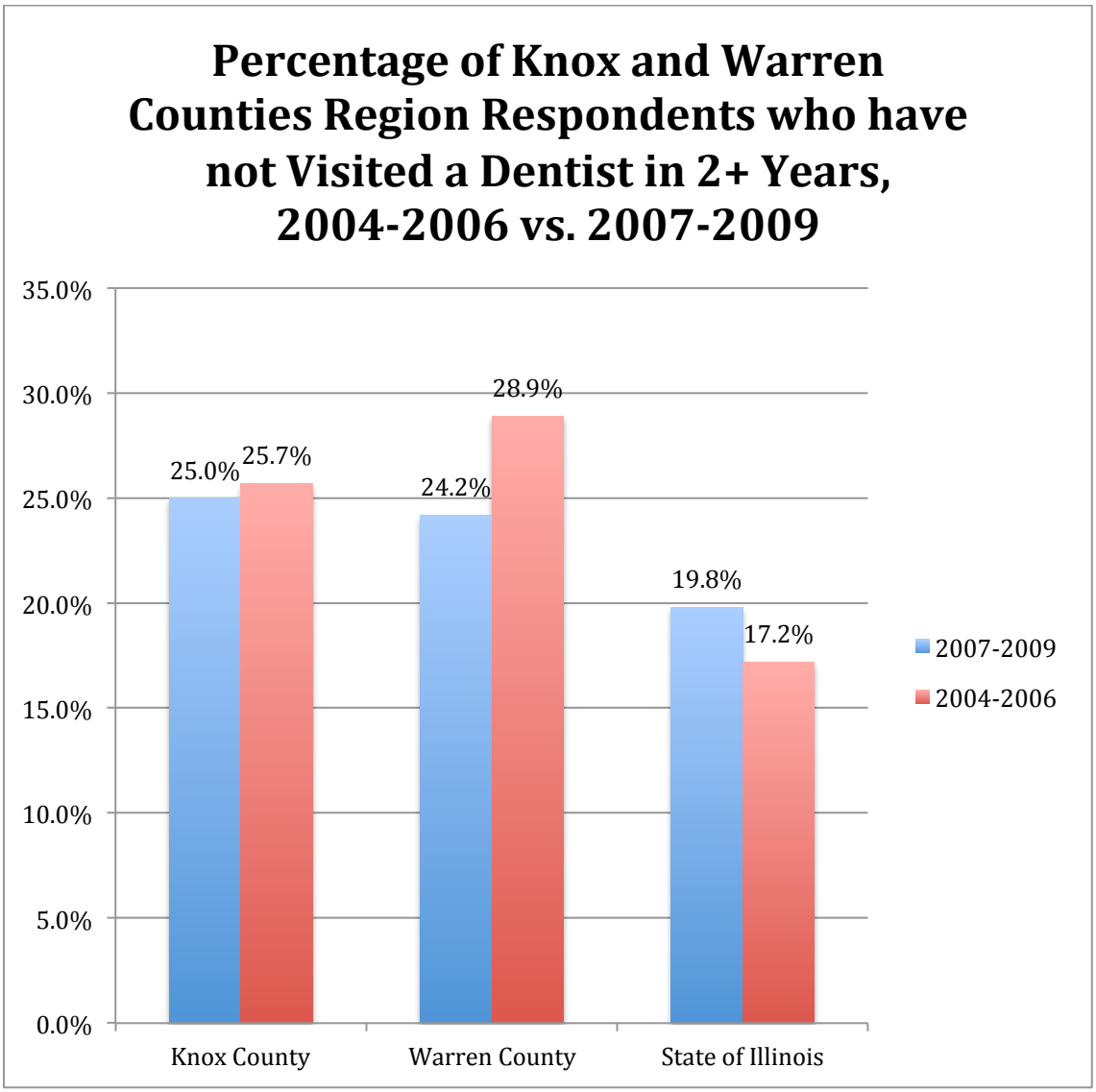
Table 2.1.2-3 Percentage of Knox and Warren Counties Region Respondents with a Usual Health Care Provider, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

Another metric to gain insight into the capacity of physicians is the percentage of residents who have not visited physicians within two years. With regard to the capacity of dentists, the Knox and Warren Counties region lags significantly behind the State of Illinois average for 2007-2009. 25.0% of Knox County residents and 24.2% of Warren County residents reported their last dental visit was more than 2 years ago or never between for the time period 2007-2009. For comparison, the percentage of Illinois residents reporting their last dental visit was more than 2 years ago or never was 19.8% for the same time period.

Table 2.1.2-4 Percentage of Knox and Warren Counties' Respondents who have not Visited a Dentist in 2+ Years, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

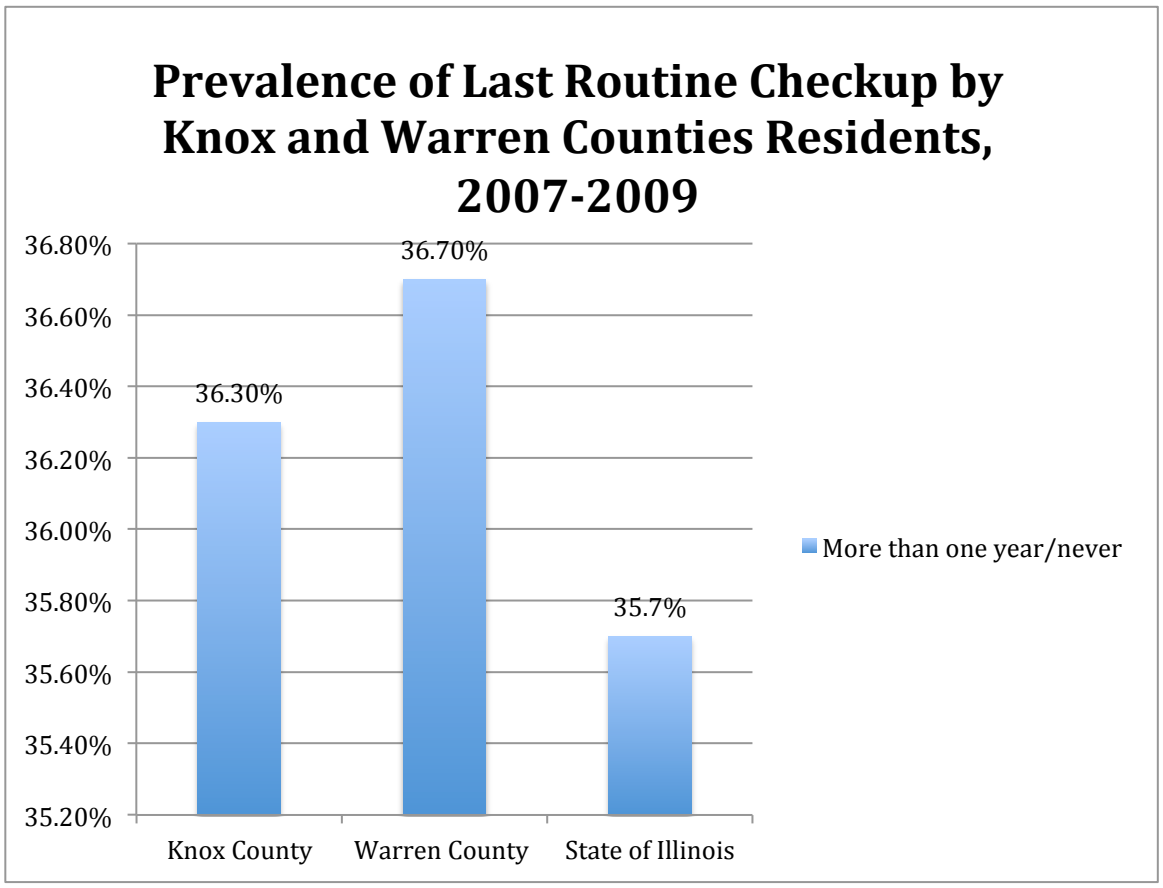
2.2 Wellness

Importance of the measure: Preventative health care measures, including scheduling routine well-visits, engaging in a healthy lifestyle, and undertaking screenings for diseases, are essential to combating morbidity and mortality and help reduce health care costs.

2.2.1 Check up

Numerous health problems can be minimized when detected early. Therefore regularly scheduled routine checkups can be very important. According to the latest data from the Illinois BRFSS, approximately 64% of residents in the Knox and Warren Counties region report having had a routine checkup within the last year. However, rates are higher in both Knox and Warren Counties than rates in the State of Illinois.

Table 2.2.1-1: Prevalence of Last Routine Checkup by Knox and Warren Counties Residents, 2007-2009



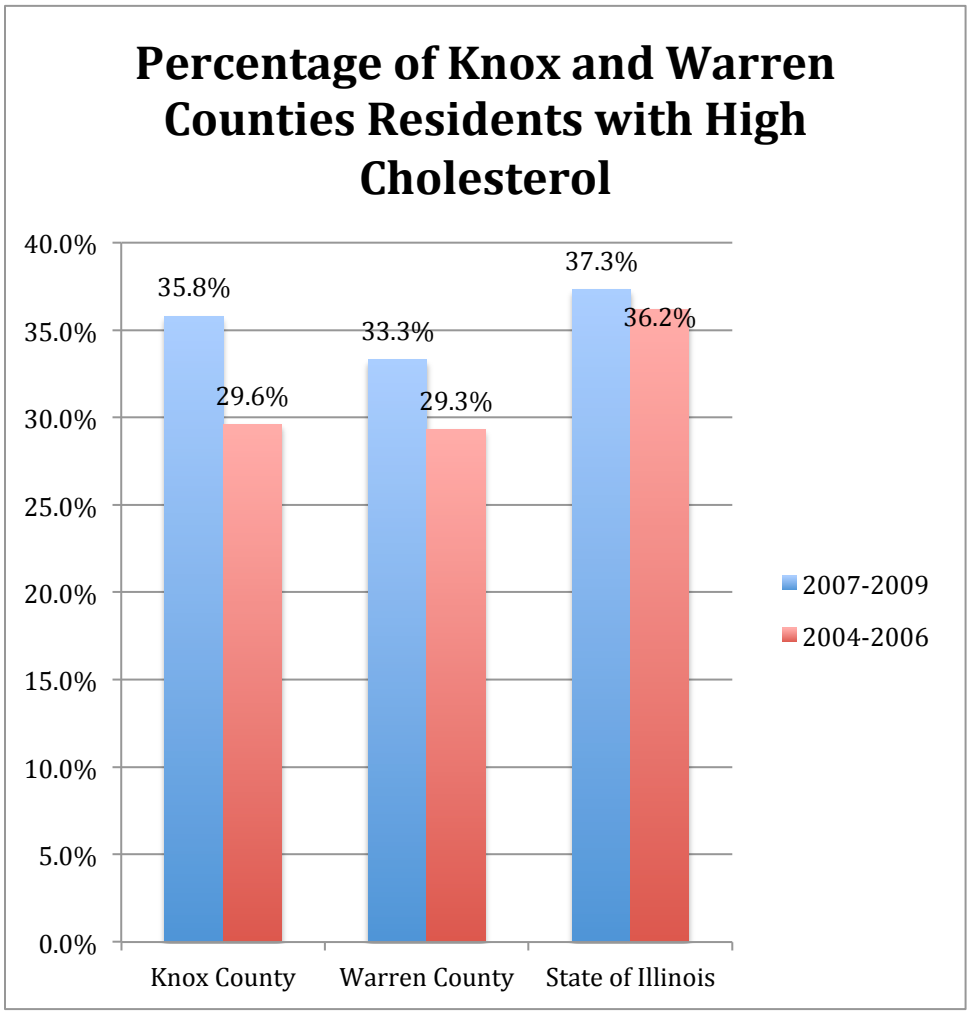
Source: Illinois Behavioral Risk Factor Surveillance System

2.2.2 Early detection

Residents in the Knox and Warren Counties region report varying prevalence of high cholesterol. The percentage of residents who report they have high cholesterol is lower in both Knox and Warren Counties than the State of Illinois average of 37.3%. Accordingly, there was a 21% growth in the percentage of Knox County residents reporting they were informed they had high cholesterol between 2006 (29.6%) and 2009 (35.8%). For comparison, there was a 3% growth in the percentage of Illinois residents reporting they were informed they had high cholesterol between 2006 (36.2%) and 2009 (37.3%).

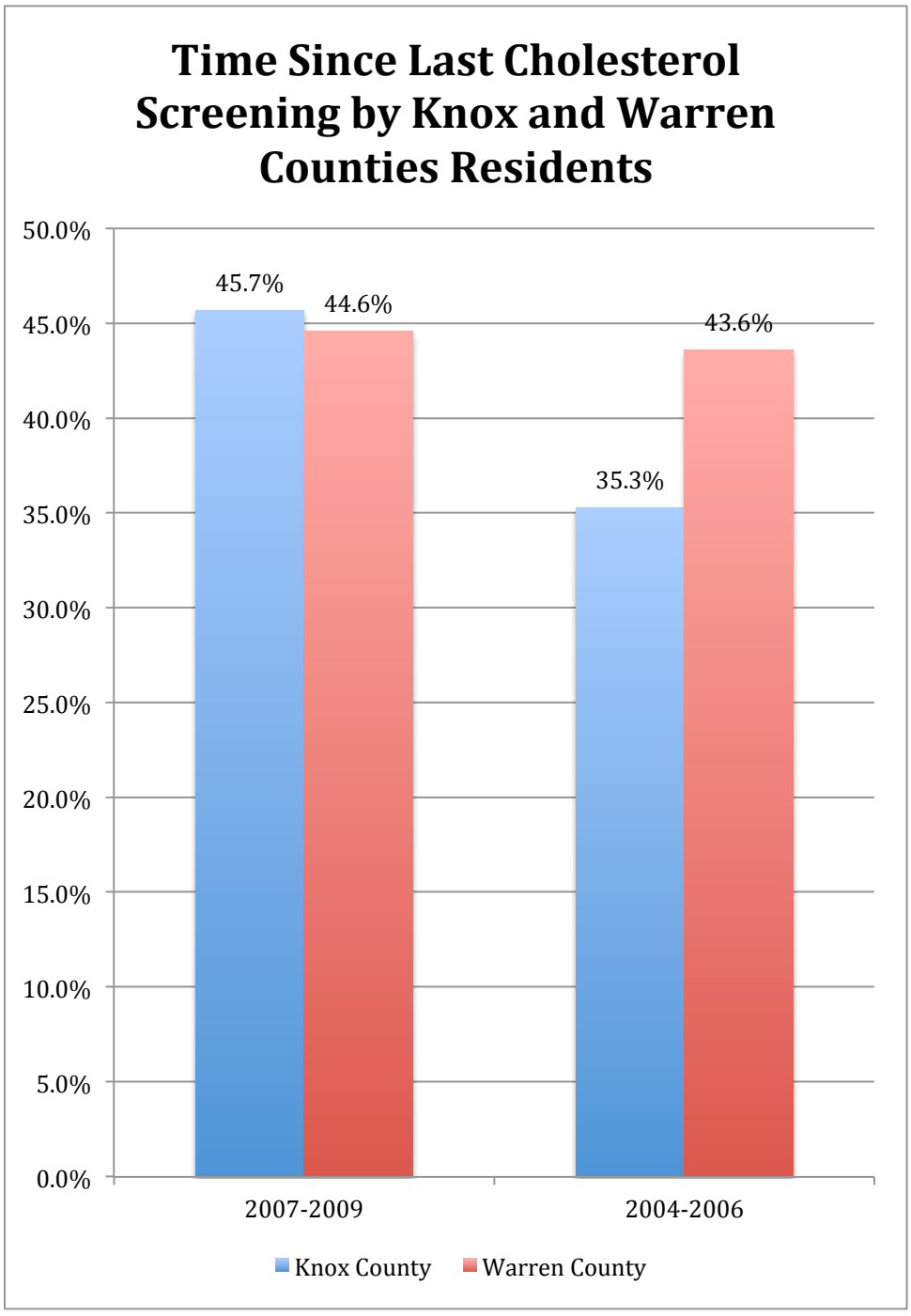
In addition, 64.7% of residents in Warren County report having had a cholesterol screening within the last year.

Table 2.2.2-1: Percentage of Knox and Warren Counties Residents with High Cholesterol



Source: Illinois Behavioral Risk Factor Surveillance System

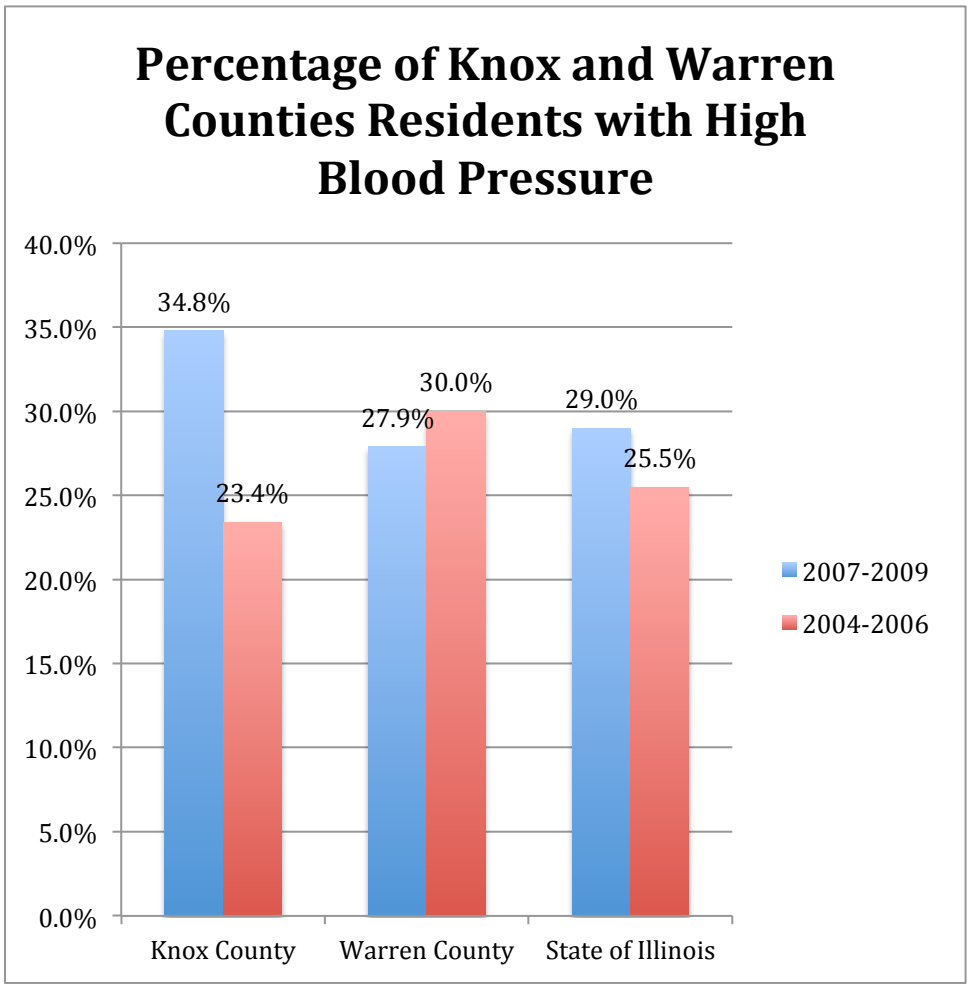
Table 2.2.2-2: Time Since Last Cholesterol Screening by Knox and Warren Counties Residents



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to high blood pressure, the residents in Knox County report a higher percentage of individuals with high blood pressure than residents in the State of Illinois as a whole for 2007-2009. Specifically, 34.8% of Knox County residents reported they were told their blood pressure was too high compared to 29.0% of residents across the State of Illinois during the same time period (2007-2009). Additionally, there was a 49% growth in the percentage of Knox County residents reporting they were told their blood pressure was too high between 2006 (23.4%) and 2009 (34.8%).

Table 2.2.2-3: Percentage of Knox and Warren Counties Residents with High Blood Pressure

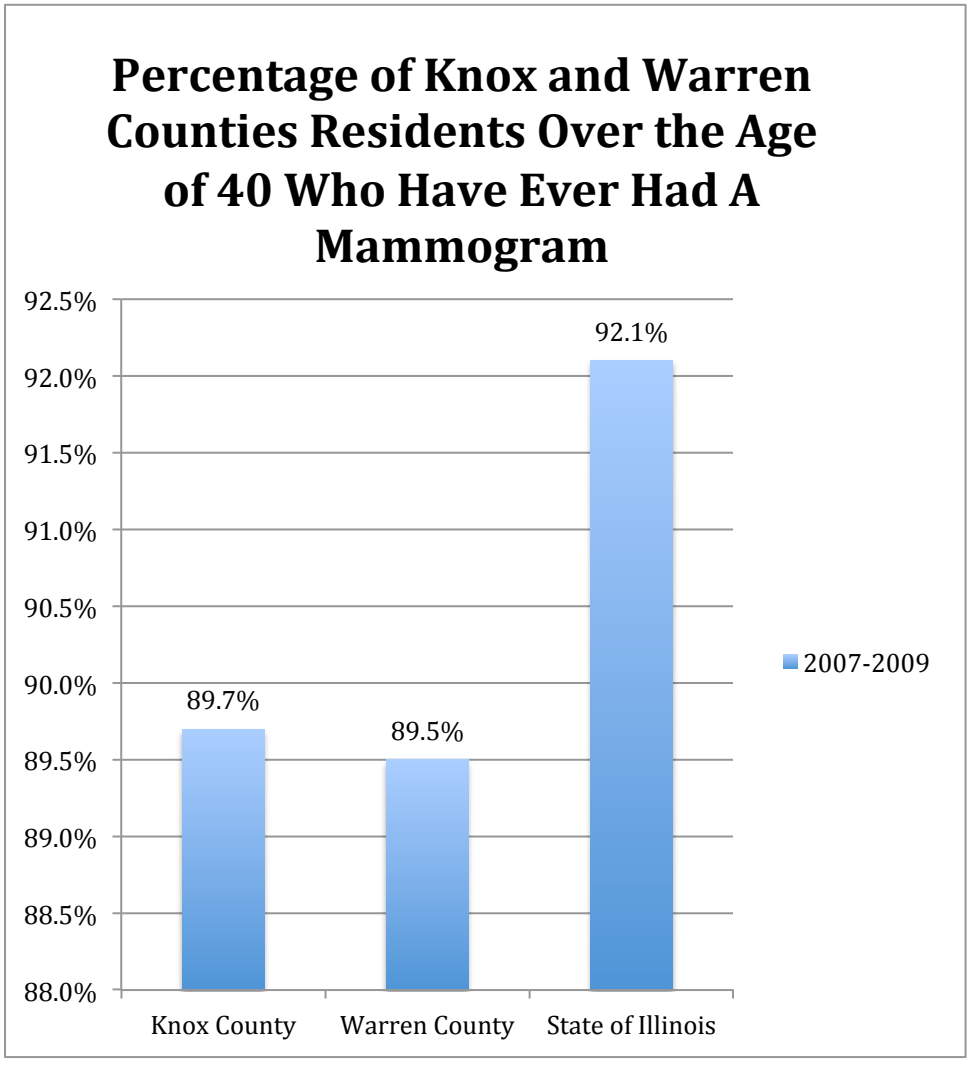


Source: Illinois Behavioral Risk Factor Surveillance System

Mammograms and PSA tests help to screen individuals for breast and prostate cancers. According to the BRFSS, 89.7% of Knox County female residents age 40 and over and 89.5% of Warren County female residents age 40 and over report they have ever had a mammogram. These figures are lower than the State of Illinois average (92.1%)**.**

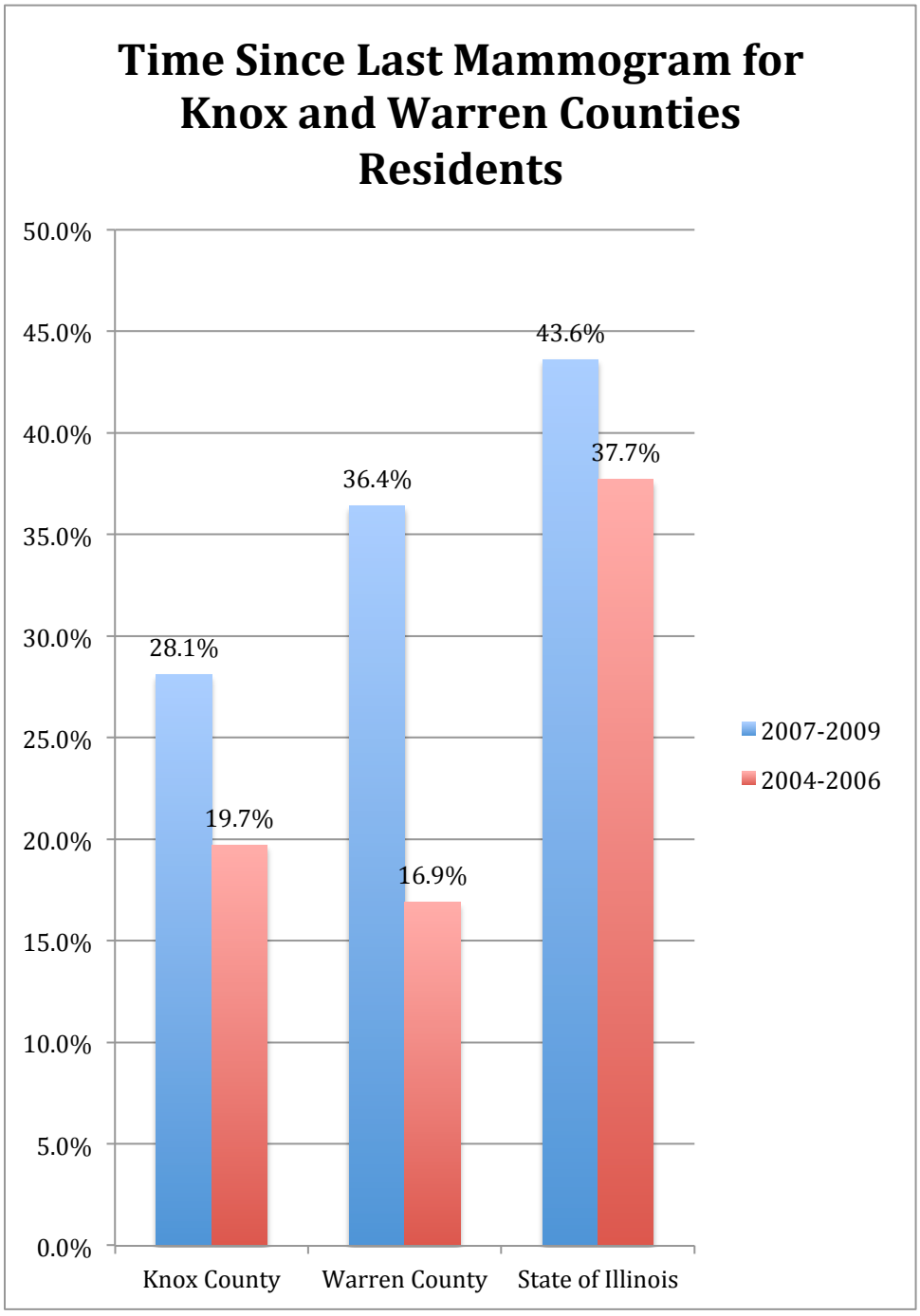
While the percentage of women who report the time since their last mammogram was more than one year ago is lower in Knox and Warren Counties than in the State of Illinois (Knox: 28.1%; Warren: 36.4% vs. Illinois: 43.6%), growth rates for this category are dramatically higher in Knox County (43% growth between 2006 and 2009) and Warren County (115% growth between 2006 and 2009) than in the State of Illinois (15% growth between 2006 and 2009).

Table 2.2.2-4 Percentage of Knox and Warren Counties Residents Over the Age of 40 Who Have Ever Had a Mammogram



Source: Illinois Behavioral Risk Factor Surveillance System

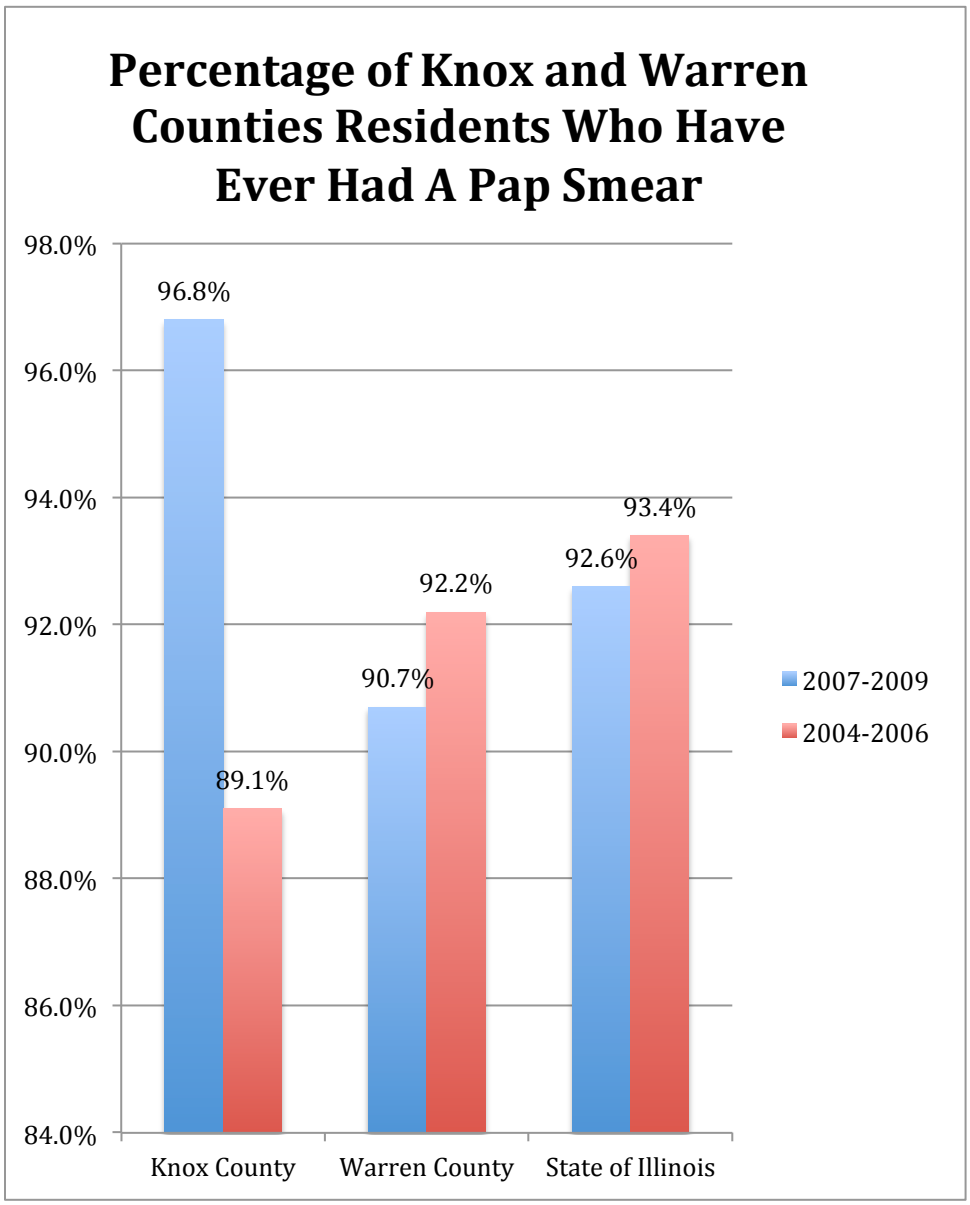
Table 2.2.2-5 Time Since Last Mammogram for Knox and Warren Counties Residents



Source: Illinois Behavioral Risk Factor Surveillance System

Research suggests pap smears are important in detecting pre-cancerous cells in the uterus and cervix. Data from the 2007-2009 Illinois BRFSS indicate that 96.8% of Knox County residents and 90.7% of Warren County residents have ever had a pap smear. The Warren County rates for 2007-2009 are lower than the State of Illinois average (92.6%). Between 2004-2006 and 2007-2009, the percentage of Warren County residents who had ever had a pap smear saw negative percentage growth of 2%.

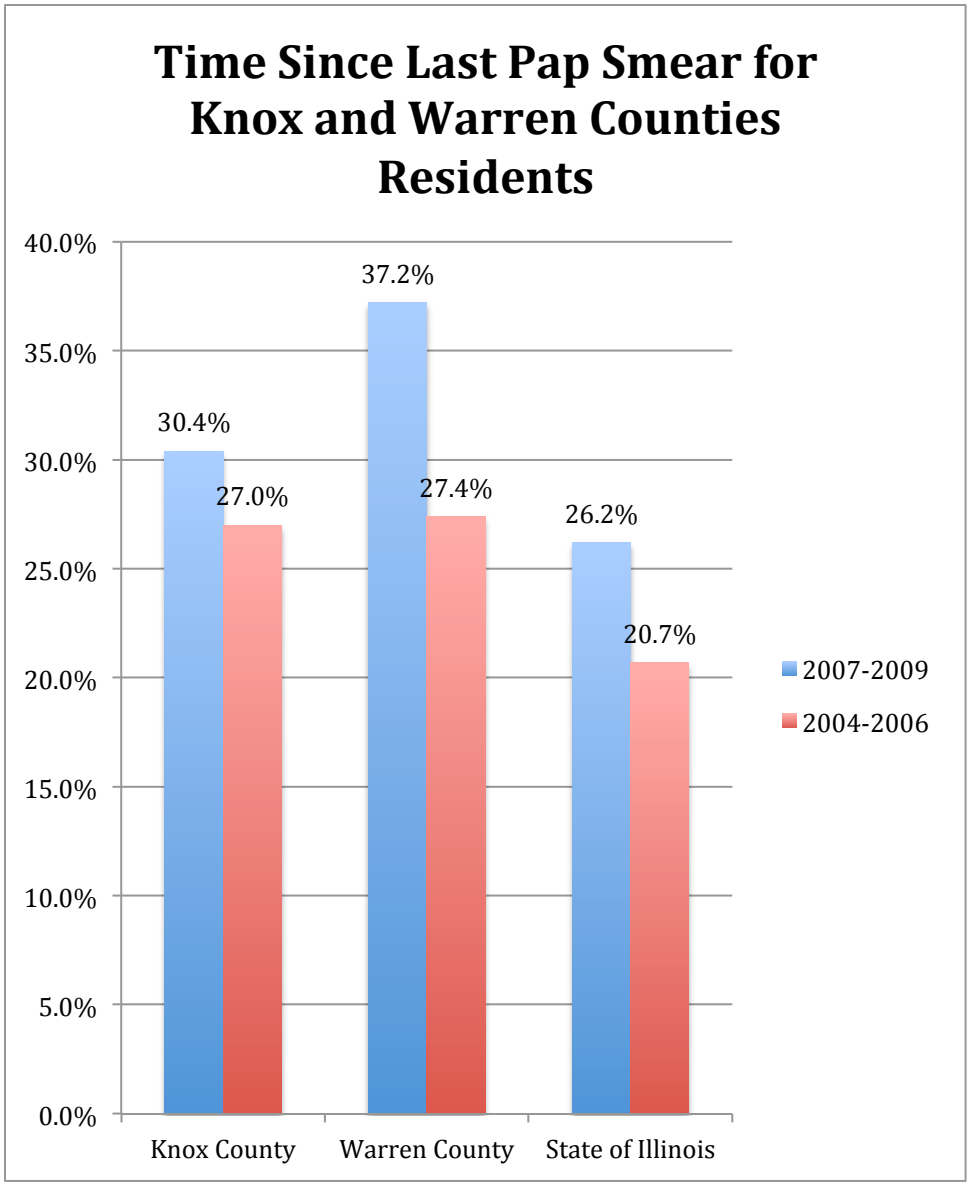
Table 2.2.2-6 Percentage of Knox and Warren Counties Residents Who Have Ever Had A Pap Smear



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to the time elapsed since one's last pap smear, 30.4% of Knox County female residents and 37.2% of Warren County female residents report more than one year has elapsed since their last pap smear. For comparison, 26.2% of female residents across the state of Illinois report more than one year has elapsed since their last pap smear for the same time period (2007-2009).

Table 2.2.2-7 Time Since Last Pap Smear for Knox and Warren Counties Residents

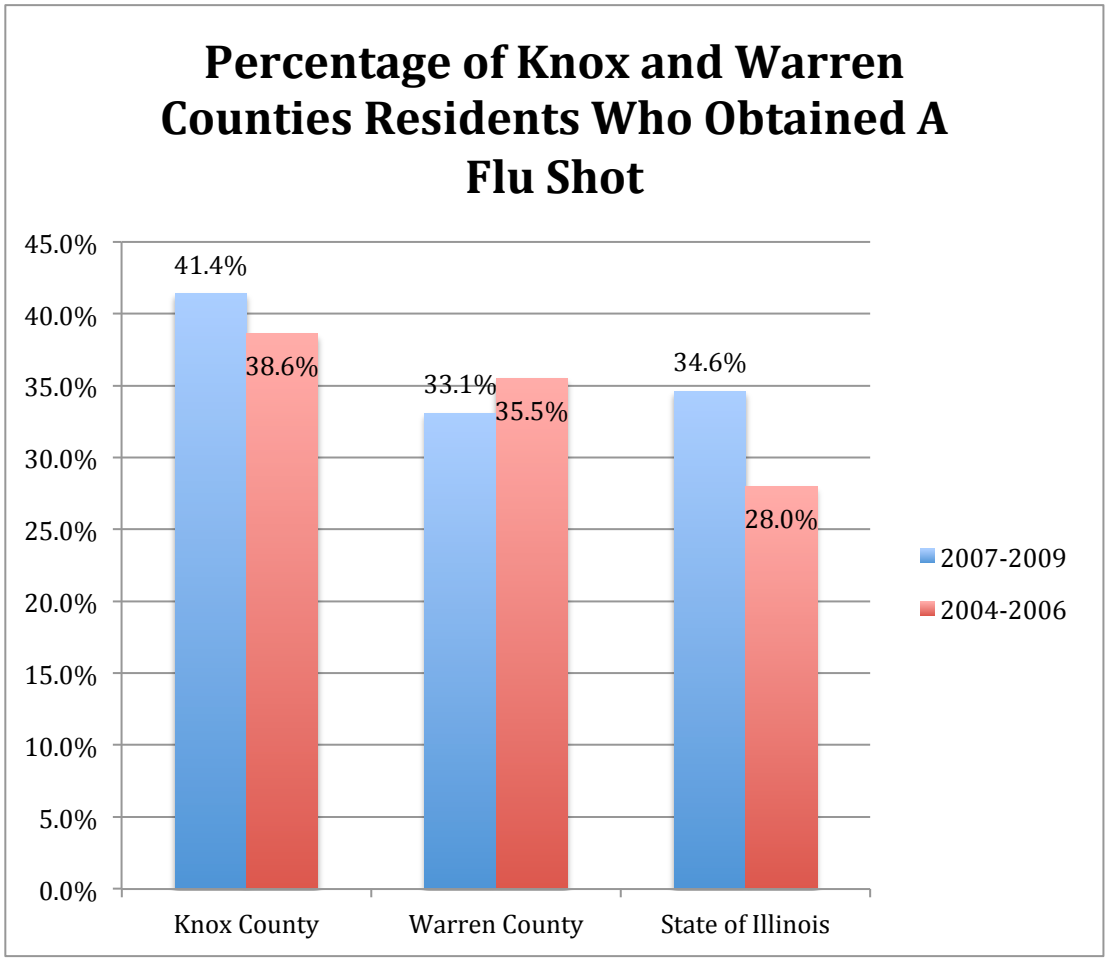


Source: Illinois Behavioral Risk Factor Surveillance System

2.2.3 Immunizations

The overall health of a community is impacted by preventative measures including immunizations and vaccinations. There was 7% negative growth in the percentage of Warren County residents and 7% positive growth in the percentage of Knox County residents reporting they had received a flu shot in the last 12 months between 2006 (Warren: 35.5%; Knox: 38.6%) and 2009 (Warren: 33.1%; Knox: 41.4%). For comparison, there was a 24% growth in the percentage of Illinois residents reporting they had received a flu shot in the last 12 months between 2006 (28.0%) and 2009 (34.6%). Compared to the State of Illinois average (34.6%), a lower percentage of Warren County residents (33.1%) receive flu shots.

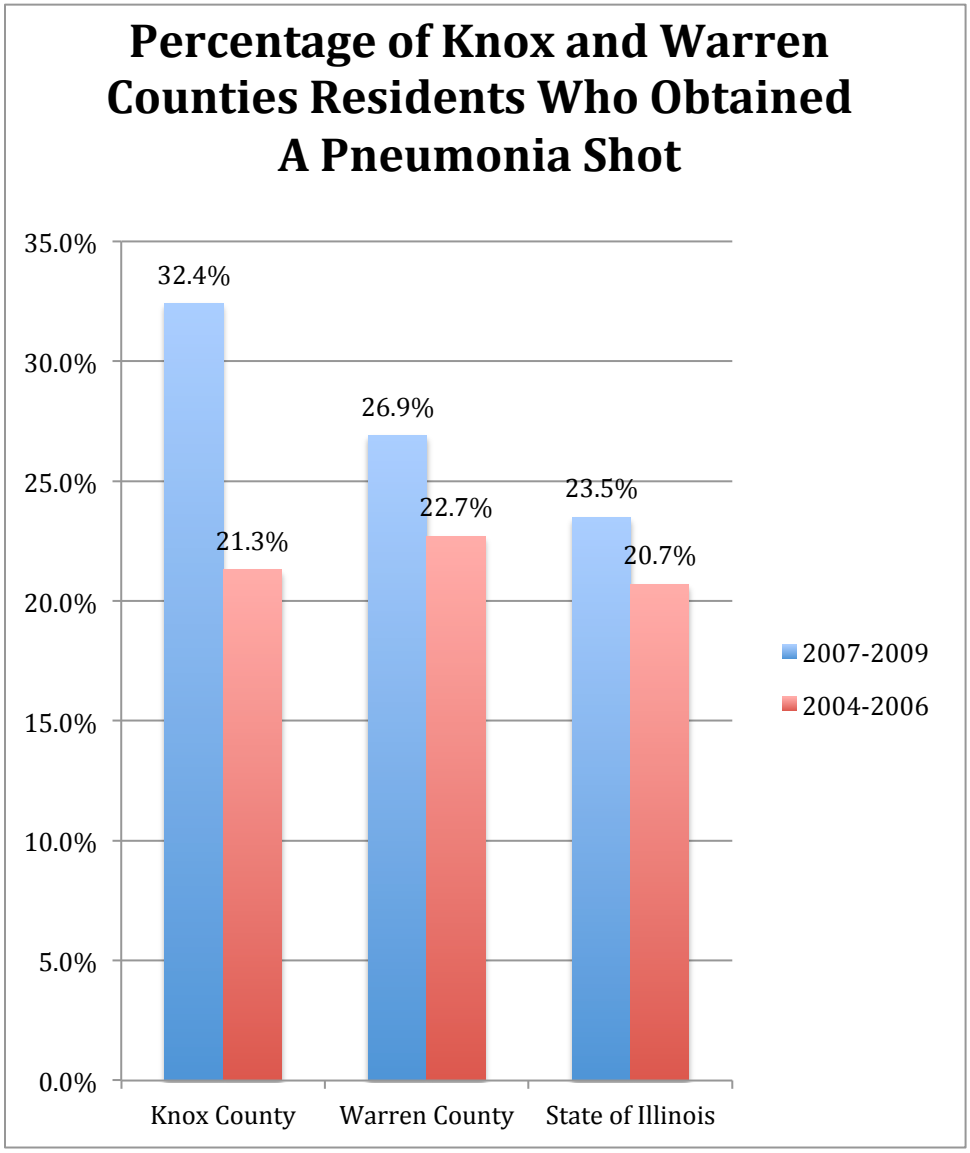
Table 2.2.3-1 Percentage of Knox and Warren Counties Residents Who Obtained A Flu Shot



Source: Illinois Behavioral Risk Factor Surveillance System

Pneumonia shots are even less frequent, with approximately 30% of Knox and Warren Counties region residents receiving the treatment between 2007-2009.

Table 2.2.3-2 Percentage of Knox and Warren Counties Residents Who Obtained A Pneumonia Shot



Source: Illinois Behavioral Risk Factor Surveillance System

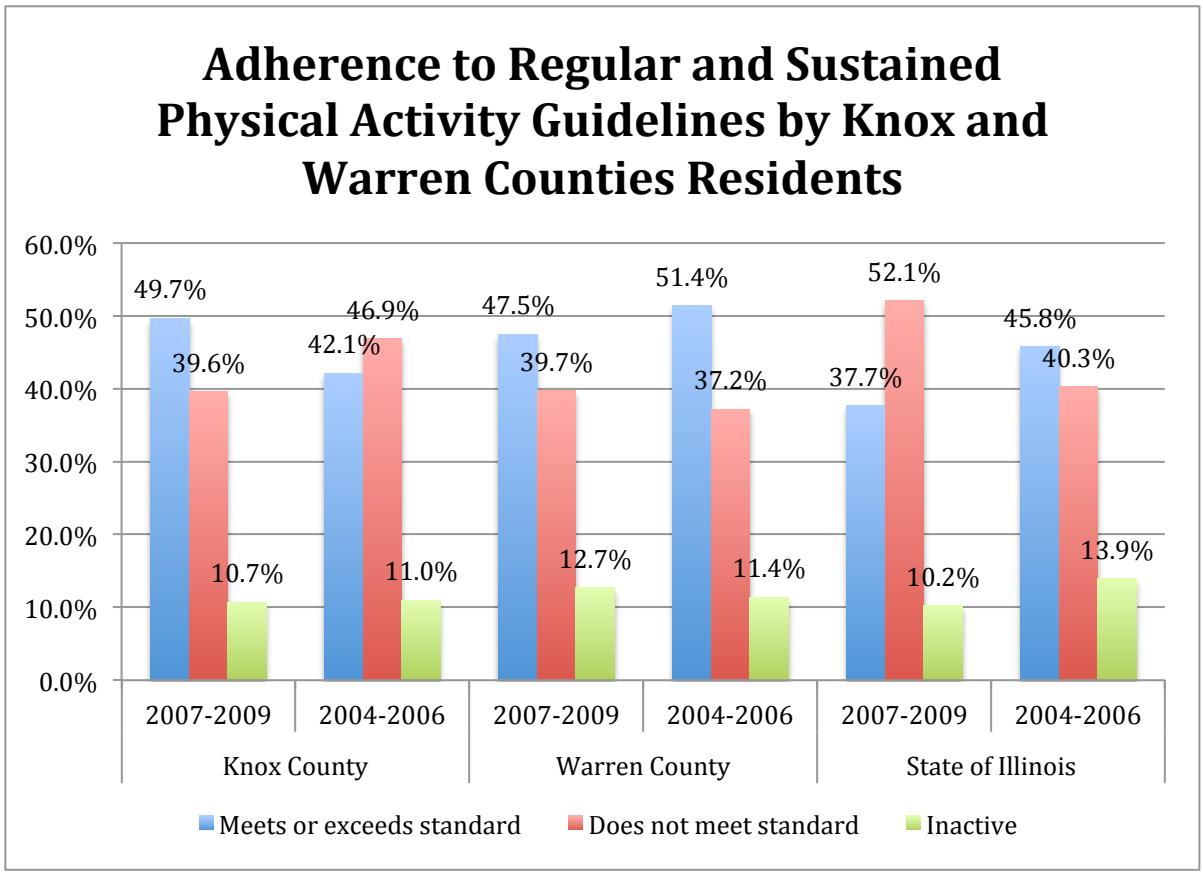
2.2.4 Healthy lifestyle

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

Residents in the Knox and Warren Counties region adhere to regular sustained physical activity guidelines at a higher propensity than the State of Illinois average (37.7%). The most recent data from 2007-2009 indicate that 49.7% of Knox County residents and 47.5% of Warren County residents meet or exceed the regular and sustained physical activity guidelines.

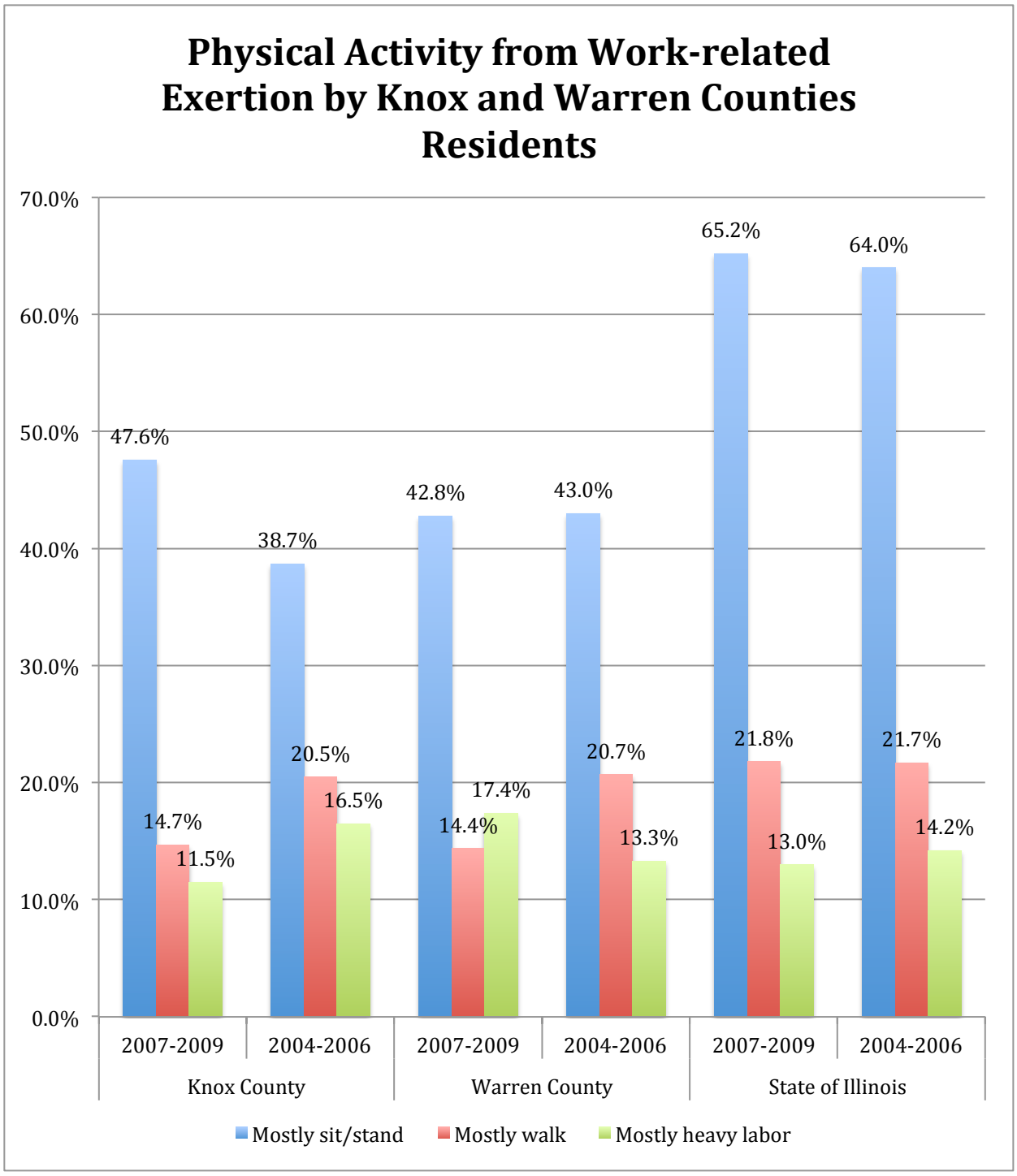
With regard to work-related activity, upwards of 50% of Knox and Warren Counties region residents mostly sit or stand to execute their job tasks. The specific percentage in 2007-2009 for Knox County (47.6%) and Warren County (42.8%) is significantly lower than the State of Illinois average of 65.2%.

Table 2.2.4-1 Adherence to Regular and Sustained Physical Activity Guidelines by Knox and Warren Counties Residents



Source: Illinois Behavioral Risk Factor Surveillance System

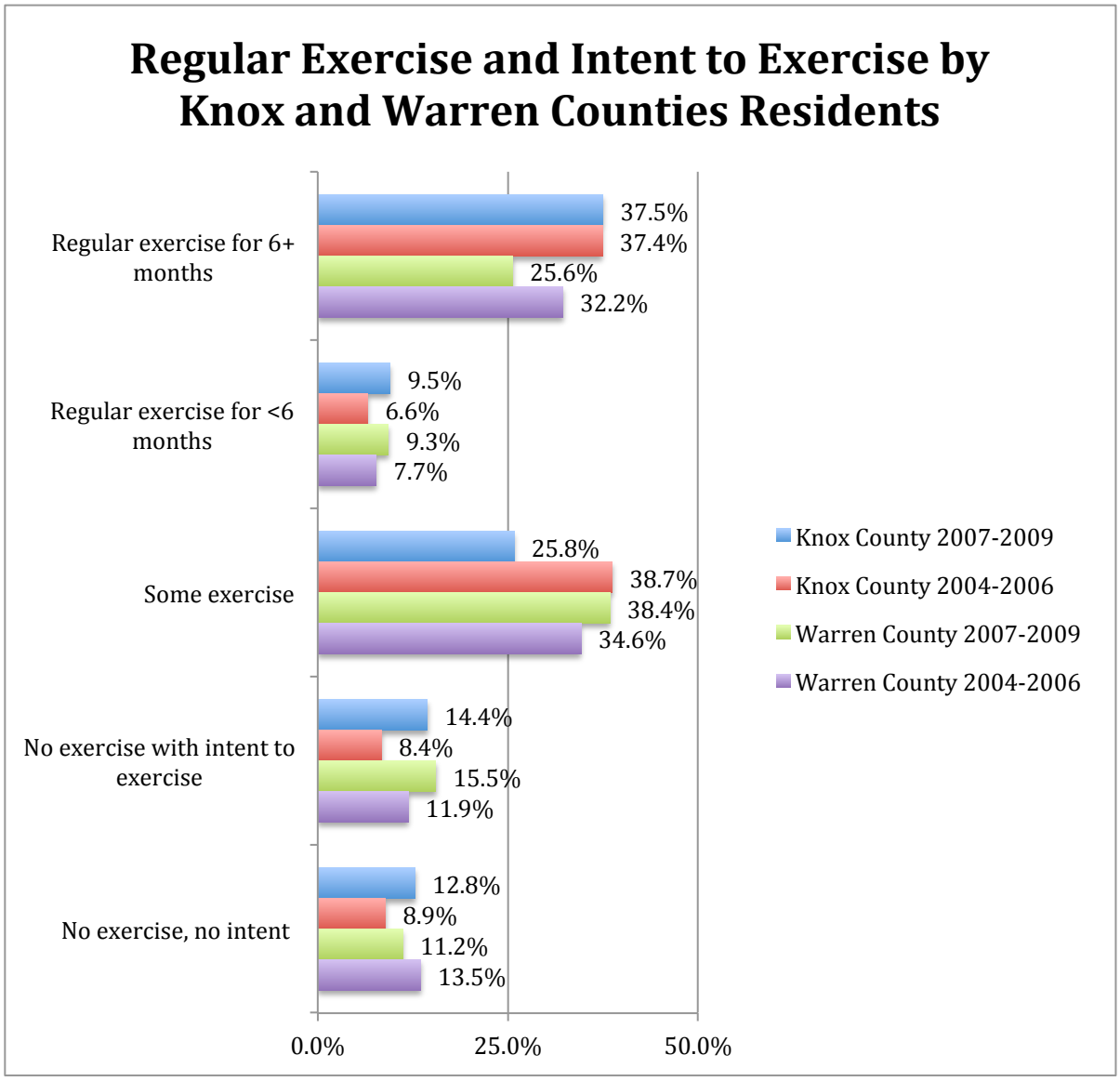
Table 2.2.4-2 Physical Activity from Work-related Exertion by Knox and Warren Counties Residents



Source: Illinois Behavioral Risk Factor Surveillance System

When evaluating physical activity, it is important to evaluate the values behind one's decision to exercise. Table 2.2.4-3 illustrates the intentions toward exercise held by residents in the Knox and Warren Counties region. According to recent data, approximately 15% of the residents in the Knox and Warren Counties region have the intent to exercise but do not actually follow through with exercising. The percentages of individuals who do not exercise and do not have any desire to exercise have decreased (Warren County) or slightly increased (Knox County) between the periods of 2004-2006 and 2007-2009.

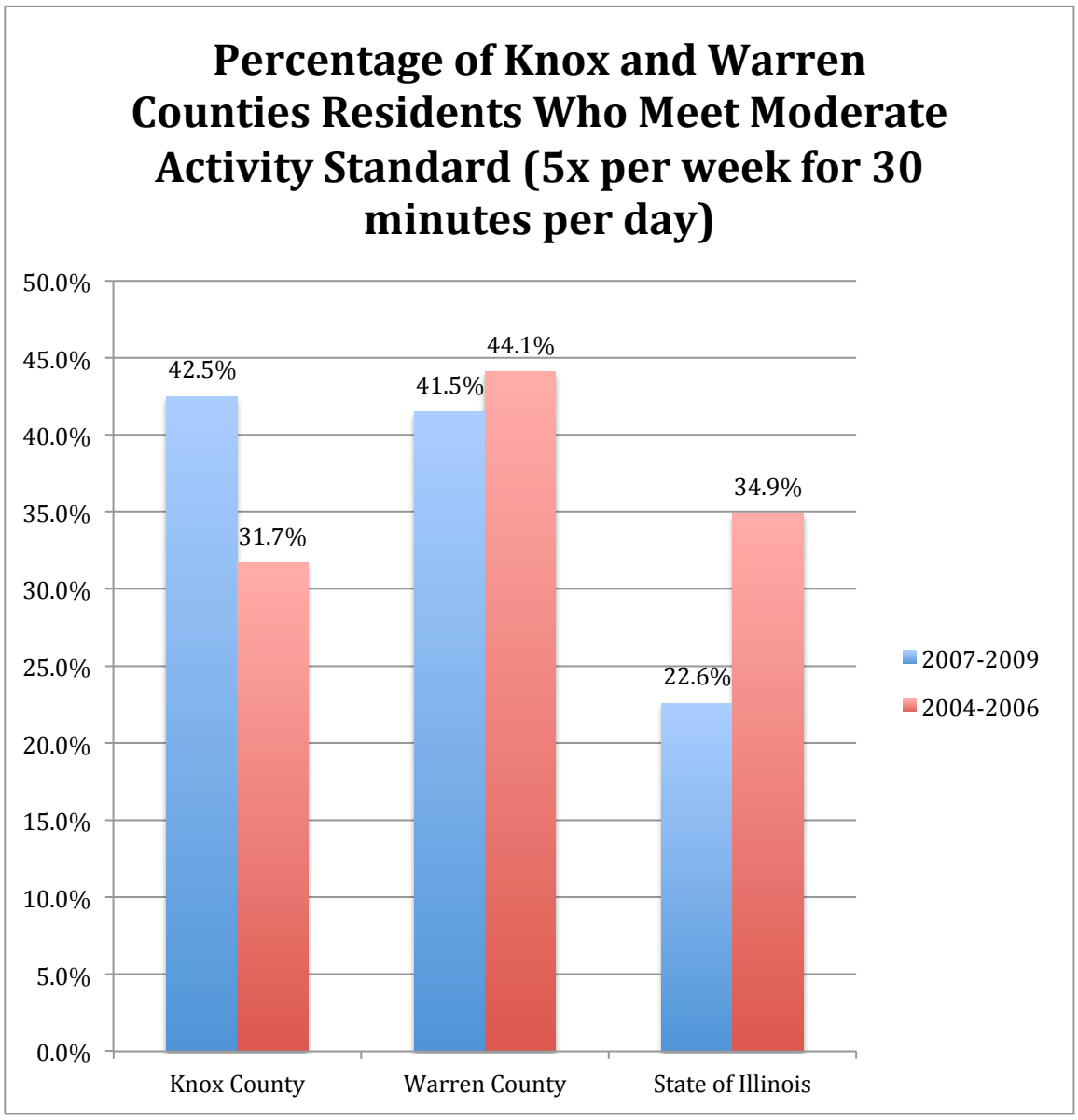
Table 2.2.4-3 Regular Exercise and Intent to Exercise by Knox and Warren Counties Residents



Source: Illinois Behavioral Risk Factor Surveillance System

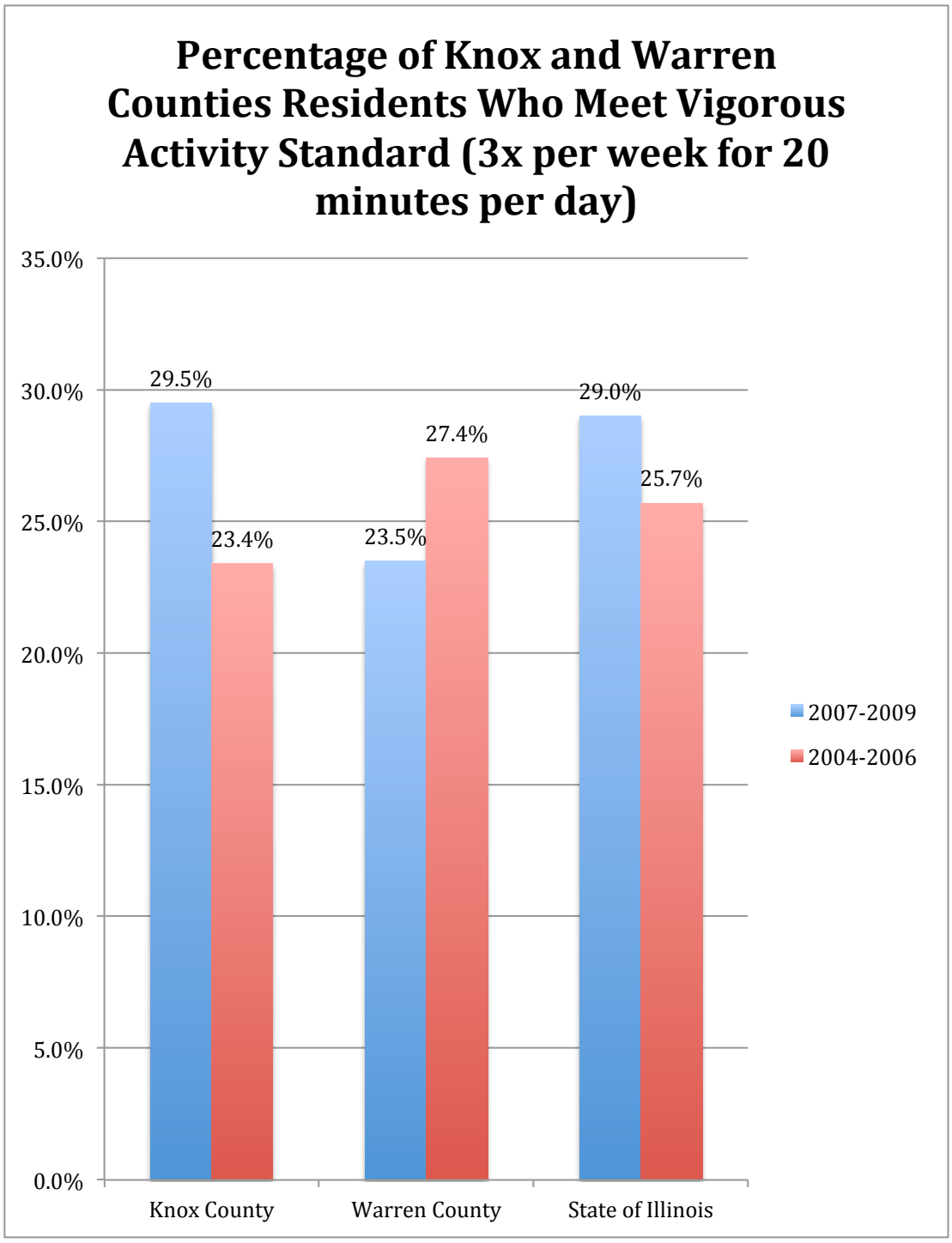
When evaluating physical activity, the intensity and duration of the exercise is important. Residents in the Knox and Warren Counties region report approximately 42% of individuals meet the moderate activity standard (based on heart rate) compared to 22.6% of individuals in the State of Illinois as a whole. The moderate activity standard is defined as five, 30-minute sessions per week. With regard to the vigorous activity standard, defined as three, 20-minute sessions per week (based on heart rate), Knox County residents exceed the state average.

Table 2.2.4-4 Percentage of Knox and Warren Counties Residents Who Meet Moderate Activity Standard (5x per week for 30 minutes per day)



Source: Illinois Behavioral Risk Factor Surveillance System

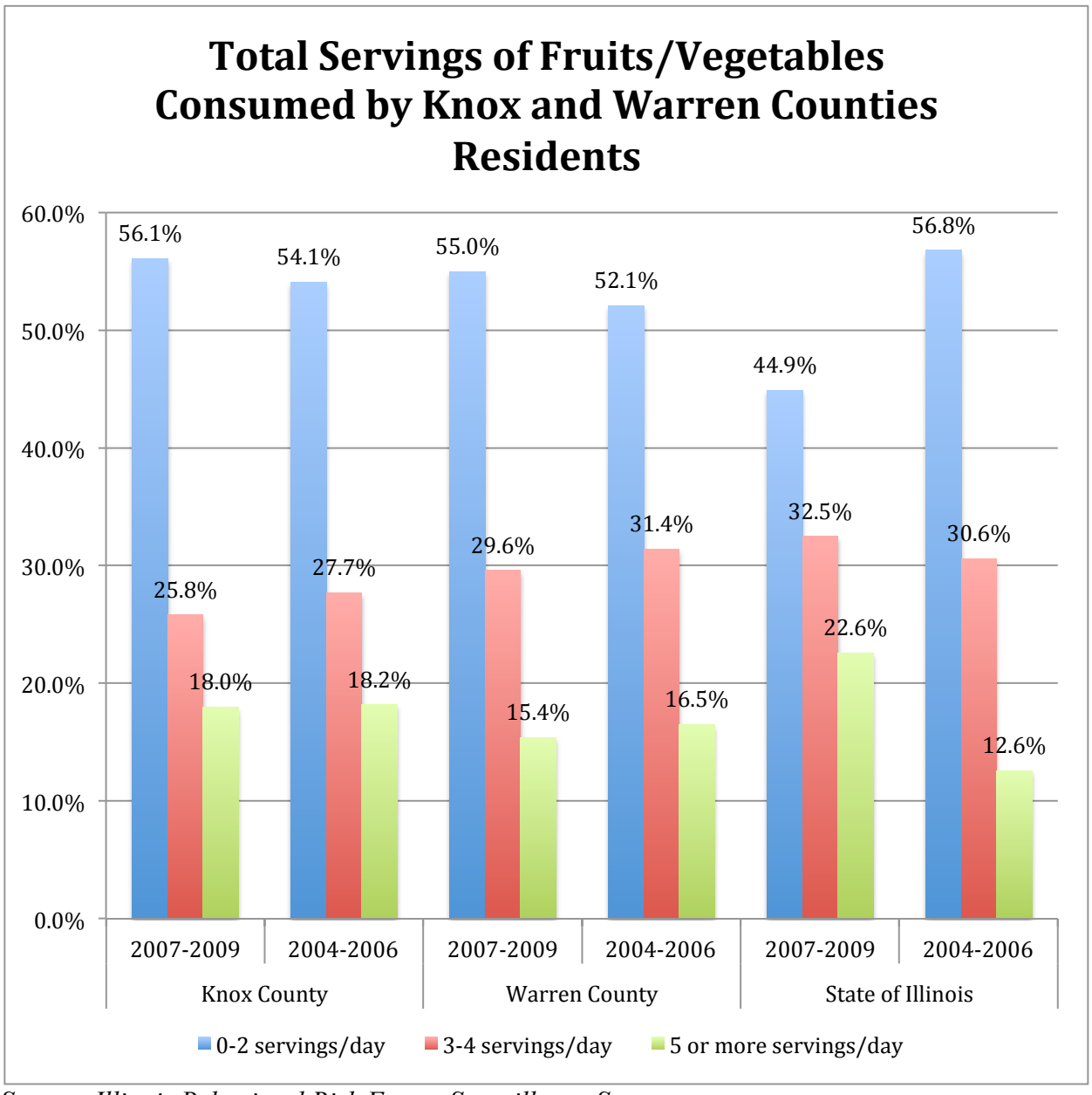
Table 2.2.4-5 Percentage of Knox and Warren Counties Residents Who Meet Vigorous Activity Standard (3x per week for 20 minutes per day)



Source: Illinois Behavioral Risk Factor Surveillance System

Nutrition and diet are critical to preventative care. Over half of Knox and Warren Counties region residents report low consumption (0-2 servings per day) of fruits and vegetables. The percentages for Knox County (56.1%) and Warren County (55.0%) are higher than the State of Illinois average of 44.9% for the same measure. Note that the percentage of Knox and Warren Counties region residents who consume 5 or more servings per day is lower (18.0% for Knox, 15.4% for Warren) than the State of Illinois percentage (22.6%).

Table 2.2.4-6 Total Servings of Fruits/Vegetables Consumed by Knox and Warren Counties Residents

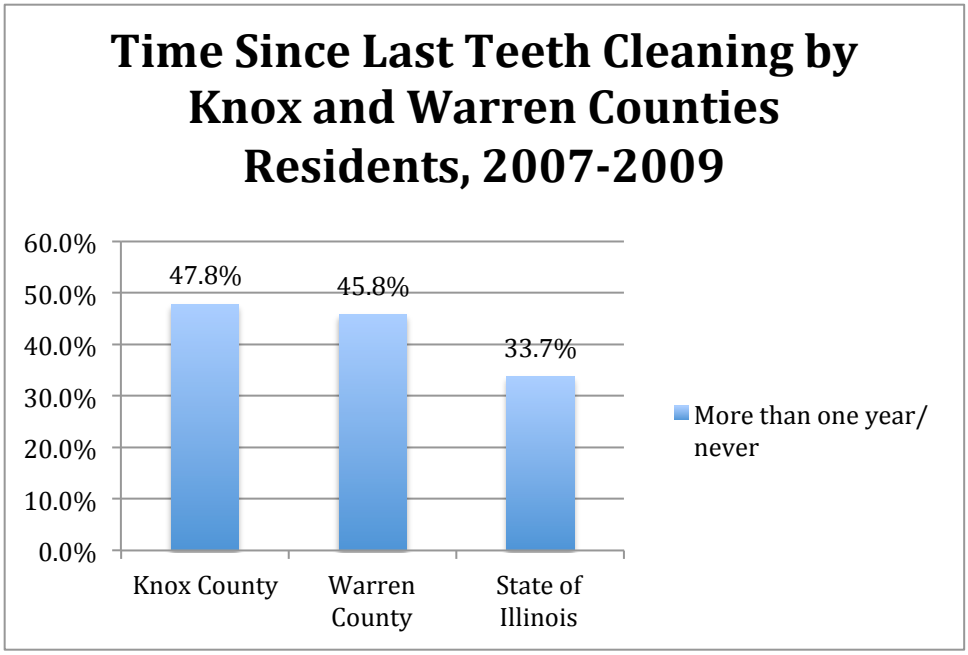


Source: Illinois Behavioral Risk Factor Surveillance System

2.2.5 Oral Health

Research suggests that poor oral hygiene leads to more serious medical concerns. For the 2007-2009 time frame, 47.8% of Knox County residents and 45.8% of Warren County residents did not have their teeth cleaned within the last year. The percentages are worse than that of the State of Illinois average (33.7%).

Table 2.2.5-1 Time Since Last Teeth Cleaning by Knox and Warren Counties Residents, 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

Prevention: Strategic Implications

Increase health care insurance coverage:

Research suggests that private health insurance companies cover nearly 1/3 of the national health expenditures. According to the Kaiser Family Foundation, private health insurance companies comprised 32.7% of the health expenditures in the United States for 2010.[1] While this percentage has held constant around 32% since 1990, it marks an increase of approximately 11% since 1960. Medicare covered approximately 20.2% of national health expenditures in 2010, up nearly 4% since 2000. In addition, data suggest the out-of-pocket expenses incurred by individuals has steadily decreased, from a high of 33.4% of national health care expenditures in 1970 to 14.7% in 2000, and now 11.6% in 2010. The data are clear: Americans are paying less for out-of-pocket health care expenditures and relying more and more on private or public insurance policies to shoulder the financial burdens of health care. Private funds provided approximately 55% of health care payments in 2010 compared to 45% from federal and local government funds. [2]

The rising cost of health care services has resulted in a significant number of families cutting back on care and electing to postpone or cancel treatments. A 2011 Kaiser Health Tracking Poll found that 50% of Americans have cut back on medical treatments in the past 12 months based on cost concerns. [3] Furthermore, 40% reported being "very worried" about having to shoulder more of the financial burden for their health care. Data seem to reinforce this concern, as health insurance premiums have consistently outpaced inflation and the growth in worker earnings.

In the Knox and Warren Counties region, nearly a third of residents rely on Medicare coverage as their primary insurance coverage. Recent data suggest upwards of 90% of Knox and Warren Counties region residents possess medical health care coverage. The percentages for Knox and Warren Counties are well above the 86% response rate for the State of Illinois. Dental insurance coverage is less broad across the Knox and Warren Counties region, as only about half of Knox and Warren Counties region residents possess dental insurance coverage.

Increase the prevalence of preventative health care screens:

There appears to be a relationship between individuals who have health insurance and individuals who take advantage of preventative health care screenings. Research for over twenty years suggests that the strongest predictor of failure to receive screening tests was lack of insurance coverage. [4] Furthermore, research suggests that lack of insurance coverage is more prevalent among socioeconomically disadvantaged groups that are often at high risk for disease and illness. [5] Thus, a vicious cycle results where individuals who are at the highest risk for diseases are unable to receive screenings, thus perpetuating a cycle of disease and high health care expenditures.

Screening guidelines from the United States Preventative Services Task Force offer insight on appropriate preventative care and screenings for youth, adults, and older individuals. [6] Adherence to these guidelines provides data-driven benchmarks from physicians in the fields of

primary care and preventative medicine. Above all, it is critical for physicians and patients to engage in thorough evaluation of treatment options and engage in high-quality shared decision-making regarding treatment options. [7]

Routine physicals are essential to detecting adverse medical conditions. Residents in the Knox and Warren Counties region lag the state average when considering those individuals whose last routine checkup was more than one year ago or never. Research suggests many rural communities have dramatic medical professional shortages.[8]

While the percentage of women who report the time since their last mammogram was more than one year ago is lower in Knox and Warren Counties than in the State of Illinois (Knox: 28.1%; Warren: 36.4% vs. Illinois: 43.6%), growth rates for this category are dramatically higher in Knox County (43% growth between 2006 and 2009) and Warren County (115% growth between 2006 and 2009) than in the State of Illinois (15% growth between 2006 and 2009). 30.4% of Knox County female residents and 37.2% of Warren County female residents report more than one year has elapsed since their last pap smear. For comparison, 26.2% of female residents across the state of Illinois report more than one year has elapsed since their last pap smear for the same time period (2007-2009). According to the BRFSS, 89.7% of Knox County female residents age 40 and over and 89.5% of Warren County female residents age 40 and over report they have ever had a mammogram. These figures are lower than the State of Illinois average (92.1%)**.**

With regard to immunizations, the Center for Disease Control's Advisory Committee on Immunization Practices recommends everyone 6 months and older receive a flu vaccination every year. [9] In the Knox and Warren Counties region, the percentage of Warren County residents who obtained a flu shot is lower than the state average and considerably lower than the recommendations from the CDC.

Endnotes for Chapter 2

[1] Kaiser Family Foundation, "Health Care Costs: Key Information on Health Care Costs and Their Impact," May 2012.

[2] Ibid.

[3] Kaiser Family Foundation, Kaiser Health Tracking Poll, *Toplines*, August 10-15, 2011, pp.16-18, http://www.kff.org/kaiserpolls/8217.cfm.

[4] U.S. Department of Health and Human Services, Agency for Healthcare Research and Quality, *National Healthcare Disparities Report*, 2005.

[5] U.S. Department of Health and Human Services, *Healthy People 2010*. Retrieved from http://www.healthlypeople.gov/

[6] U.S. Preventative Screening Task Force*, Recommendations for Adults, Adolescents, and Children*. Retrieved from http://www.uspreventativeservicestaskforce.org

[7] Ibid.

[8] Bailey, J.M. (2010, July). Health Care Reform, What's In It? *Rural Communities and Rural Medical Care.*

[9] Centers for Disease Control and Prevention, Advisory Committee for Immunization Practices, *Comprehensive Recommendations*. Retrieved from http://www.cdc.gov/vaccines/pubs/ACIP-list.htm

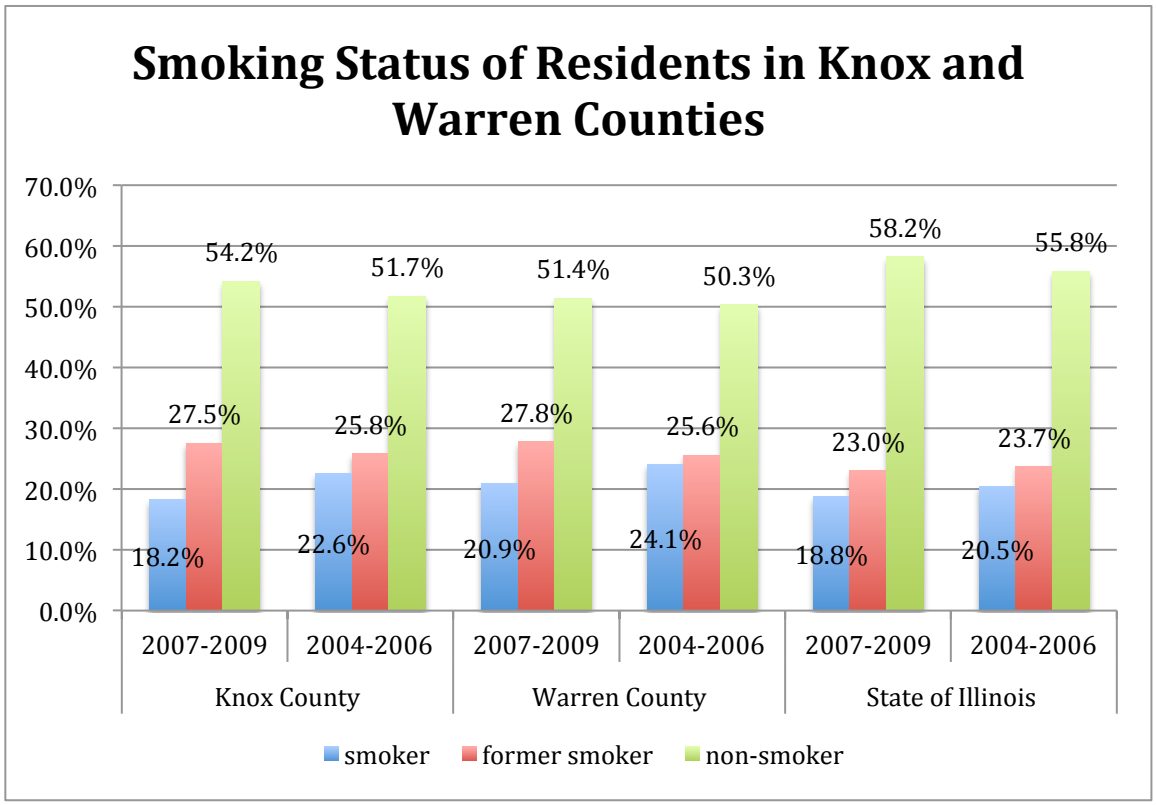
CHAPTER 3. SYMPTOMS AND PREDICTORS

3.1 Tobacco Use

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

Smoking significantly impacts the health status of individuals. Smoking rates have decreased in both Knox and Warren Counties and smoking rates are lower than the State of Illinois averages. Over half of residents within the Knox and Warren Counties region classify themselves as non-smokers, whereas approximately a quarter of residents are former smokers.

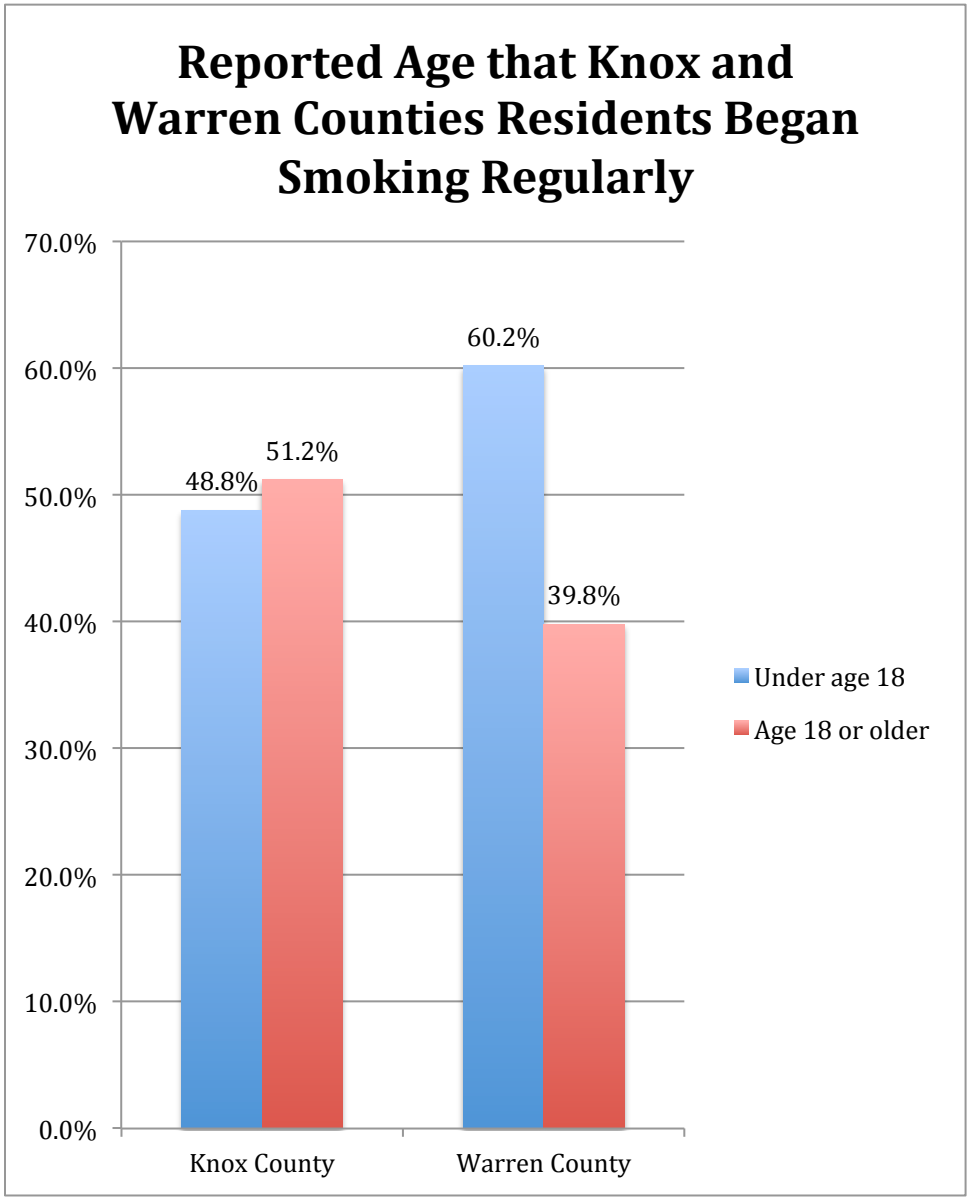
Table 3.1-1: Smoking Status of Residents in Knox and Warren Counties



Source: Illinois Behavioral Risk Factor Surveillance System

Many individuals begin smoking tobacco as teenagers. Nearly half of Knox County residents and 60% of Warren County residents began smoking regularly before the age of 18.

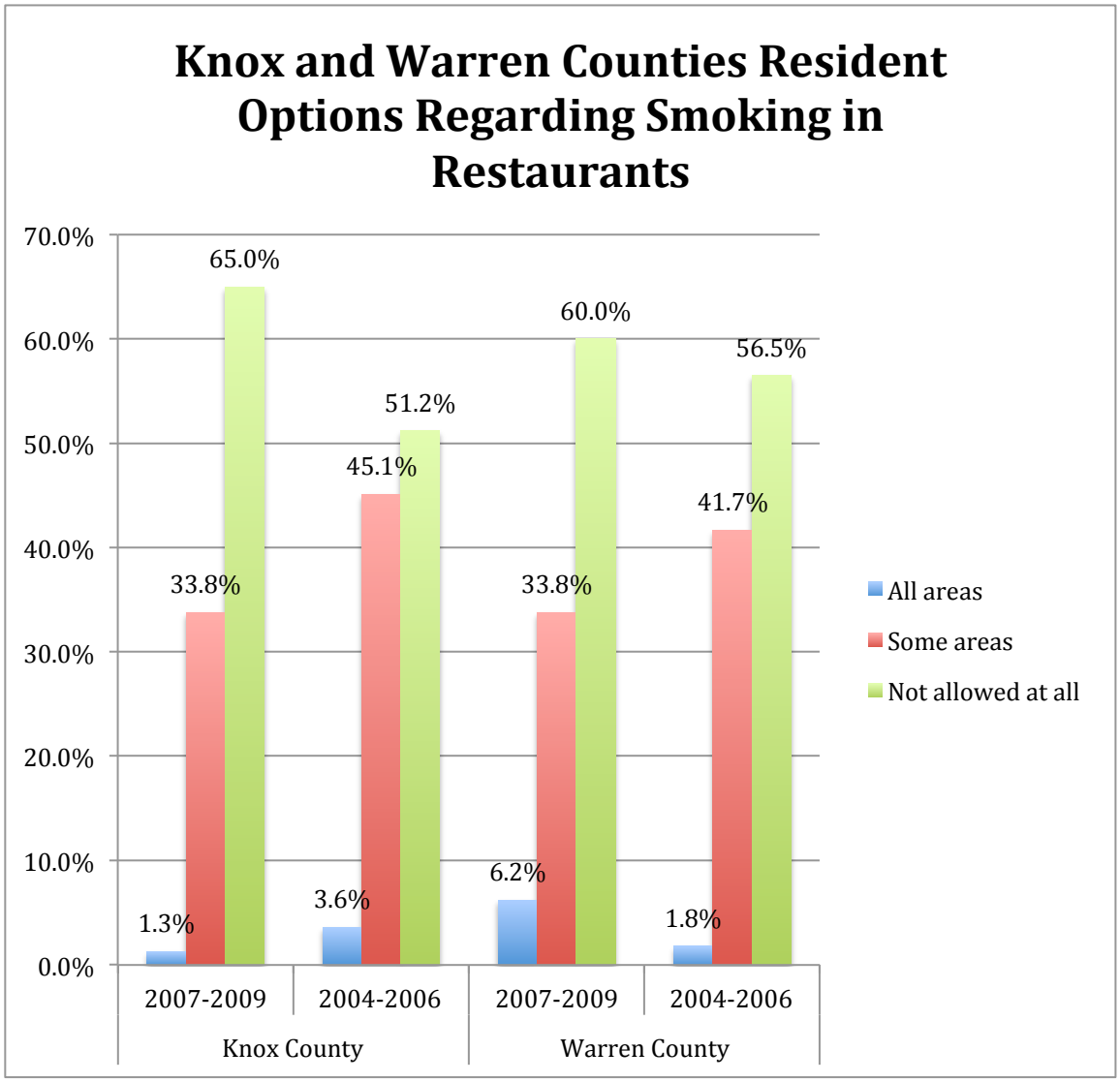
Table 3.1-2: Reported Age that Knox and Warren Counties Residents Began Smoking Regularly



Source: Illinois Behavioral Risk Factor Surveillance System

Attitudes toward smoking in restaurants have changed in the past six years. Notably, while the percentage of Knox County respondents who believe smoking should be allowed in all areas has decreased, the percentage of Warren County respondents increased to 6.2%.

Table 3.1-3: Knox and Warren Counties Resident Options Regarding Smoking in Restaurants



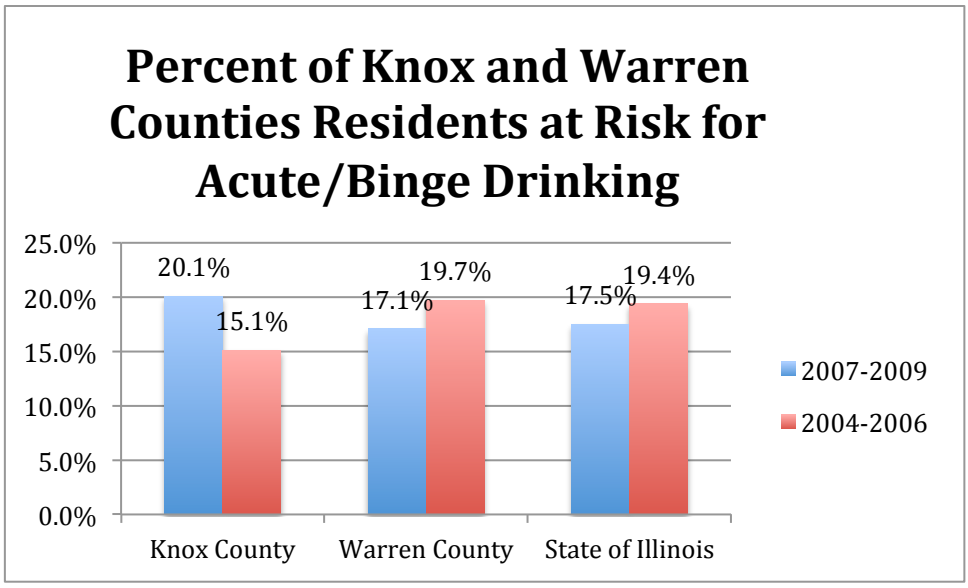
Source: Illinois Behavioral Risk Factor Surveillance System

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 youths, leading to increased usage of substances in adult years. Accordingly, the values and behaviors toward substance usage by high school students is a leading indicator of adult substance abuse in later years.

Compared to the State of Illinois average (17.5%), Knox County has a higher percentage of residents at risk for acute or binge drinking.

Table 3.2-1: Percent of Knox and Warren Counties Residents at Risk for Acute/Binge Drinking

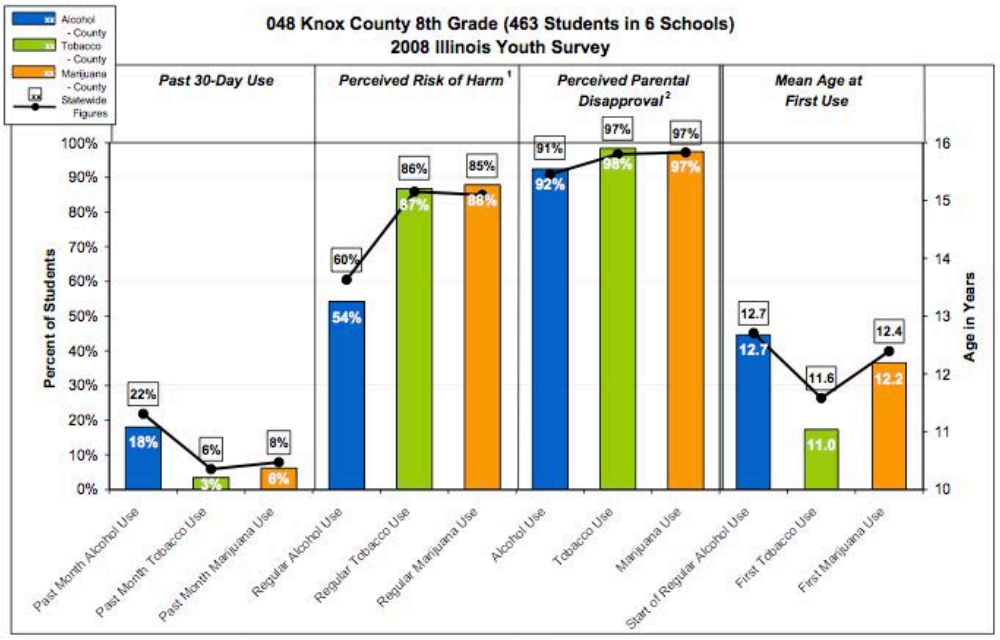


Source: Illinois Behavioral Risk Factor Surveillance System

Data from the 2008 Illinois Youth Survey, which measures illegal substance use (alcohol, tobacco, and other drugs – mainly marijuana) among adolescents, suggest emerging trends for adult substance usage. In Knox County among 8th graders, the average age at first use of alcohol, tobacco and marijuana is 12.7, 11.0 and 12.2 years respectively. The same average age for 12th graders is 16.1, 14.1 and 15.1 years respectively. In Warren County among 8th graders, the average age at first use of alcohol, tobacco and marijuana is 12.5, 11.2 and 12.4 years respectively.

In Knox County, the past 30-day use is higher for tobacco use (12th graders) and marijuana use (12th graders) when compared to State of Illinois averages. In Warren County, the past 30-day use is higher for tobacco use (8th graders) when compared to State of Illinois averages.

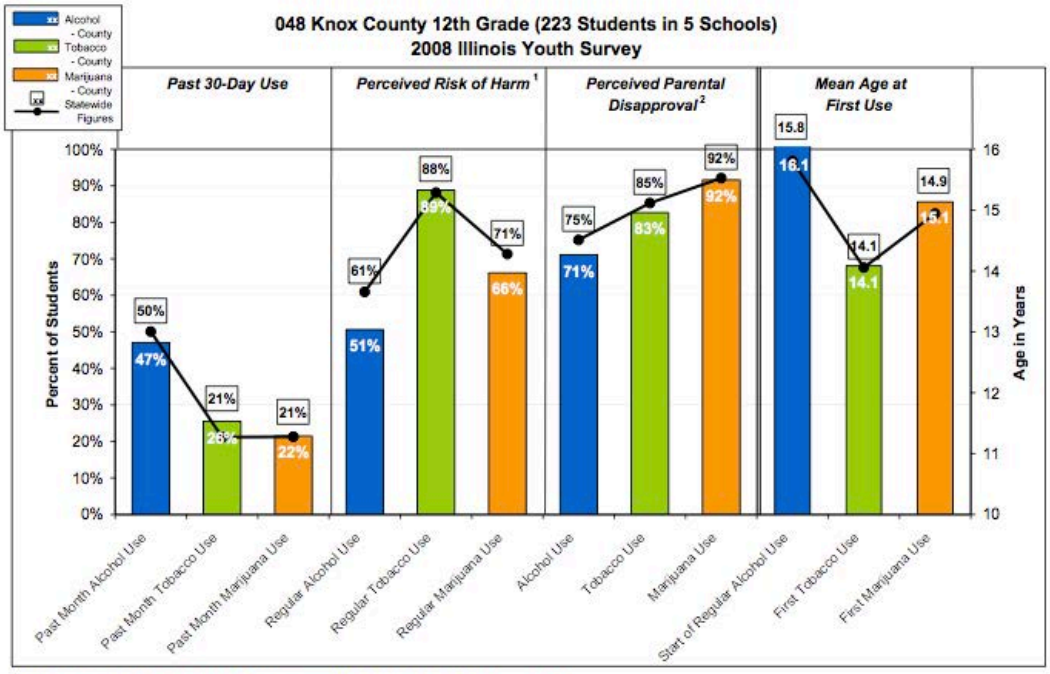
Table 3.2-2: Reported Substance Abuse Usage of Knox County 8th Graders, 2008



[1] Perceived Risk of Harm: Percent who responded "Moderate Risk" or "Great Risk" of harm.
[2] Perceived Parental Disapproval: Percent who responded "Wrong" or "Very Wrong" attitude of parents toward youth use of substance.

Source: http://iys.cprd.illinois.edu/PDFs/2008_CountyCharts_Full_Report.pdf

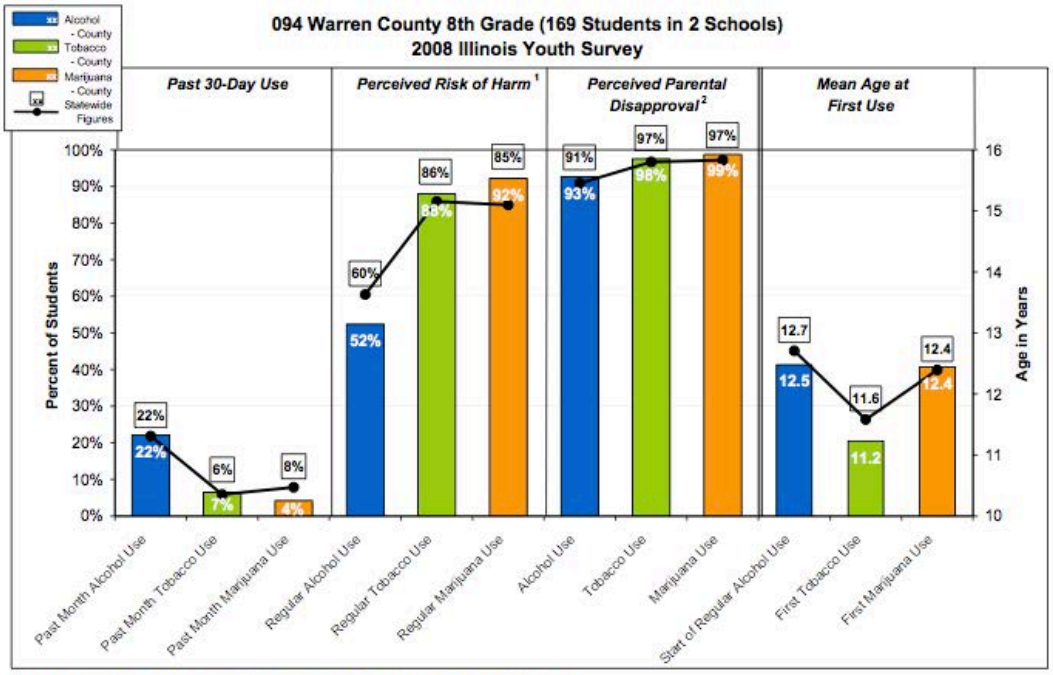
Table 3.2-3: Reported Substance Abuse Usage of Knox County 12th Graders, 2008



[1] Perceived Risk of Harm: Percent who responded "Moderate Risk" or "Great Risk" of harm.
[2] Perceived Parental Disapproval: Percent who responded "Wrong" or "Very Wrong" attitude of parents toward youth use of substance.

Source: http://iys.cprd.illinois.edu/PDFs/2008_CountyCharts_Full_Report.pdf

Table 3.2-4: Reported Substance Abuse Usage of Warren County 8th Graders, 2008



[1] *Perceived Risk of Harm: Percent who responded "Moderate Risk" or "Great Risk" of harm.*
[2] *Perceived Parental Disapproval: Percent who responded "Wrong" or "Very Wrong" attitude of parents toward youth use of substance.*

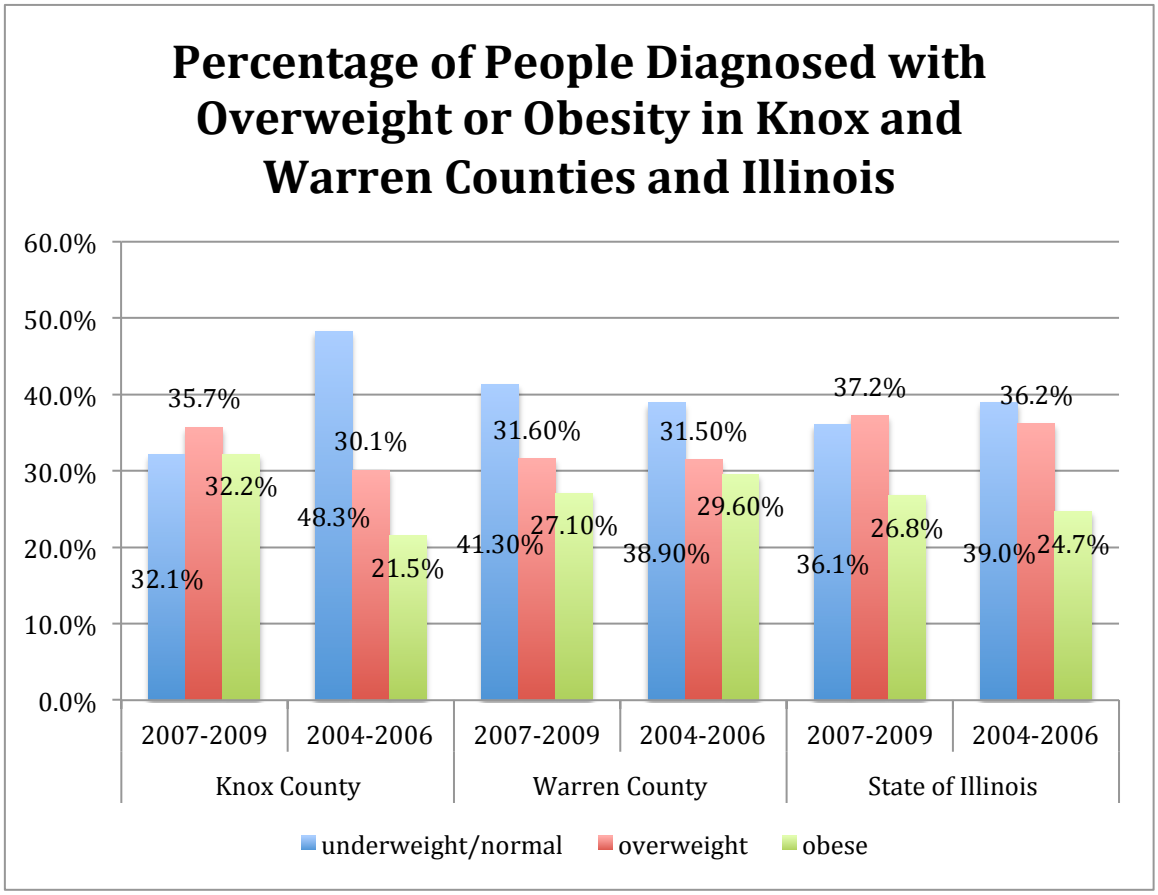
Source: http://iys.cprd.illinois.edu/PDFs/2008_CountyCharts_Full_Report.pdf

3.3 Overweight and Obesity

Importance of the measure: Individuals who are overweight and obese place greater stress on internal organs, thus increasing the propensity to utilize health services.

In terms of obesity and being overweight, Table 3.3-1 shows that in the Knox and Warren Counties region, the number of people who have trouble with their weight has increased over the five years from 2004 to 2009. There was a 50% growth in the percentage of Knox County residents reporting they were obese between 2006 (21.5%) and 2009 (32.2%). For comparison, there was a 9% growth in the percentage of Illinois residents reporting they were obese between 2006 (24.7%) and 2009 (26.8%). Rates in Knox County now exceed the State of Illinois average.

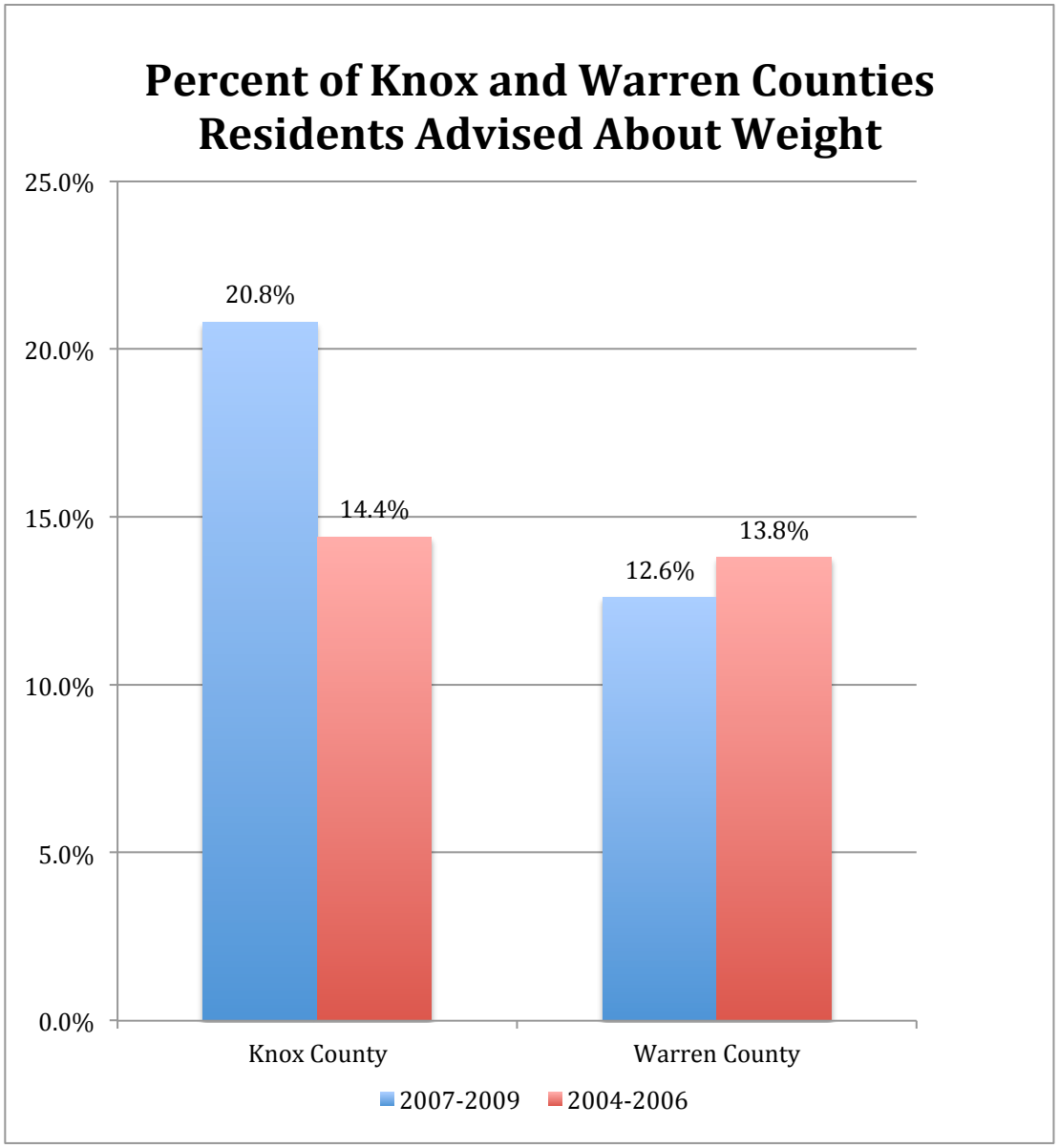
Table 3.3-1: Percentage of People Diagnosed with Overweight or Obesity in Knox and Warren Counties and Illinois



Source: Illinois Behavioral Risk Factor Surveillance System

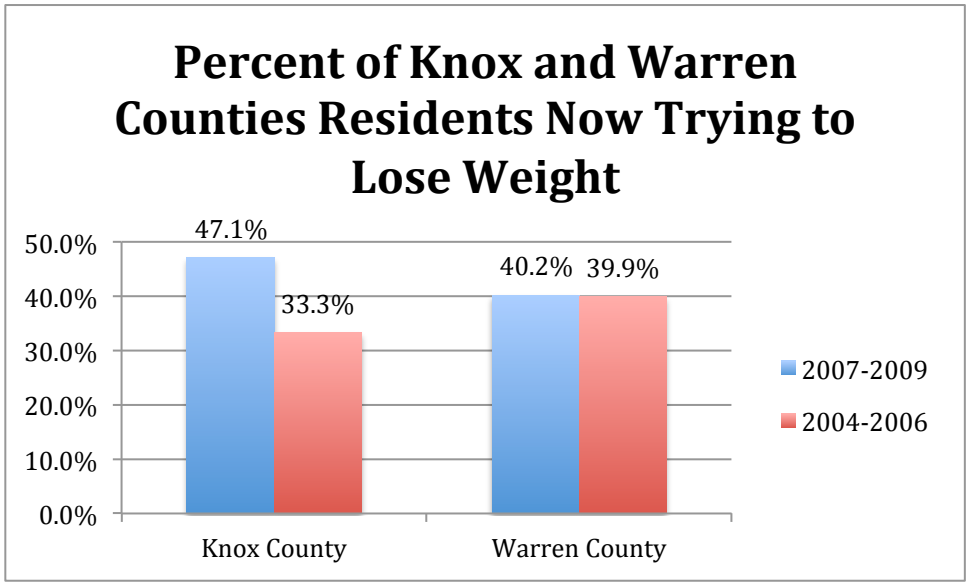
With regard to those individuals advised by a medical professional about their weight, over 21% of residents in Knox County have been advised about their weight during the 2007-2009 time frame. In Table 3.3-3, nearly half of Knox and Warren Counties region residents are attempting to lose weight and Table 3.3-4 illustrates the percentage of Galesburg residents attempting to maintain their current weight.

Table 3.3-2: Percent of Knox and Warren Counties Residents Advised About Weight



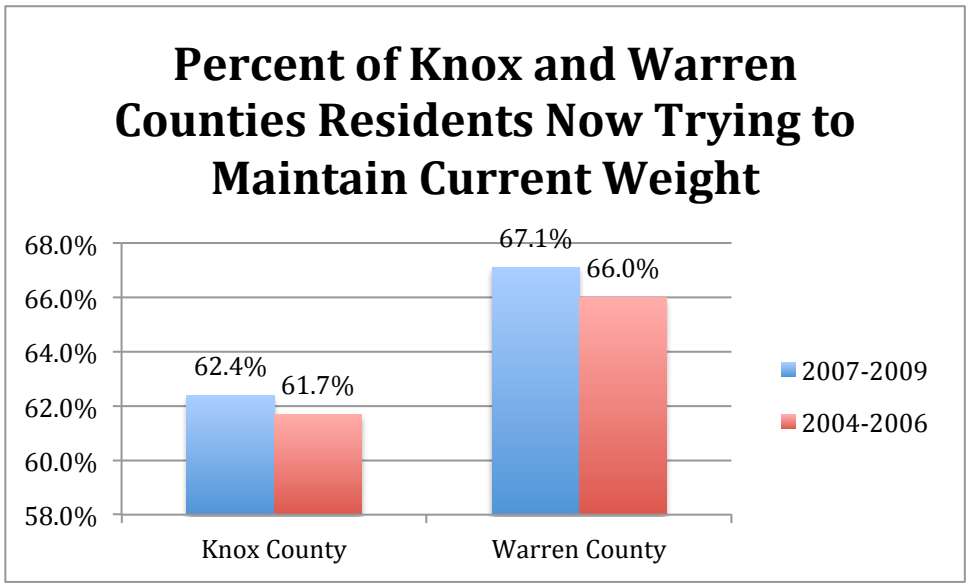
Source: Illinois Behavioral Risk Factor Surveillance System

Table 3.3-3: Percent of Knox and Warren Counties Residents Now Trying to Lose Weight



Source: Illinois Behavioral Risk Factor Surveillance System

Table 3.3-4: Percent of Knox and Warren Counties Residents Now Trying to Maintain Current Weight



Source: Illinois Behavioral Risk Factor Surveillance System

Symptoms/Predictors: Strategic Implications

Effectively combating youth obesity:

Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within the Knox and Warren Counties region. The US Surgeon General has characterized obesity as "the fastest-growing, most threatening disease in America today."[1] According to the Obesity Prevention Initiative from the Illinois General Assembly, 20% of Illinois children are obese[2]. Data from 2010 indicate 62% of Illinois adults are obese or overweight, with a disproportionate number of obese or overweight individuals living in rural areas. 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 dollars, ranking Illinois 6th in the nation for obesity-attributed medical costs[3].

With children, research has linked obesity to numerous chronic diseases including Type II diabetes[4], hypertension, high blood pressure, and asthma. Adverse physical health side effects of obesity include orthopedic problems with weakened joints and lower bone density[5]. Detrimental mental health side effects include low self-esteem, poor body image, symptoms of depression and suicide ideation[6]. Obesity impacts educational performance as studies suggest that overweight students miss one day of school per month on average and school absenteeism of obese children is six times higher that of non-obese children[7].

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.[8] A Duke University study on the effects of obesity in the workforce noted 13 times more missed work days 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.

Within the Knox and Warren Counties region, leading indicators suggest obesity is a growing concern. With regard to nutrition, evidence suggests residents in Knox and Warren Counties region are not eating enough fruits and vegetables. Table 2.2.4-6 indicates that between 2007 and 2009, only 18% of Knox County residents and 15.4% of Warren County residents consumed 5 or more servings of fruits and vegetables per day. These figures are considerably less than the 22.6% of Illinois residents who eat more than 5 servings per day. Furthermore, approximately 50% of Knox and Warren Counties region residents consume 0-2 servings of fruits and vegetables per day.

Research indicates physical activity helps to prevent illness and obesity[9]. Data regarding the values toward exercise and the actual time spent exercising may contribute to obesity in the Knox and Warren Counties region. For example, data from the Center for Disease Control indicate that 66% of children walked or biked to school in 1973. By 2000, that figure had decreased to only 13%.[10] As seen in Table 2.2.4-4, residents in the Knox and Warren Counties region report approximately 42% of individuals meet the moderate activity standard compared to

22.6% of individuals in the State of Illinois as a whole. However, this means 58% of residents do not meet the moderate activity standard.

Aggressively addressing youth substance abuse:

The use of tobacco, alcohol, and other drugs is a significant contributor to the escalating costs of health care service delivery. According to the Center for Disease Control, tobacco use is the leading preventable cause of death in the United States. [11] On a societal level, alcohol, tobacco, and other drug use leads to accidents, violent behavior, emotional trauma, and assaults. It is estimated that drug-induced related risky behavior needlessly drains community resources such as police intervention, emergency services, and criminal justice costs.

The Surgeon General contends "alcohol remains the most heavily abused substance by America's youth." [12] Dr. Peter Monti, Director of the Center for Alcohol and Addiction Studies at Brown University notes that alcohol disrupts the continued growth of an adolescent's brain and "impacts the brain's ability to learn life skills." [13] Studies show that an adolescent needs to only drink half as much alcohol as an adult to suffer similar adverse brain effects. [14] Research shows that cigarette smoking as a teenager leads to higher risks for lung cancer as an adult, reduces the rates of lung growth, and the maximum level of lung function that could be achieved. [15]

Financially, underage drinking is estimated to cost the nation upwards of $62 billion dollars annually in deaths, injuries, and other economic losses.[16] A Columbia University study examining the impacts of substance abuse in mid-sized cities and rural America suggested that tobacco use was more prevalent in mid-sized cities and rural areas than large metropolitan areas; specifically, young adults in mid-sized cities and rural areas were 30% more likely than adults in larger cities to have smoked a cigarette in the last month. [17]

In the Knox and Warren Counties region, smoking rates have decreased since 2004-2006 and are now lower than the state of Illinois average. Youth substance usage in Knox County exceeds the State of Illinois averages for 12th graders (tobacco and marijuana usage). Youth substance usage in Warren County exceeds the State of Illinois averages for 8th graders (tobacco). With regard to binge drinking, there was a 33% growth in the percentage of Knox County residents reporting they were at risk for binge drinking between 2006 (15.1%) and 2009 (20.1%). For comparison, there was a -10% decrease in the percentage of Illinois residents reporting they were at risk for binge drinking between 2006 (19.4%) and 2009 (17.5%). Rates in Knox County now exceed the state average.

Endnotes for Chapter 3

[1] *Childhood Obesity: An epidemic is gripping California and the nation*: *How did we get here? What do we do now?* Advertising supplement to The New York Times, Kaiser Permanente, UC San Francisco Medical School, UCLA Medical School, January 2006.

[2] *Obesity Prevention Initiative Act (PA 96-0155): A Report to the Illinois General Assembly*, Illinois Department of Public Health, December 2010.

[3] Ibid.

[4] Crawford, P., Mitchell, T., & Ikeda, J. (2000). *Childhood Overweight: A Fact Sheet for Professionals*, UCB/Cooperative Extension University of California-Berkeley.

[5] Xiang, H. (2005). Obesity and Risk of Nonfatal Unintentional Injuries, *American Journal of Preventative Medicine*, 29,1, 41-45.

[6] U.S. Department of Health and Human Services, *Healthy People 2010*. Retrieved from http://www.healthlypeople.gov/

[7] Schwimmer, J.B., Burwinkle, T.M., & Varni, J.W. (2003). Health-Related Quality of Life of Severely Obese Children and Adolescents. *Journal of the American Medical Association*. 289(14), 1818.

[8] *Obesity Prevention Initiative Act (PA 96-0155): A Report to the Illinois General Assembly*, Illinois Department of Public Health, December 2010.

[9] *The Learning Connection: The Value of Improving Nutrition and Physical Activity in Our Schools*. Retrieved from http://www.actionforhealthykids.org

[10] U.S. Center for Disease Control and Prevention, *Youth Physical Activity: The Role of Families*. Retrieved from http://www.cdc.gov/healthyyouth

[11] U.S. Center for Disease Control and Prevention, *Smoking and Tobacco Use: Data and Statistics.* Retrieved from http://www.cdc.gov/tobacco

[12] U.S. Department of Health and Human Services. *The Surgeon General's Call to Action to Prevent and Reduce Underage Drinking.* Rockville, MD: U.S. Department of Health and Human Services; 2007. Retrieved from http://www.surgeongeneral.gov/topics/underagedrinking/

[13] Monti, P.M., et al. (2005). Adolescence: Booze, Brains, and Behavior. *Alcoholism: Clinical and Experimental Research*. 29, 2, 207-220.

[14] American Medical Association, *Harmful Consequences of Alcohol Use on the Brains of Children.*

[15] *Preventing Tobacco Use Among Young People, Executive Summary, A Report of the Surgeon General*, 1994, Ch. 1.

[16] Pacific Institute for Research and Evaluation*, State Underage Drinking Fact Sheets*, 2004.

[17] The National Center on Addiction and Substance Abuse at Columbia University, *Adolescent Substance Use: America's #1 Public Health Problem*, June 2011.

CHAPTER 4. DISEASES/MORBIDITY

Note in this chapter, 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 OSF St. Mary Medical Center and OSF Holy Family Medical Center.

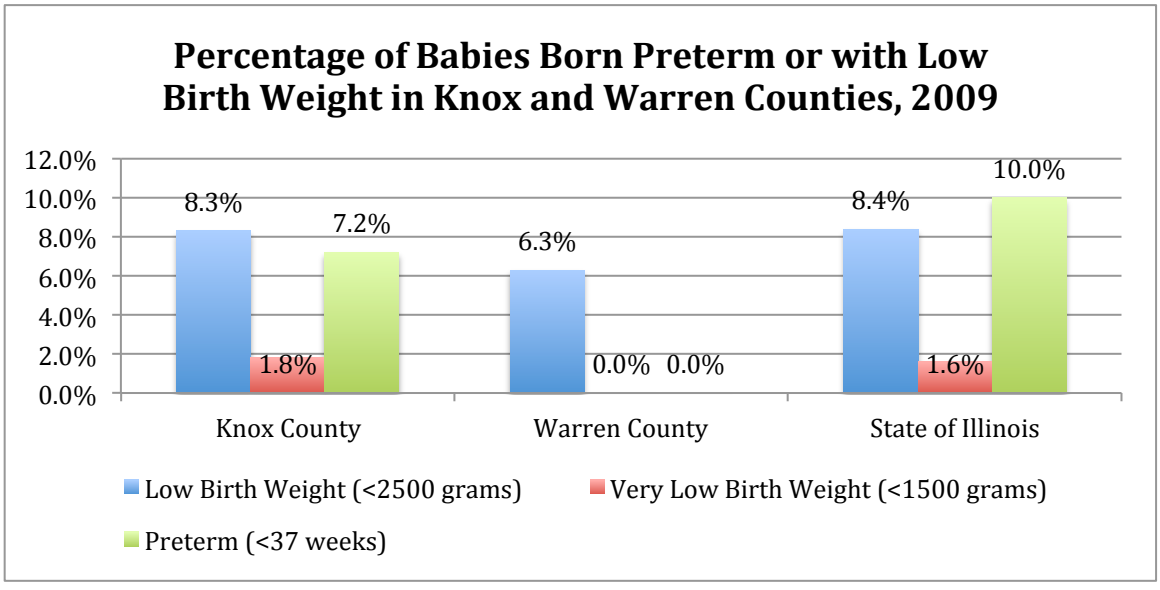
4.1 Age related

Importance of the measure: Age related statistics regarding morbidity gain insight into the prevalence of disease within two vulnerable populations – the very young and the very old. Health care services designed to meet the needs of these populations are very expensive and therefore, a thorough understanding of the leading indicators for these populations helps with managing service delivery costs.

4.1.1 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, very low, and preterm birth weights in Knox and Warren Counties was less than the State of Illinois averages.

Table 4.1.1-1: Percentage of Babies Born Preterm or with Low Birth Weight in Knox and Warren Counties, 2009



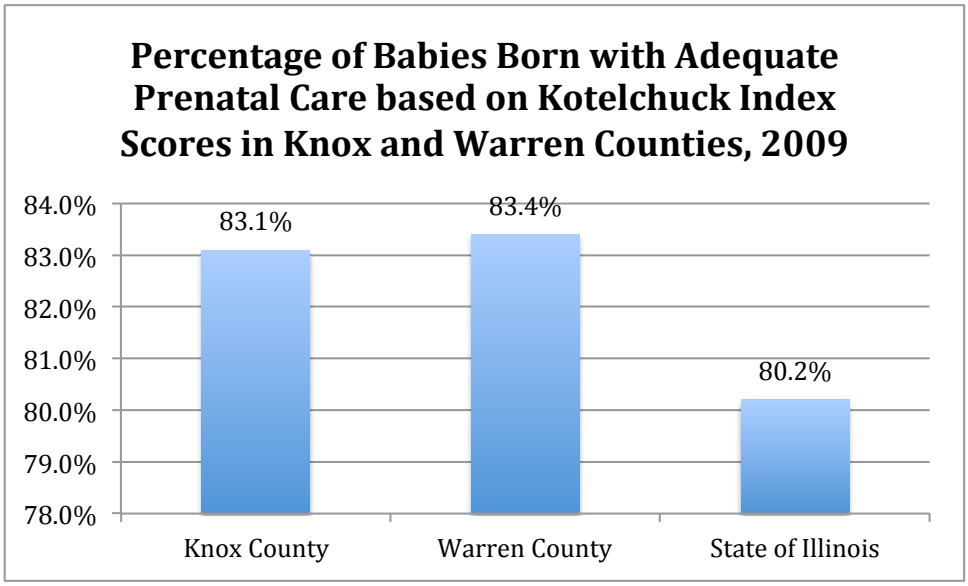
Source: Illinois Department of Public Health

4.1.2 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 Knox and Warren Counties, approximately 83% were born with "Adequate" or "Adequate Plus" prenatal care. This figure is significantly better than the State of Illinois average of 80.2% of babies born with similar prenatal care.

Table 4.1.2-1: Percentage of Babies Born with Adequate or Better Prenatal Care based on Kotelchuck Index Scores in Knox and Warren Counties, 2009



Source: Illinois Department of Public Health

4.2 Cardiovascular

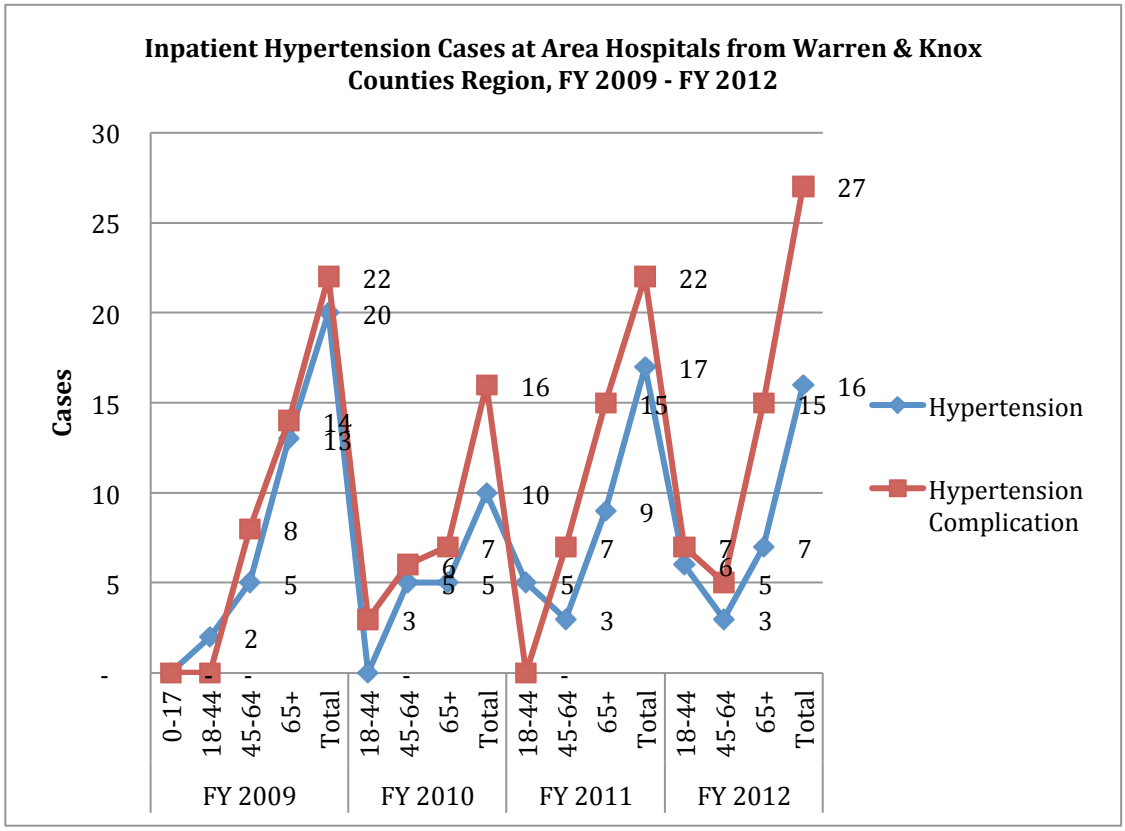
Importance of the measure:
Cardiovascular disease is defined as all diseases of the heart and blood vessels, including ischemic (also known as coronary) heart disease, cerebrovascular disease, congestive heart failure, hypertensive disease, and atherosclerosis.

4.2.1 Hypertension

High blood pressure, which is also known as hypertension, is dangerous because it forces the heart to work extra hard to pump blood out to the rest of the body and contributes to the development of the hardening of the arteries and heart failure.

Cases of hypertension peaked in FY 2009 when 20 instances were reported overall. Cases of hypertension complication peaked in FY 2012 when 27 instances were reported overall. The number of cases of inpatient hypertension complication at Area hospitals from the Warren and Knox Counties region has increased 23% between 2009 (22 cases) and 2012 (27 cases).

Table 4.2.1-1 Inpatient Hypertension Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012

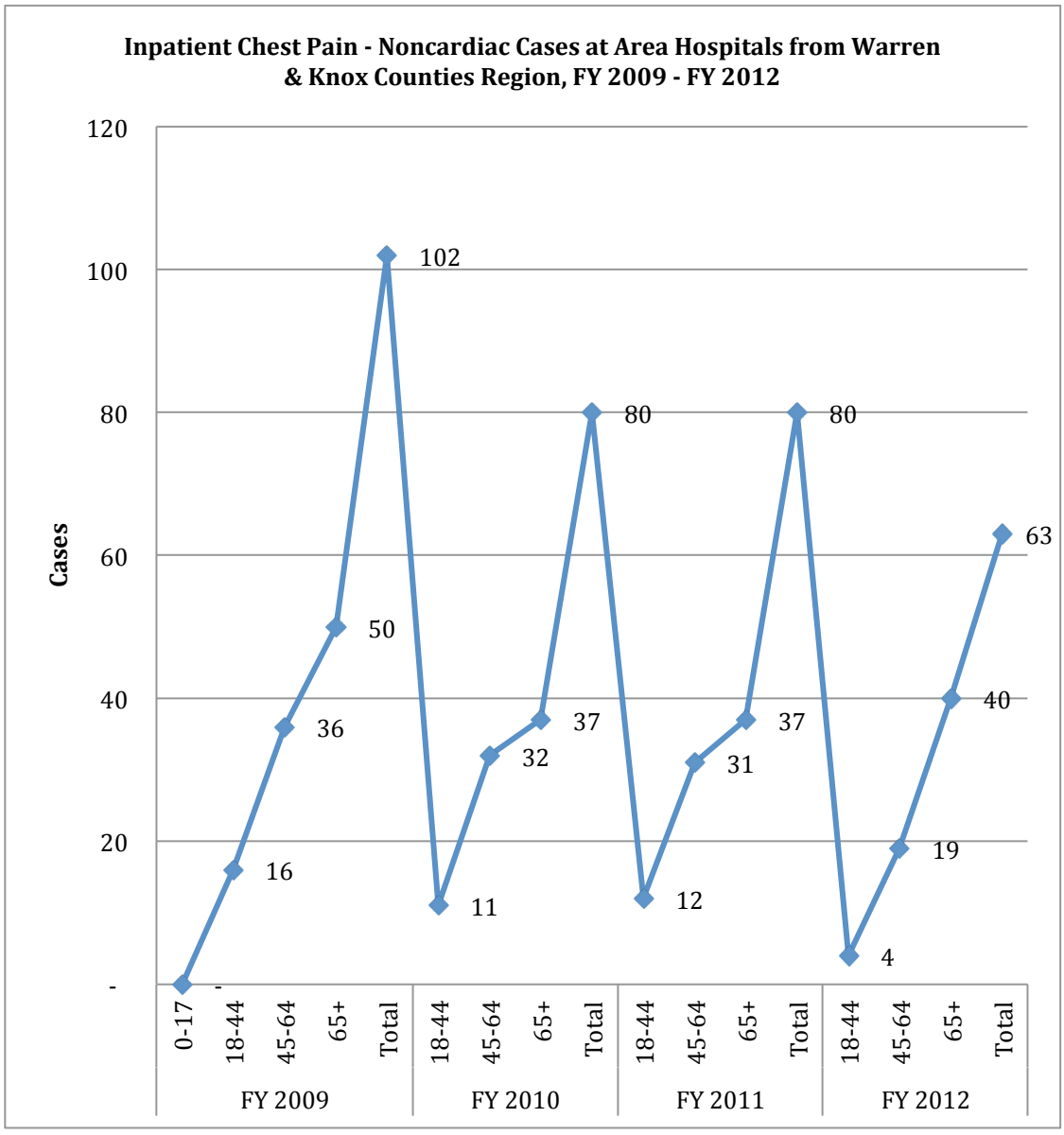


Source: COMPdata 2012

4.2.2 Coronary artery

There has been a 38% decrease in the number of treated cases of noncardiac chest pain at Area Hospitals between 2009-2012. Cases of noncardiac chest pain at Area Hospitals peaked in FY 2009 with 102 reported cases.

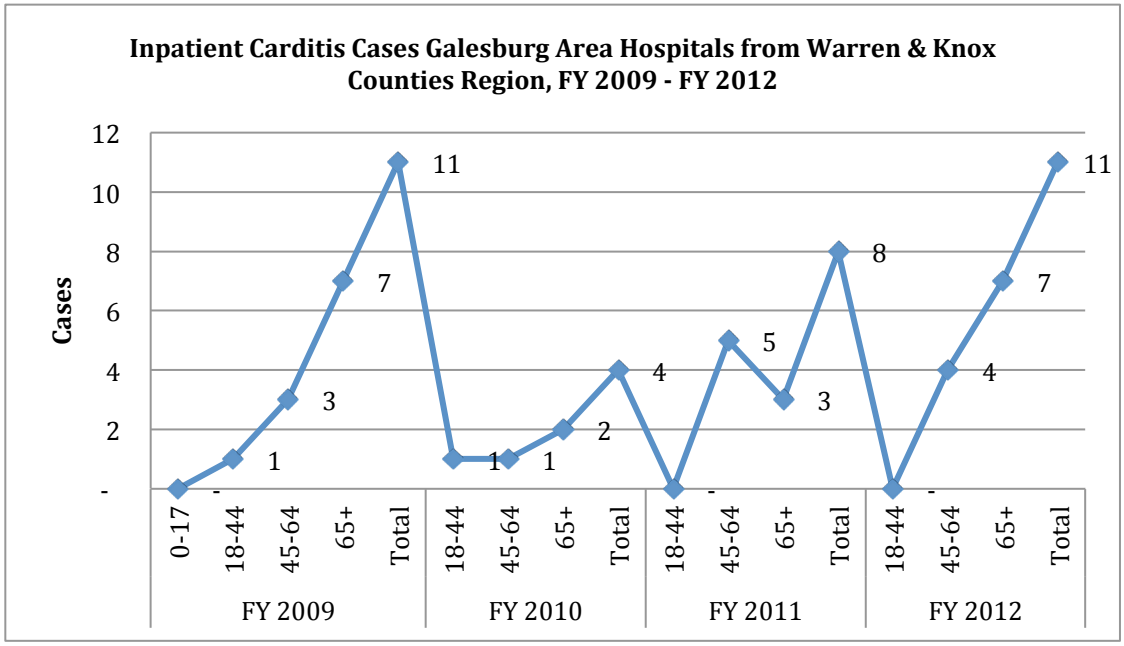
Table 4.2.2-1 Inpatient Chest Pain - Noncardiac Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of carditis at Area Hospitals were high in FY 2009 and FY 2012 when 11 cases were reported. Between FY 2009 and FY 2012, 34 cases were reported.

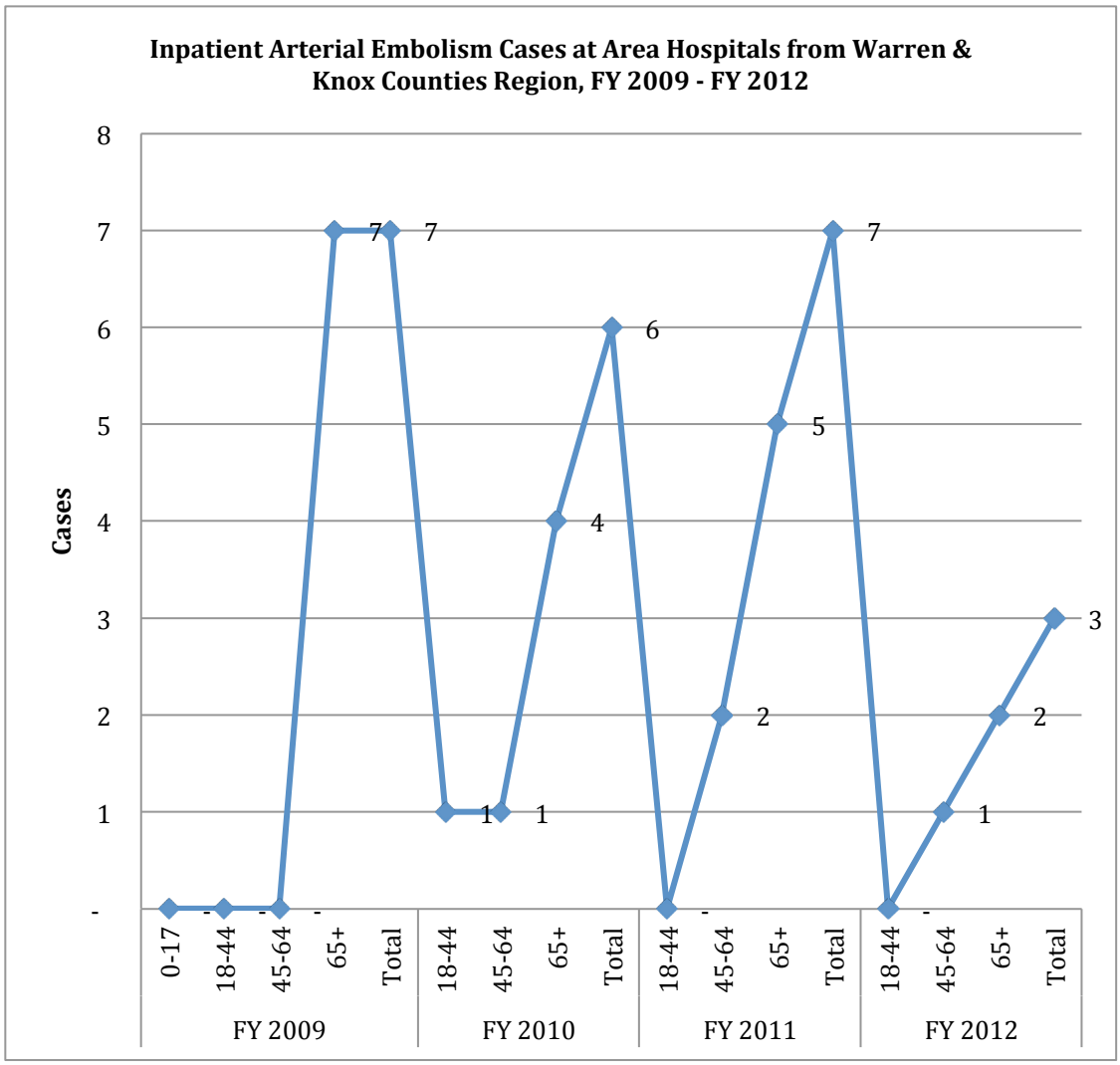
Table 4.2.2-2 Inpatient Carditis Cases Galesburg Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of arterial embolism at Area Hospitals have remained relatively constant across three of the four years, 7 cases were reported in FY 2009, 6 cases in FY 2010, and 7 cases in FY 2011. In FY 2012, there were three-reported cases of arterial embolism.

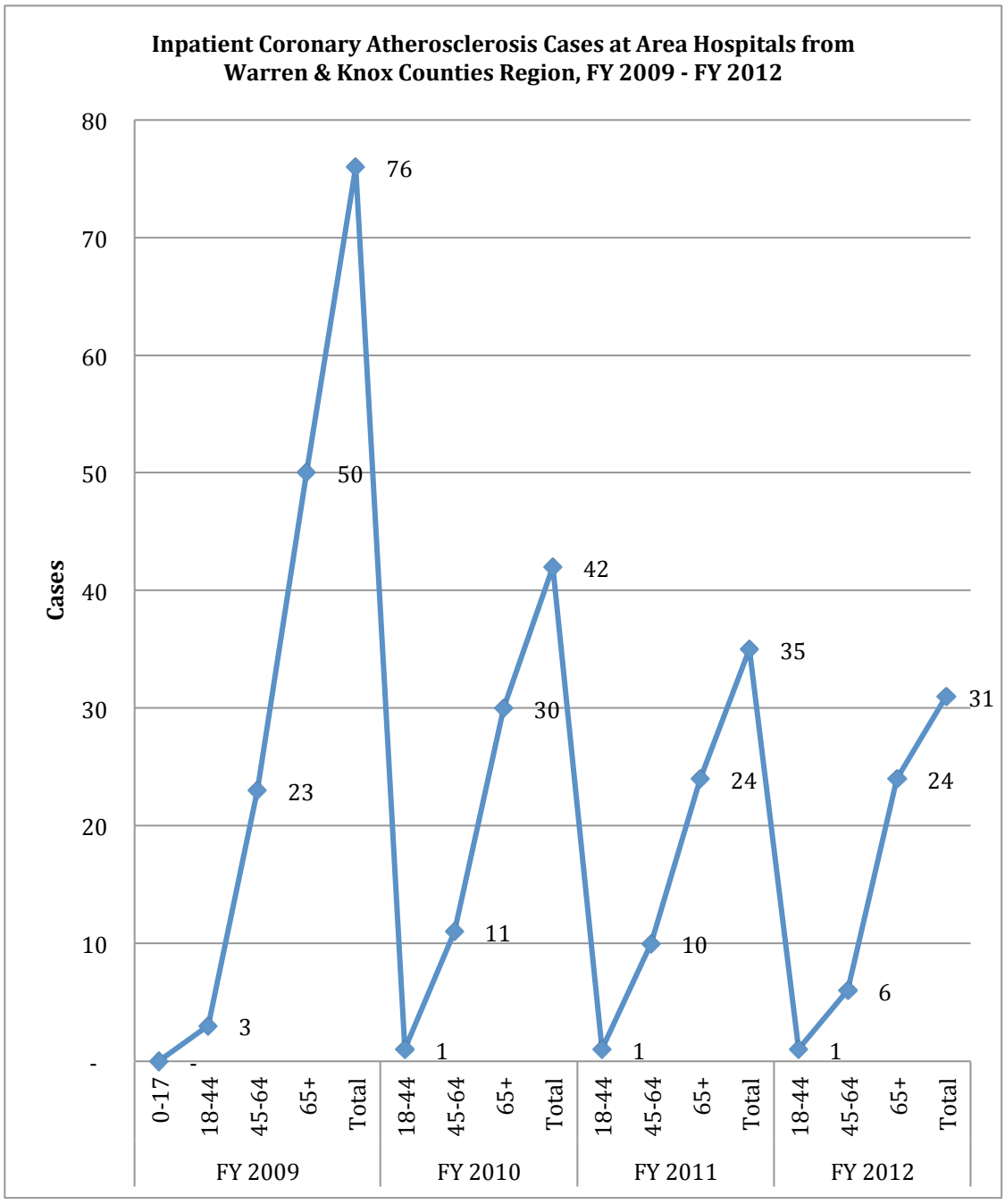
Table 4.2.2-3 Inpatient Arterial Embolism Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of coronary atherosclerosis at Area Hospitals peaked in FY 2009 when 76 cases were reported. Between FY 2009 and FY 2012, cases have decreased 59%.

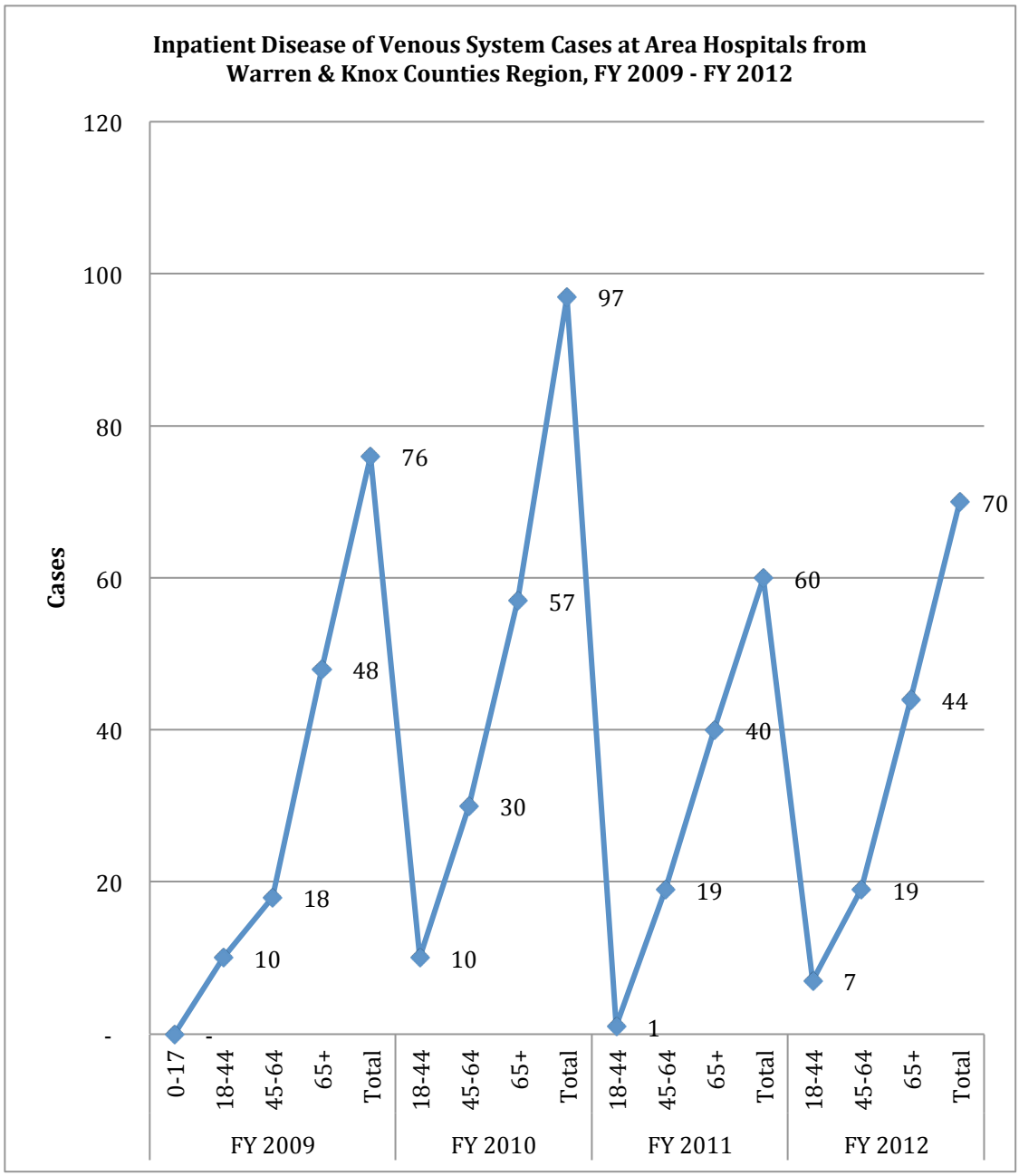
Table 4.2.2-4 Inpatient Coronary Atherosclerosis Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of disease of the venous system at Area Hospitals have decreased by 8% between FY 2009 and FY 2012 with a peak of 97 cases reported in FY 2010.

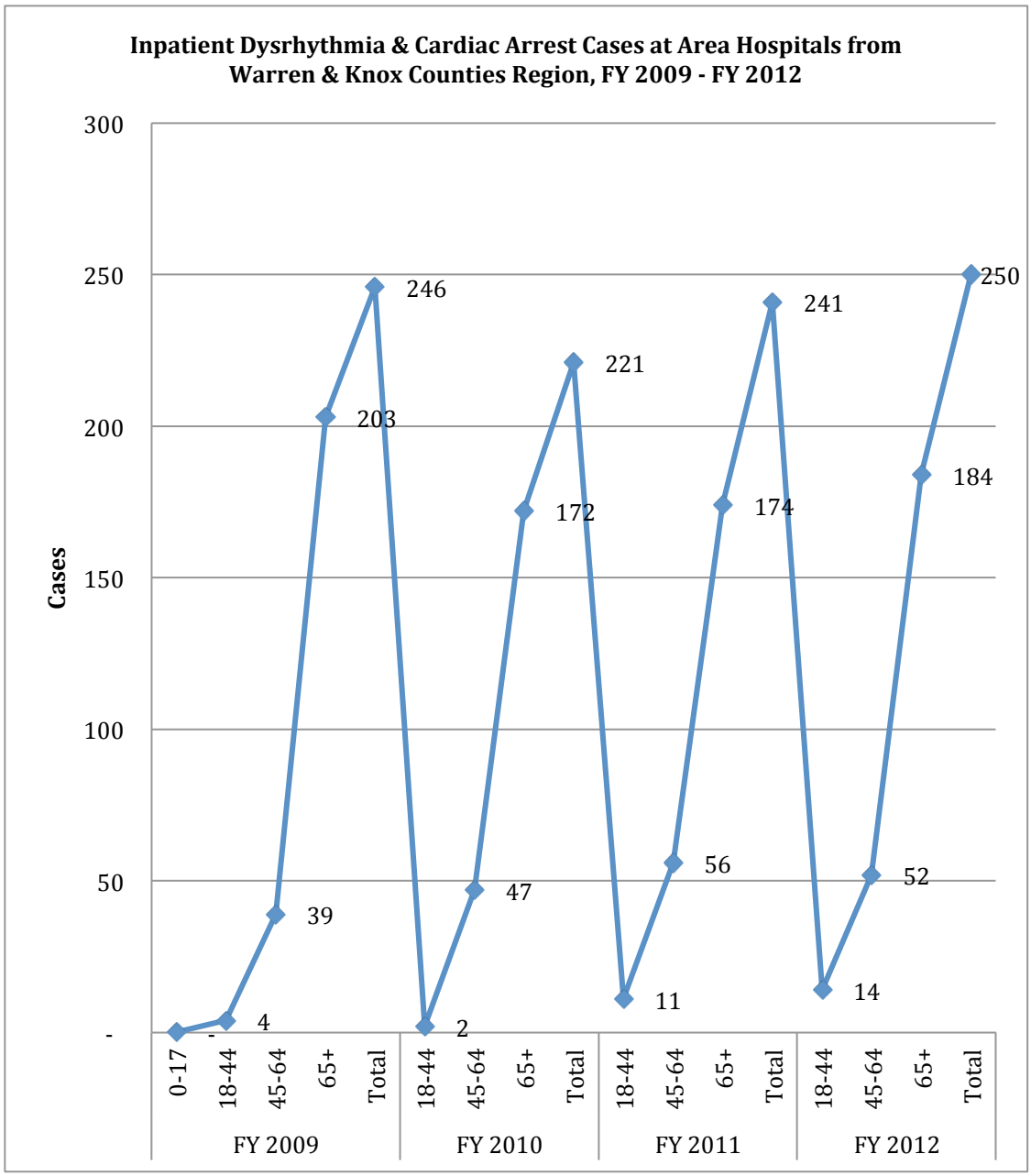
Table 4.2.2-5 Inpatient Disease of Venous System Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of dysrhythmia and cardiac arrest at Area Hospitals have increased by 2% between FY 2009 and FY 2012. The number of cases of inpatient dysrhythmia and cardiac arrest at Area hospitals from the Warren and Knox Counties region has increased 33% between 2009 (39 cases) and 2012 (52 cases) for individuals 45 to 64 years of age.

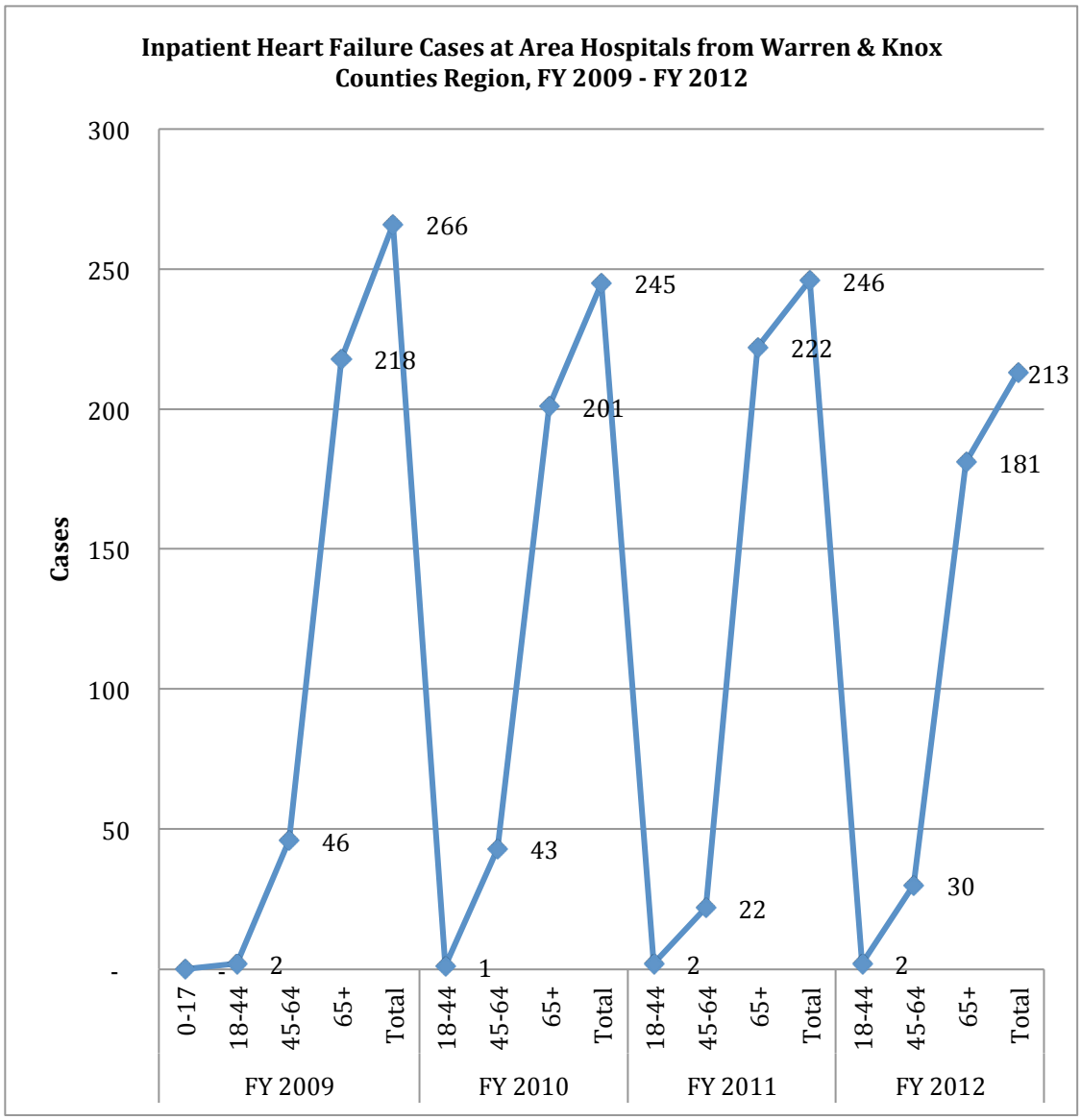
Table 4.2.2-6 Inpatient Dysrhythmia & Cardiac Arrest Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

There has been a 20% decrease in the number of treated cases of heart failure at Area Hospitals between FY 2009 and FY 2012. Cases of heart failure have remained steady between FY 2009 and FY 2012 with an average of 243 cases reported annually.

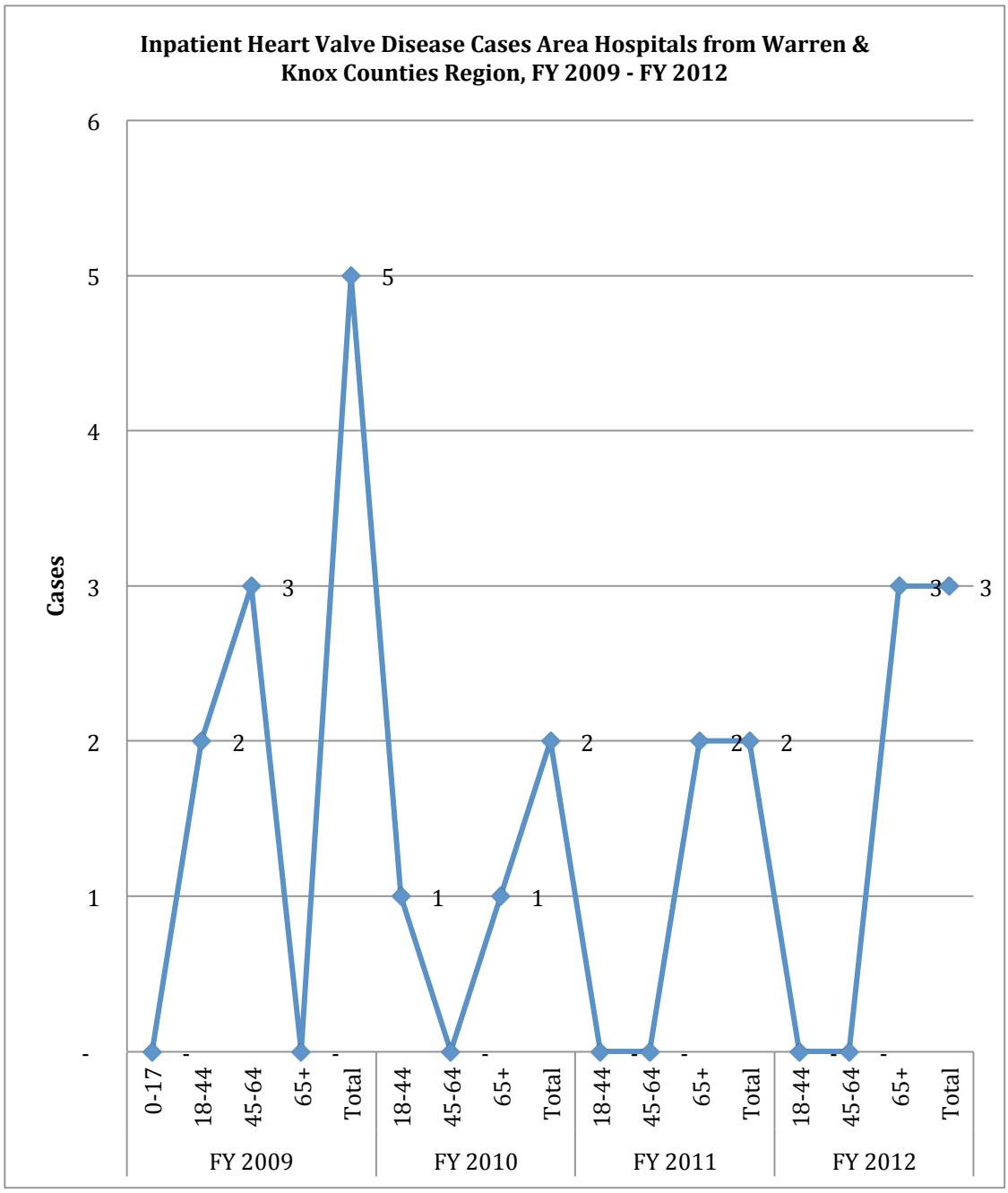
Table 4.2.2-7 Inpatient Heart Failure Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, there were 12 reported cases of heart valve disease at Area Hospitals. Cases of heart valve disease peaked in FY 2009 with 5 cases.

Table 4.2.2-8 Inpatient Heart Valve Disease Cases Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012

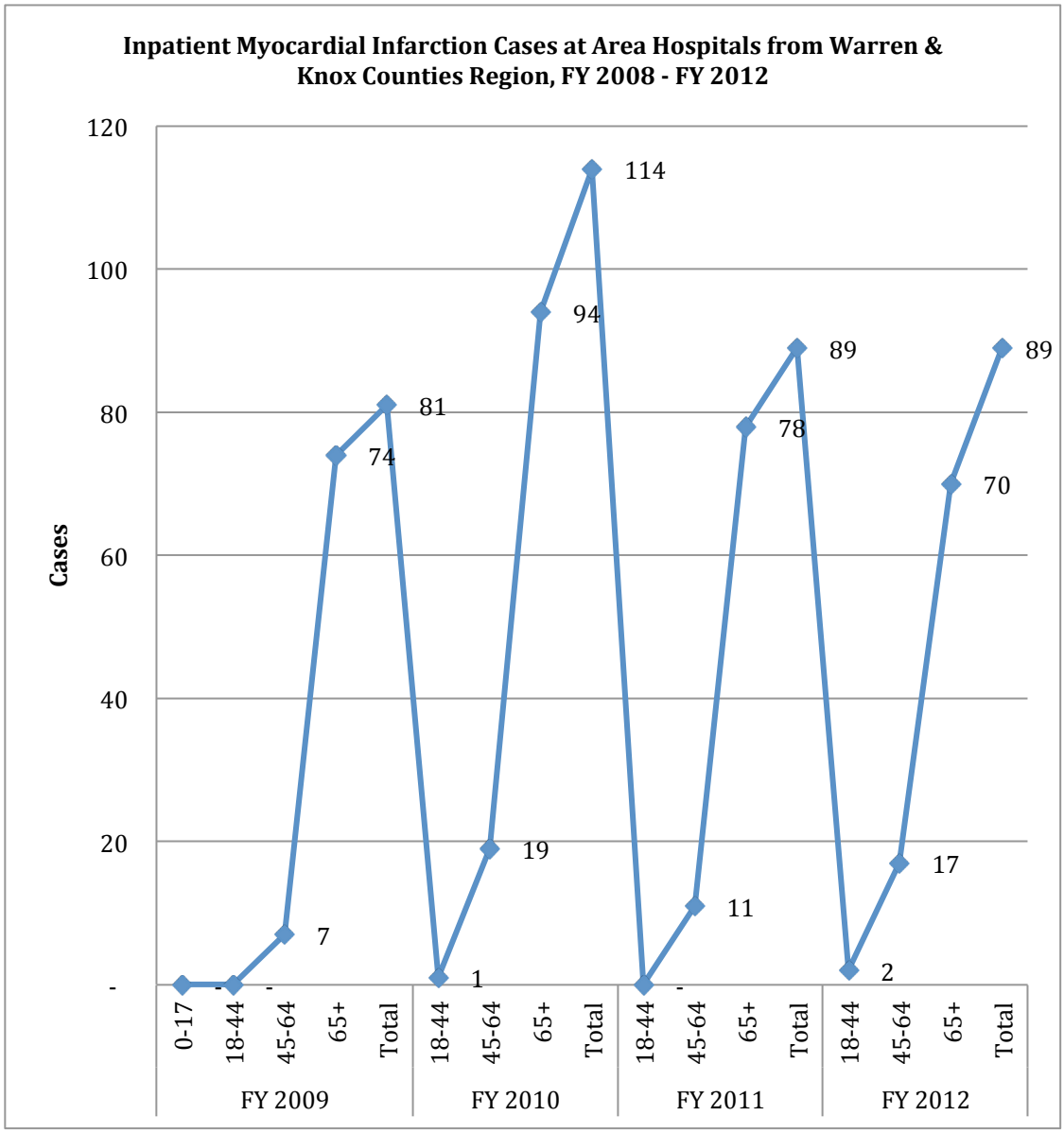


Source: COMPdata 2012

Cases of myocardial infarction at Area Hospitals have increased by 9.9% between FY 2009 and FY 2012 and peaking in FY 2010 with 114 reported cases. The number of cases of inpatient myocardial infarction for individuals 45 to 64 years of age at Area hospitals from the

Warren and Knox Counties region has increased 142% between 2009 (7 cases) and 2012 (17 cases).

Table 4.2.2-9 Inpatient Myocardial Infarction Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012

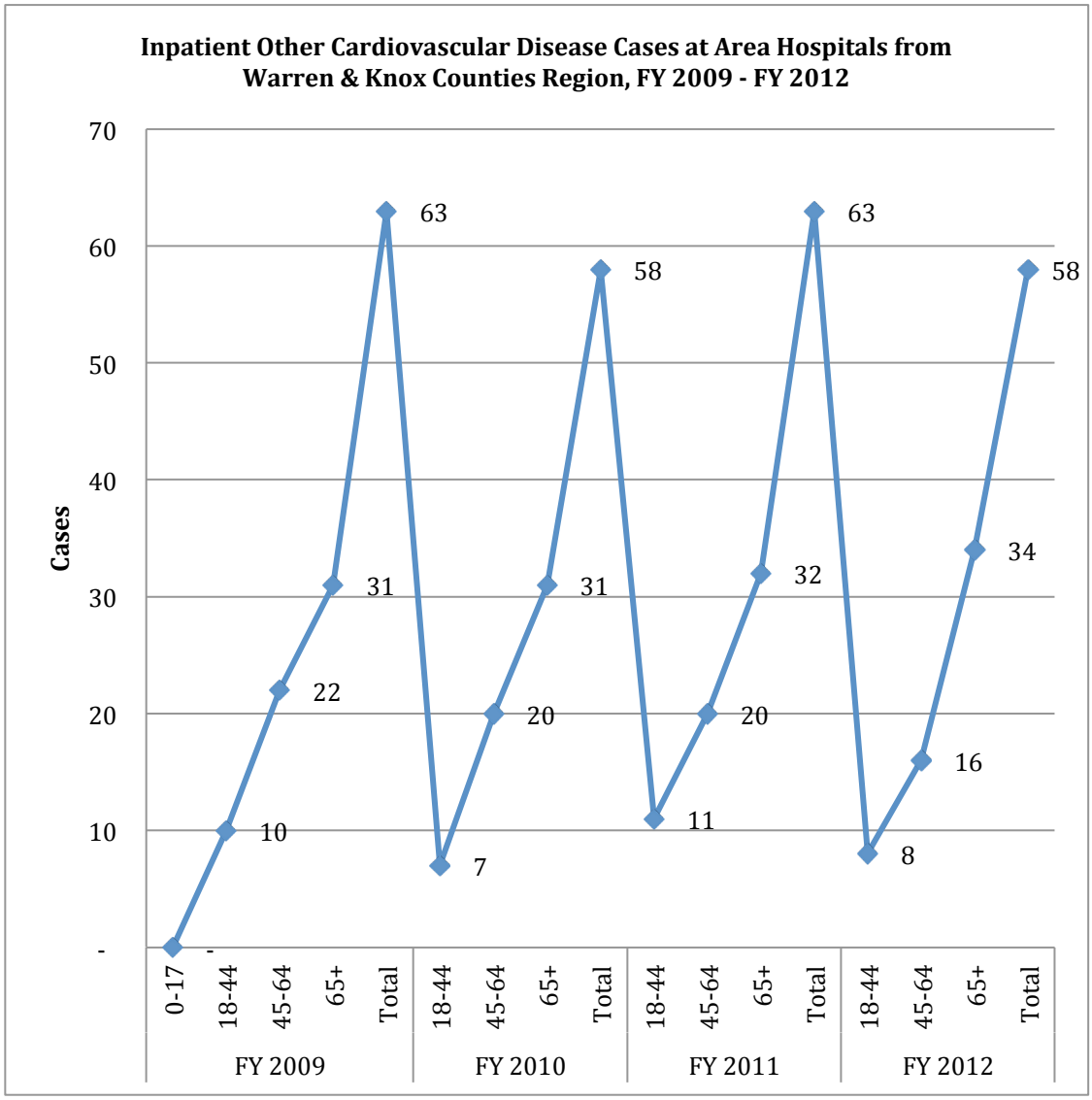


Source: COMPdata 2012

Cases of other cardiovascular disease at Area Hospitals have decreased by 8% between FY 2009 and FY 2012 for inpatient admissions.

Of particular interest, cases of other cardiovascular disease in individuals aged 65 and over have increased by 10% during the same time frame for inpatient admissions.

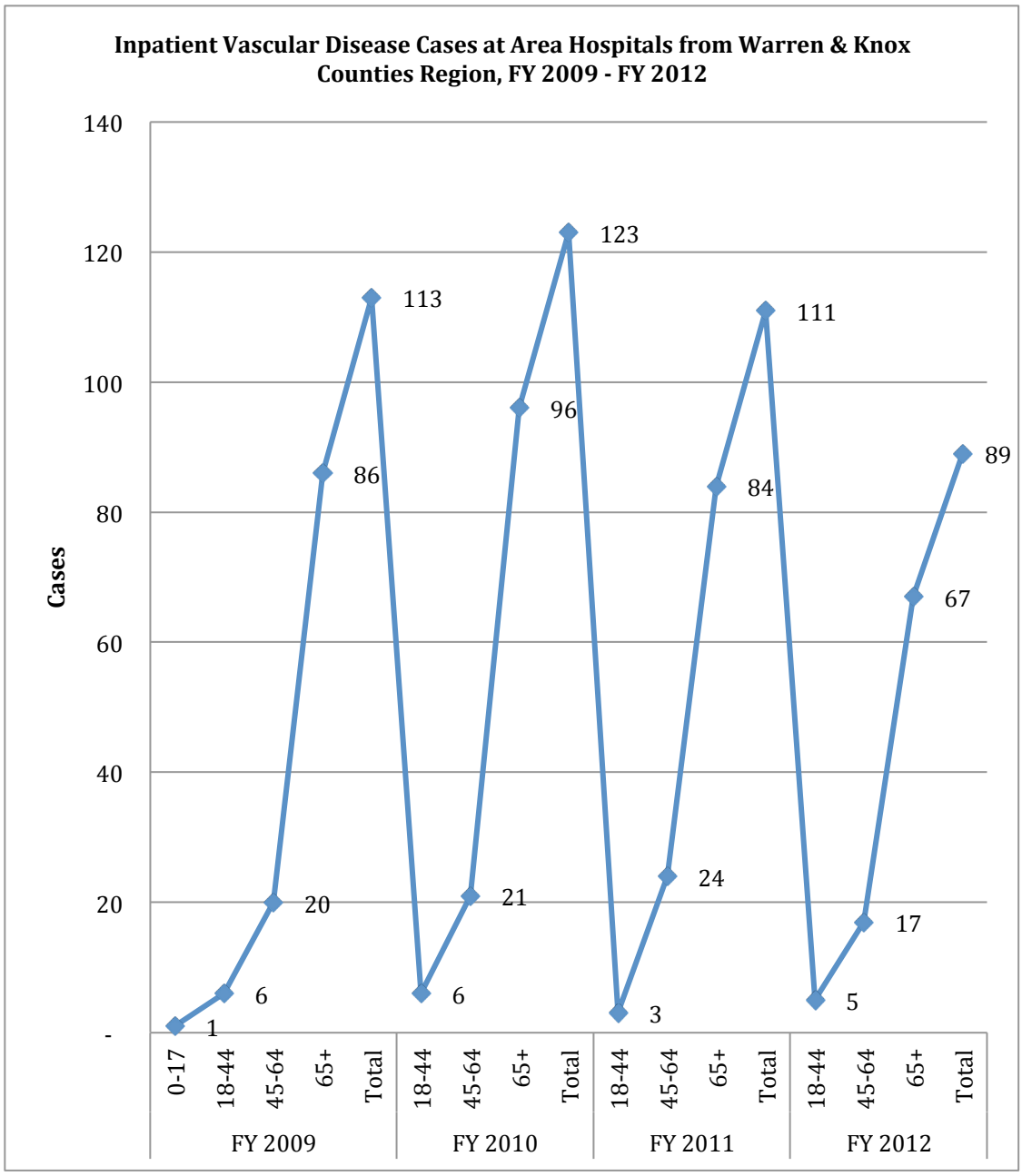
Table 4.2.2-10 Inpatient Other Cardiovascular Disease Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of vascular disease at Area Hospitals have decreased by 21% between FY 2009 and FY 2012 for inpatient admissions. Cases of vascular disease peaked in FY 2010 when 123 cases were reported.

Table 4.2.2-11 Inpatient Vascular Disease Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



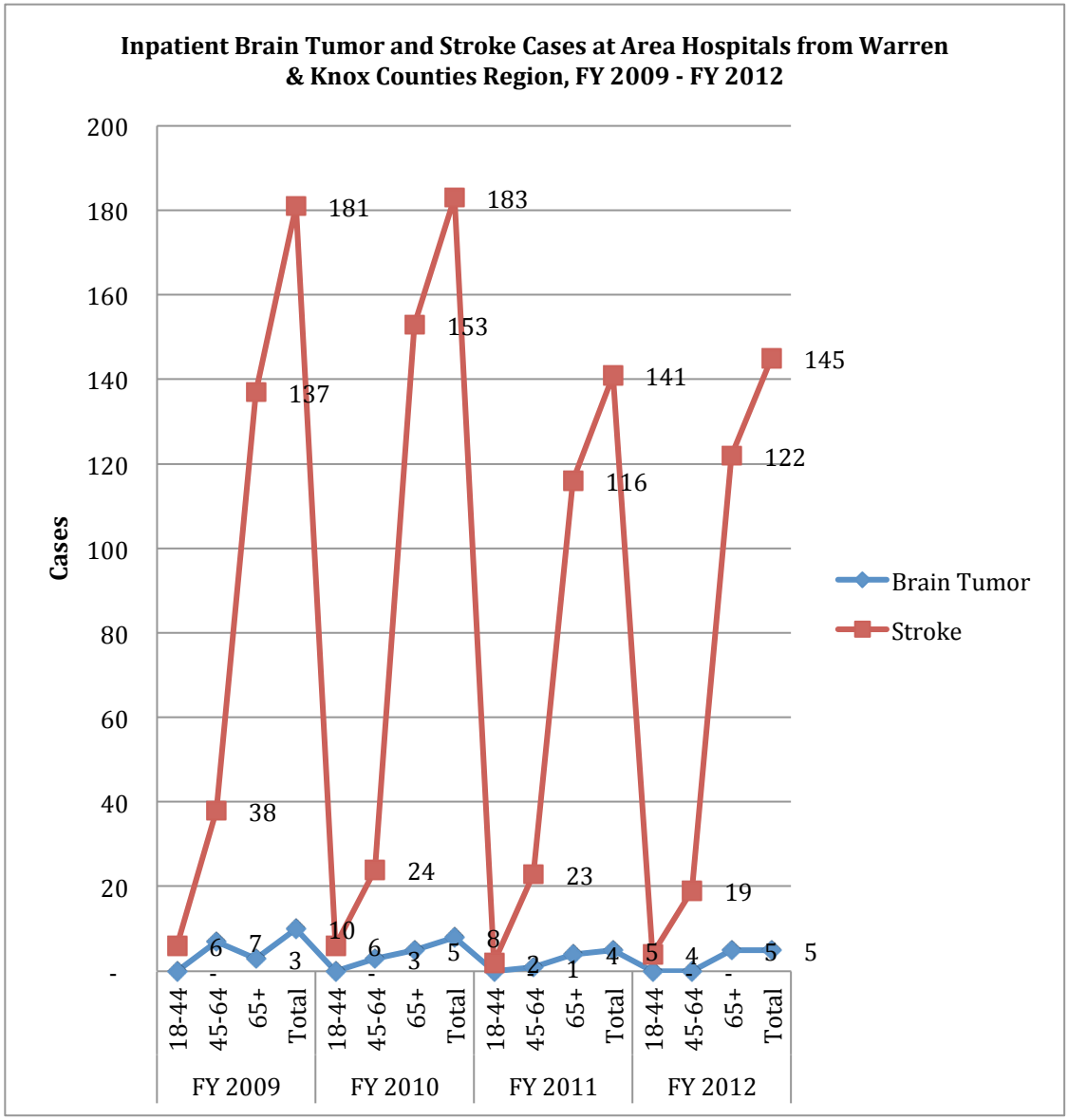
Source: COMPdata 2012

4.2.3 Stroke

Cases of inpatient brain tumor at Area Hospitals peaked in FY 2009 with 10 reported cases. Recent data from FY 2012 indicate 5 cases were reported.

Cases of stroke at Area Hospitals decreased by 20% between FY 2009 and FY 2012 for inpatient admissions.

Table 4.2.3-1 Inpatient Brain Tumor and Stroke Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

4.3 Respiratory

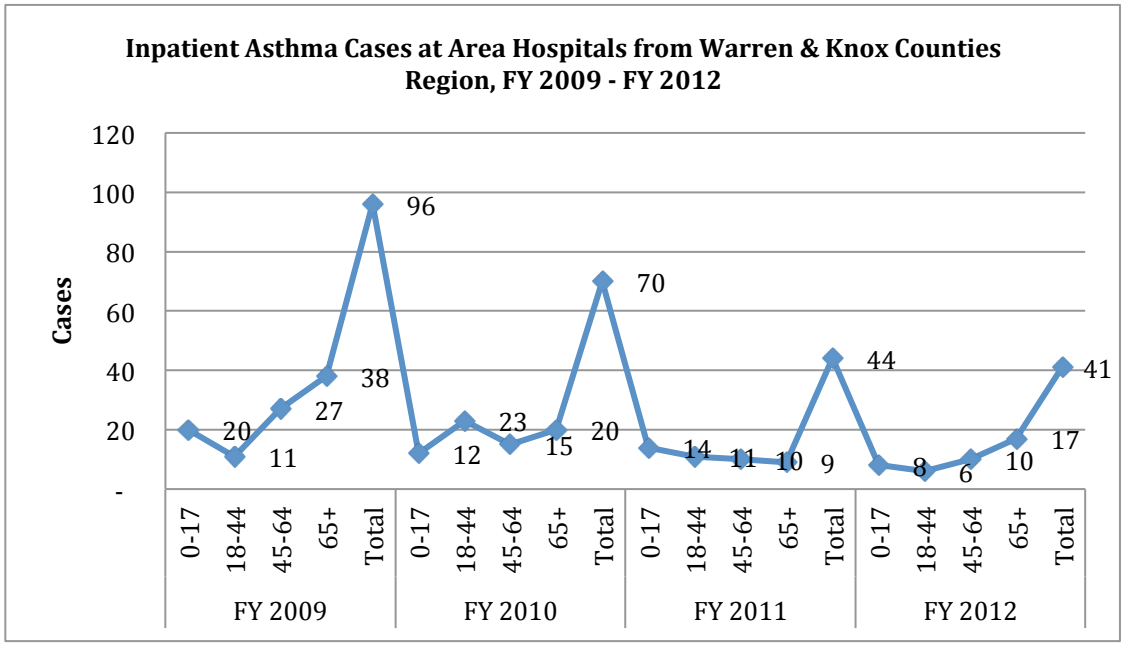
Importance of the measure: Disease of the respiratory system includes acute upper respiratory infections such as influenza, pneumonia, bronchitis, asthma, emphysema, and Chronic

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.

4.3.1 Asthma

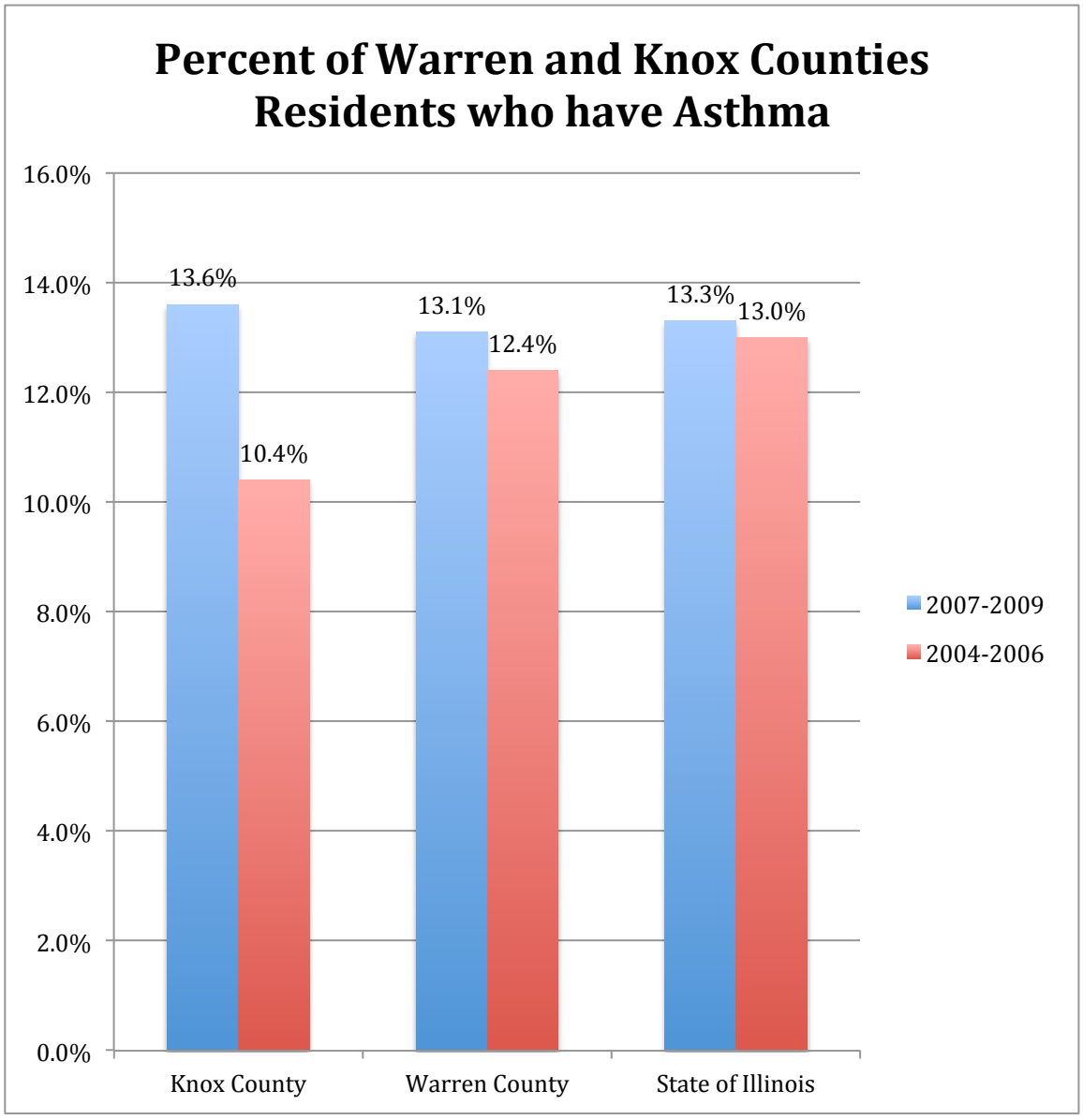
Treated cases of asthma at Area Hospitals have decreased by 57% between FY 2009 and FY 2012 for inpatient admissions. According to the Illinois BRFSS, There was a 31% growth in the percentage of Knox County residents reporting they had asthma between 2006 (10.4%) and 2009 (13.6%). Similarly, there was a 6% growth in the percentage of Warren County residents reporting they had asthma between 2006 (12.4%) and 2009 (13.1%). For comparison, there was only a 2% growth in the percentage of Illinois residents reporting they had asthma between 2006 (13.0%) and 2009 (13.3%). Rates in Knox County now exceed the State of Illinois average.

Table 4.3.1-1 Inpatient Asthma Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Table 4.3.1-2 Percent of Warren and Knox Counties Residents who have Asthma

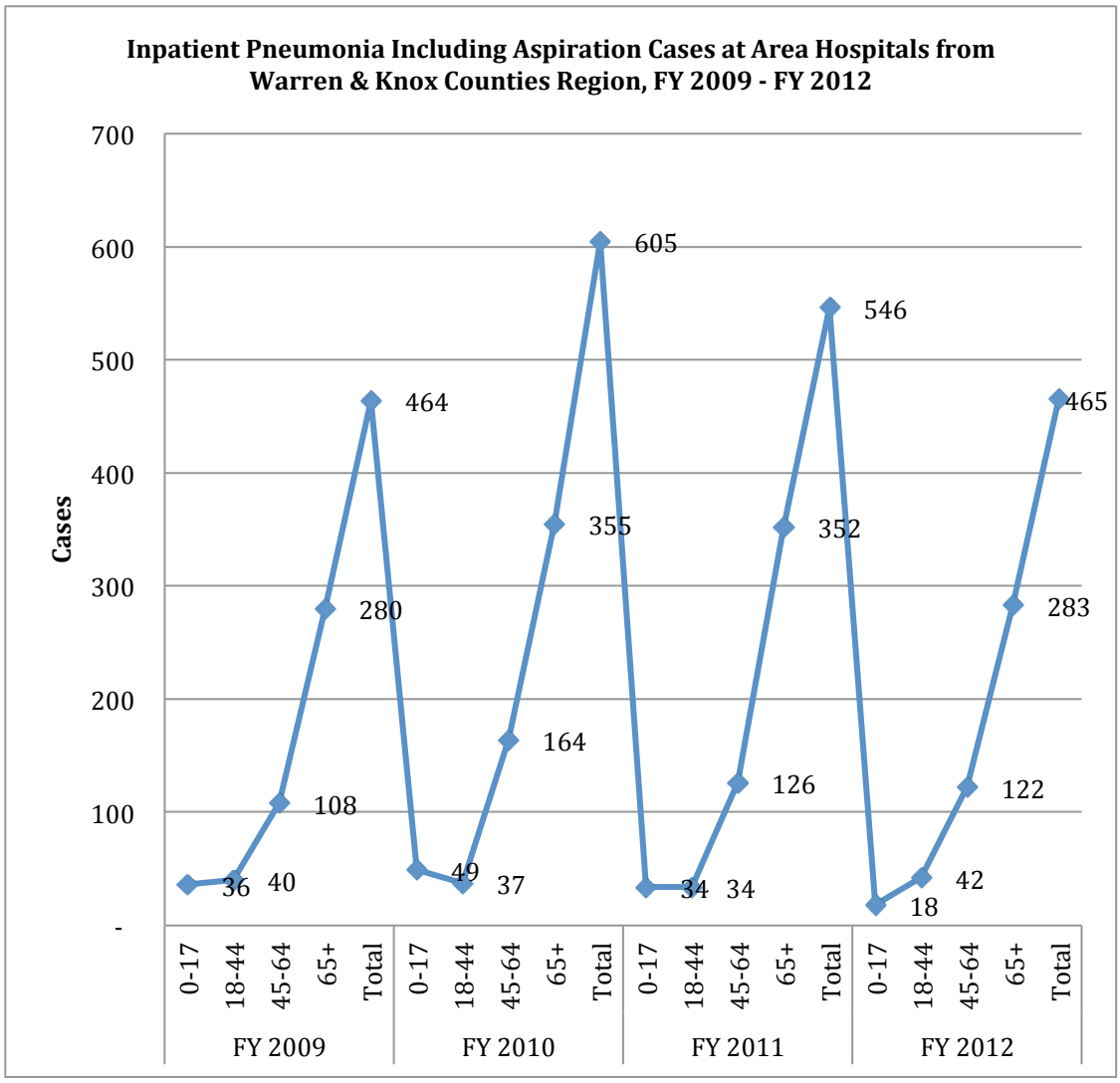


Source: Illinois Department of Public Health

4.3.2 Pneumonia

Treated cases of pneumonia at Area Hospitals have increased by less than 1% between FY 2009 and FY 2012 for inpatient admissions. However, the number of cases of pneumonia for individuals age 45-64 years of age and older at Area hospitals from the Warren and Knox Counties region has increased 13% between 2009 (108 cases) and 2012 (122 cases). Cases of pneumonia peaked in FY 2010 when 605 cases were reported.

Table 4.3.2-1 Inpatient Pneumonia Including Aspiration Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012

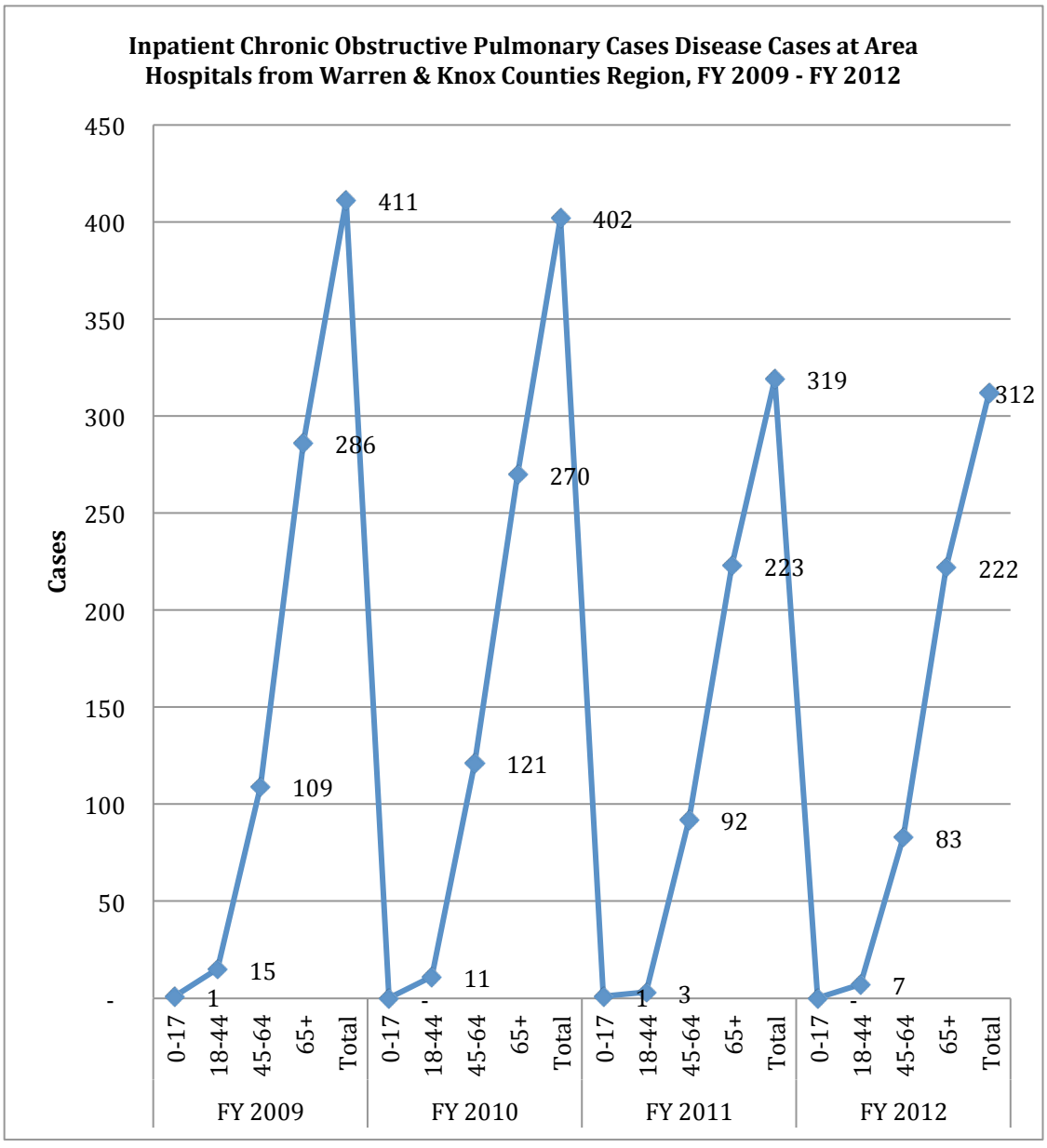


Source: COMPdata 2012

4.3.3 COPD

There has been a 24% decrease in the number of treated cases of COPD at Area Hospitals between FY 2009 and FY 2012 for inpatient admissions. Cases of COPD peaked in FY 2009 with 411 reported cases.

Table 4.3.3-1 Inpatient Chronic Obstructive Pulmonary Cases Disease Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



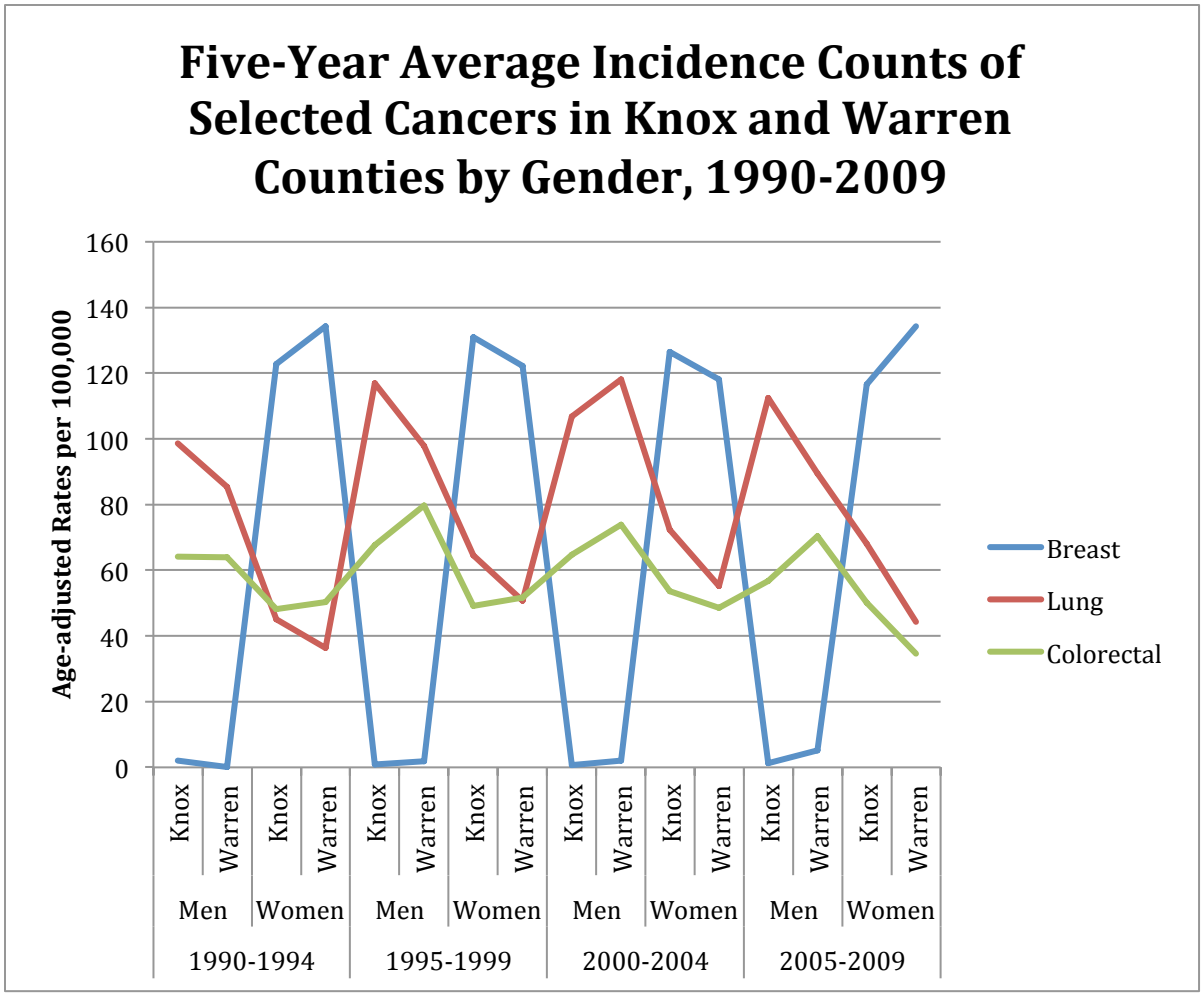
Source: COMPdata 2012

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 the Warren and Knox Counties Region.

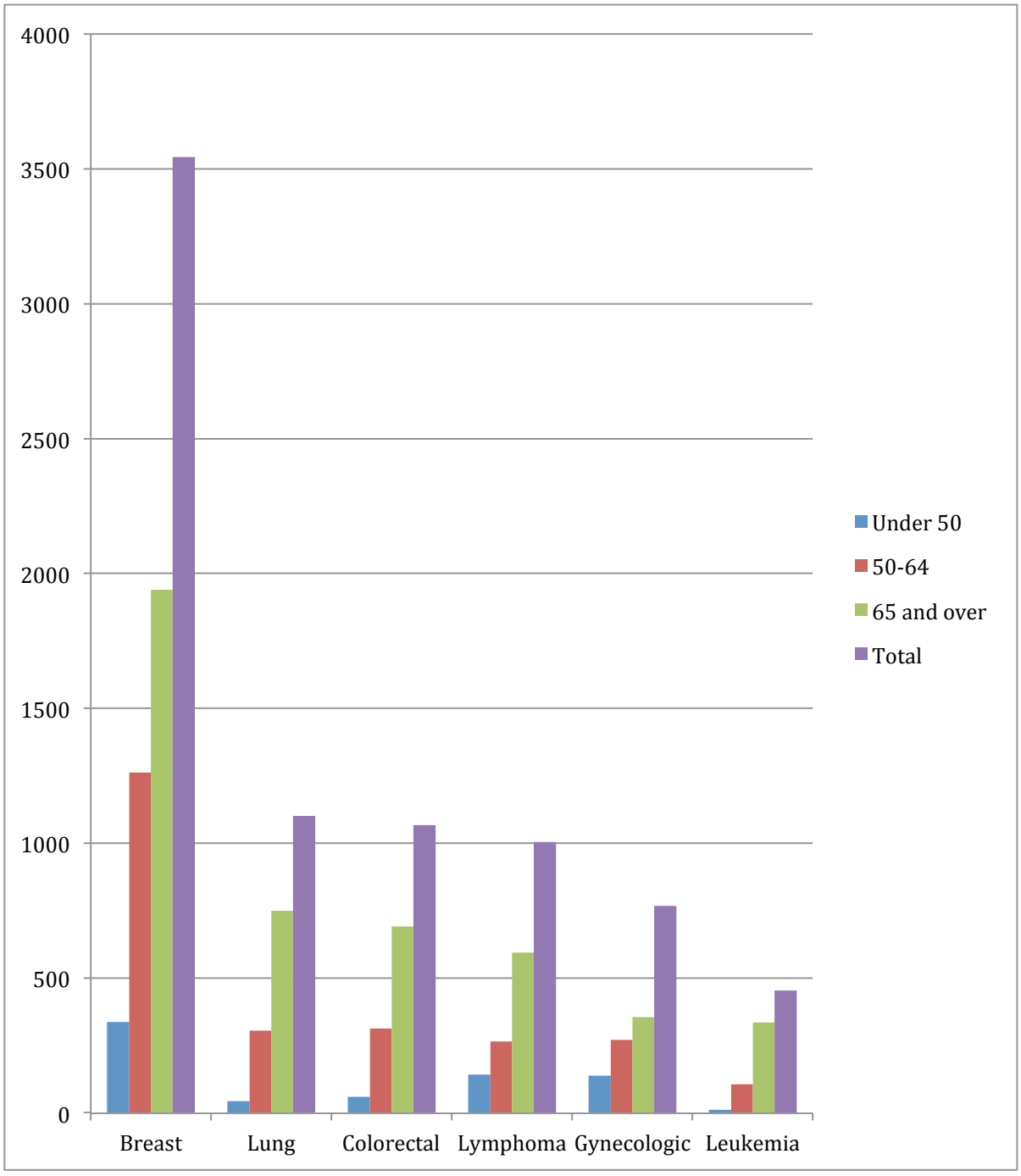
Table 4.4-1 provides longitudinal data on the incidence counts of breast, lung, and colorectal cancers in Knox and Warren Counties. Tables 4.4-2 and 4.4-3 offer insight into the number of treated cases of the top 6 cancers by treatment in Illinois by age and percentage breakdown by gender.

Table 4.4-1 Five-Year Average Incidence Counts of Selected Cancers in Knox and Warren Counties by Gender, 1990-2009



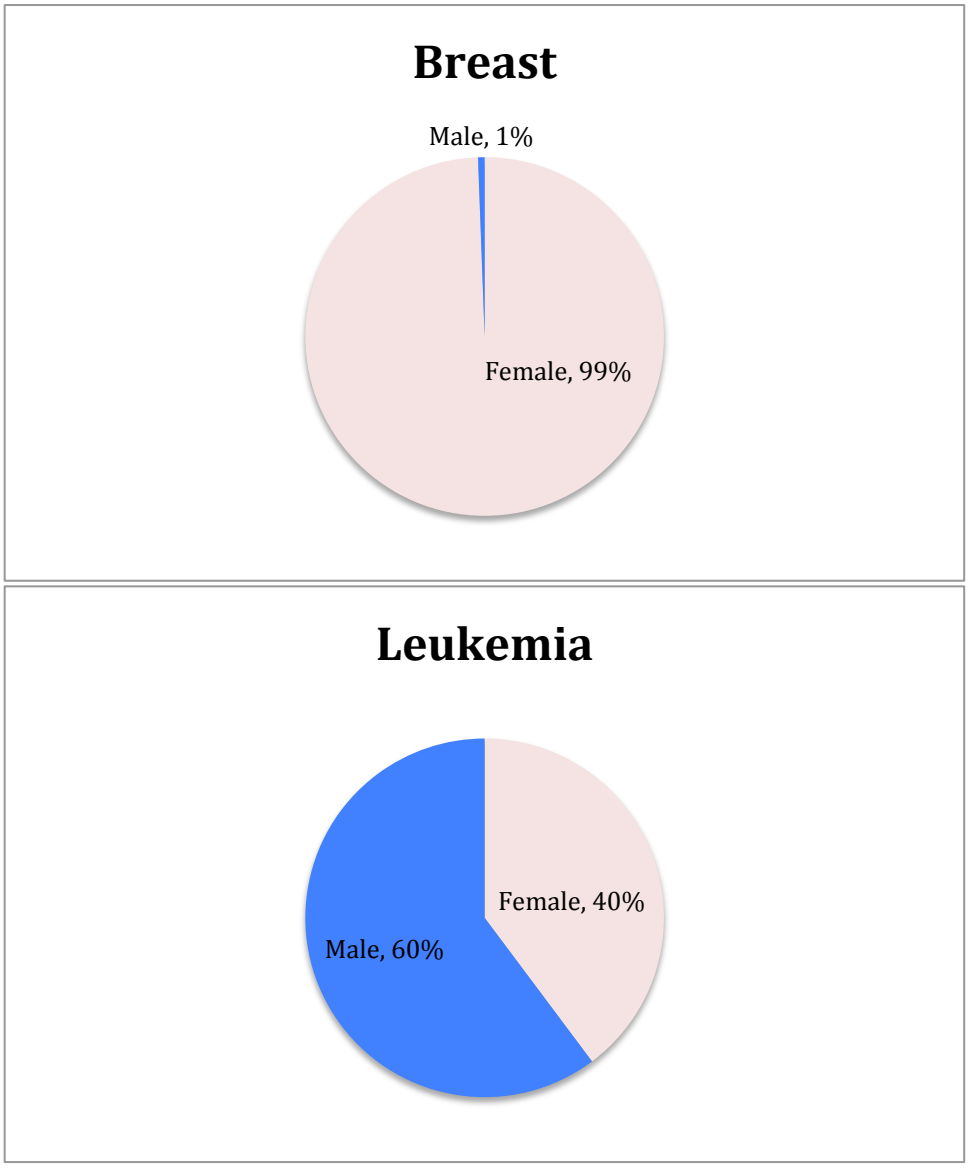
Source: IL Department of Public Health

Table 4.4-2 Top 6 Cancers by Treatment

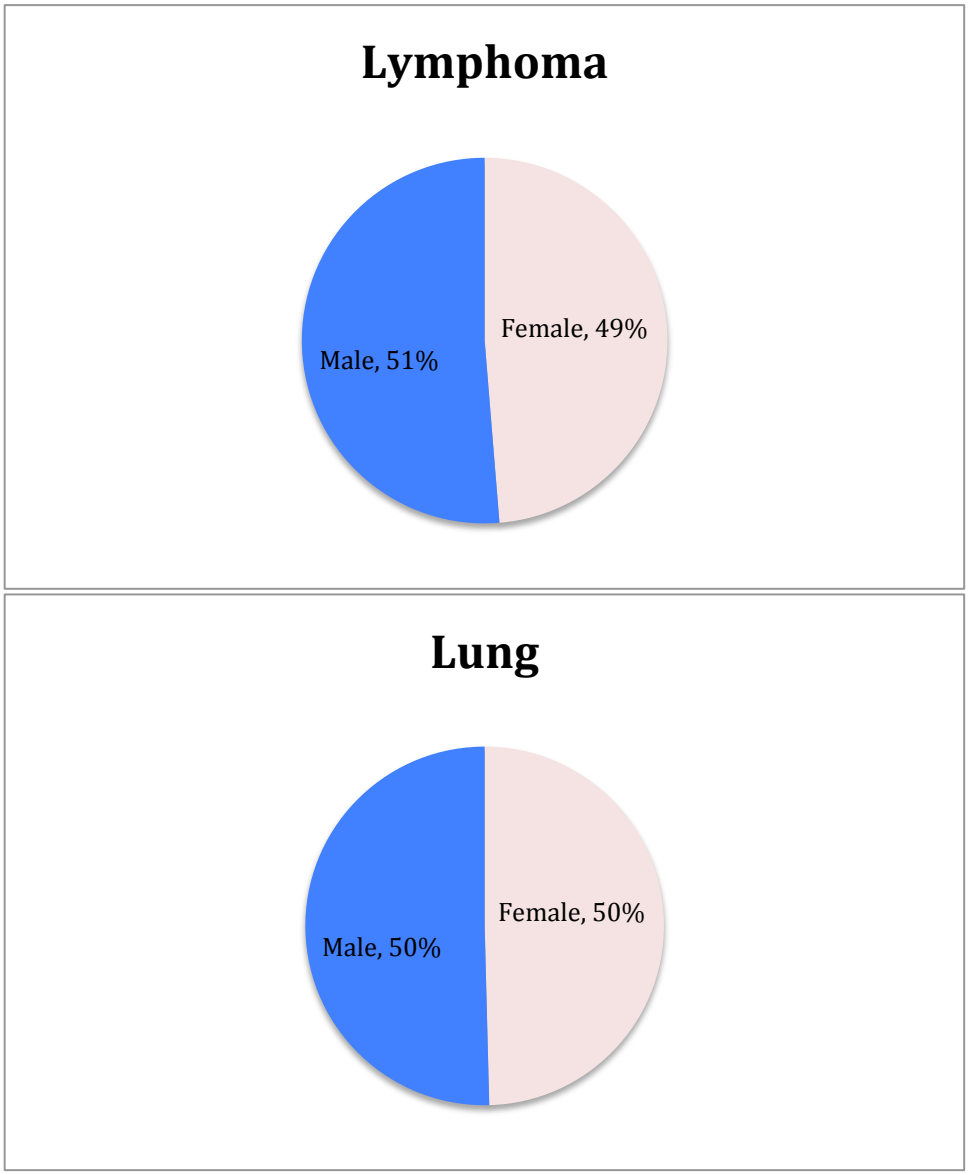


Source: IL Cancer Care, 2011

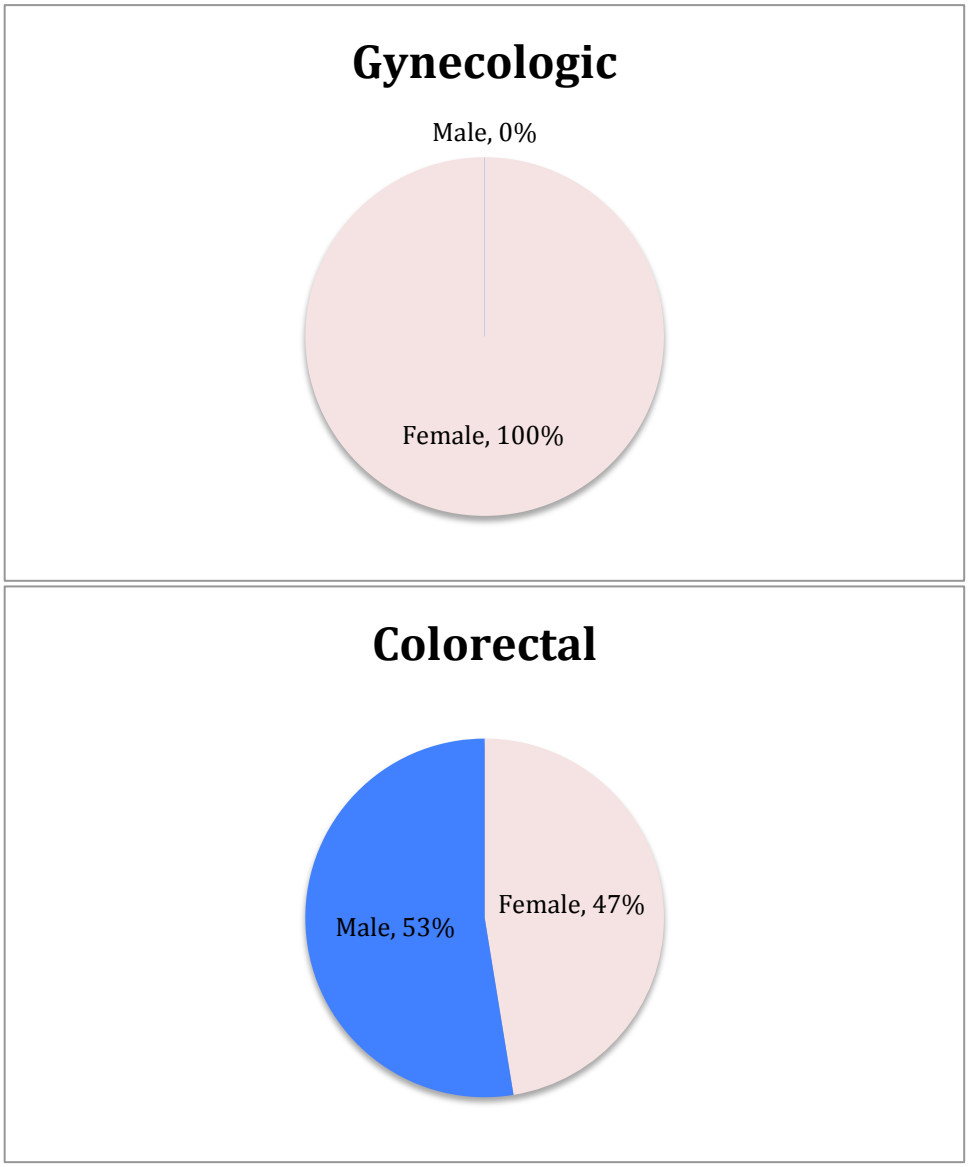
Table 4.4-3 Cancer by Gender



Source: IL Cancer Care, 2011



Source: IL Cancer Care, 2011

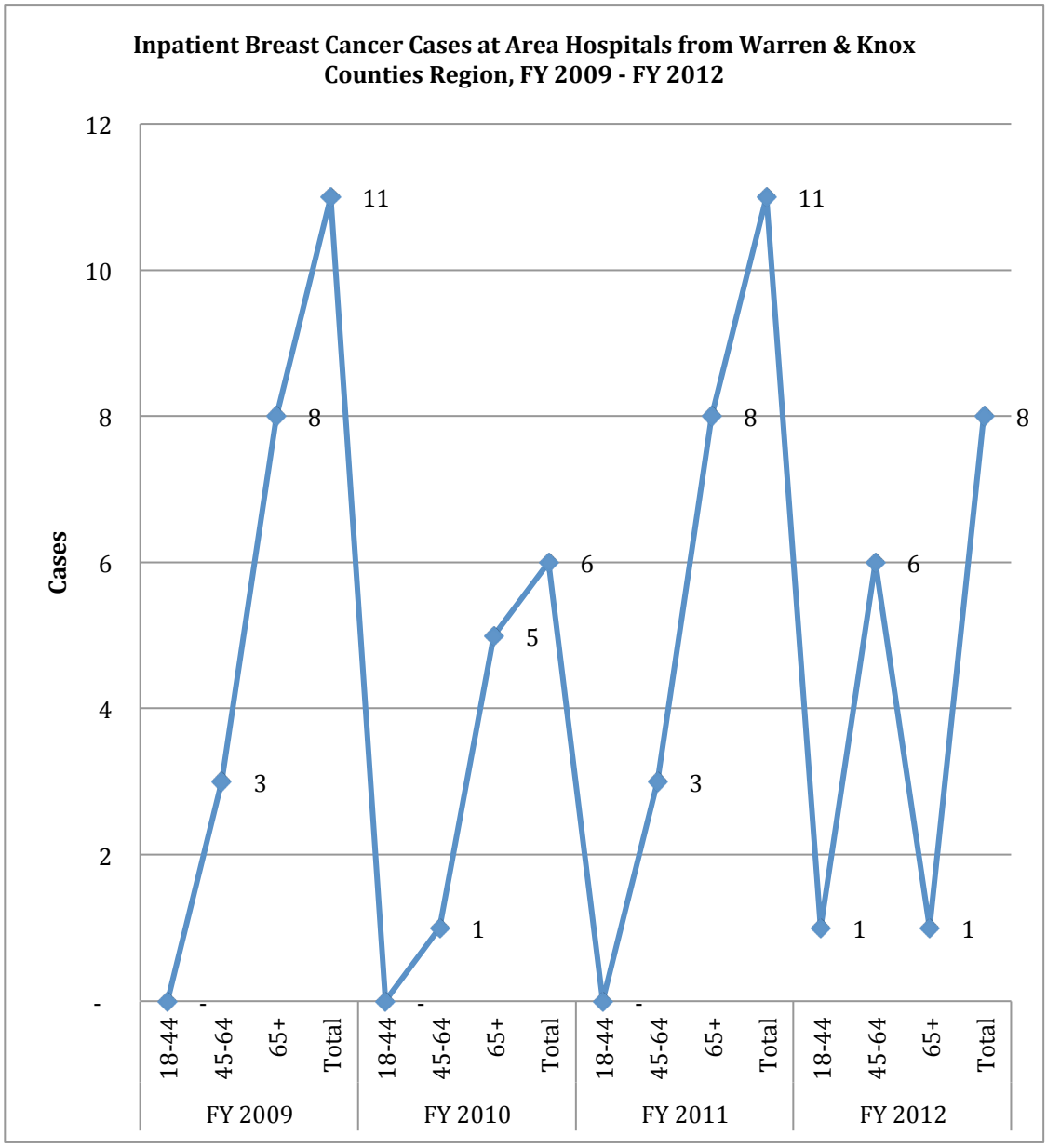


Source: IL Cancer Care, 2011

4.4.1 Carcinoma

Between FY 2009 and FY 2012, there were 36 reported cases of inpatient breast cancer at Area Hospitals. Inpatient cases of breast cancer peaked in FY 2009 and FY 2011 with 11 cases.

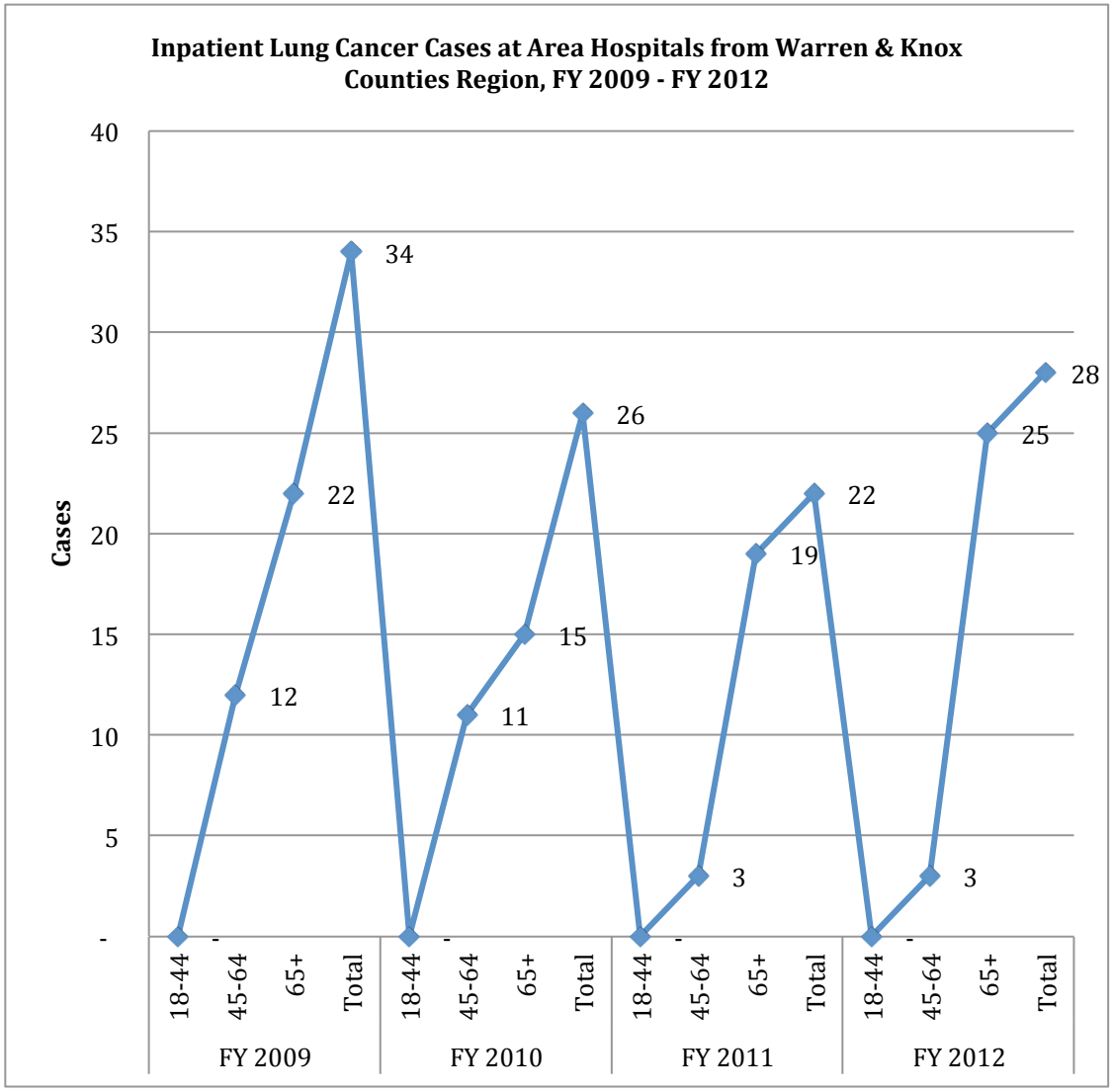
Table 4.4.1-1 Inpatient Breast Cancer Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, cases of inpatient lung cancer at Area Hospitals decreased 18%. Inpatient cases of lung cancer peaked in FY 2009 with 34 cases.

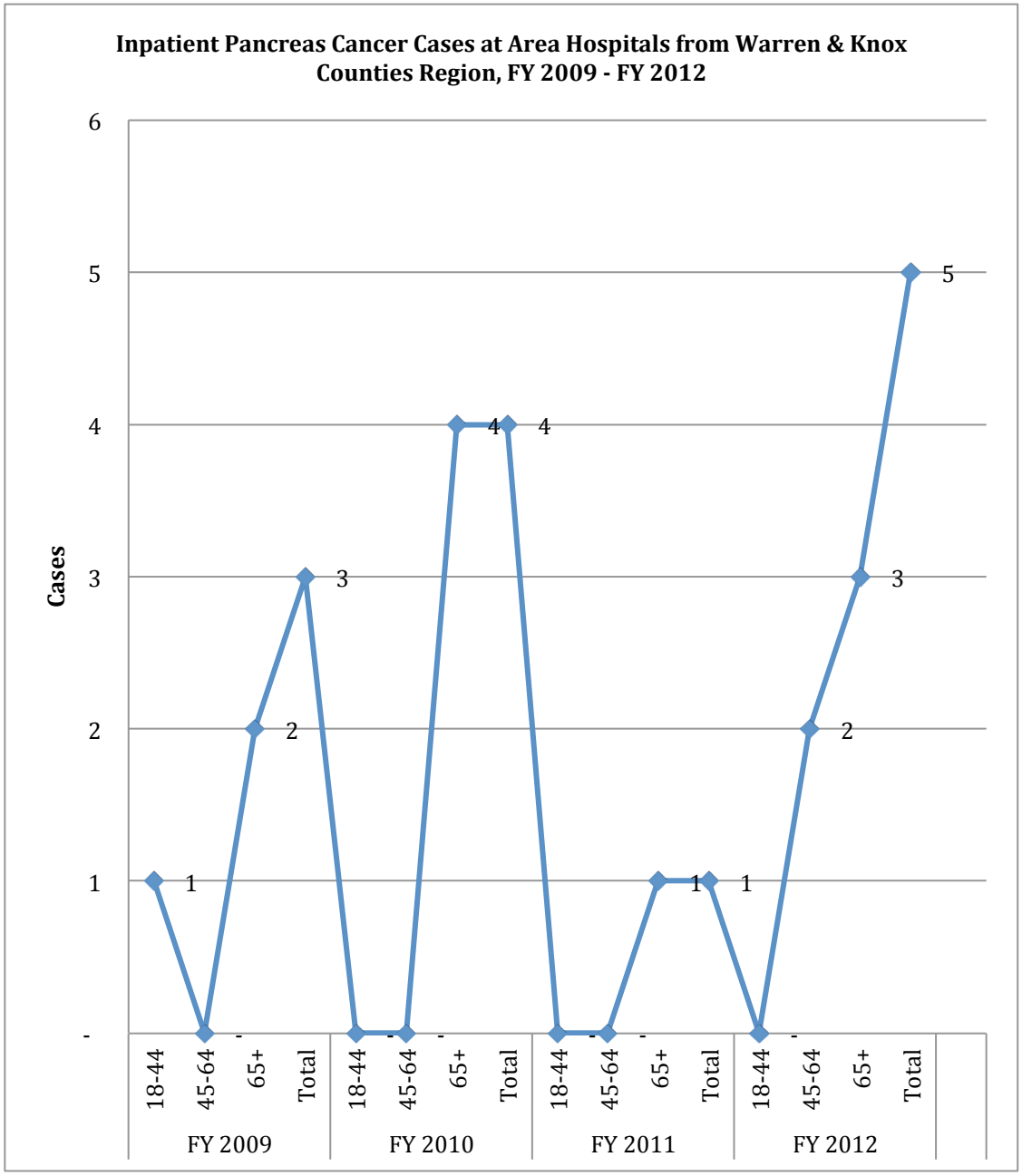
Table 4.4.1-2 Inpatient Lung Cancer Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, there were 12 cases of inpatient pancreas cancer at Area Hospitals and peaking in FY 2012 with 5 cases.

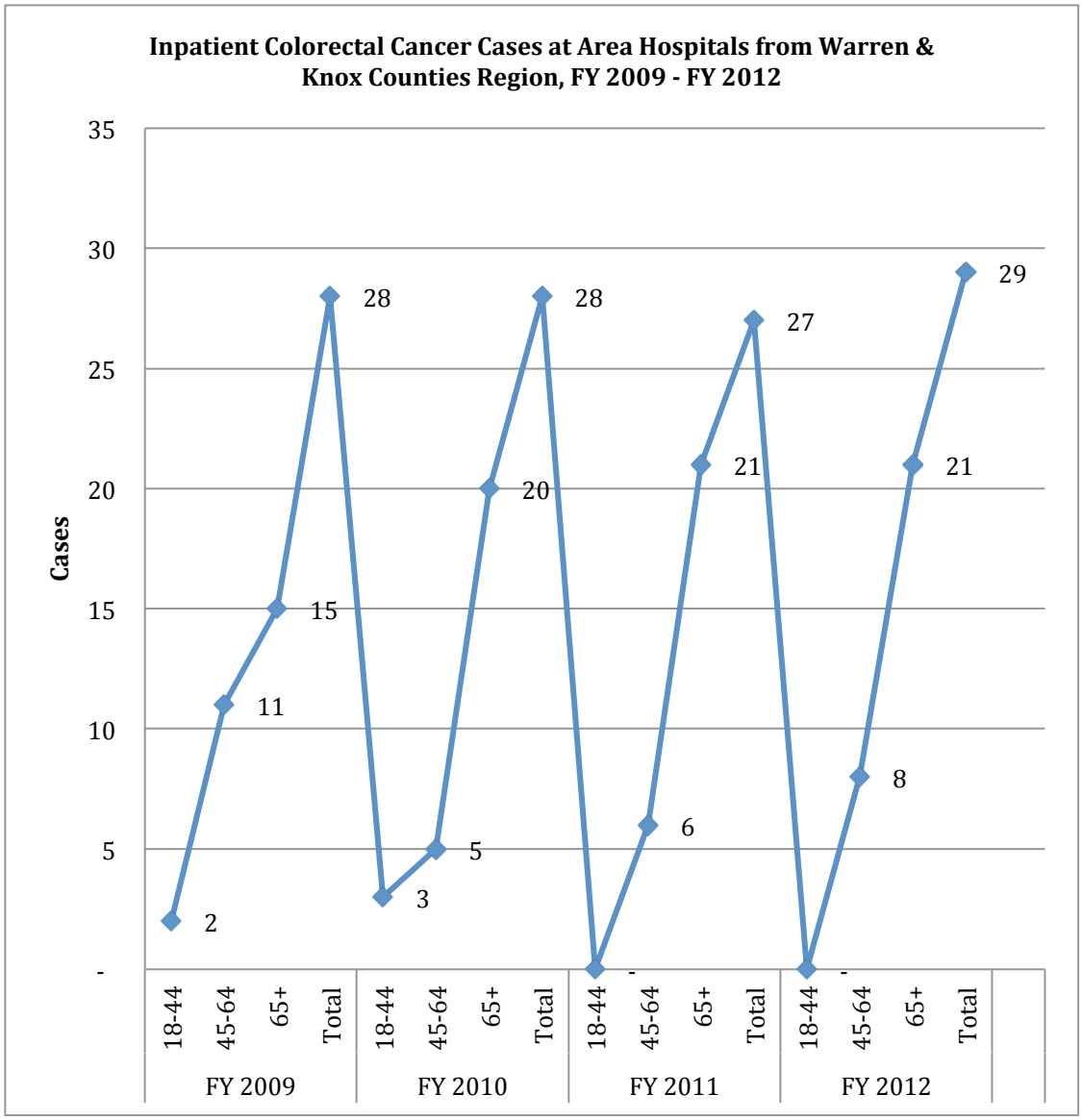
Table 4.4.1-3 Inpatient Pancreas Cancer Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, cases of inpatient colorectal cancer at Area Hospitals remained constant with an average of 28 cases per year. Inpatient cases of colorectal cancer for individuals age 65 and older have increased 40% between FY 2009 and FY 2012.

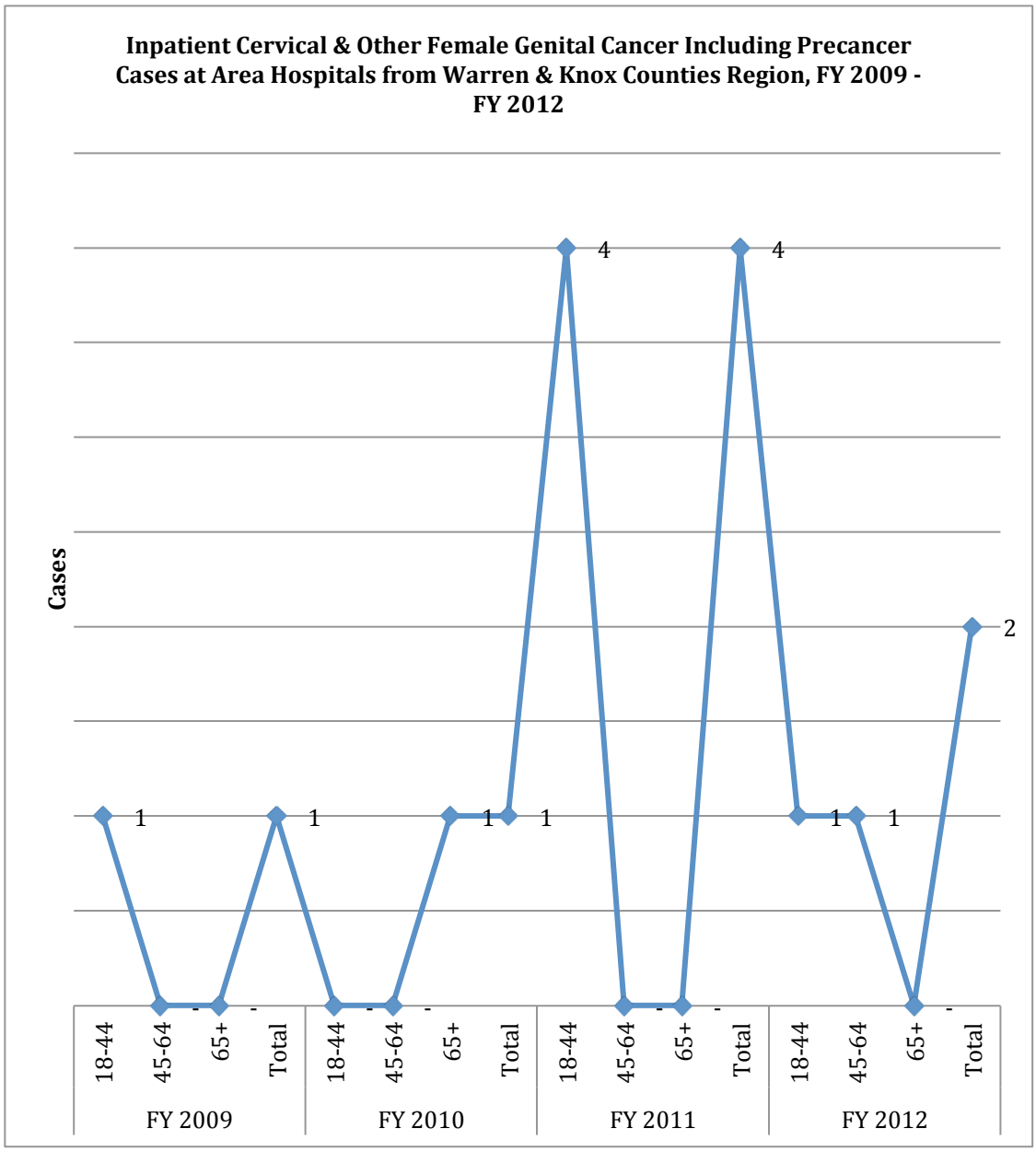
Table 4.4.1-4 Inpatient Colorectal Cancer Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, there were eight cases of inpatient cervical cancer at Area Hospitals.

Table 4.4.1-5 Inpatient Cervical & Other Female Genital Cancer Including Precancer Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012

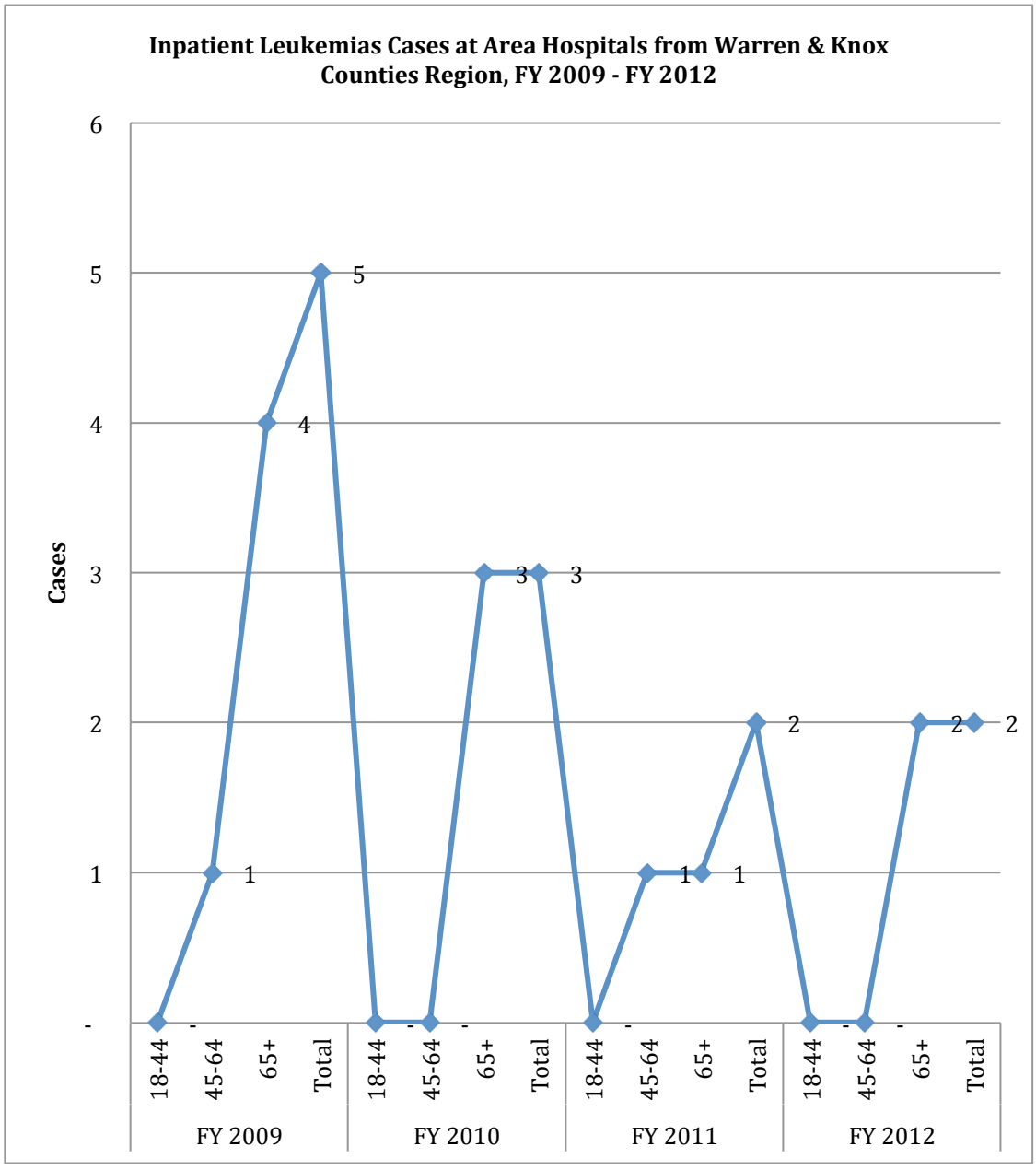


Source: COMPdata 2012

4.4.2 Leukemia

Between FY 2009 and FY 2012, there were twelve cases of inpatient leukemia at Area Hospitals.

Table 4.4.2-1 Inpatient Leukemia Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

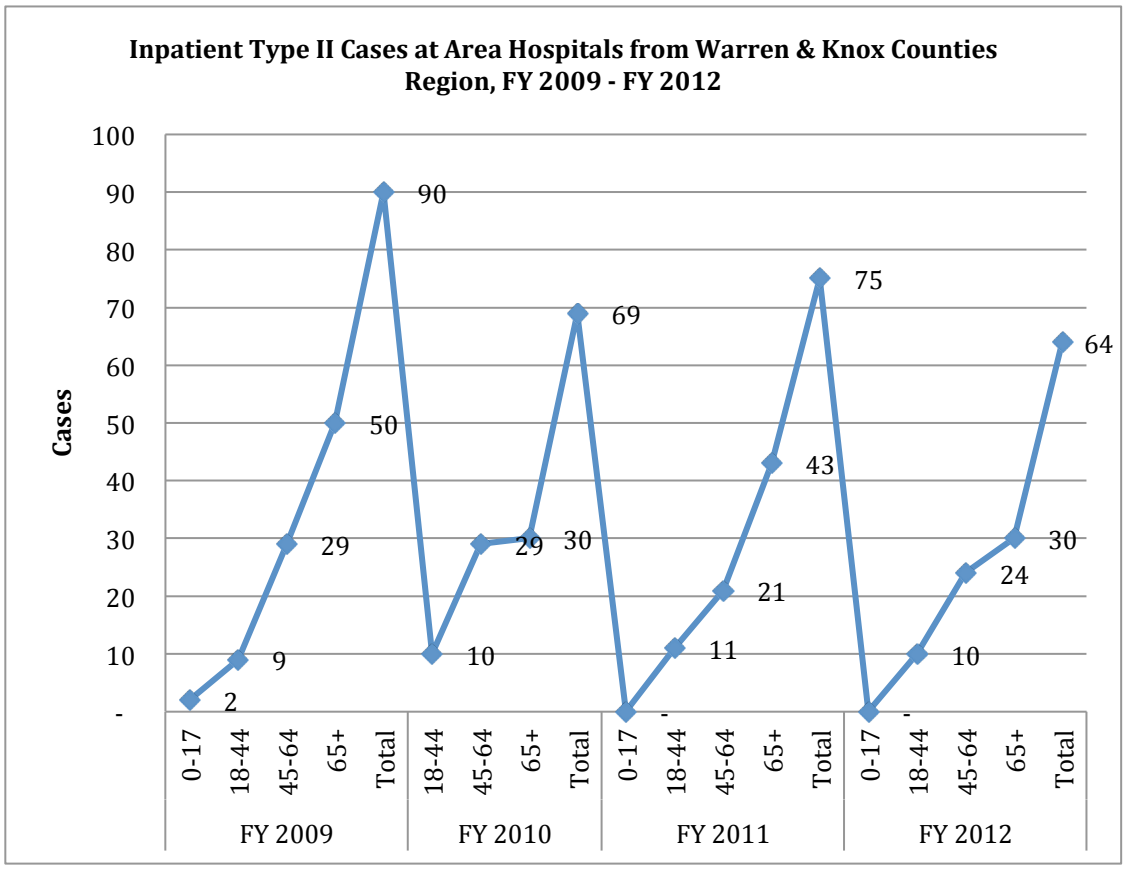
4.5 Type II Diabetes

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 10-15% of individuals with diabetes have Type I diabetes (previously known as juvenile diabetes).

Cases of Type II diabetes at Area Hospitals have decreased by 29% between FY 2009 and FY 2012 for inpatient admissions. Cases of Type I diabetes at Area Hospitals have decreased by 28% between FY 2009 and FY 2012 for inpatient admissions.

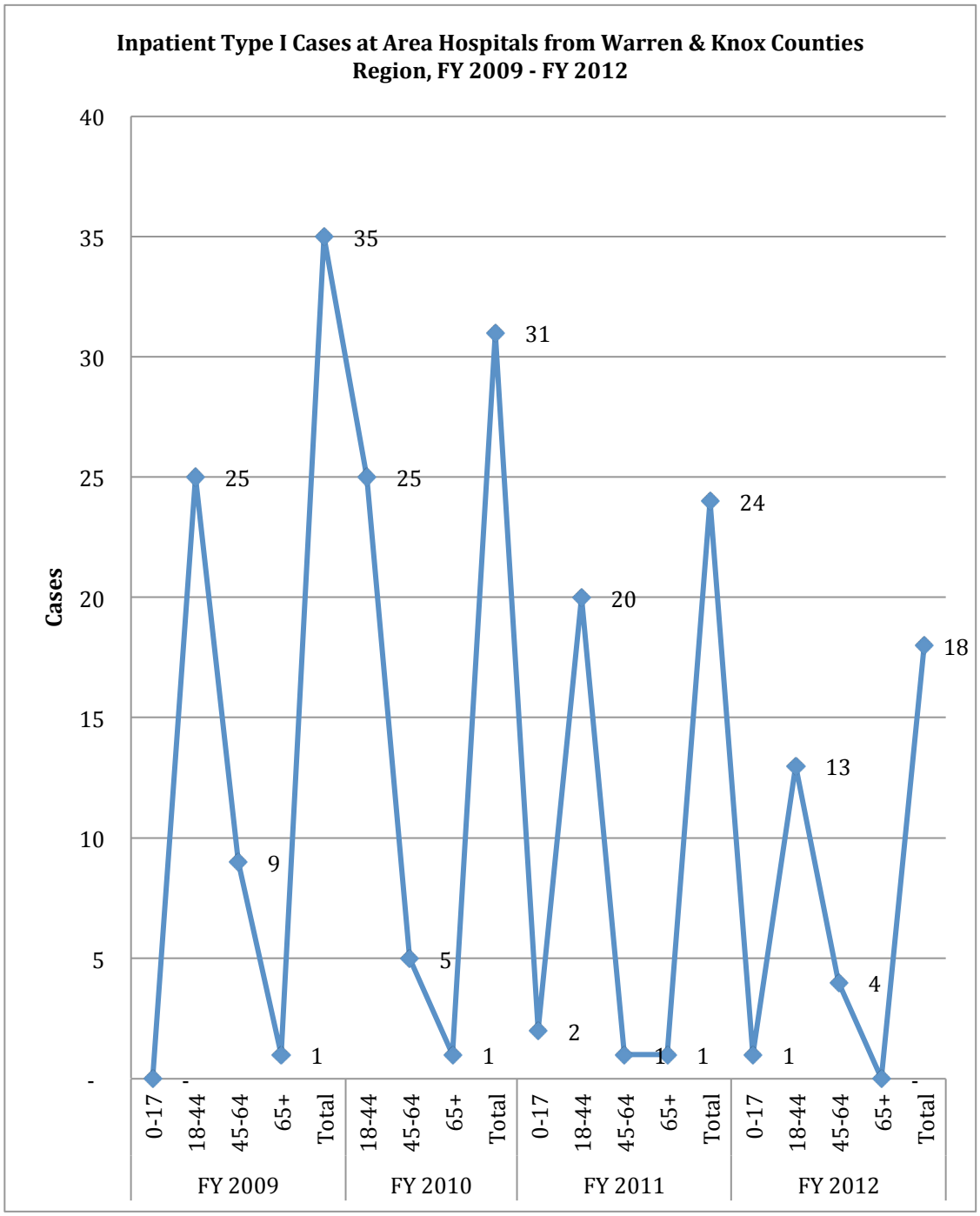
Data from the Illinois BRFSS indicate that 10.2% of Warren and Knox Counties Region residents have diabetes. Compared to data from the State of Illinois, the prevalence of diabetes is increasing at a faster rate in the Knox and Warren Counties region than in the state as a whole and now exceeds the state average.

Table 4.5-1 Inpatient Type II Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



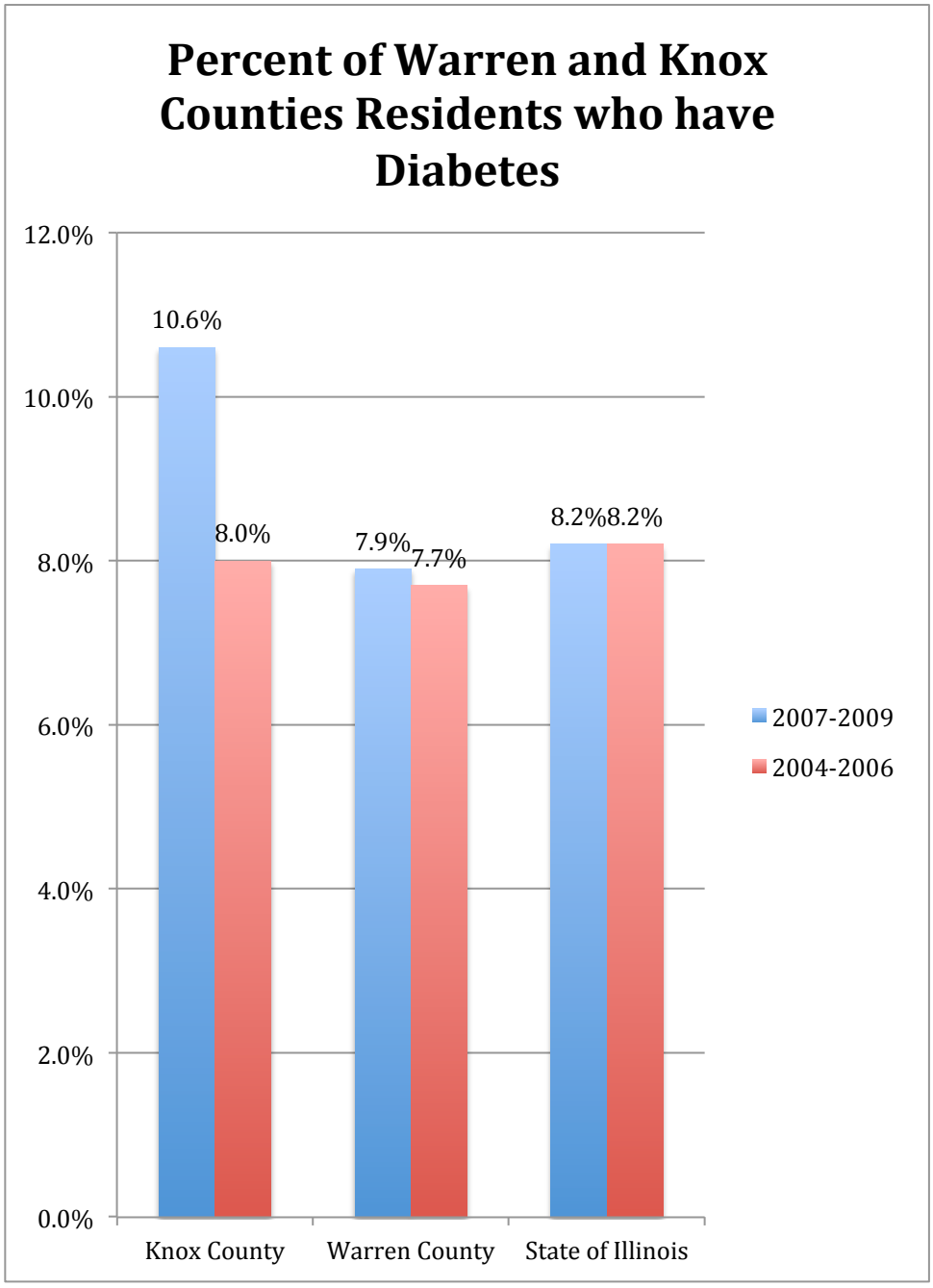
Source: COMPdata 2012

Table 4.5-2 Inpatient Type I Cases at Area Hospitals from Warren and Knox Counties Region, FY 2009 - FY 2012



Source: COMPdata 2012

Table 4.5-3 Percent of Warren and Knox Counties Residents who have Diabetes



Source: Illinois Department of Public Health

4.6 Infectious Diseases

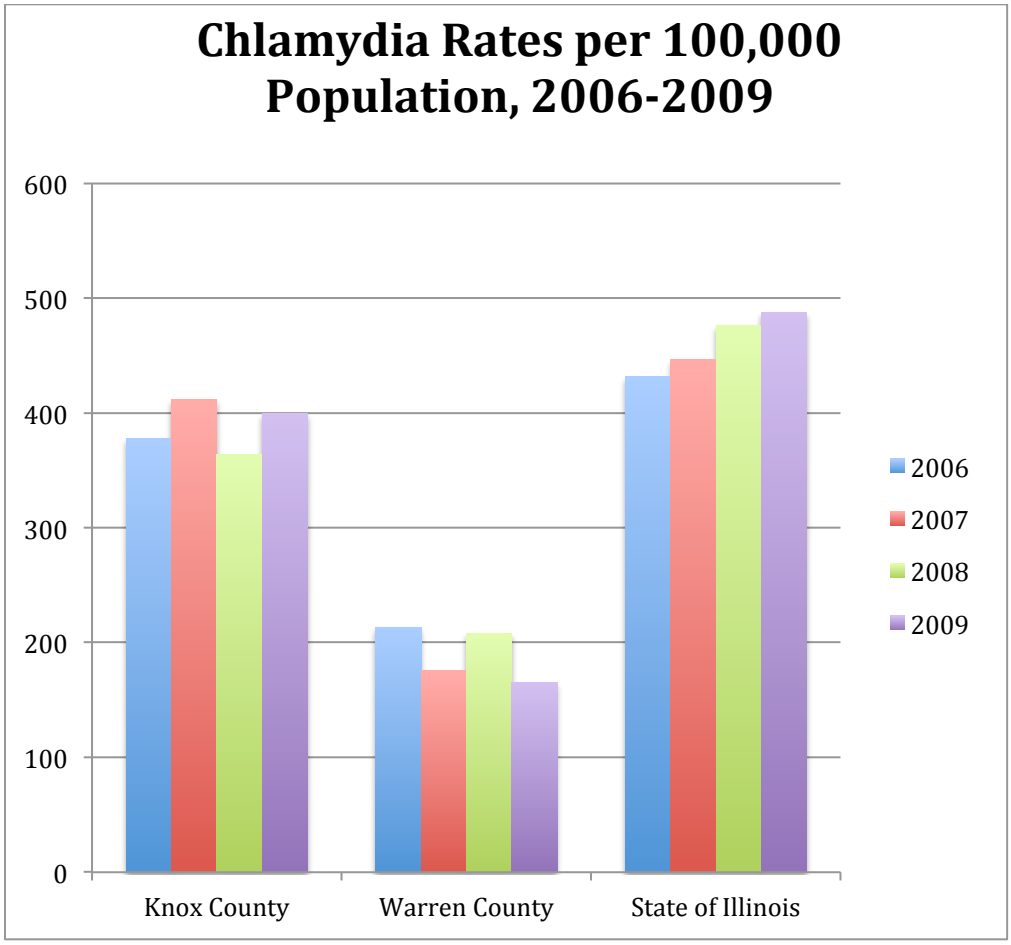
Importance of the measure: Infectious diseases, including sexually transmitted infections and hepatitis, are impacted by high-risk sexual behavior, drug and alcohol abuse, limited access to health care, and poverty. It would be highly cost-effective for both individuals and society if more programs focused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

4.6.1 STIs

The rates for Chlamydia have increased by 6% between 2006 and 2009 in Knox County. Rates for Chlamydia in Knox County are less than the state average. However, Gonorrhea rates in Knox County exceeded the state average in 2006 and 2009.

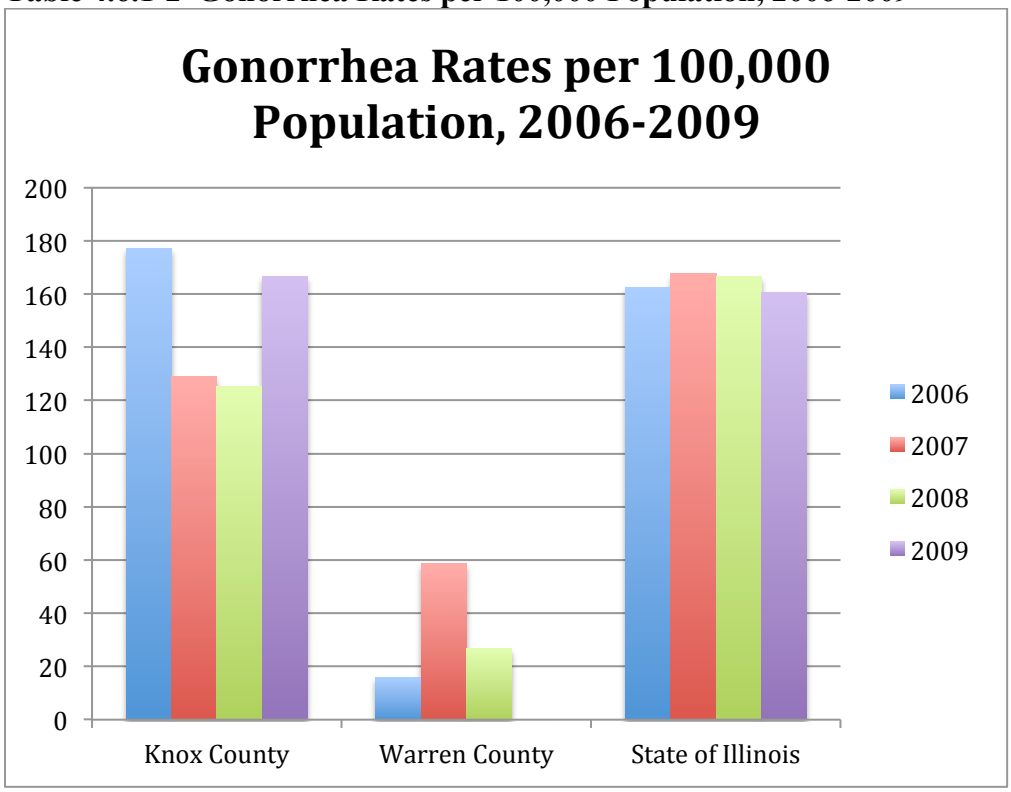
The rates for both Chlamydia and Gonorrhea in Warren County seem to have somewhat declined and they are considerably less than the state averages.

Table 4.6.1-1 Chlamydia Rates per 100,000 Population, 2006-2009



Source: Illinois Department of Public Health

Table 4.6.1-2 Gonorrhea Rates per 100,000 Population, 2006-2009



Source: Illinois Department of Public Health

4.7 Secondary Diagnoses

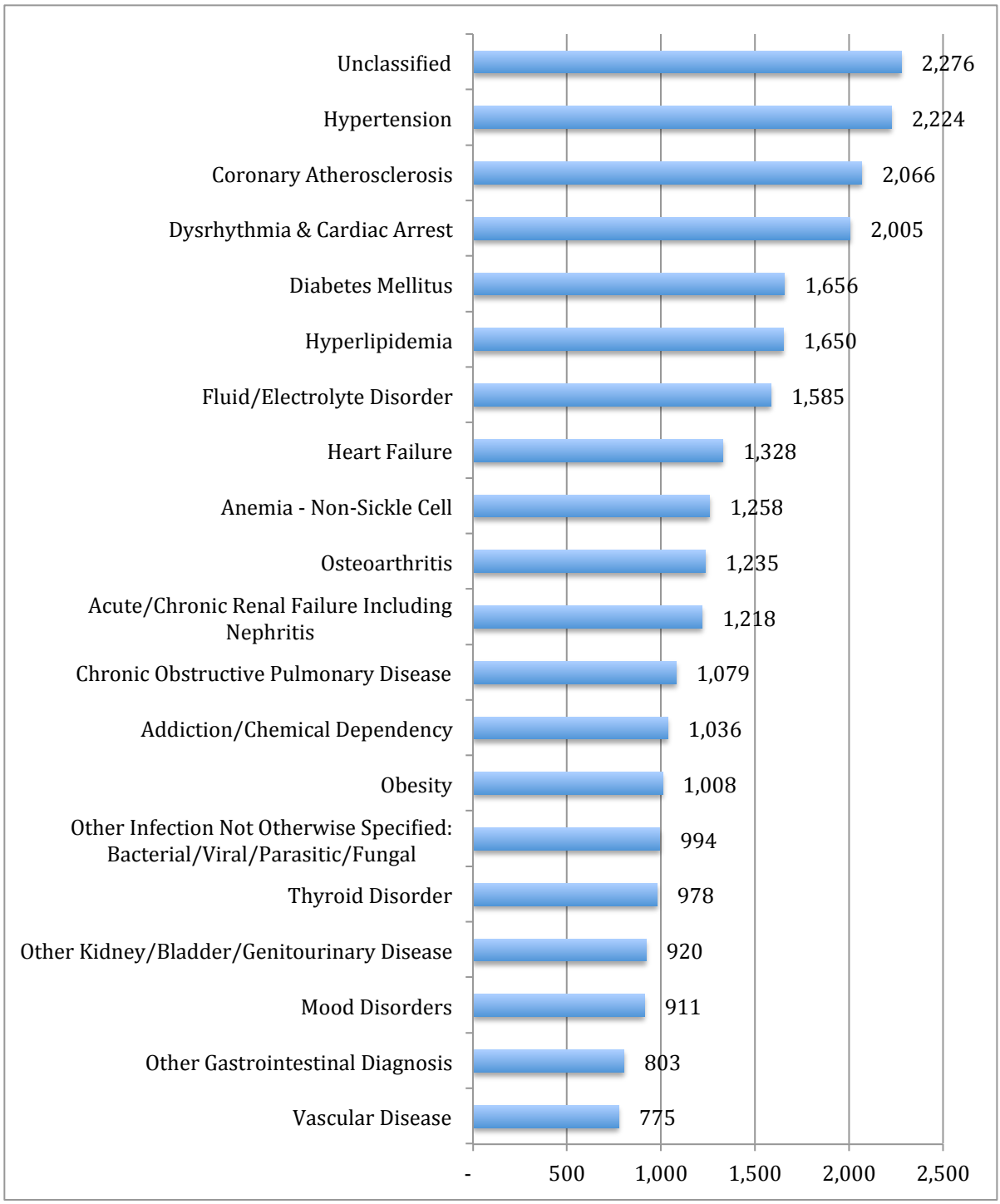
Importance of the measure:
Secondary diagnoses are additional conditions diagnosed upon hospital intake. These diagnoses may complicate treatment efforts aimed at alleviating the primary diagnosis and exacerbate health care costs.

Tables 4.7.1-1 and 4.7.1-2 identify the top 20 secondary diagnoses at Area Hospitals. "Unclassified" and "Hypertension" are the most prevalent secondary diagnoses.

Between 2009 and 2012, the number of cases categorized as "unclassified" increased 122%.

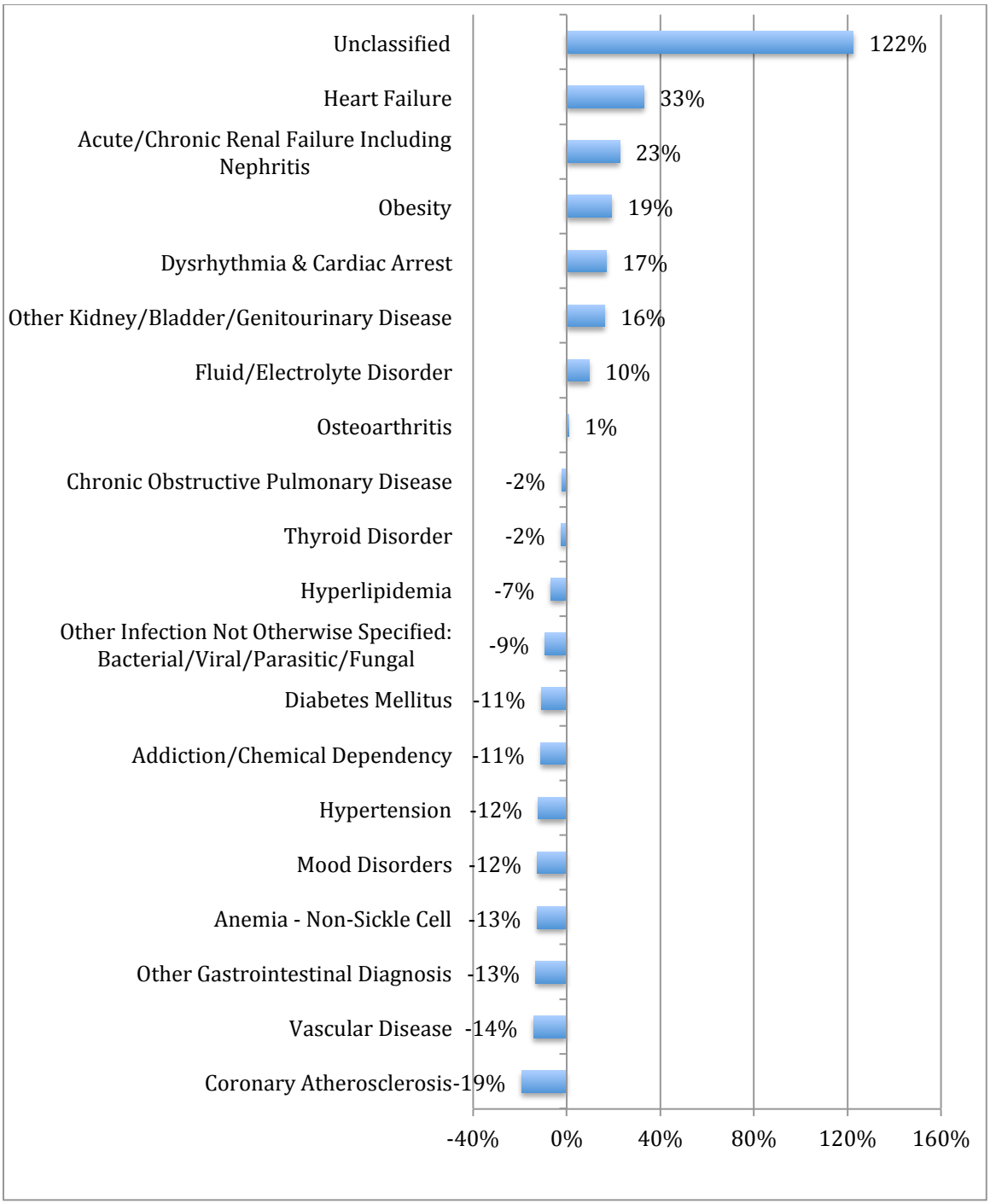
It should be noted that the same patient may have multiple secondary diagnoses.

Table 4.7.1-1 Number of Cases of Top 20 Secondary Diagnoses at Area Hospitals, Inpatient Only, 2012



Source: COMPdata 2012

Table 4.7.1-2 Growth Rates in the Number of Cases of Top 20 Secondary Diagnoses at Area Hospitals, Inpatient Only, 2009-2012



Source: COMPdata 2012

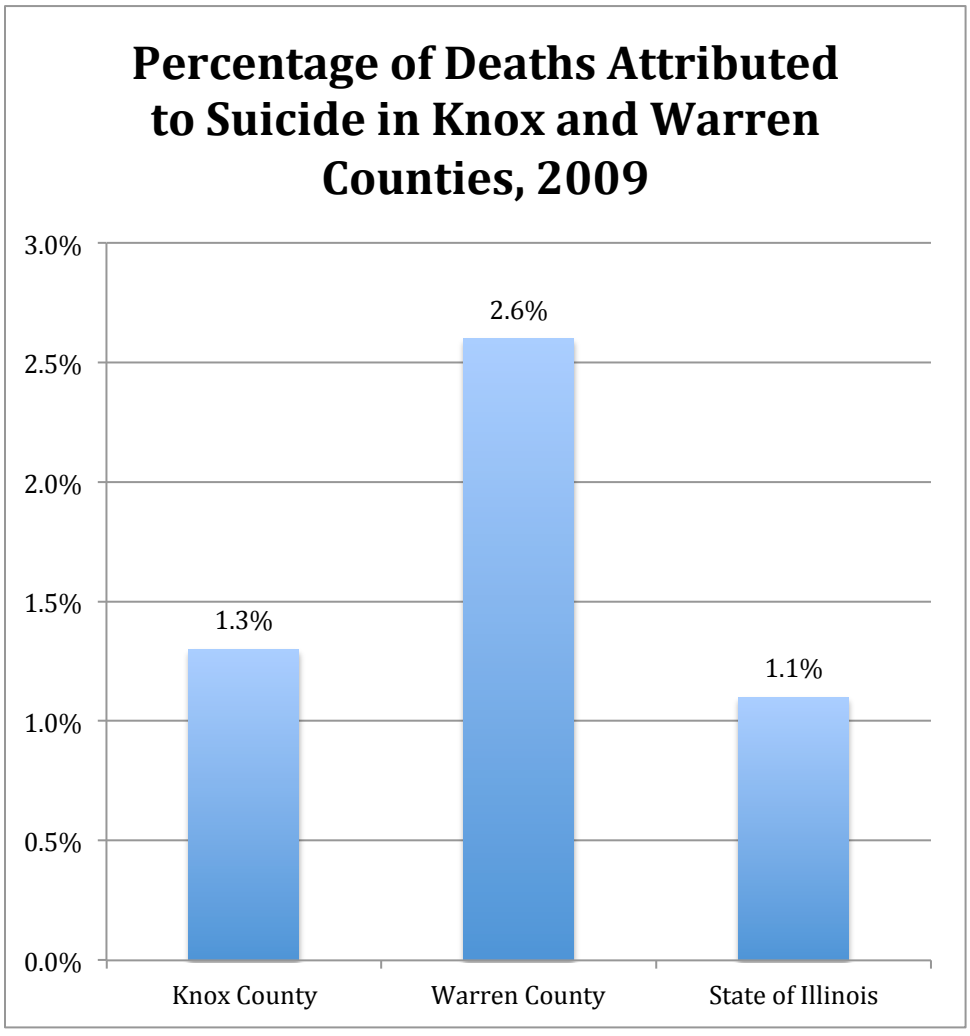
4.8 Injuries

Importance of the measure:
Unintentional injuries are injuries that can be classified as 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.

4.8.1 Intentional – suicide

Mortality rates attributed to suicide are higher in Warren County and Knox County compared to the State of Illinois average.

Table 4.8.1-1 Percentage of Deaths Attributed to Suicide in Knox and Warren Counties, 2009

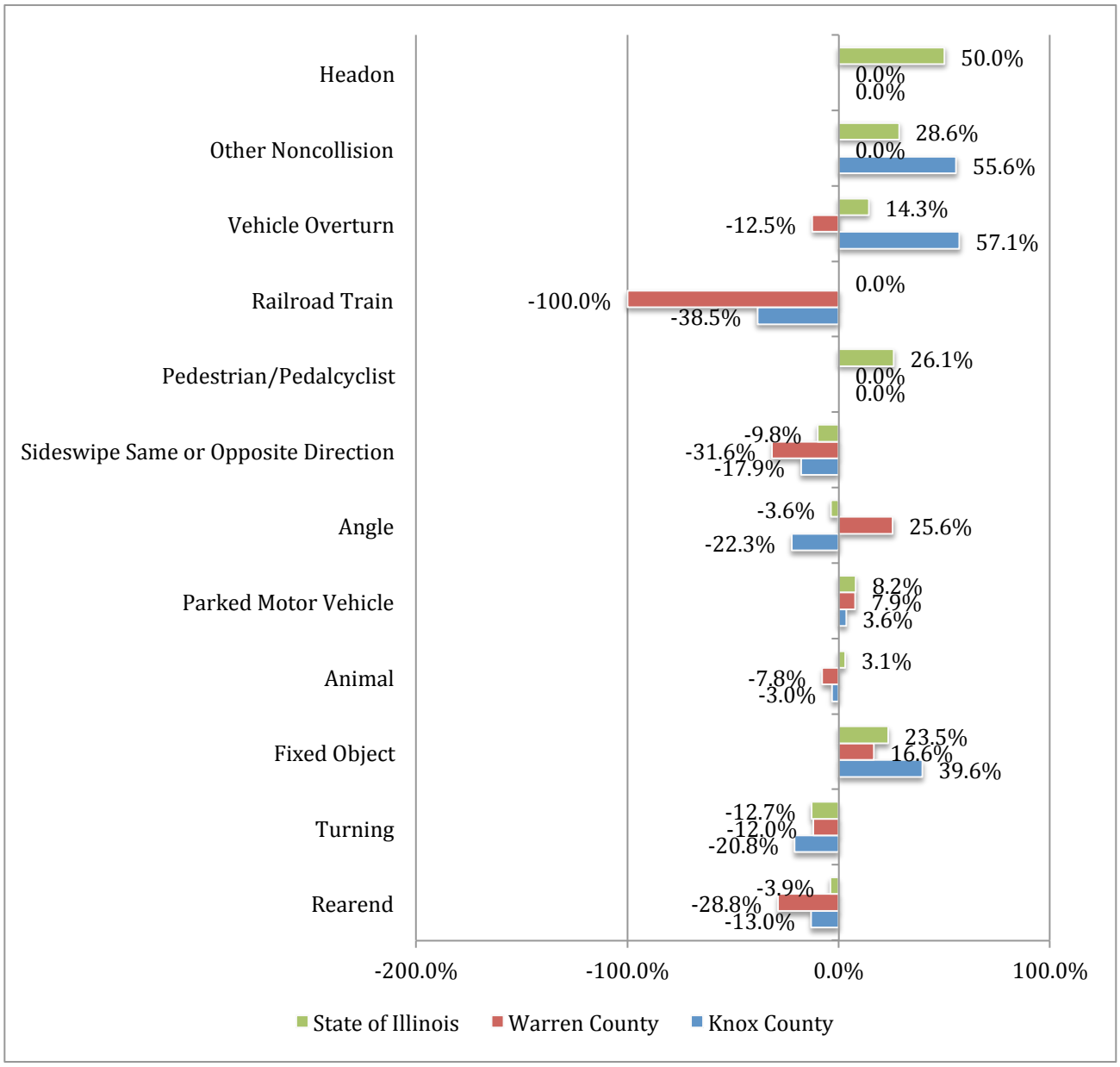


Source: Illinois Department of Public Health

4.8.2 Unintentional – motor vehicle

Research suggests that car accidents are a leading cause of unintentional injuries. In Knox County, the three-year growth rate between 2006 and 2009 for several types of motor vehicle collisions exceeds the State of Illinois average including other noncollision, vehicle overturn, and fixed object. In Warren County, angle accidents exceed the State of Illinois average.

Table 4.8.2-1. Three-year Growth Rates for Motor Vehicle Collision Incidents within Warren and Knox Counties, 2009 vs. 2006



Source: Illinois Department of Transportation

Diseases/Morbidity: Strategic Implications

Emphasize prenatal health and infant care:

It is essential that infants and children begin life healthy and preferably, at normal birth weights. Research suggests that infants born at low birth weight are at greater risk for life-threatening complications including infections, breathing problems, neurological problems and Sudden Infant Death Syndrome (SIDS).[1] Other studies suggest that low birth weight babies are also at a higher risk for developmental disabilities, such as learning disabilities and attention deficits, than babies with normal birth weights. Cognitive function of low birth weight babies may also be diminished leading to higher rates of sub-average IQ (< 85) than normal birth weight babies. [2]

Regular prenatal care is a vital aspect in producing healthy babies and children. The employment of 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.[3] 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. According to a study by The National Public Health and Hospital Institute, cost of care and other financial barriers were cited as reasons expectant mothers did not get adequate prenatal care.[4]

Emphasize the link between blood pressure and cardiovascular diseases:

Research from the Center for Disease Control estimated that the total cost of cardiovascular diseases in the United States for 2010 was $444 billion. [5] In essence, one out of every six dollars spent on health care is spent on the diagnosis and treatment of cardiovascular diseases. [6] However, controlling one's blood pressure and decreasing one's intake of cholesterol also reduces the risk of cardiovascular diseases. For example, research from the CDC suggests a "12–13 point reduction in average systolic blood pressure over 4 years can reduce heart disease risk by 21%, stroke risk by 37%, and risk of total cardiovascular death by 25%." [7]

The number of cases of inpatient hypertension complication at Area hospitals from the Warren and Knox Counties region has increased 23% between 2009 (22 cases) and 2012 (27 cases). 34.8% of Knox County residents reported they were told their blood pressure was too high compared to 29.0% of residents across the State of Illinois during the same time period (2007-2009). Additionally, there was a 49% growth in the percentage of Knox County residents reporting they were told their blood pressure was too high between 2006 (23.4%) and 2009 (34.8%).

Endnotes Chapter 4

[1] Lucile Packard Children's Hospital at Stanford University, *High-Risk Newborn: Low Birthweight*. Retrieved from http://www.lpch.org/DiseaseHealthInfo/HealthLibrary/hrnewborn/lbw.html.

[2] Kessenich, M. (2003). Developmental Outcomes of Premature, Low Birth Weight, and Medically Fragile Infants. ***Newborn and Infant Nursing Reviews,* 3, 3, 80-87.**

[3] Kiely, J.L. & Kogan, M.D. (1994). Prenatal Care. In *Public Health Surveillance for Women, Infants, and Children.* Atlanta, GA: U.S. Center for Disease Control

[4] The National Public Health and Hospital Institute. *Barriers to Prenatal Care Study: A Survey of Women Who Deliver at Public Hospitals,* 2003.

[5] U.S. Center for Disease Control and Prevention. *Heart Disease and Stroke Prevention – At A Glance 2011*.

[6] Ibid.

[7] Ibid.

CHAPTER 5. MORTALITY

Importance of the measure: Presenting data that focuses on diseases provides an opportunity to analyze the ratio of sick individuals to healthy individuals in the Warren and Knox Counties Region and, in addition, define and quantify what diseases are causing the most death and disability.

The top two leading causes of death in the State of Illinois, Knox County, and Warren County are Diseases of Heart and Malignant Neoplasm. Diseases of the Heart are more prevalent in Knox County, as they comprise 30% of deaths compared to only 24% in Warren County and 25% in Illinois. Conversely, Cerebrovascular Disease is more prevalent in Warren County (11% of all deaths) than in Knox County or across Illinois as a whole. Finally, diabetes mellitus was attributed to 4% of deaths in 2009 in Warren County, making diabetes the 5th leading cause of death in Warren County compared to the 8th leading cause of death in the State of Illinois.

Table 5.1-1. Top 5 Leading Causes of Death for all Races by County, 2009

Top 5 Leading Causes of Death for all Races by County, 2009			
Rank	**Knox County**	**Warren County**	**State of Illinois**
1	Diseases of Heart (30%)	Diseases of Heart (24%)	Diseases of Heart (25%)
2	Malignant Neoplasm (22%)	Malignant Neoplasm (22%)	Malignant Neoplasm (24%)
3	Chronic Lower Respiratory Disease (8%)	Cerebrovascular Disease (11%)	Chronic Lower Respiratory Disease (5%)
4	Cerebrovascular Disease (6%)	Chronic Lower Respiratory Disease (7%)	Cerebrovascular Disease (5%)
5	Accidents (4%)	Diabetes Mellitus (4%)	Accidents (4%)

Source: Illinois Department of Public Health

Mortality: Strategic Implications

Minimize unnecessary medical interventions to decrease mortality rates:

Three decades of research suggests that more care for patients is associated with higher mortality.[1] This paradox is best explained by the fact that all medical procedures possess risk and by increasing the number of interventions a patient receives, the more risk incurred by the patient. More risk increases the chances of errors and additional physicians becoming involved to treat the patient. The Institute of Medicine contends that this fragmentary nature of the US health care delivery system is one of the major drivers of poor quality and higher costs. [2]

Poor quality disproportionately impacts those with chronic illnesses. Statistically, an estimated 90 million Americans live with at least one chronic illness, 70% of Americans die from chronic disease, and 90% of deaths among the Medicare population are attributed to just nine chronic illnesses: congestive heart failure, chronic lung disease, cancer, coronary artery disease, renal failure, peripheral vascular disease, diabetes, chronic liver disease, and dementia.[3]

The costs to treat chronic diseases are staggering, as inefficiencies drive up the cost of care. Patients with chronic conditions are often treated by primary care providers in addition to specialists. In most cases, little is done to coordinate treatments. Over time, as the chronic condition becomes more debilitating, patients require more care and the cost of care increases. According to the Dartmouth Institute for Health Policy and Clinical Practice, patients with chronic illnesses in their last two years of life account for nearly 32% of total Medicare spending. [4] Furthermore, overtreatment in the U.S. wastes an estimated 20 to 30 cents on every health care dollar spent.[5]

Address the diverse needs of underserved populations:

Research suggests individuals of color are at greater risk to be afflicted with violent crime, perinatal conditions, and chronic diseases. The U.S. Bureau of Justice notes that a racial divide impacts the prevalence of individuals being stricken by violent crime. In 2005, national homicide rates for African Americans were six times higher than the rates for whites. [6] Adverse perinatal conditions include poor maternal health and nutrition, inadequate care during pregnancy and childbirth, and problems relating to premature births.

With regard to chronic diseases including heart disease and cancer, the U.S. Department of Health and Human Services' Office of Minority Health suggests African Americans are 30% less likely to be diagnosed with heart disease than Whites, but are more likely to die from it. Furthermore, African Americans are 1.5 times more likely than Whites to have high blood pressure and African American women are 1.7 times more likely to be obese.[7]

The incidence of strokes disproportionately impacts African Americans, as they are 70% more prone to having a stroke than Whites. With mortality rates, Black men are 60% more likely to die from a stroke. For stroke survivors, African Americans are more often disabled than Whites.[8]

For cancer, Black men are 30% more likely than Whites to have new cases of prostate cancer and are twice as likely to be diagnosed with stomach cancer. The 5-year survival rates for African Americans are lower for lung and pancreatic cancer, and they are 2.4 times as likely to die from prostate cancer. Black women are 10% less likely to be diagnosed with breast cancer than Whites, but they are 34% more likely to die from it. Black women are twice as likely to be diagnosed with stomach cancer and are 2.4 times more likely to die.[9]

Endnotes for Chapter 5

[1] The Dartmouth Institute for Health Policy and Clinical Practice. (2008). *Tracking the Care of Patients with Severe Chronic Illness.*

[2] Institute of Medicine. (2001). *Crossing the Quality Chasm*: *A New Health System for the 21st Century.*

[3] The Dartmouth Institute for Health Policy and Clinical Practice. (2008). *Tracking the Care of Patients with Severe Chronic Illness.*

[4] Ibid.

[5] Skinner, J.S., Fisher, E.S., & Wennberg, J.E. (2005). The Efficiency of Medicare. In D. Wise (ed.) *Analyses in the Economics of Aging*. Chicago: University of Chicago Press and NBER.

[6] U.S. Bureau of Justice Statistics, *Homicide Trends in the U.S.* Retrieved from http://bjs.ojp.usdoj.gov/content/homicide/race.cfm

[7] U.S. Department of Health and Human Services' Office of Minority Health.

[8] Ibid.

[9] Ibid.

PHASE II – PRIMARY DATA RESEARCH FOR COMMUNITY HEALTH NEEDS

To meet requirements of section 501(r)(3) of Schedule H Form 990, "…a community health needs assessment must take into account input from persons who represent the broad interests of the community served by the hospital(s), including those with special knowledge of or expertise in public health …" Moreover, for strategic planning purposes of each hospital, perceptions of various stakeholder groups can provide important insights into perceptions of the community regarding general health-care effectiveness.

Numerous opportunities may exist that are related to impacting community health benefits, but are not published in secondary research sources. Rather they are discovered through unbiased data collection, rigorous statistical modeling and analyses, and simple, common-sense interpretations and conclusions. Through this type of research, the health-care community can expect to identify areas for self-improvement, opportunities for addressing community needs and underlying perceptions of how demographics impact the community's perceptions and effectiveness.

Phase II research consists of providing structure, information, documentation and practical interpretation of data. Five specific objectives are accomplished in the primary research:

- Create a statistically valid research instrument to collect necessary information;
- Collect data using a partnership process (rather than respondent mentality);
- Assess perceptions of current/potential community issues;
- Segment markets based on key demographics;
- Draw conclusions and discuss potential future directions to improve the health of the community.

In Phase II of the community health needs assessment, there are four chapters that assess different aspects of the general community as well as specific health-related issues for the at-risk population. The chapters are as follows:

CHAPTER 6. GENERAL CHARACTERISTICS OF RESPONDENTS

CHAPTER 7. FINDINGS AND RESULTS COMMUNITY PERCEPTIONS

CHAPTER 8. ACCESSIBILITY TO HEALTH CARE

CHAPTER 9. HEALTH-RELATED BEHAVIORS

CHAPTER 6. GENERAL CHARACTERISTICS OF RESPONDENTS

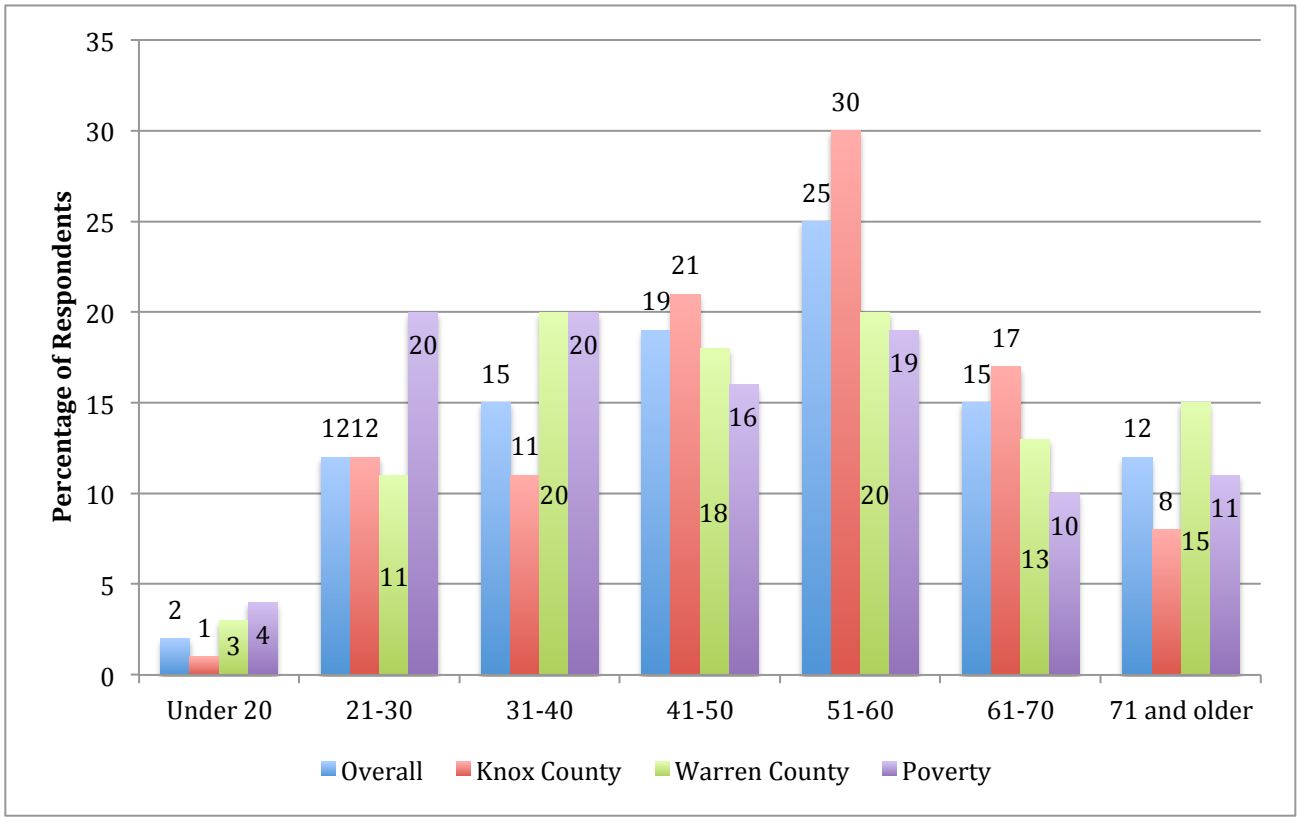
As mentioned in the Methods section of this study, data were collected via on-line surveys and paper surveys. In this chapter, the characteristics of the sample are presented. A total of 1,447 surveys were completed for both Knox and Warren Counties. All data includes the entire sample, except where specifically noted.

Note that for most characteristics in this chapter, data are analyzed for: (1) the overall sample; (2) by each county as presented in the Definition of the Community; and (3) by the at-risk population. According to the CDC, at risk populations are characterized by economic disadvantage. Specifically, according to the CDC *Public Health Workbook*, at risk populations are defined as those individuals living in deep poverty, which for this study is operationalized as those with a household income of less than $20,000.

6.1 Age

The average age of respondents was 46.1 years old. The distribution is reflective of the 2010 Census data, however, the mean age of surveyed respondents is slightly older, compared to the Census average age of 41.3 years in Knox County and 40.1 in Warren County. This occurred because survey respondents were all adults, age 18 and above.

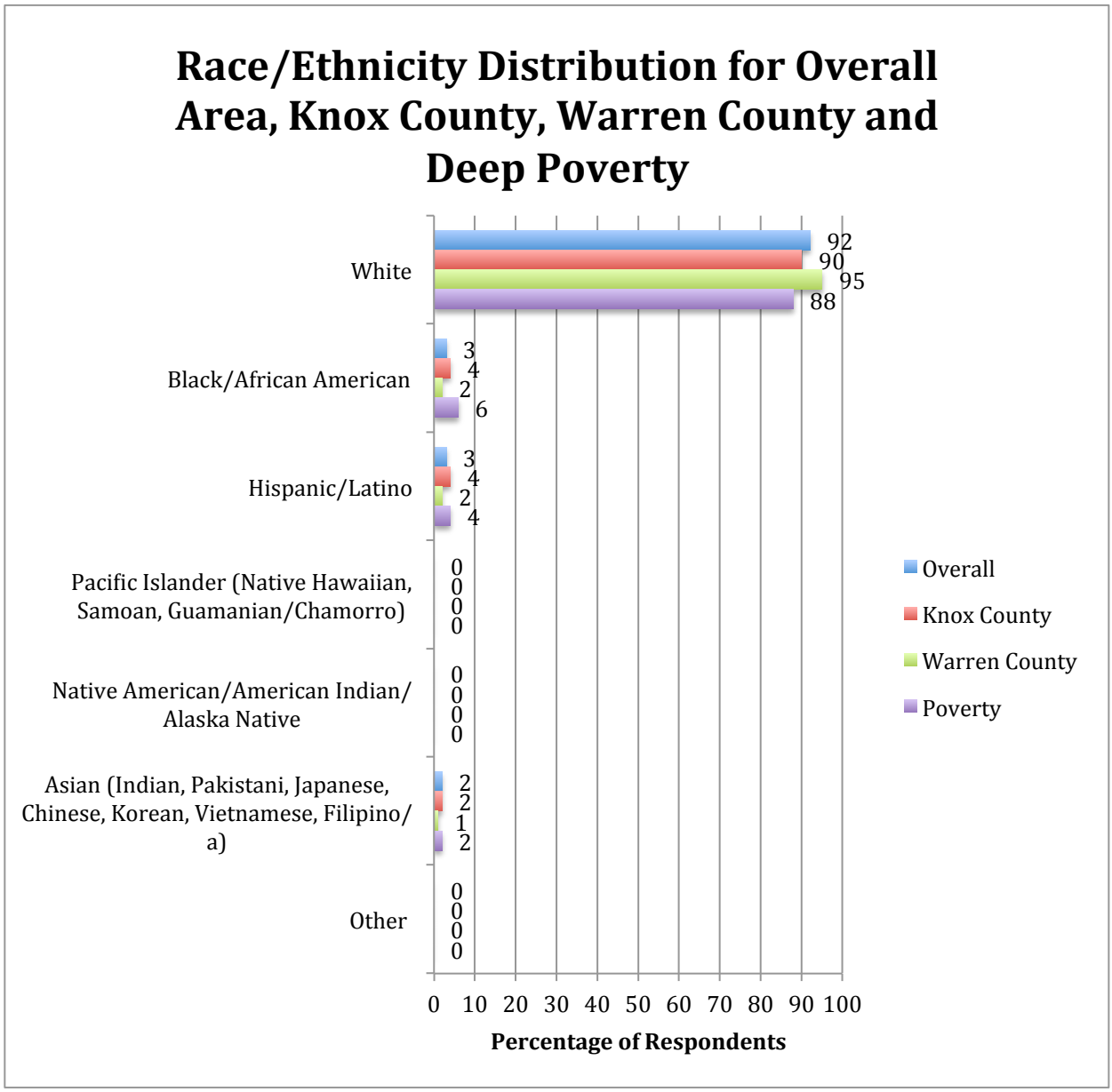
Table 6.1 Age Distribution for Overall Area, Knox County, Warren County, and Deep Poverty



6.2 Race and Ethnicity

Overall demographics for race/ethnicity mirrored the secondary data assessed in Phase I. Comparing to Census data and the survey respondents, most ethnic backgrounds were similar to one another.

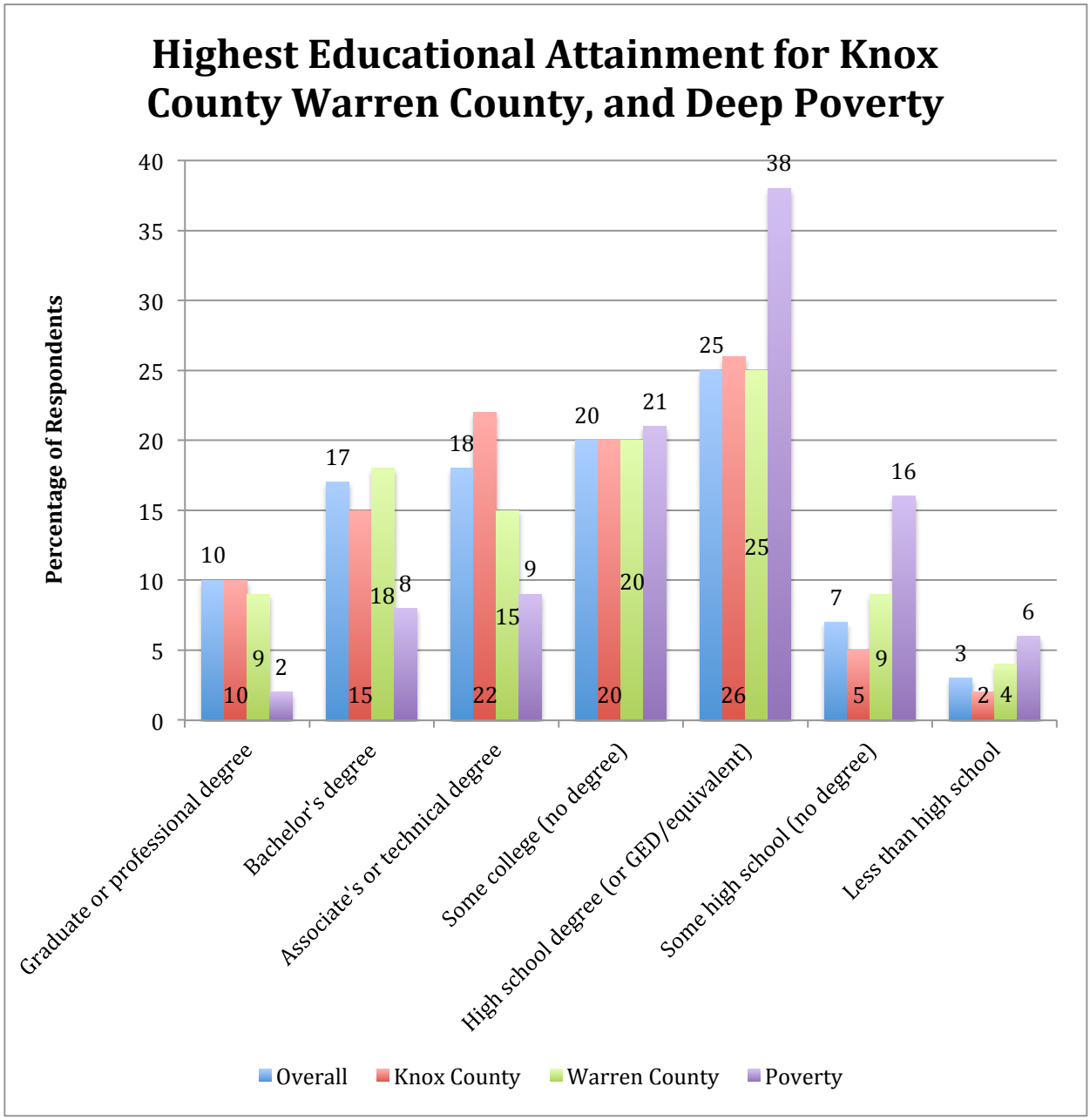
Table 6.2 Race/Ethnicity Distribution for Overall Area, Knox County, Warren County and Deep Poverty



6.3 Educational Attainment

Level of education for survey respondents was similar to Census data; however, note that 22% of those living in poverty have not completed high school.

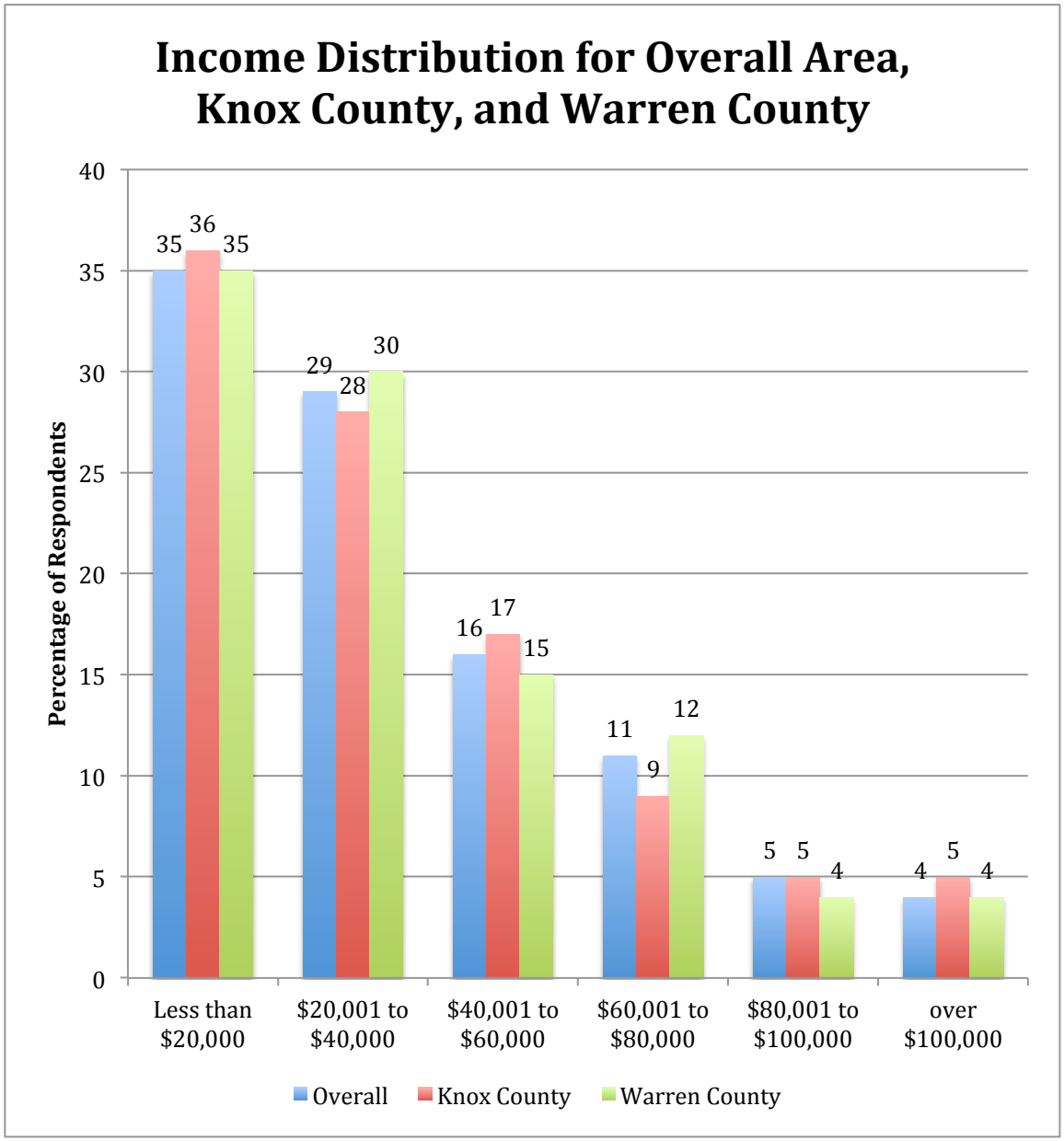
Table 6.3 Highest Educational Attainment for Overall Area, Knox County Warren County, and Deep Poverty



6.4 Income Distribution

Note that income distribution for survey respondents is skewed low, as 32% of the overall sample had an income level of less than $20,000. This is a result of the targeted efforts to survey the at-risk population.

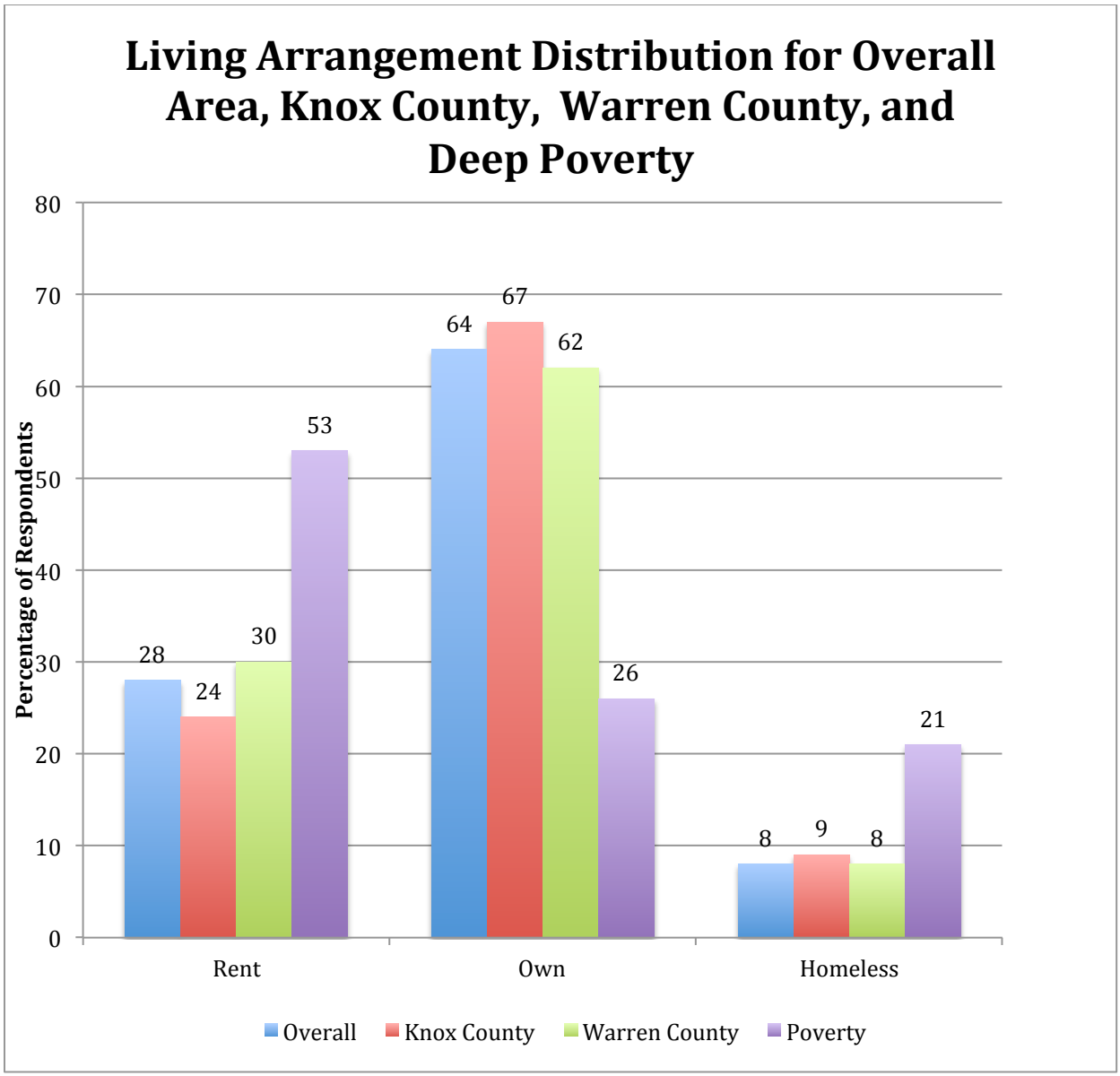
Table 6.4 Income Distribution for Overall Area, Knox County, and Warren County



6.5 Living Arrangements

Note that overall, over twice as many respondents indicated they owned homes compared to those individuals who rented. To protect the dignity of homeless survey respondents, a specific choice of homeless was not available, rather there was a category for "other."

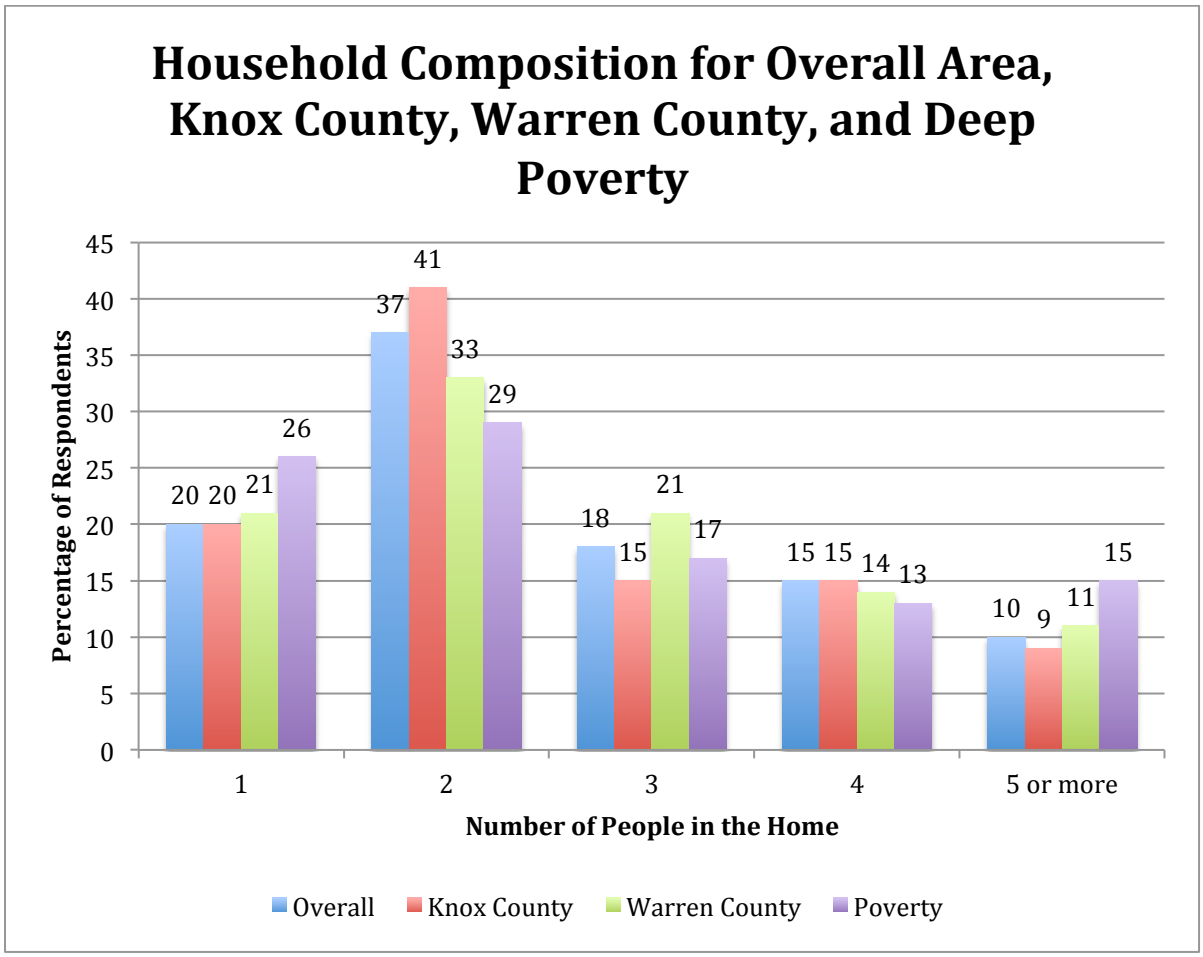
Table 6.5 Living Arrangement Distribution for Overall Area, Knox County, Warren County, and Deep Poverty



6.6 Household Composition

Household composition is based on the number of individuals living in a household. Overall the most prevalent response was 2 people per household.

Table 6.6 Household Composition for Overall Area, Knox County, Warren County, and Deep Poverty



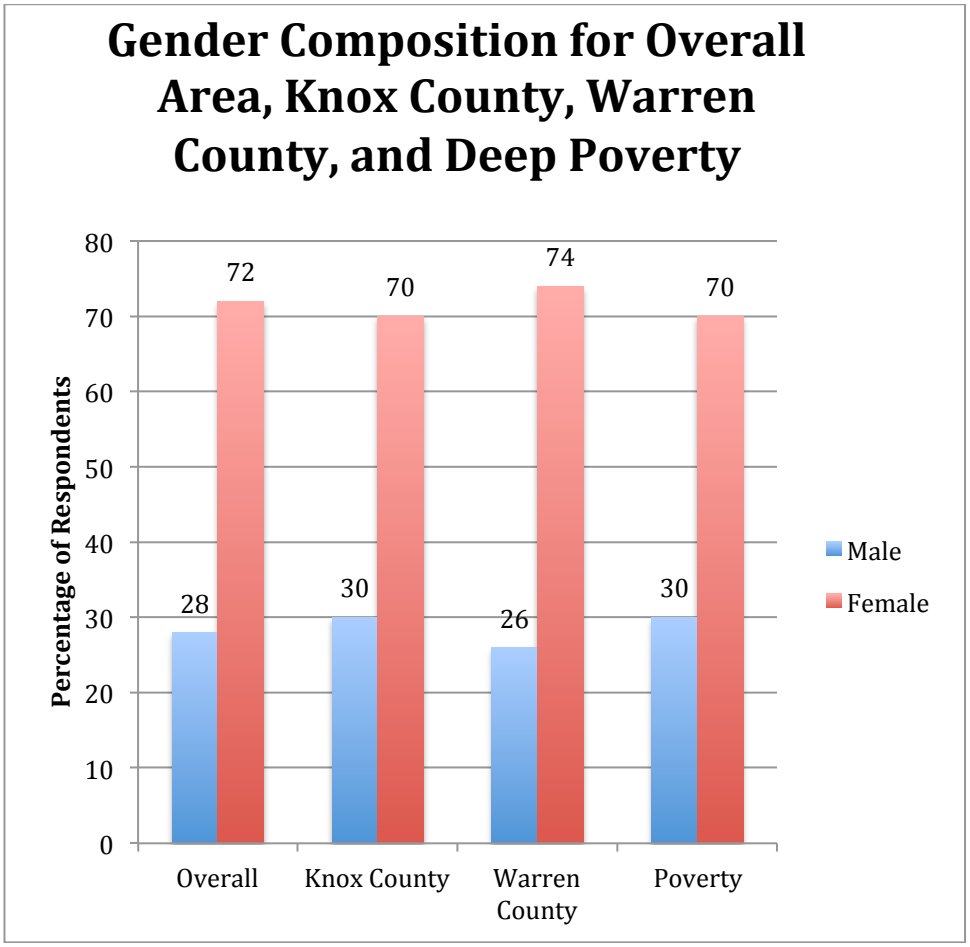
6.7 Employment Status

For employment status, overall, 52% of respondents were employed full time, 11% were employed part time, and 9.2% were unemployed. The rest of the population was either retired, in school, disabled, or served in the armed forces or was a homemaker.

6.8 Gender

The one demographic variable that was significantly skewed was gender. Overall 72% of respondents were women and 28% of respondents were men. According to Census data, men and women are evenly divided in both Knox and Warren Counties. For this type of survey, it is expected that women would be more likely to fill out the survey compared to men. Note that in a research study performed by the Heart of Illinois United Way in 2011, a positive correlation was found between women and concern for health-care related issues. Stated differently, women are more interested in participating in these types of surveys then men.

Table 6.8 Gender Composition for Overall Area, Knox County, Warren County, and Deep Poverty



CHAPTER 7. COMMUNITY PERCEPTIONS

In this chapter results of the first three sections of the survey are analyzed and discussed. Specifically, perceptions of Health Problems in the Community, Unhealthy Behaviors and factors impacting Quality of Life are presented. First, aggregate scores are presented. Then responses are presented for each county. Finally responses are presented for those living in deep poverty. After each category, correlation analyses between perceptions and demographic variables are presented in order to identify where certain demographic characteristics influence the way respondents perceive specific attributes of the community.

Note that for aggregated perceptions of the Knox and Warren Counties region, modifications to data were made given the skewed income data and skewed gender data. Therefore specific cases were selected randomly based on income and gender, in order to replicate the demographics of the community based on Census data. The sample used for aggregated analyses contains 1199 responses.

7.1 Health Problems in the Community

7.1.1 Aggregated Results

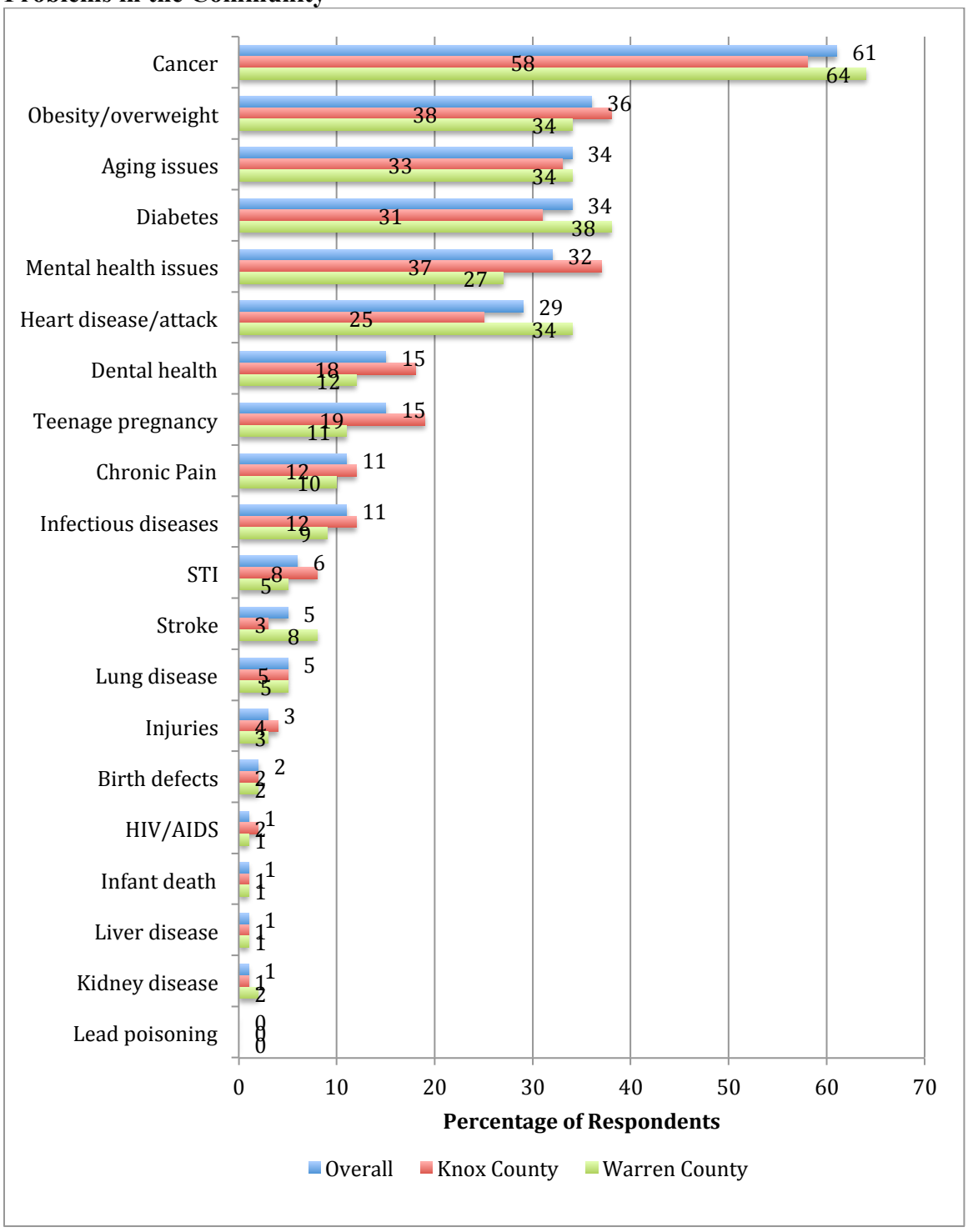
The first dimension of the survey asked respondents to rate the three most important health problems in the community. Respondents had a choice of 20 different options. The health problem that rated highest was cancer. It was significantly higher than other categories based on *t-tests* between sample means.

This was followed by aging issues, obesity and diabetes; all identified between 31-38% of the time. The next set of health problems identified was mental health and heart disease. Other categories were only identified 19% of the time or less.

Note that perceptions of the community were accurate in some cases, but inaccurate in others. For example, while cancer is a leading cause of mortality in both Knox and Warren Counties, the number of cases treated has been steadily declining for some cancer types. Also, obesity is an important issue and the survey respondents accurately identified obesity as an important health problem.

Respondents incorrectly perceived “diabetes,” “heart disease,” “teen pregnancy,” “injuries” and “dental” as being relatively less important health concerns to the community. These results conflict with morbidity data that suggest diabetes growth rates in Knox County are higher than growth rates across the State of Illinois and mortality data indicating diabetes is the 5th leading cause of death in Warren County; mortality data that indicates heart disease is the leading cause of death in both Knox and Warren Counties; teen pregnancy rates in Knox County (11.6%) that exceed the State of Illinois rate (9.6%) for 2009; mortality data that indicates accidents were the 5th leading cause of death in Knox County; and the aforementioned dental data suggesting nearly 25% of Knox and Warren Counties residents have not seen a dentist in two or more years.

Table 7.1.1 Aggregate and County Frequencies for Most Important Perceived Health Problems in the Community

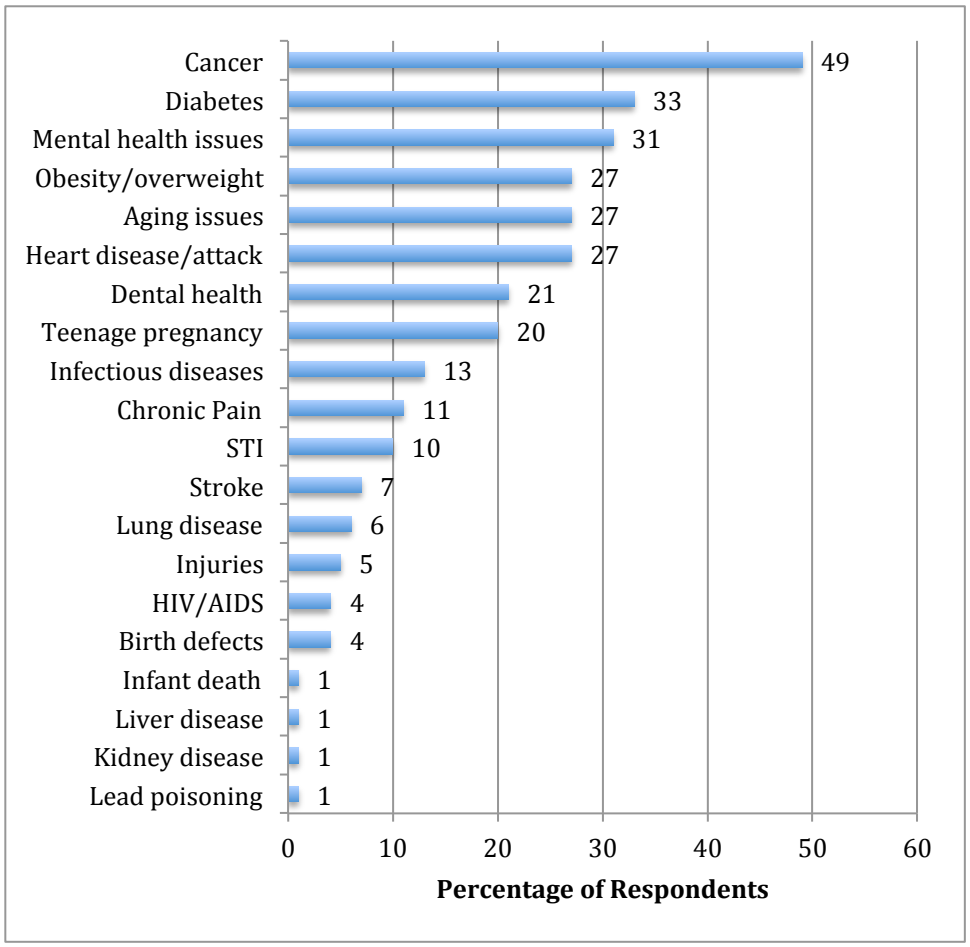


Note: n=1199

7.1.2 Perceptions of Individuals Living in Poverty

When assessing perceptions of those living in poverty, it can be seen that some of the health problems change in terms of importance. For example, while many of the top perceived health problems remain constant, others become more important. For example, 20% of individuals living in poverty identified teenage pregnancy as a concern and 21% of individuals living in poverty identified dental health as a concern.

Table 7.1.2 Frequencies for Most Important Perceived Health Problems in the Community from Individuals Living in Poverty



7.1.3 Relationships between Perceptions and Demographics

Only significant relationships are reported in this section. The threshold used for significant correlations is ($p < .05$) given the sample size. The following relationships can be identified.

Aging Issues tend to be rated higher by individuals with the following characteristics: Older, White ethnicity, and individuals with more education. Aging issues tends to be rated lower by individuals of Black ethnicity and Latino/a ethnicity.

Birth Defects tend to be rated lower by individuals with less education and individuals of White ethnicity.

Cancer tends to be rated higher by individuals with the following characteristics: older, White ethnicity, and residents of Warren County.

Dental health tends to be rated higher by individuals with the following characteristics: Latino/a ethnicity and residents of Knox County. Dental health tends to be rated lower by individuals of White ethnicity.

Diabetes tends to be rated higher by individuals of with higher incomes and lower by residents of Knox County.

Heart disease/attack tend to be rated higher by people with the following characteristics: Older, White ethnicity, and residents of Warren County.

HIV/AIDS tends to be rated higher by people with the following characteristics: Younger, of Black ethnicity, lower income, and individuals with less education. HIV/AIDS tends to be rated lower by individuals of White ethnicity.

Infectious diseases tends to be rated higher by men, individuals identifying with Black ethnicity, and individuals with lower incomes.

Injuries tends to be rated higher by people with the following characteristics: Men, younger, of Black ethnicity, lower income, and less education. Injuries tends to be rated lower by people with the following characteristics: White ethnicity.

Lead poisoning tends to be rated higher by individuals identifying with Black ethnicity.

Liver disease tends to be rated higher by individuals with less education and lower by individuals of White ethnicity.

Mental Health Issues tend to be rated higher by younger individuals, individuals with more education, and individuals of White ethnicity. Mental health issues tend to be rated lower by people with the following characteristics: Latino/a ethnicity and residents of Warren County.

Obesity/Overweight tends to be rated higher by people with the following characteristics: more education and higher income.

STIs tend to be rated higher by people with the following characteristics: younger, of Black ethnicity, and lower incomes. STIs tend to be rated lower by individuals of White ethnicity.

Stroke tends to be rated higher by men and older individuals and lower by individuals with lower incomes.

"Teenage Pregnancy" tends to be rated higher by people with the following characteristics: younger.

Table 7.1.3 Significant Correlations among Most Important Perceived Health Problems in the Community and Demographic Variables

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Waren
Aging issues		+	+	-	-	+			
Birth defects			-			-			
Cancer		+	+						+
Chronic pain									
Dental health			-		+			+	
Diabetes							+	-	
Heart disease/ Heart attack		+	+						+
HIV/AIDS		-	-	+		-	-		
Infant death									
Infectious diseases	-			+			-		
Injuries	-	-	-	+		-	-		
Kidney disease									
Lead poisoning				+					
Liver disease			-			-			
Lung disease									
Mental health issues		-	+		-	+			-
Obesity/ overweight						+	+		
STI		-	-	+			-		
Stroke	-	+				-			
Teenage pregnancy		-							

7.2 Unhealthy Behaviors

Respondents were asked to select the three most important unhealthy behaviors in the community out of a total of 14 choices based on importance. Again note that the modified sample of 1,199 was used for aggregated responses in order to more accurately reflect the characteristics of the Knox and Warren Counties region population.

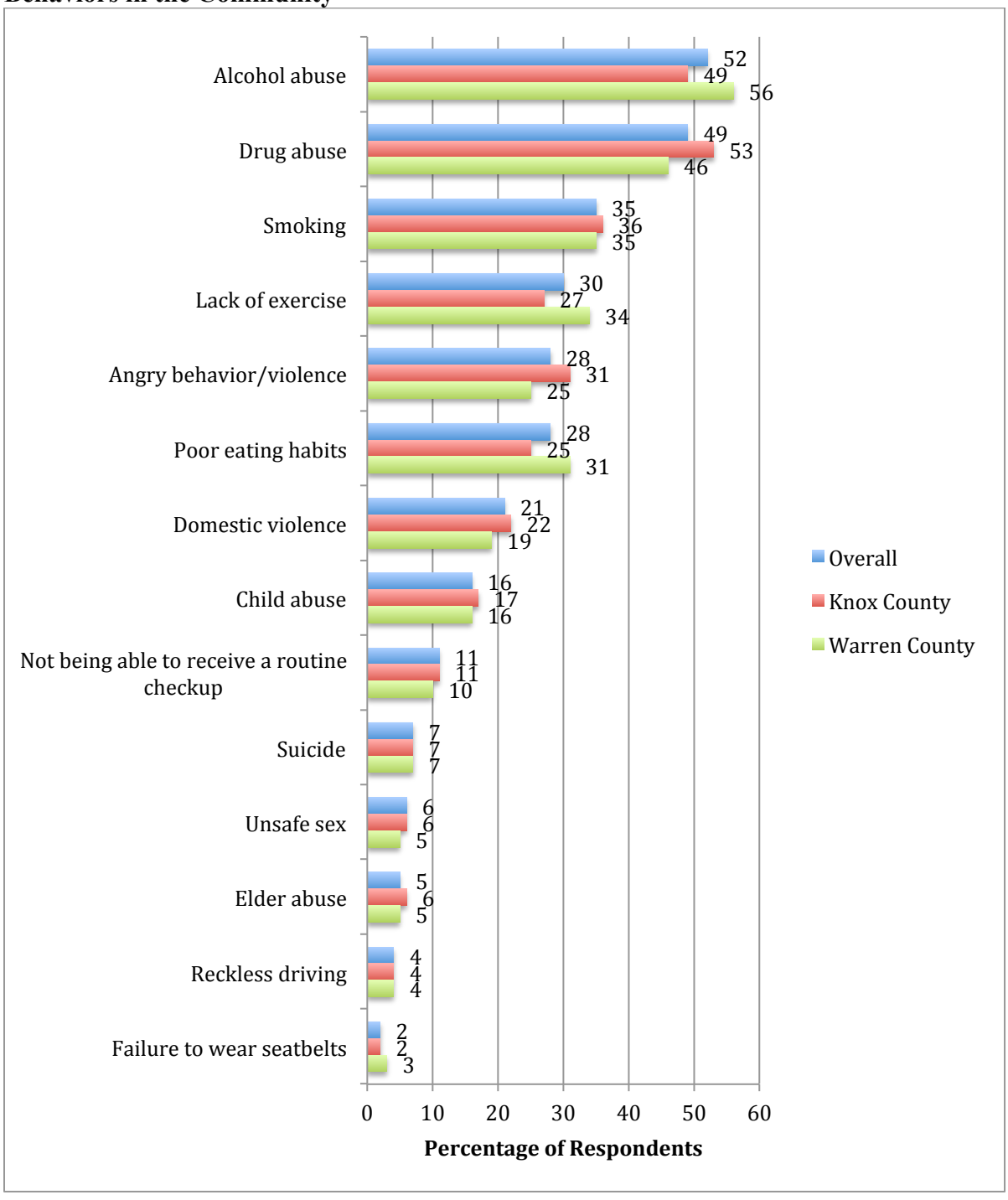
7.2.1 Aggregate Unhealthy Behaviors

The unhealthy behaviors that rated highest were alcohol abuse and drug abuse. They were both significantly higher than other categories based on *t-tests* between sample means.

This was followed by smoking, lack of exercise, general violence, and poor eating habits. Statistically, these four choices were rated similarly. The next unhealthy behaviors were domestic violence and child abuse. Other categories were only identified 11% of the time or less.

Note that perceptions of the community were accurate in some cases, but inaccurate in others. For example, gonorrhea rates in Knox County exceed the State of Illinois average for 2009, yet “unsafe sex” was only selected 6% of the time.

Table 7.2.1 Aggregate and County Frequencies for Most Important Perceived Unhealthy Behaviors in the Community

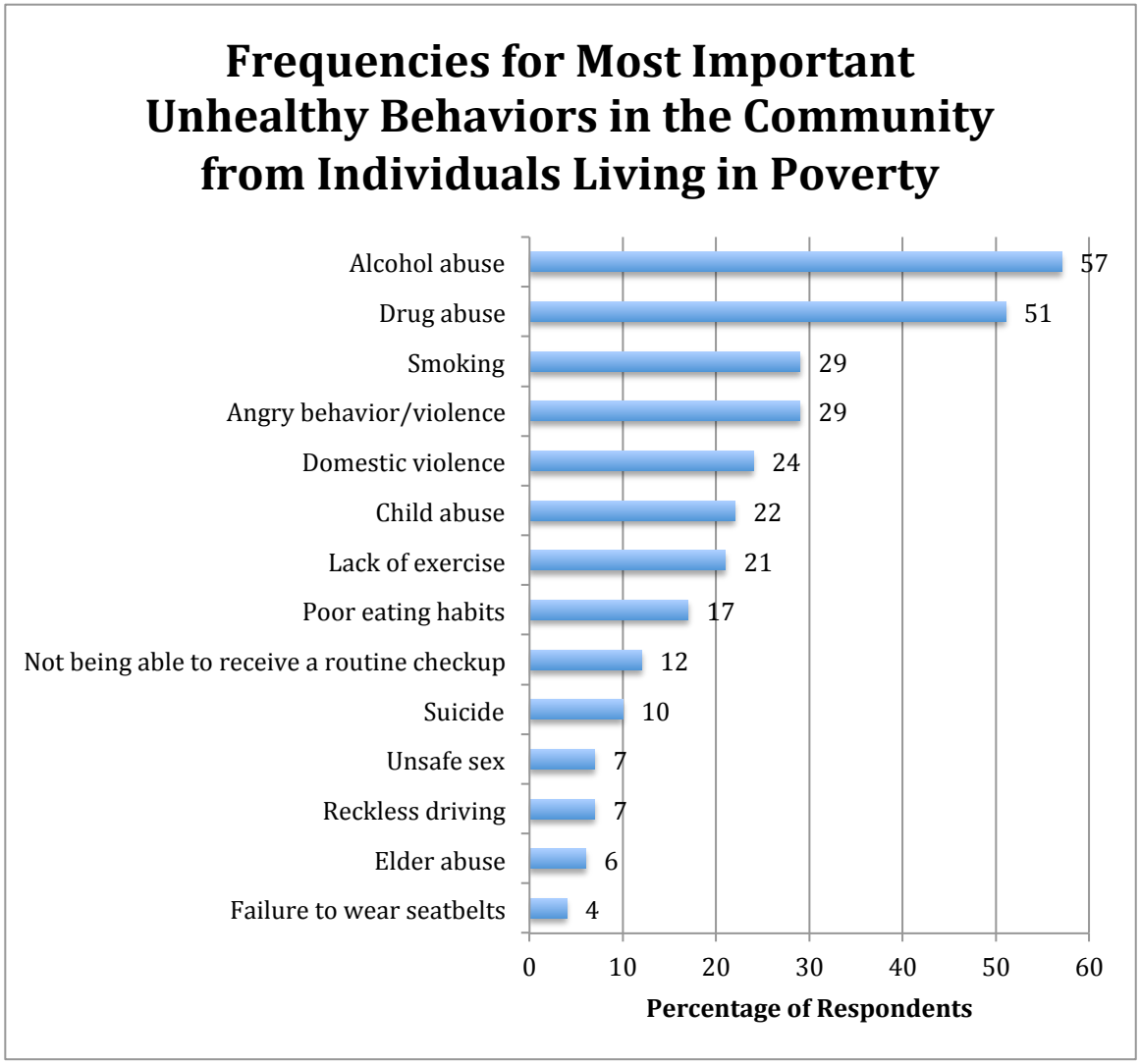


Note: n=1199

7.2.2 Perceptions of Individuals Living in Poverty

When assessing perceptions of those living in poverty, it can be seen that major issues like alcohol abuse and drug abuse become slightly more important, indicating that individuals in poverty perceive more problems with substance abuse. Conversely, smoking, and poor eating habits are perceived as being less important.

Table 7.2.2 Frequencies for Most Important Perceived Unhealthy Behaviors in the Community from Individuals Living in Poverty



7.2.3 Relationships between Perceptions and Demographics

Only significant relationships are reported in this section. The threshold used for significant correlations is ($p < .01$) given the large sample size. The following relationships can be identified.

Anger/Violence tends to be rated higher by individuals with the following characteristics: lower income and resident of Knox County.

Alcohol abuse tends to be rated higher by individuals with the following characteristics: resident of Warren County.

Child abuse tends to be rated higher by individuals with the following characteristics: less education and lower income.

Domestic violence tends to be rated higher by individuals with the following characteristics: less education and lower income.

Drug abuse tends to be rated higher by residents of Knox County.

Elder abuse tends to be rated higher by older individuals and lower by individuals of Latino/a ethnicity.

Lack of exercise tends to be rated higher by people with the following characteristics: more educated, and higher income. Lack of exercise tends to be rated lower by residents of Knox County.

Not being able to receive a routine checkup tends to be rated higher by men.

Poor eating habits tends to be rated higher by people with the following characteristics: White ethnicity, higher income, more education, and by residents of Warren County. Poor eating habits tend to be rated lower by individuals of Black ethnicity.

Reckless driving tends to be rated higher by people with the following characteristics: of Black ethnicity, lower income, and less education.

Smoking tends to be rated higher by people with the following characteristics: higher income.

Suicide tends to be rated higher by younger individuals, individuals of Black ethnicity, and individuals with lower incomes.

Unsafe sex tends to be rated higher by individuals with the following characteristics: Younger, and of Black ethnicity. Unsafe sex tends to be rated lower by individuals of White ethnicity.

Table 7.2.3 Significant Correlations among Most Important Perceived Unhealthy Behaviors in the Community and Demographic Variables

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren
Angry behavior/violence							-	+	
Alcohol abuse									+
Child abuse						-	-		
Domestic violence						-	-		
Failure to wear seatbelts									
Drug abuse								+	
Elder abuse		+			-				
Lack of exercise						+	+	-	
Not being able to receive a routine checkup	-								
Poor eating habits			+	-		+	+		+
Reckless driving			-	+		-	-		
Smoking							+		
Suicide		-		+			-		
Unsafe sex		-	-	+					

7.3 Issues with Quality of Life

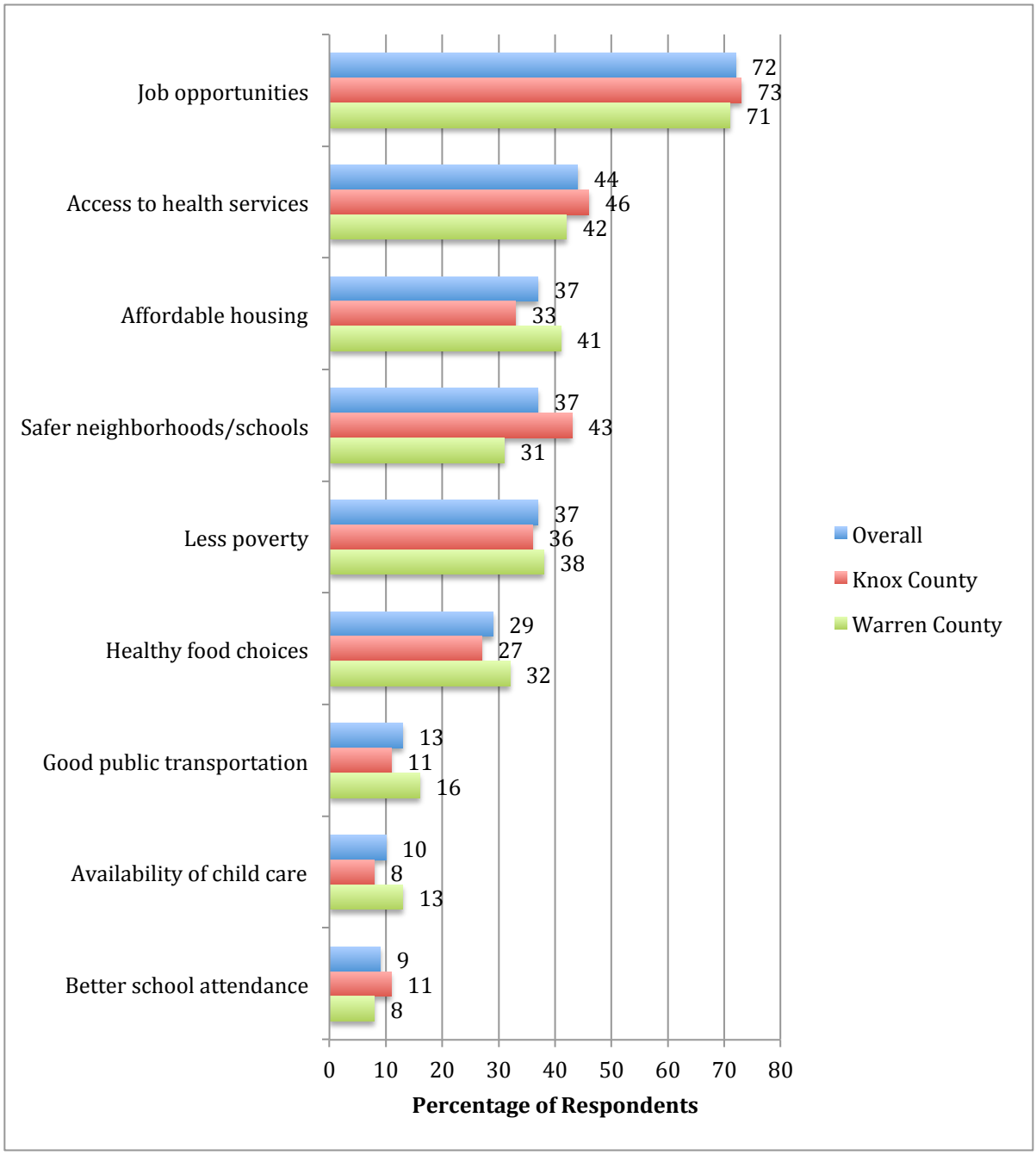
Respondents were asked to select the three most important issues impacting quality of life in the community out of a total of 9 choices based on importance. Again note that the modified sample of 1,199 was used for aggregated responses in order to more accurately reflect the characteristics of Knox and Warren Counties.

7.3.1 Aggregate issues impacting quality of life

The issues impacting quality of life that rated highest were job opportunities and access to health services. They were both significantly higher than other categories based on *t-tests* between sample means. It is not surprising that job opportunities were rated high given the recent recession.

This was followed by safer neighborhoods, affordable housing, less poverty, and healthy food choices. Statistically, these four choices were rated similarly.

Table 7.3.1 Frequencies for Most Important Perceived Factors that Impact Quality of Life

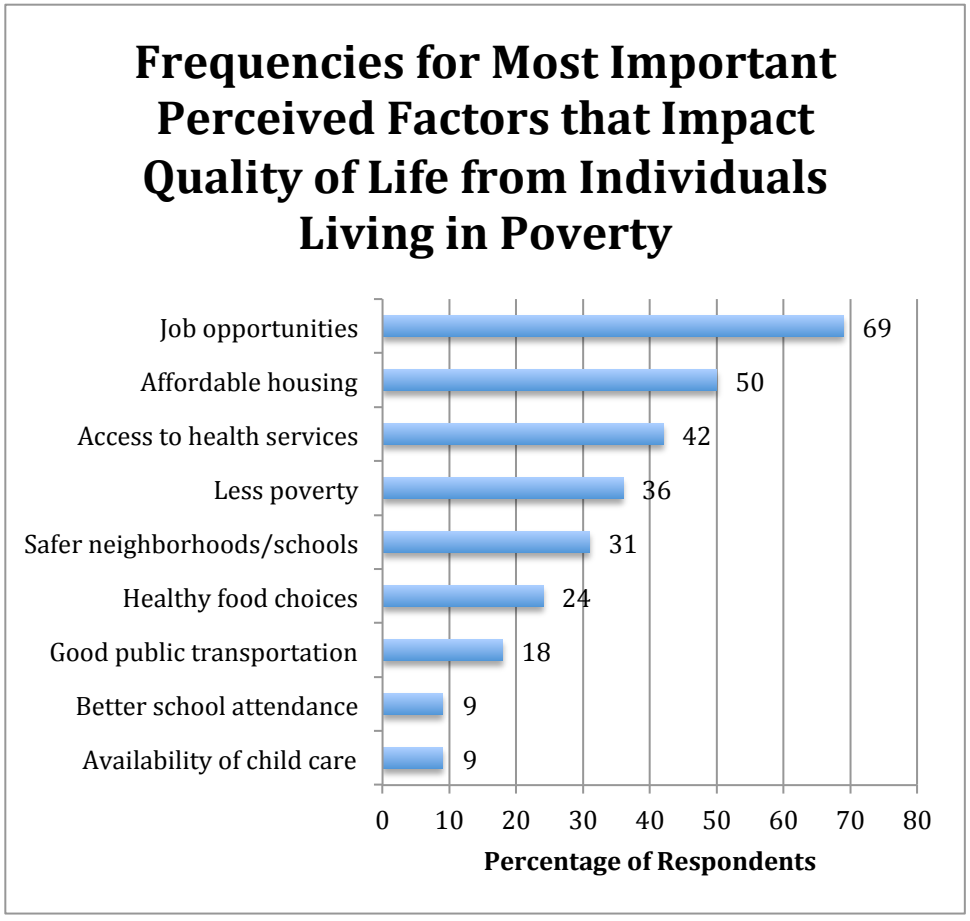


Note: n=1199

7.3.2 Perceptions of Individuals Living in Poverty

When assessing perceptions of those living in poverty, it can be seen that perceptions are similar to the aggregated sample. Affordable housing and good public transportation are significantly more important to individuals living in poverty than those from the aggregated sample.

Table 7.3.2 Frequencies for Most Important Perceived Factors that Impact Quality of Life from Individuals Living in Poverty



7.3.3 Relationships between Perceptions and Demographics

Only significant relationships are reported in this section. The threshold used for significant correlations is ($p < .01$) given the large sample size. The following relationships can be identified.

Access to health services tends to be rated higher by individuals with the following characteristics: Older.

Affordable housing tend to be rated higher by people with the following characteristics: Younger, Black ethnicity, less educated, lower income, and residents of Warren County. Individuals of Latino/a ethnicity tend to rate it lower.

Availability of child care tends to be rated higher by younger people.

Job opportunities tend to be rated higher by individuals with more education and younger individuals.

Public transportation tends to be rated higher by individuals of Black ethnicity and individuals of Latino ethnicity. Individuals of White ethnicity and residents of Knox County tend to rate it lower.

Healthy food choices tend to be rated higher by individuals with higher incomes and more education.

Safer neighborhoods tend to be rated higher by residents of Knox County.

7.3.3 Significant Correlations among Most Important Perceived Factors that Impact Quality of Life and Demographic Variables

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren
Access to health services		+							
Affordable housing		-		+	-	-	-		+
Availability of child care		-							
Better school attendance									
Job opportunities		-				+			
Good public transportation			-	+	+			-	
Healthy food choices						+	+		
Less poverty									
Safer neighborhoods/schools								+	

Community Perceptions: Strategic Implications

Heart disease appears to be perceived relatively low compared to actual causes of mortality. Specifically, younger individuals, individuals of non-White ethnicity, and respondents from Knox County appear to have the largest misperceptions regarding the importance of understanding heart disease in the community.

Additionally, STI seems to be rated relatively low, even though gonorrhea rates in Knox County exceed the State of Illinois average. Respondents of White ethnicity appeared to have the largest misperceptions.

Finally, there appears to be a misperception between perceived issues with diabetes and actual deaths resulting from diabetes. Residents in Knox County appeared to have the largest misperceptions.

CHAPTER 8. ACCESSIBILITY TO HEALTH CARE

In this chapter, results examining access to health services are presented. Specifically, access to medical care, prescription medication, dental care and counseling are presented. First, scores are presented for the aggregate Knox and Warren Counties region, Knox County, and Warren County. Next, responses are presented for those living in deep poverty. After each category, relationships between accessibility and demographic variables are presented in order to identify where certain demographic characteristics influence access to health services.

8.1 Choice of Medical Care

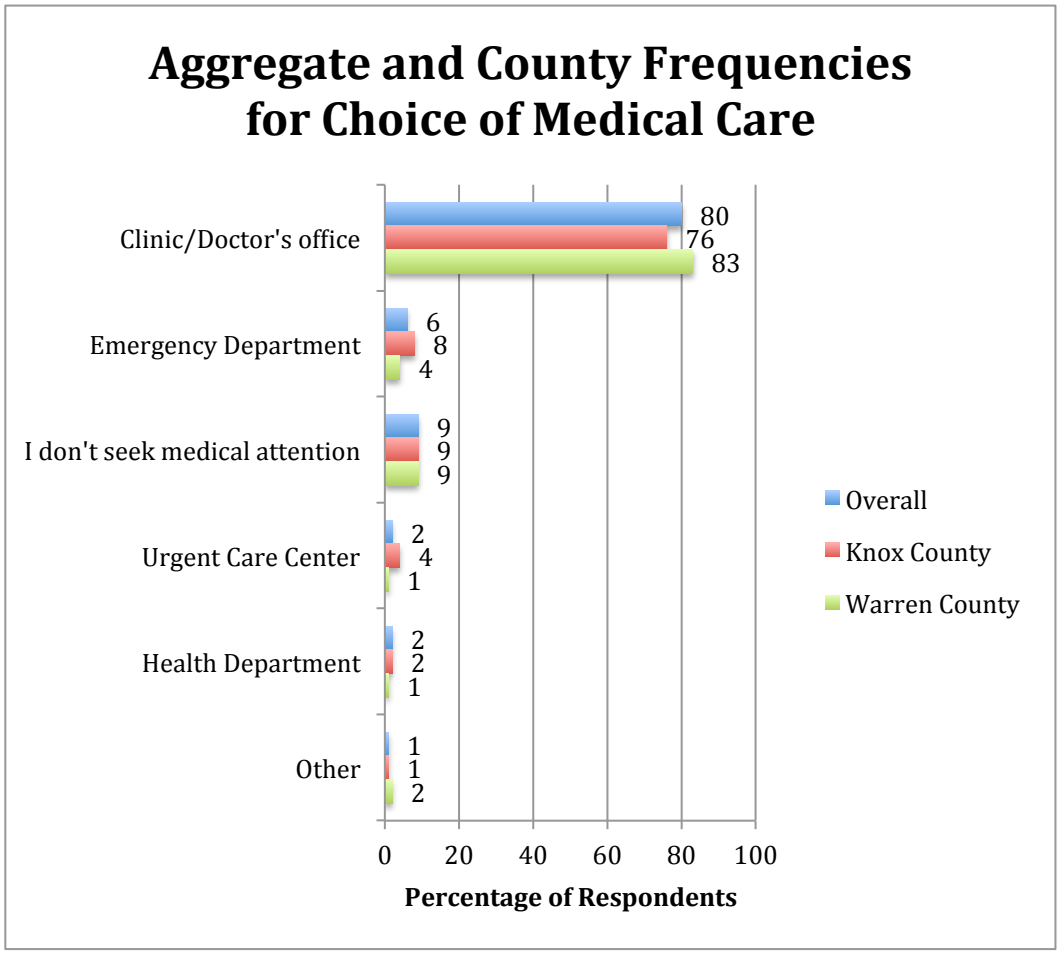
Respondents were asked to select the type of health care they used when they were sick. Six different alternatives were presented, including clinic or doctor's office, emergency department, Urgent care facility, health department, no medical treatment, and other. The modified sample of 1,199 was used for aggregated responses in order to more accurately reflect the demographic characteristics for the Knox and Warren Counties region.

8.1.1 Aggregate and County Reponses

The most common response was clinic/doctor's office, where 80% of survey respondents overall chose this as their primary choice for medical care. 76% of Knox County and 83% of Warren County residents utilize a clinic/doctor's office as their primary choice.

"I don't seek medical attention" was the second choice (9% across all three categories) and the emergency department was the third choice (6% overall, 8% in Knox County, 4% in Warren County). Note however that Health Department numbers may be skewed lower, as no surveys were distributed at the Health Department to ensure accurate measures for accessibility to health care. Moreover, respondents may have interpreted the Health Department as a clinic.

Table 8.1.1 Aggregate and County Frequencies for Choice of Medical Care

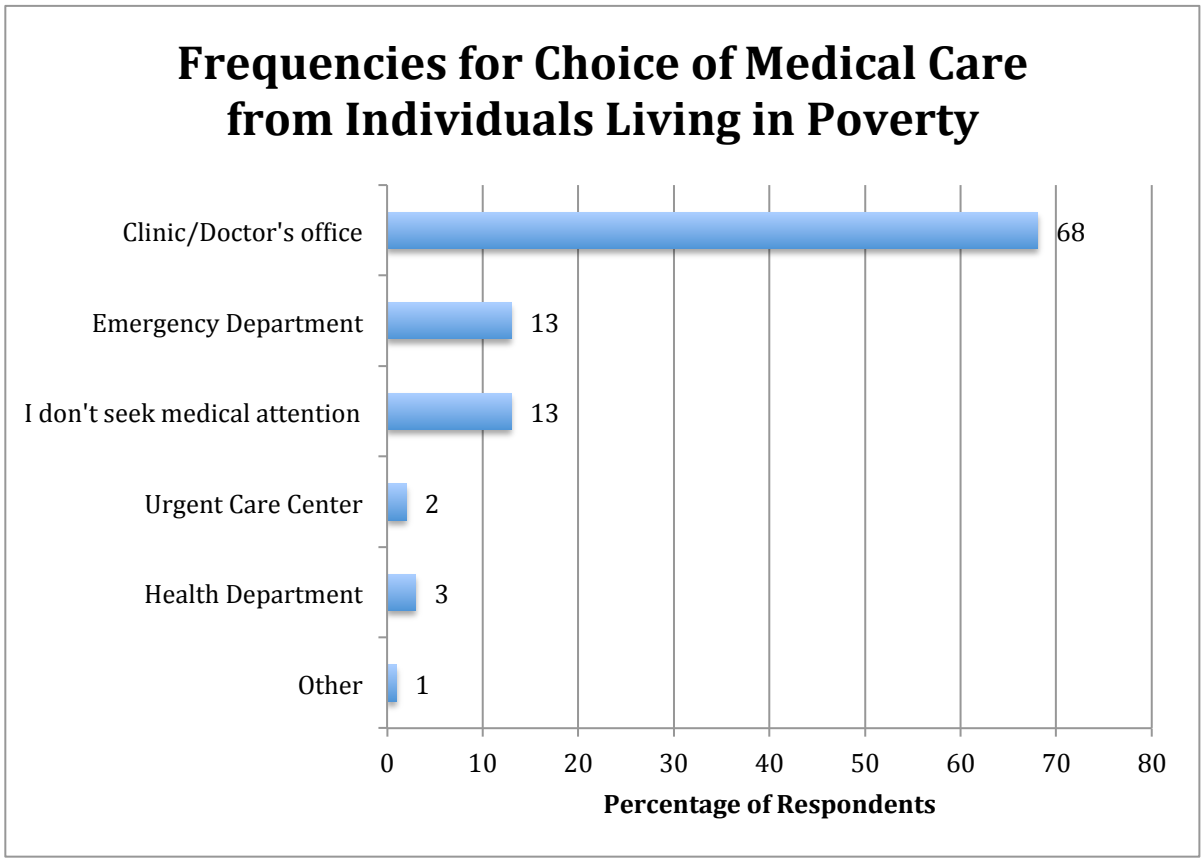


n=1199

8.1.2. Perceptions of individuals living in poverty

Note that for individuals living in poverty, 68% choose a clinic/doctor's office as their first choice for medical care and 13% of individuals living in poverty do not seek medical attention. Another 13% percent utilize the emergency department when sick and 3% indicate the health department.

Table 8.1.2 Frequencies for Choice of Medical Care from Individuals Living in Poverty



8.1.3 Relationships between Choice of Medical Care and Demographics

Note that for Chapter 8 and 9 the homeless are added as a demographic variable.

Health department tends to be rated higher by people with the following characteristics: Individuals of Black ethnicity, of Latino/a ethnicity, lower income and less educated. Individuals identifying with White ethnicity tend to rate it lower.

Emergency department tends to be rated higher by people with the following characteristics: men, Black ethnicity, less education, lower income, and residents of Knox County. Individuals identifying with White ethnicity tend to rate it lower.

Clinic/Doctor's office tends to be rated higher by people with the following characteristics: women, older, white ethnicity, more education, higher income, and residents of Warren County. Individuals of Black ethnicity tend to rate it lower.

Don't seek medical treatment tends to be rated higher by people with the following characteristics: men, younger and lower income.

Urgent Care Center tends to be lower by residents of Warren County.

Table 8.1.3 Significant Correlations among Choice of Health Care and Demographic Variables

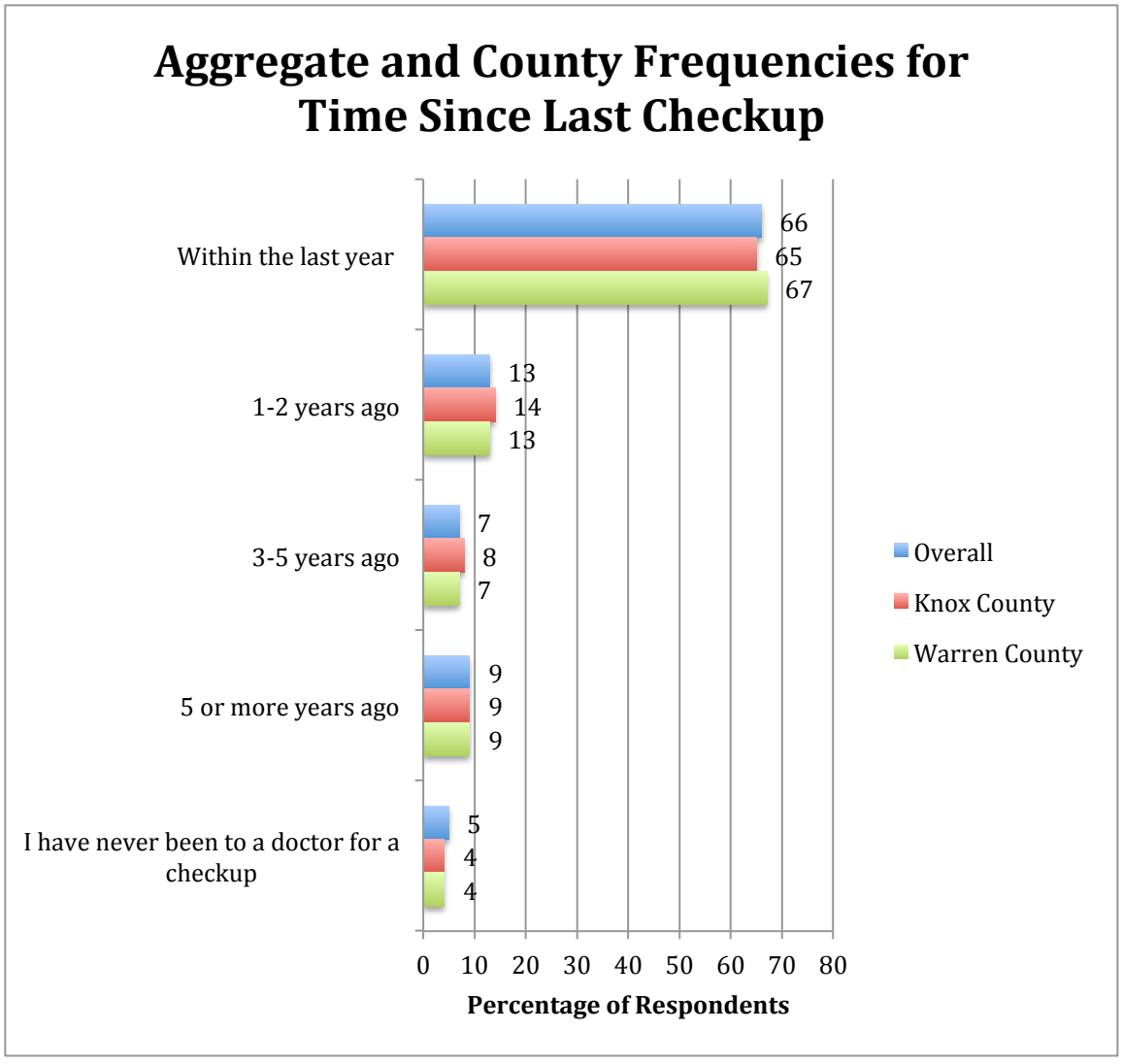
	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren
Health Department			-	+	+	-	-		
Emergency Department	-		-	+		-	-	+	
Clinic/Doctor's office	+	+	+	-		+	+		+
I don't seek medical attention	-	-					-		
Urgent Care Center									-

8.2 Frequency of Checkups

8.2.1 Aggregated and County responses

Respondents were asked how often they had a checkup. Of respondents, approximately 66% received a checkup in the last year, approximately 13% in the past 1-2 years, approximately 7% in the last 3-5 years, 9% in the past 5 years or more and approximately 5% have never been to a doctor's office for a checkup. The modified sample of 1,199 was used for aggregated responses in order to more accurately reflect the demographic characteristics of the Knox and Warren Counties region.

Table 8.2.1 Aggregate and County Frequencies for Time Since Last Checkup

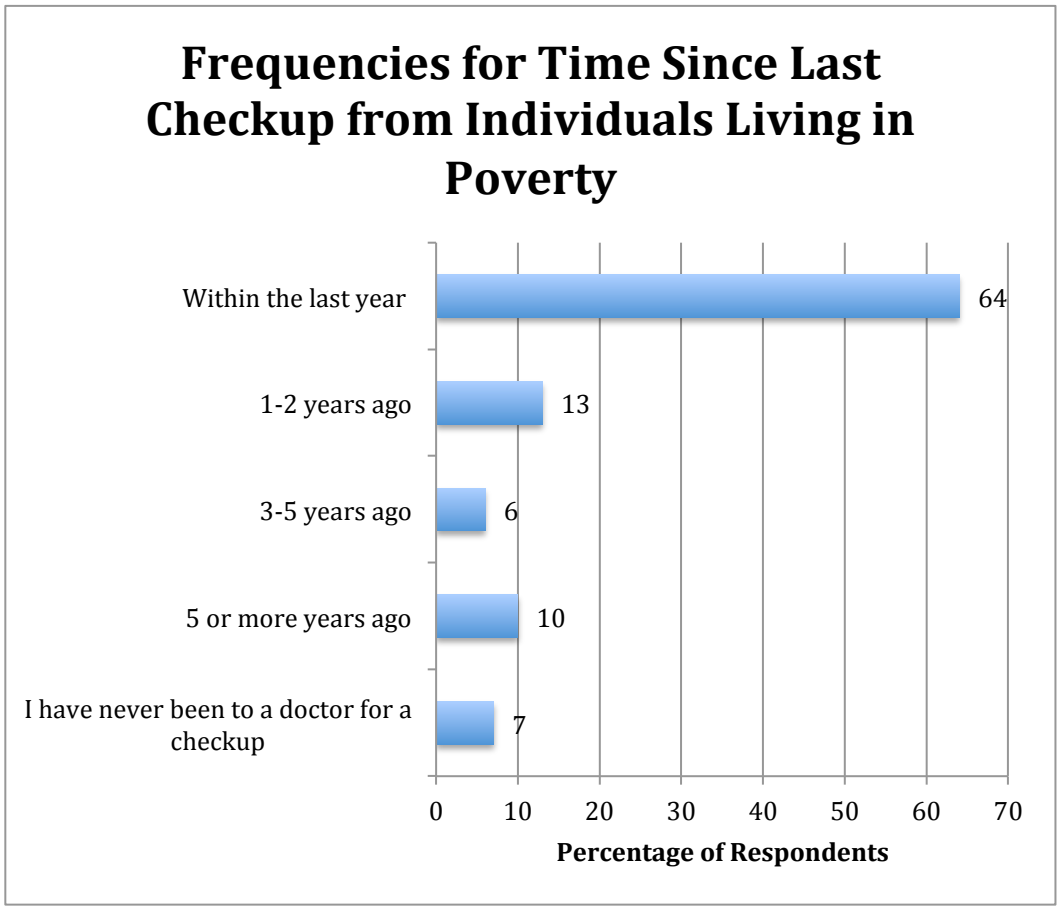


Note: n=1199

8.2.2 People living in poverty

Note that people living in poverty were different than the aggregated population when going to a doctor for a checkup. Specifically, 23% of people living in deep poverty had not seen a doctor in 3 or more years.

Table 8.2.2 Frequencies for Time Since Last Checkup from Individuals Living in Poverty



8.2.3 Relationships between frequency of checkups and demographics

The data show that younger people, men, and homeless individuals are less likely to get a checkup at a doctor's office. Moreover, results of Ordinary-Least-Squared regression models show that homelessness is the most important predictor, followed by gender and age, based on significance levels of *beta* coefficients.

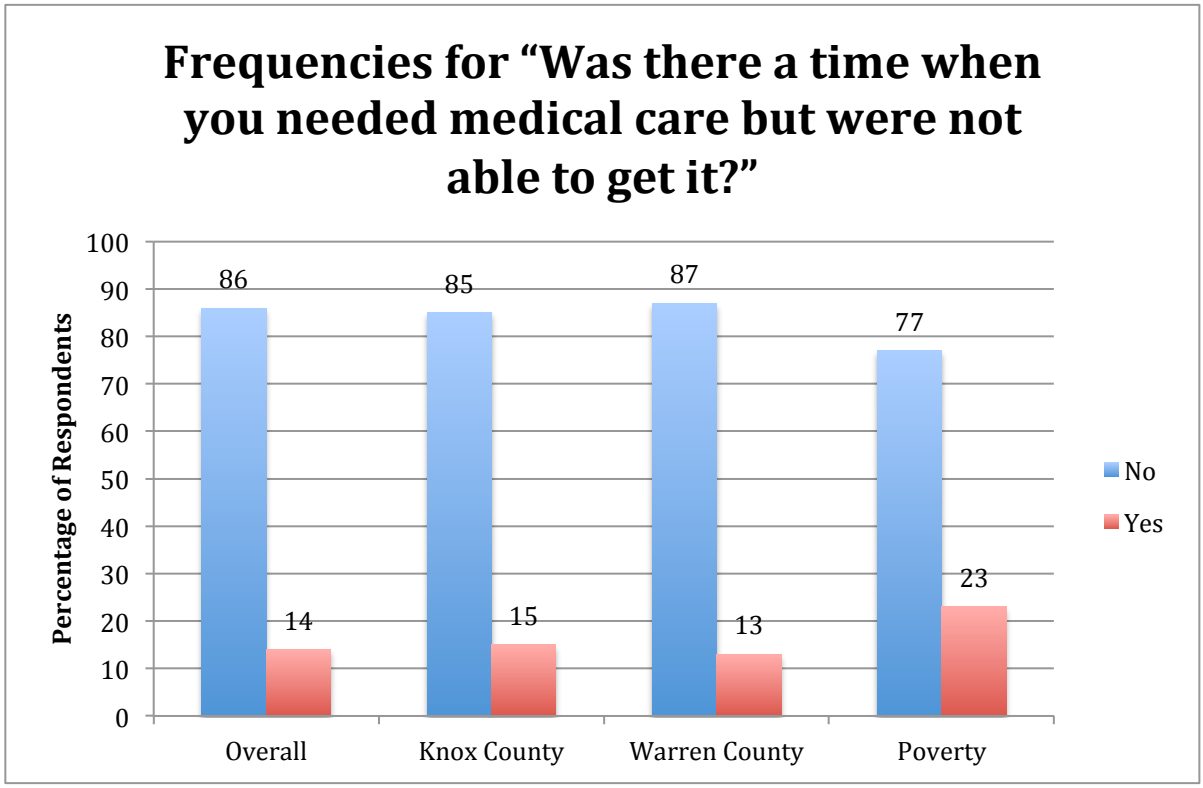
Table 8.2.3 Significant Correlations for Time Since Last Checkup

Age	-
Gender	-
Homeless	+

8.3 Access to Medical Care

Respondents were asked, "Was there a time when you needed medical care but were not able to get it?" Approximately 86% of Knox and Warren Counties region residents were able to receive medical care, however compared to individuals living in deep poverty, only 77% were able to receive medical care. Put differently, 23% of individuals living in poverty could not get access to medical care when necessary.

Table 8.3.1 Frequencies for "Was there a time when you needed medical care but were not able to get it?"



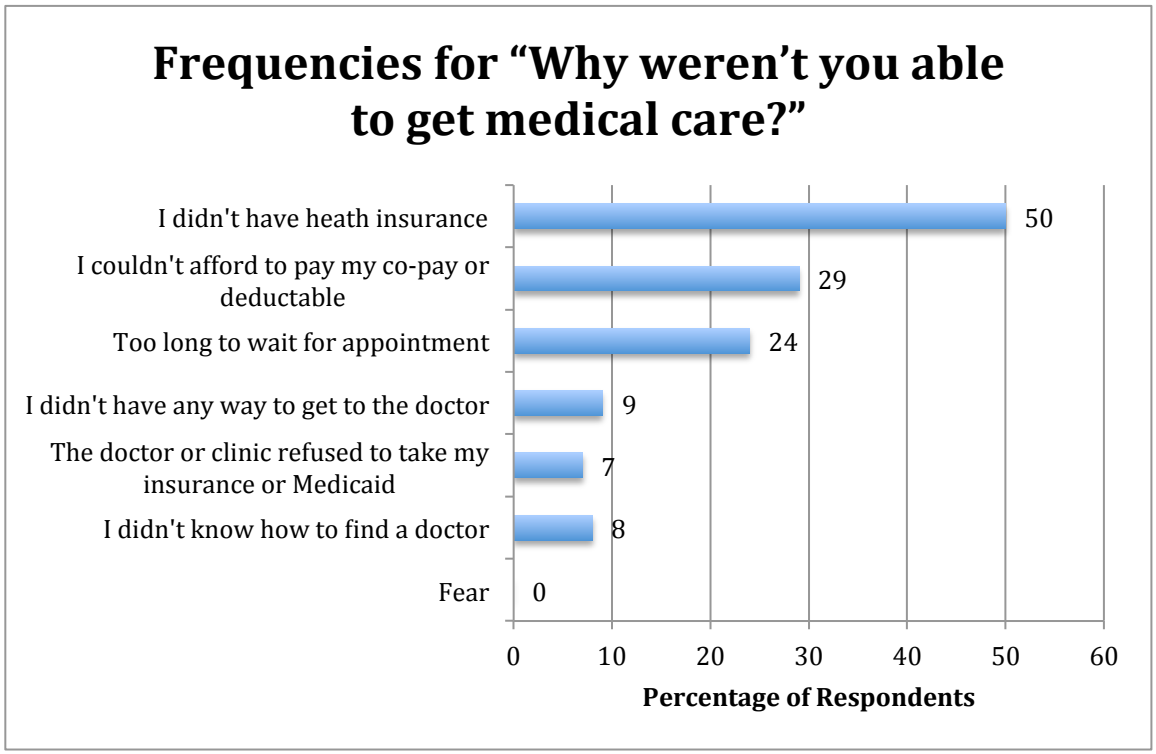
For relationships between access to medical care and demographics, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that they did not have access to medical care if they were younger, less educated, had lower income, were of non-White ethnicity, and were homeless. Logit regression results indicate that less education, younger people and homeless were the most important predictors respectively, based on significance levels of *beta* coefficients.

Table 8.3.2 Significant Correlations for "Was there a time when you needed medical care but were not able to get it?"

Income	-
Education	-
White	-
Homeless	+
Age	-
Latino/a	+

The leading causes of why someone did not have access to medical care were no insurance (50%) and the inability to afford copayments or deductibles (29%). This was followed by too long to wait for an appointment (24%) and no transportation to get to the doctor (9%). Note that total percentages do not equal 100% as respondents could choose more than one answer.

Table 8.3.3.1 Frequencies for "Why weren't you able to get medical care?"



Note: n=181

8.3.3.2 Relationships between Needing Medical Care and Demographics

No insurance tends to be rated higher by people with the following characteristics: men, less educated, lower income, and homeless.

Can't afford copay/deductible tends to be rated higher by people with the following characteristics: of Black ethnicity.

No way to get to the Doctor tends to be rated higher by people with the following characteristics: homeless.

I don't know how to find a doctor tends to be rated higher by men, younger individuals, and individuals of Latino/a ethnicity.

Too long to wait for an appointment tends to be rated higher by individuals with less education and lower income.

Fear tends to be rated higher by men.

Table 8.3.3.2 Significant Correlations for "Was there a time when you needed medical care but were not able to get it?"

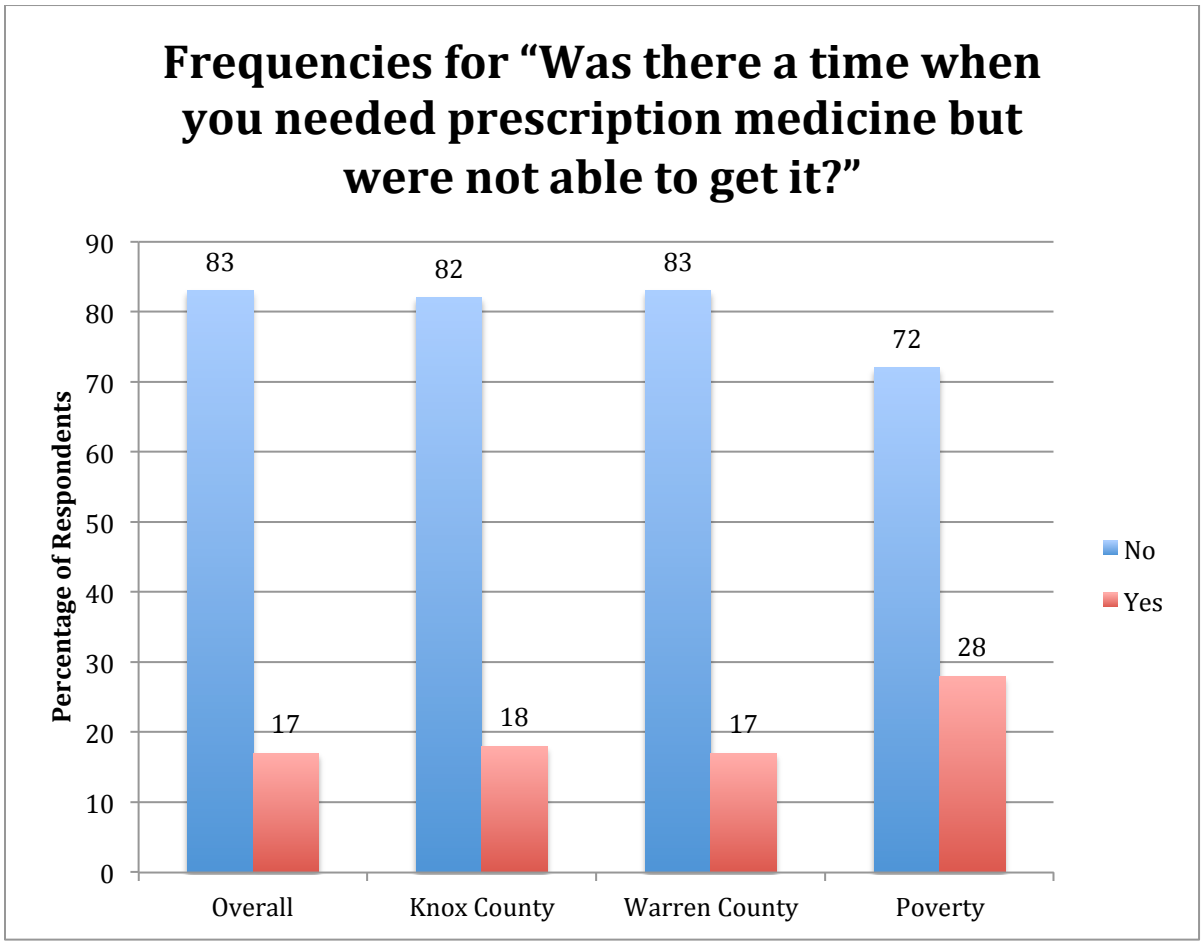
	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren	Homeless
No Insurance	-					-	-			+
Can't afford copay/deductable				+						
No way to get to Doctor										+
Refused my insurance/Medicaid										
I don't know how to find a doctor	-	-			+					
Too long for an appointment						-	-			
Fear	-									

8.4 Access to Prescription Drugs

Respondents were asked, "Was there a time when you needed prescription medicine but were not able to get it?" 83% of Area residents were able to receive prescription medicine, however compared to individuals living in deep poverty, only 72% were able to receive prescription drugs. Put differently, 28% of individuals living in poverty could not get access to prescription drugs when necessary.

For relationships between access to prescription medications and demographics, logit regression results indicate that homeless was the most important predictor, based on significance levels of *beta* coefficients.

Table 8.4.1 Frequencies for "Was there a time when you needed prescription medicine but were not able to get it?"



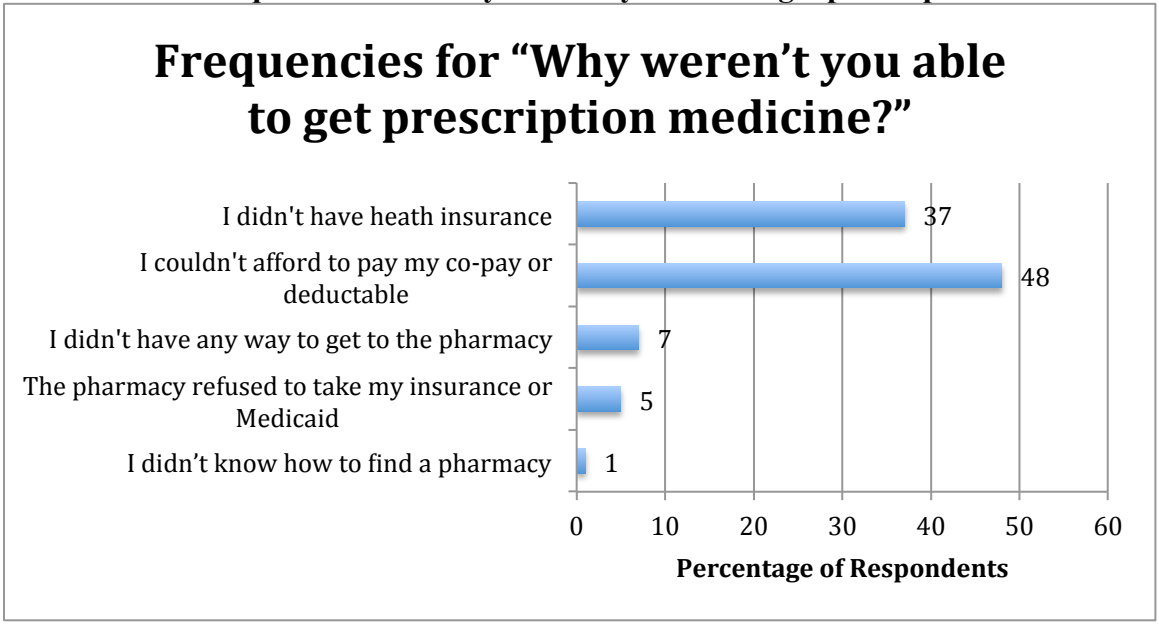
For relationships between prescription medication and demographics, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that they did not have access to prescription medication if they were younger, less educated, possessed lower income, were of non-White ethnicity, and were homeless. Logit regression results indicate that less education, younger people and homeless were the most important predictors respectively, based on significance levels of *beta* coefficients.

Table 8.4.2 Significant Correlations for "Was there a time in the last year when you needed prescription medication and were unable to get it?"

Income	-
Education	-
White	-
Homeless	+
Age	-
Latino/a	+

The leading cause of why someone did not have access to prescription medicine was they were unable to afford copayments or deductibles (48%). This was followed by a lack of health insurance in general (37%). Note that total percentages do not equal 100% as respondents could choose more than one answer.

Table 8.4.3 Frequencies for "Why weren't you able to get prescription medicine?"



Note: n=181

Table 8.4.4 Significant Correlations for Reasons Why Individuals Were Not Able to Obtain Prescription Medication in the Past Year

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren	Homeless
No Insurance						-	-			+
Can't afford copay/deductable										
I didn't know how to find a pharmacy	-									
Refused my insurance/Medicaid	-									
I didn't have any way to get to the pharmacy										+

Note that "No Insurance" tends to be rated higher by people with the following characteristics: less educated, lower income, and homeless. Men tended to rate "I don't know how to find a pharmacy" and "the pharmacy refused my insurance/Medicaid" higher. Finally, "I don't have any way to get to the pharmacy" tends to be rated higher by homeless individuals.

8.5 Access to Dental Care

Respondents were asked when was the last time that they had a dental checkup. Residents in the Area indicated that approximately 51% of residents have had a dental checkup in the last year. For those living in deep poverty, only 33% had a dental checkup in the last year.

Note that Ordinary-Least-Squared regression modeling indicates that age and non-White/non-Latino rated access to dental checkups lower, based on significance levels of *beta* coefficients.

Table 8.5.1 Frequencies for Time Since Last Dental Checkup

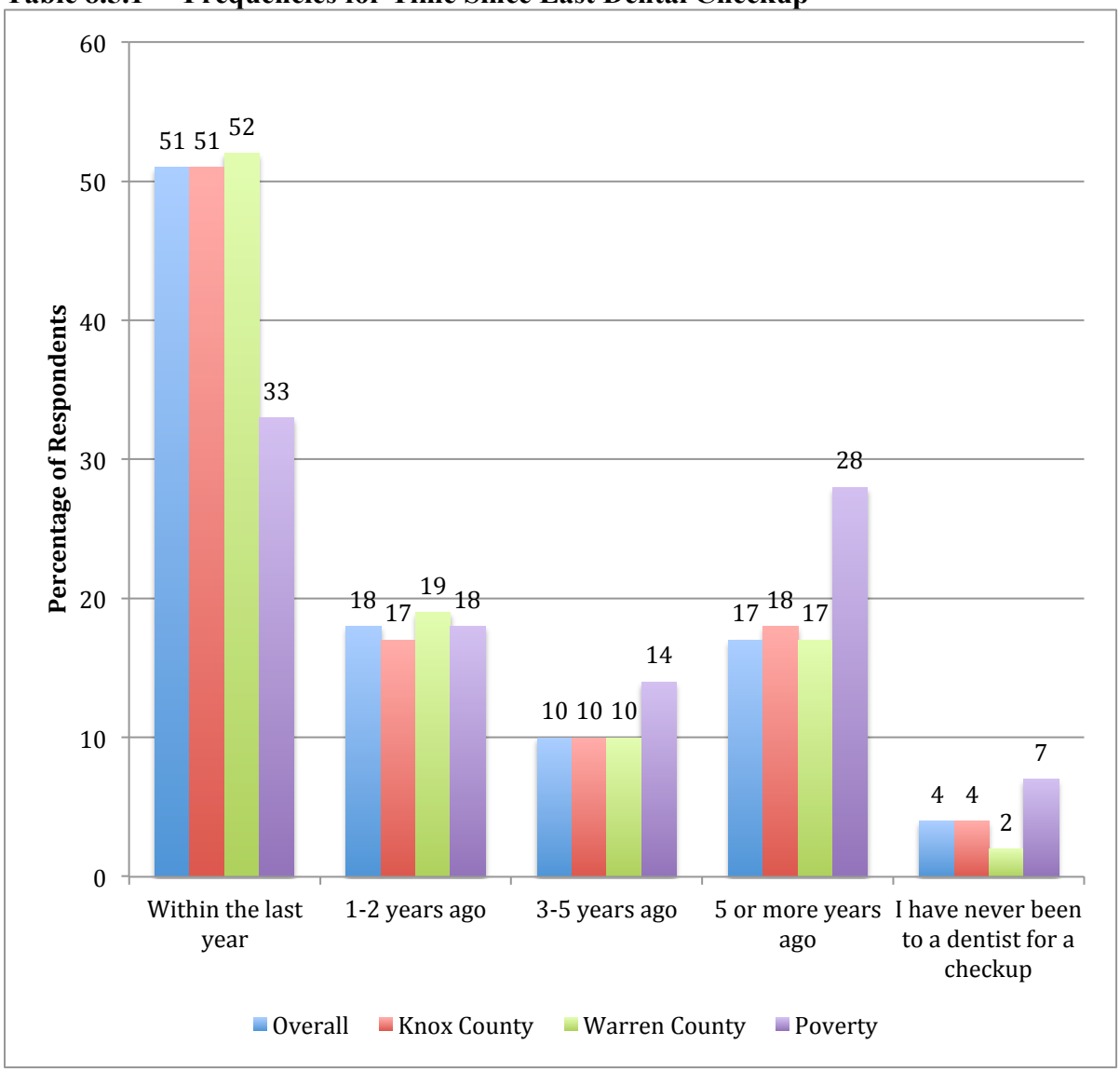


Table 8.5.2 Significant Correlations for Time Since Last Dental Checkup

Gender	-
Age	-
Race (White)	-
Race (Black)	+
Latino/a	-
Education	-
Income	-
Homeless	+

For relationships between time since last dental checkup and demographic variables, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that a longer time has passed since his or her last dental checkup if they were male, younger, they were of non-White/non-Latino ethnicity, they possessed less education, they possessed less income, and were homeless.

Respondents were then asked, “Was there a time when you needed dental care but were not able to get it?” Note that for the aggregate Area, only 19% respondents indicated that they were unable to obtain dental care when they needed it. Compared to the figures for people living in poverty, 35% indicated that they could not get access to dental care when necessary.

Logistic regression modeling indicated that lower income, younger age, lower education and non-White residents were more likely not to have access to dental care, based on significance levels of *beta* coefficients.

Table 8.5.3 Frequencies for "Was there a time when you needed dental care but were not able to get it?"

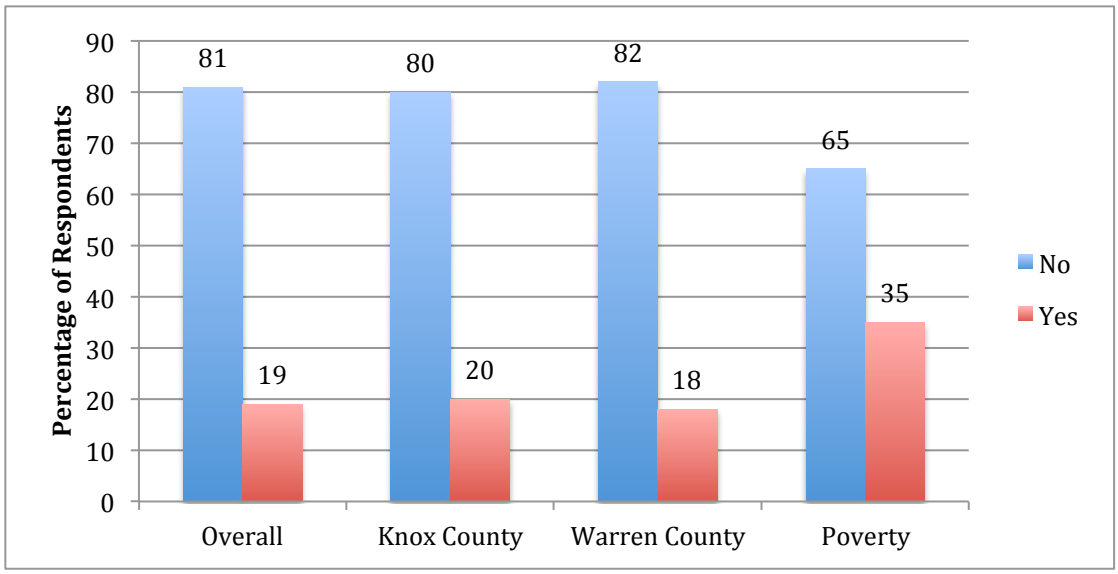


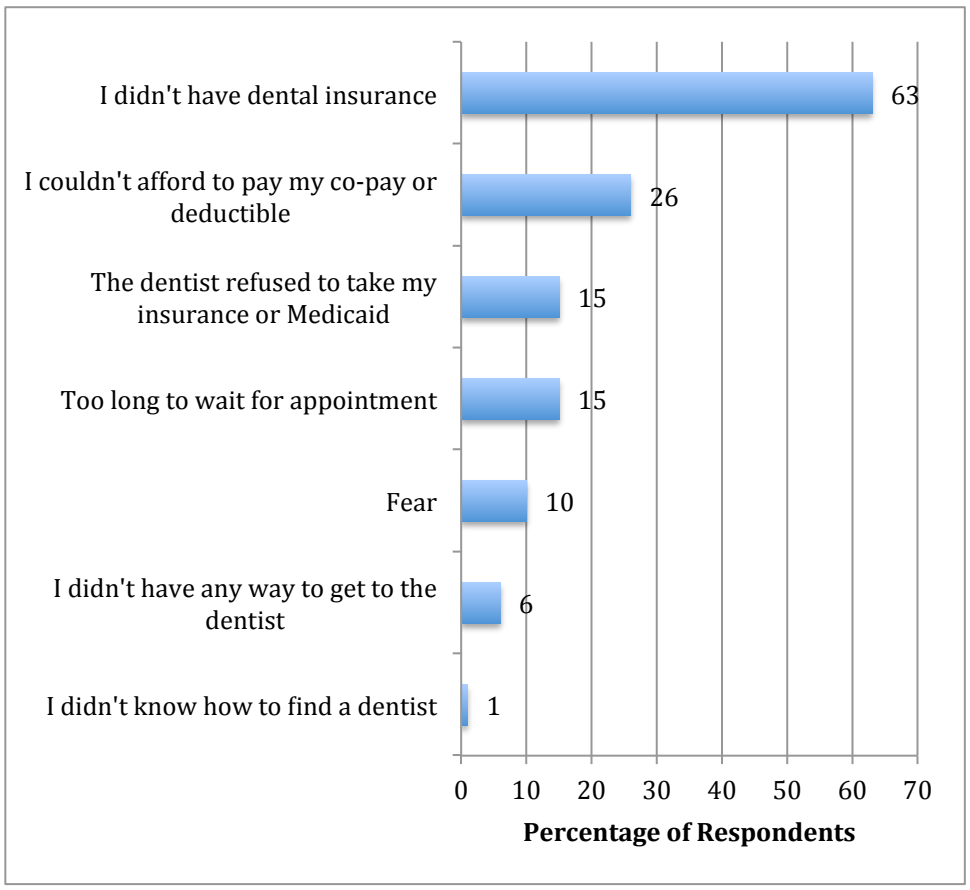
Table 8.5.4 Significant Correlations for "In the last year, was there a time when you needed dental care but could not get it?"

Age	-
Education	-
Income	-
Homeless	+

For relationships between needing dental care and demographic variables, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that he or she needed dental care and were unable to receive it if they were younger, of lower income, homeless, and possessed less education.

The leading causes of why someone did not have access to dental care were no insurance (63%) and the inability to afford copayments or deductibles (16%). While fear was a non-issue with access to medical care, 10% of respondents indicated they did not get access to dental care because they were uncomfortable going to the dentist. Note that total percentages do not equal 100% as respondents could choose more than one answer.

Table 8.5.5 Frequencies for "Why weren't you able to get dental care?"



Note: n=181

Table 8.5.6 Significant Correlations for "Why weren't you able to get dental care?"

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren	Homeless
No Insurance	-					-	-			
Can't afford copay/deductible				+						+
I didn't have any way to get to the dentist			-							
Refused my insurance/Medicaid								-		
I didn't know how to find a dentist		+								
Too long to wait for appointment					+					
Fear										

Note several significant relationships between demographic variables and the reasons why individuals were not able to obtain dental care in the past year:

No Insurance tends to be rated higher by men, individuals with lower income, and individuals with less education.

Can't afford copay/deductible tends to be rated higher by individuals of Black ethnicity and individuals who are homeless.

I didn't have any way to get to the dentist tends to be rated lower by individuals of White ethnicity.

Refused my insurance/Medicaid tends to be rated lower by residents of Knox County

I don't know how to find a dentist tends to be rated higher by older individuals.

Too long to wait for an appointment tends to be rated higher by individuals of Latino/a ethnicity.

8.6 Access to Counseling

Respondents were asked, "Was there a time when you needed counseling but were not able to get it?" Approximately 10% of respondents in the area agreed that when he or she needed counseling, he or she was unable to obtain it. The percentage for individuals living in poverty is significantly higher (15%).

Logit regression results indicated that low income, younger people and homelessness were the most important predictors of no access to counseling, respectively.

Table 8.6.1 Frequencies for "Was there a time when you needed counseling but were not able to get it?"

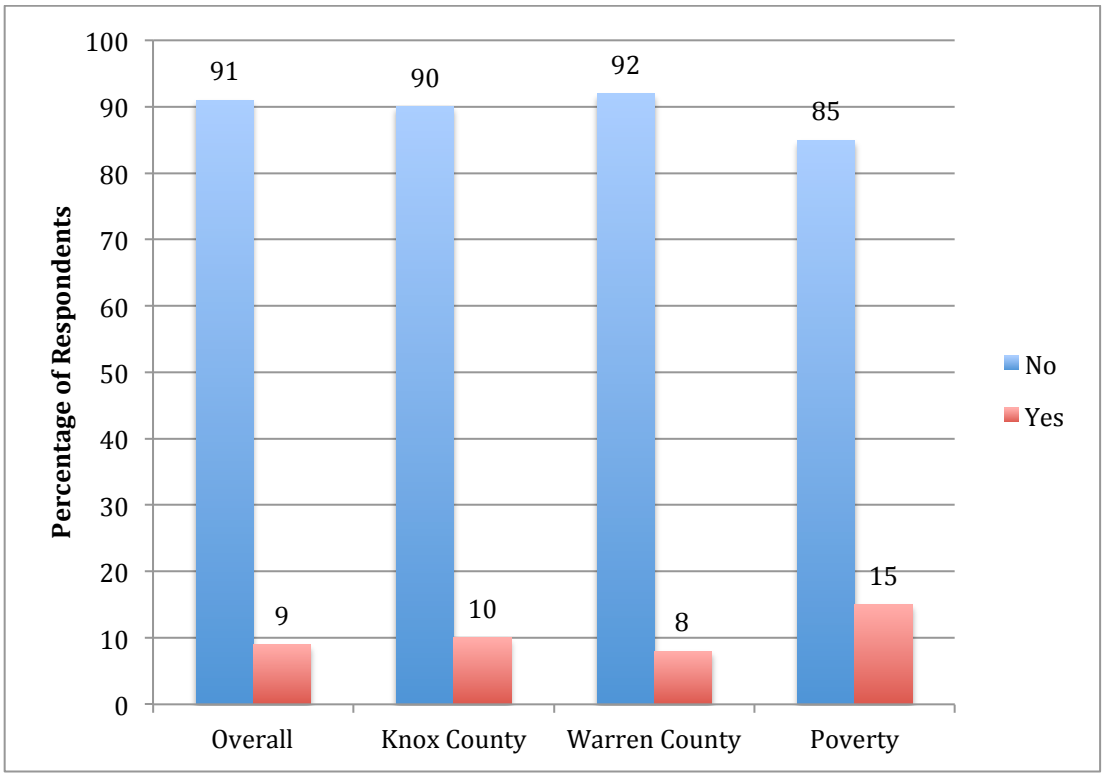


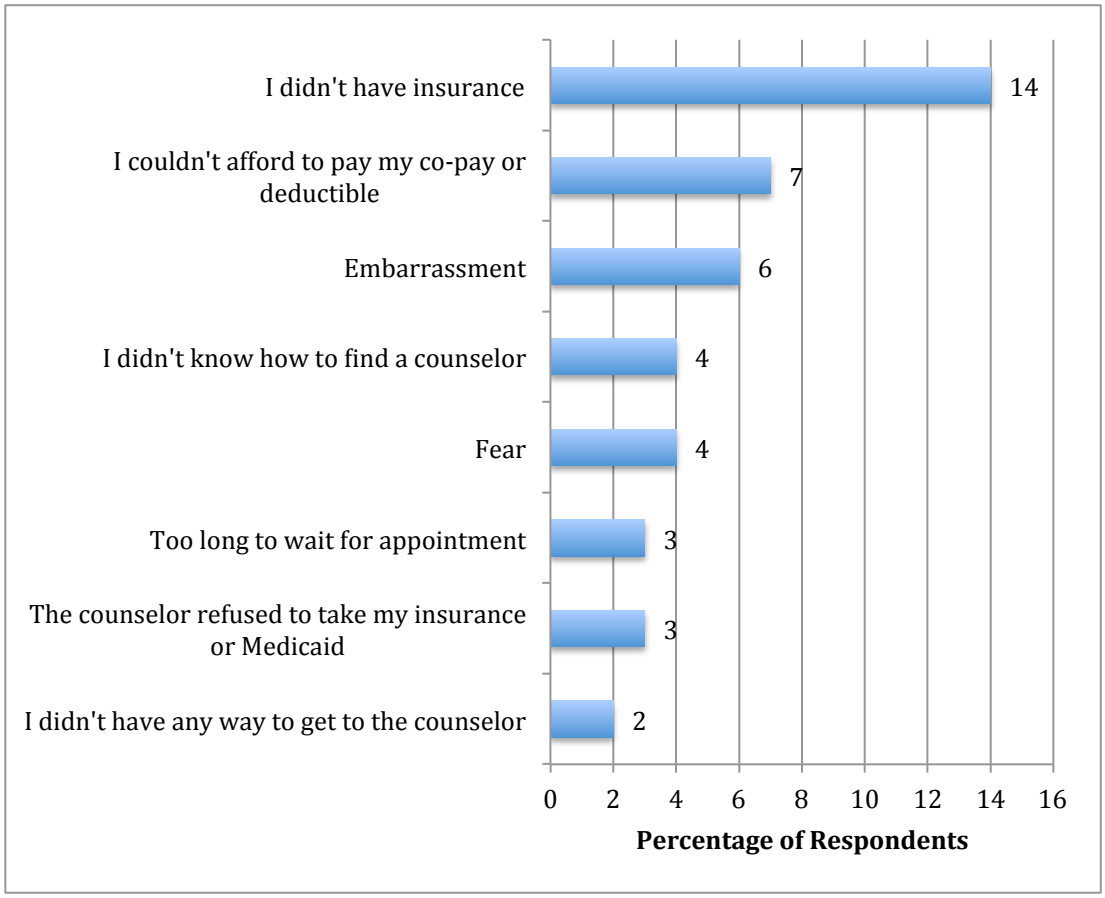
Table 8.6.2 Significant Correlations for "In the last year, was there a time when you needed counseling but could not get it?"

Age	-
Education	-
Income	-
Homeless	+

For relationships between needing counseling and demographic variables, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that he or she needed counseling and was unable to receive it if they were homeless, possessed less education, earned lower income, and were younger

The leading causes of why someone did not have access to counseling were no insurance (14%) and the inability to afford copayments or deductibles (7%). Embarrassment was the third leading cause at 6%. Subsequent analyses revealed that members of the Homeless population were highly correlated to fear, embarrassment, refusal of insurance, and inability to pay one's deductible. Note that total percentages do not equal 100% as respondents could choose more than one answer.

Table 8.6.3 Frequencies for "Why weren't you able to get counseling?"



Note: n=181

Table 8.6.4 Significant Correlations for Reasons Why Individuals Were Not Able to Obtain Counseling in the Past Year

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren	Homeless
No Insurance						-	-			+
Can't afford copay/deductible										
I didn't have any way to get to the counselor										
I didn't know how to find a counselor					+					
Refused my insurance/Medicaid										
Too long to wait for appointment										
Fear										
Embarassment	-									

Note several significant relationships between demographic variables and the reasons why individuals were not able to obtain counseling in the past year:

No Insurance tends to be rated higher by individuals with lower income, less education, and those individuals who are homeless.

I didn't know how to find a counselor tends to be rated higher by individuals of Latino/a ethnicity.

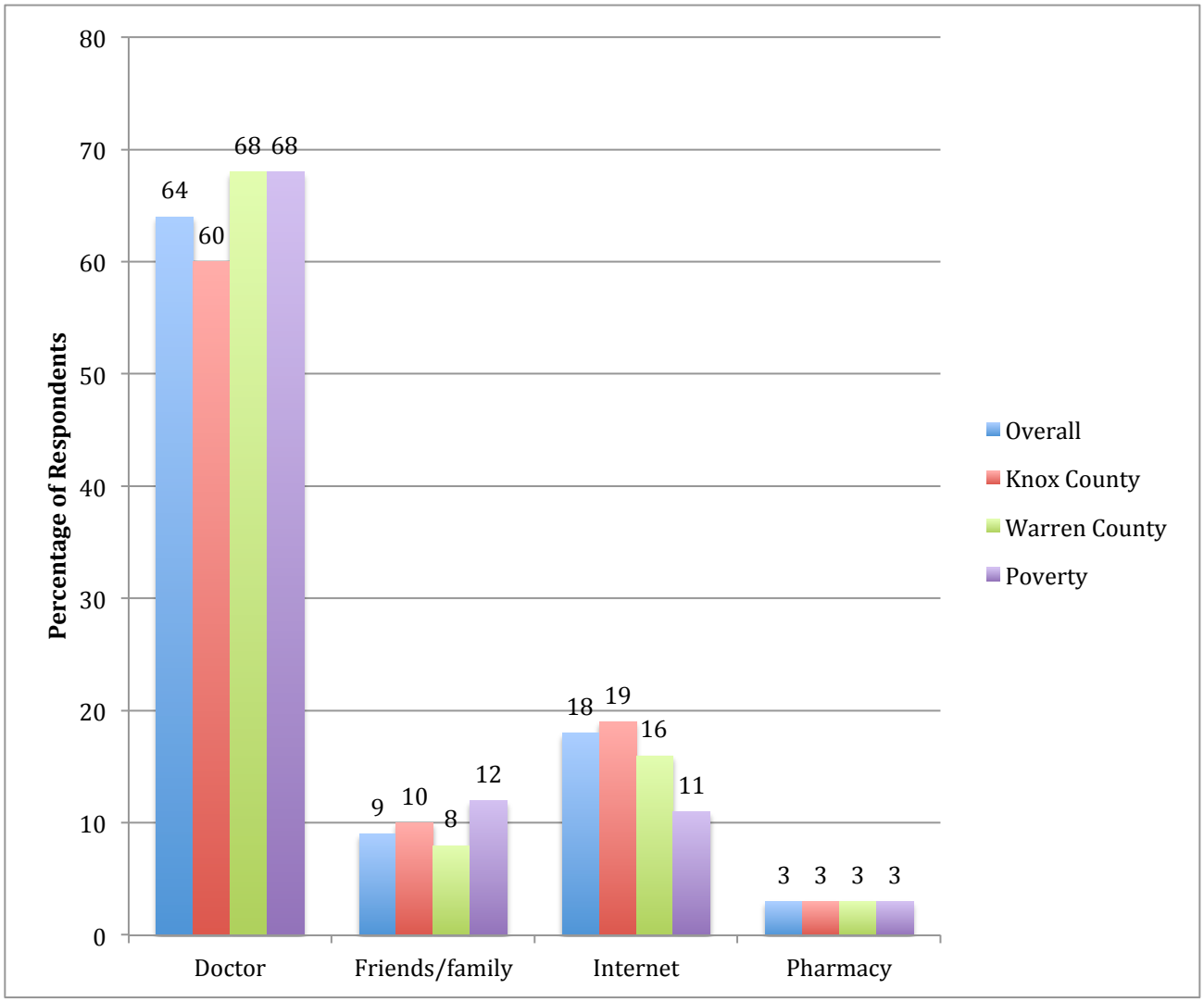
Embarrassment tends to be rated higher by men.

8.7 Access to Information

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. Note that for individuals living in poverty, friends/family were more important than the Internet.

There were no statistically significant relationships between access to information and demographic factors.

Table 8.7.1 Frequencies for "Where do you get most of your medical information?"

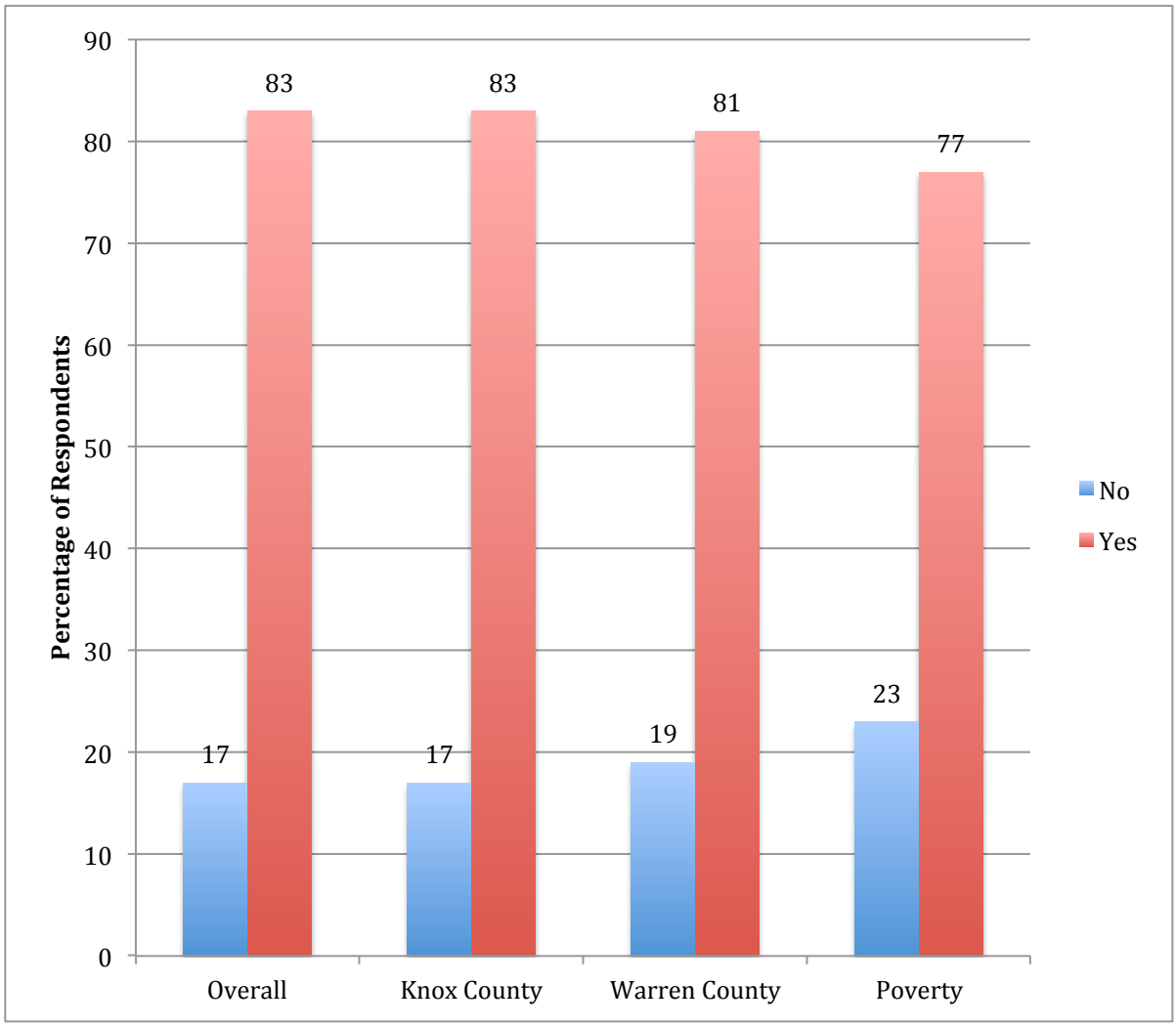


8.8 Personal physician

Respondents were asked if they had a personal physician. For the Galesburg aggregate, 83% of respondents indicated that they had a personal physician.

Logit regression analyses reveal that people with higher incomes, women and older people positively impacted whether someone had a personal physician, and homelessness had a negative impact on whether someone had a personal physician.

Table 8.8.1 Frequencies for "Do you have a personal physician?"



Numerous significant relationships exist between access to a personal physician and demographic variables. Specifically, a survey respondent was more likely to answer that he or she did not have a personal physician if they were residents of Knox County, they were homeless, or they were of Latino/a ethnicity and was more likely to answer that he or she did have a personal physician if he or she was a woman, older, more educated, earned more income, was of White ethnicity,

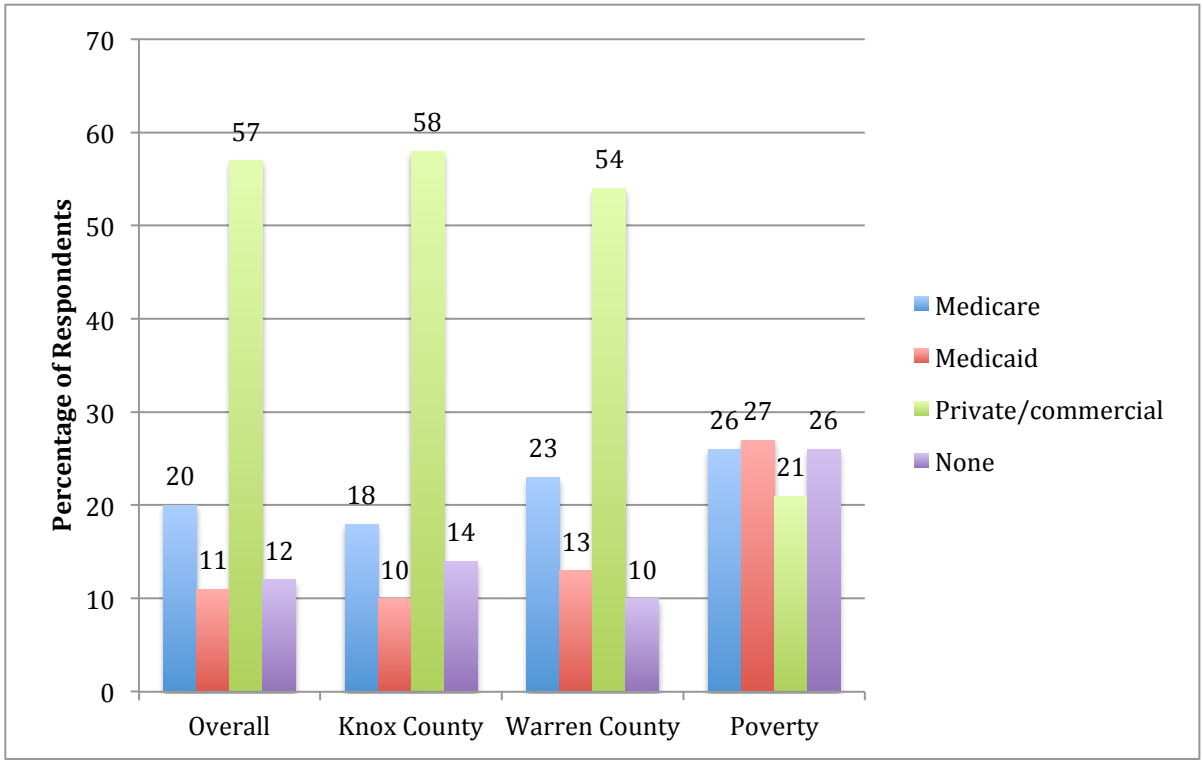
Table 8.8.2 Significant Correlations among Access to a Personal Physician and Demographic Variables

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	Knox	Warren	Homeless
Do you have a personal physician?	+	+	+		-	+	+	-		-

8.9 Type of Insurance

Respondents were asked to identify the type of insurance that they had. In the Knox and Warren Counties region, the most prevalent type of insurance is private or commercial, however, those living in poverty are disproportionately more reliant on no insurance or Medicaid.

Table 8.9.1 Frequencies for Insurance Coverage and Individuals Living in Poverty



Access to Health Care: Strategic Implications

Approximately 70% of people living in deep poverty seek medical services at a clinic or doctor's office. For this segment of the population, while 13% seek medical services from an emergency department, approximately 14% will not seek any medical services at all or "other" non-traditional sources of care. Those most likely to not seek any medical services when sick include males, younger individuals, and individuals with lower incomes.

23% of the population living in deep poverty indicated there was a time in the last year when they were not able to get medical care when needed. According to regression results, this was more likely among individuals who were younger, less educated, possessed lower income, were of non-White ethnicity, and were homeless. The leading causes were lack of insurance and inability to afford a copayment or deductible. Similar results were found for access to prescription medication. Regression results indicated that homeless individuals and individuals of Latino/a ethnicity were less likely to have access to necessary prescription medication. Again the leading causes of the inability to have access to prescription medications were lack of insurance and inability to afford copayment or deductibles.

While significant research exists linking dental care to numerous diseases, including heart disease, 51% of the aggregate Galesburg residents had a checkup in the last year. Specifically, individuals who were male, younger, were of non-White/non-Latino ethnicity, possessed less education, possessed less income, and were homeless were less likely to visit a dentist. Moreover, note that more than a third of the people living in poverty (35%) indicated that they needed dental care in the last year, but were not able to get it. Lack of dental insurance and inability to afford copayments were the leading causes.

Approximately 15% of people living in deep poverty indicated they were not able to get counseling when they needed it over the last 12 months. Leading indicators are males, less education, lower income, and homelessness. While affordability and insurance were the leading reasons, embarrassment were also significant barriers to mental health services.

Across categories, residents of the Knox and Warren Counties region get most of their medical information from doctors and the next most prevalent is the Internet.

The most prevalent type of insurance is private or commercial, however, those living in poverty are disproportionately more reliant on Medicaid. Also for those living in poverty, 26% do not have any type of insurance at all.

CHAPTER 9. HEALTHY BEHAVIORS

In this chapter, healthy behaviors of the community are presented. Specifically, frequency of physical exercise, healthy eating habits and smoking are examined. Additionally, overall self-perceptions of health are presented.

9.1 Physical Exercise

Respondents were asked how frequently they engage in physical exercise. The majority of the population across all categories does not engage in sufficient exercise. Note that these findings are more consistent with state averages when compared to data reported by the *Illinois Behavioral Risk Factor Surveillance System* data. For physical exercise, ordinary-least-square regression results show that younger people, Black ethnicity, homelessness and less educated people are less likely to engage in physical exercise, while homeless residents are not.

Numerous significant relationships exist between physical exercise and demographic variables. Specifically, a survey respondent was more likely to answer that he or she exercised regularly if they were male, were of Black ethnicity, or were of Latino/a ethnicity and less likely if they were of White ethnicity.

Table 9.1.1 Frequencies for "In the last week, how many times did you exercise?"

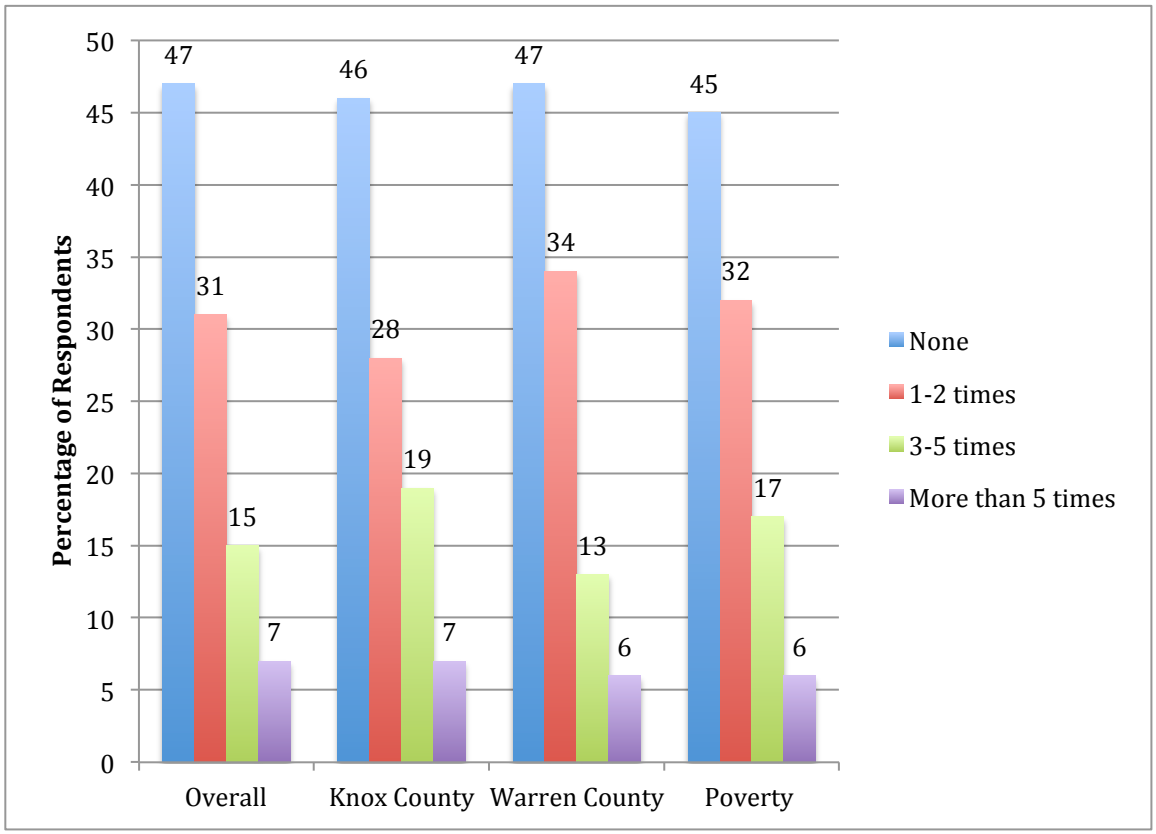


Table 9.1.2 Significant Correlations among "In the last week, how many times did you exercise?" and Demographic Variables

Gender	-
Race (White)	-
Race (Black)	+
Latino/a	+

9.2 Healthy Eating

For healthy eating habits, about 24% of the population consumes at least three servings of fruits/vegetables in a day. Moreover, only about 3% of the population consumes the minimal recommended daily amount of vegetables. These findings are inconsistent with the *Illinois Behavioral Risk Factor Surveillance System* data, as the BRFSS data suggests approximately 18% of Knox County and 15% of Warren County residents consume 5 or more servings of fruits and vegetables per day. Additional research by the CDC states that for a typical person consuming 2,200 calories per day, they should have 7 servings of vegetables.

Table 9.2.1 Frequencies for "On a typical day, how many servings of fruits and/or vegetables do you eat?"

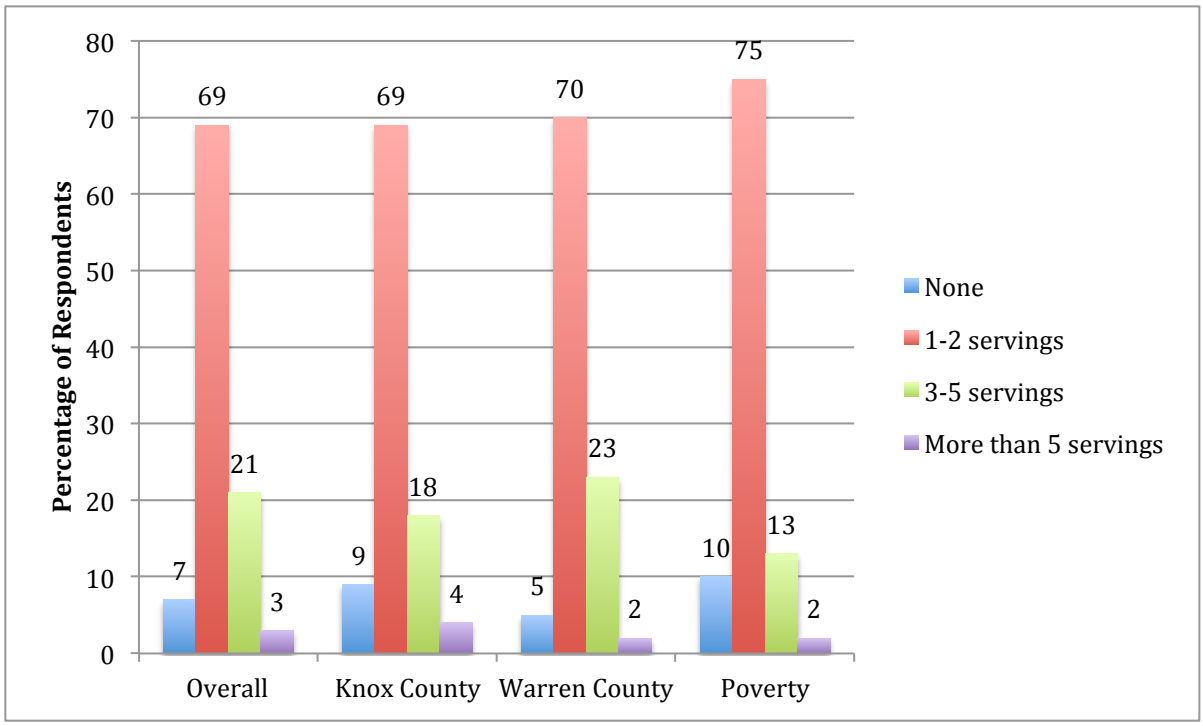


Table 9.2.2 Significant Correlations among Number of Servings of Fruits and Vegetables Consumed Daily and Demographic Variables

Gender	+
Education	+
Income	+

Numerous significant relationships exist between consumption of fruits and vegetables and demographic variables. Specifically, a survey respondent was more likely to answer that he or she consumed more fruits and vegetables each day if they were had earned a higher income, had attained higher levels of education, and were female.

9.3 Smoking

Youth tobacco use exceeds the State of Illinois averages, as seen in the secondary research presented earlier in this report. Primary data suggests that individuals living in poverty are significantly more likely to smoke. Note that when comparing these data to the *Illinois Behavioral Risk Factor Surveillance System* data, the CHNA survey assesses the frequency of smoking compared to whether a respondent smoked or did not smoke.

Table 9.3.1 Frequencies for "On a typical day, how many cigarettes do you smoke?"

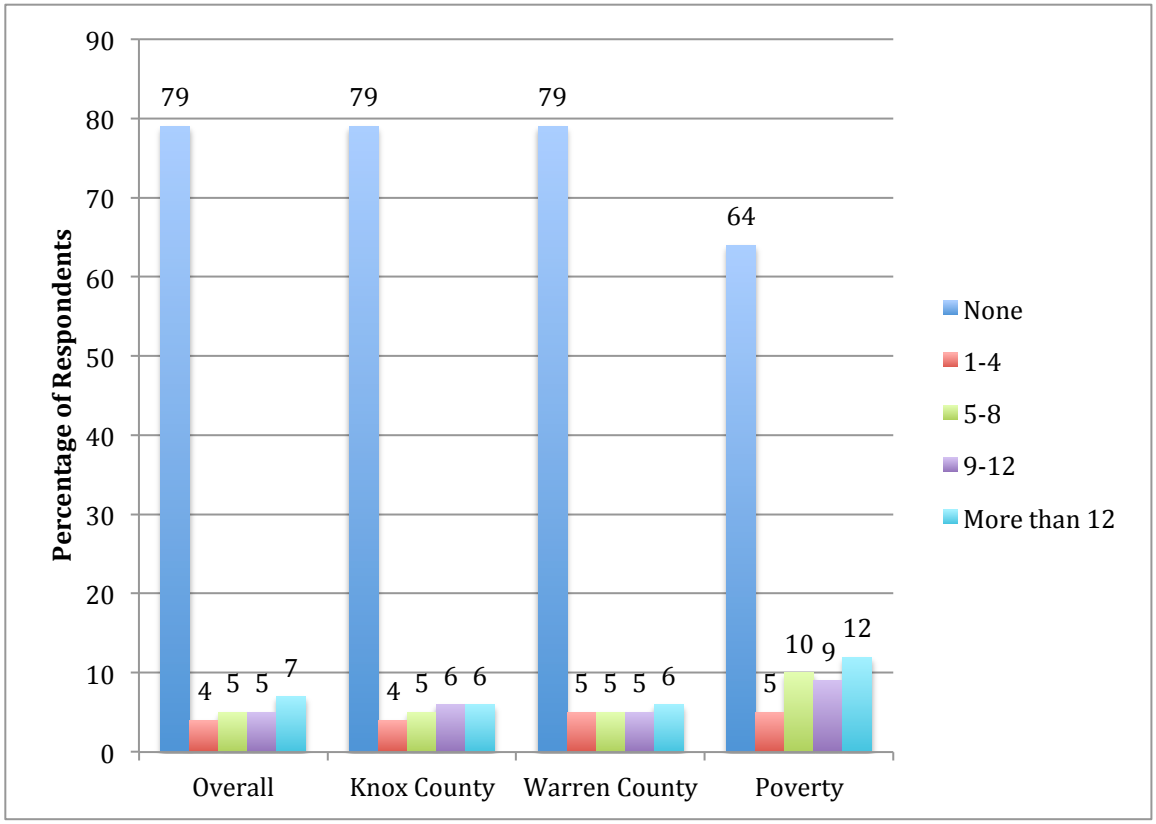


Table 9.3.2 Significant Correlations among Number of Cigarettes Smoked Daily, Demographic Variables, and Respective Counties

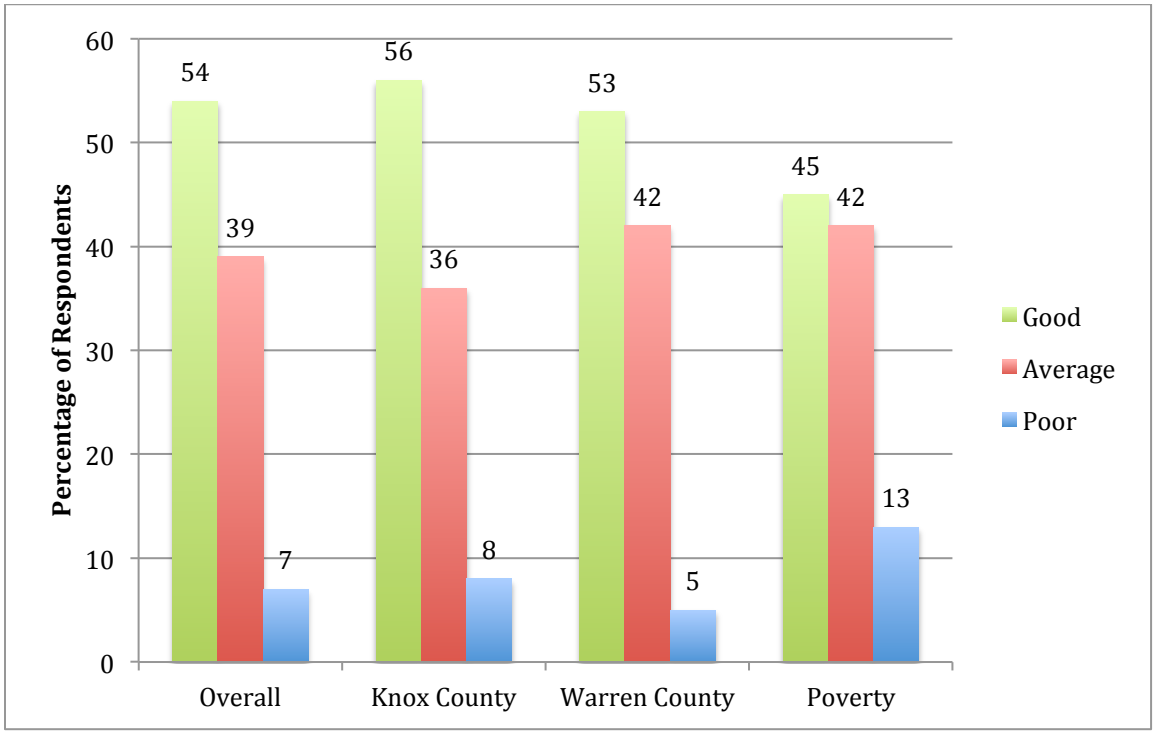
Age	-
Latino/a	-
Education	-
Income	-
Homeless	+

Numerous significant relationships exist between cigarette smoking and demographic variables. Specifically, a survey respondent was more likely to answer that he or she smoked more cigarettes each day if they were younger, were homeless, were less educated, and earned less income. Individuals of Latino/a ethnicity were less likely to smoke.

9.4 Overall Health

In terms of self-perceptions of physical and mental health, 93% of the population indicated that they were in average or good physical health. Similar results were found for residents' self-perceptions of mental health.

Table 9.4.1 Frequencies for "Overall, my physical health is __"

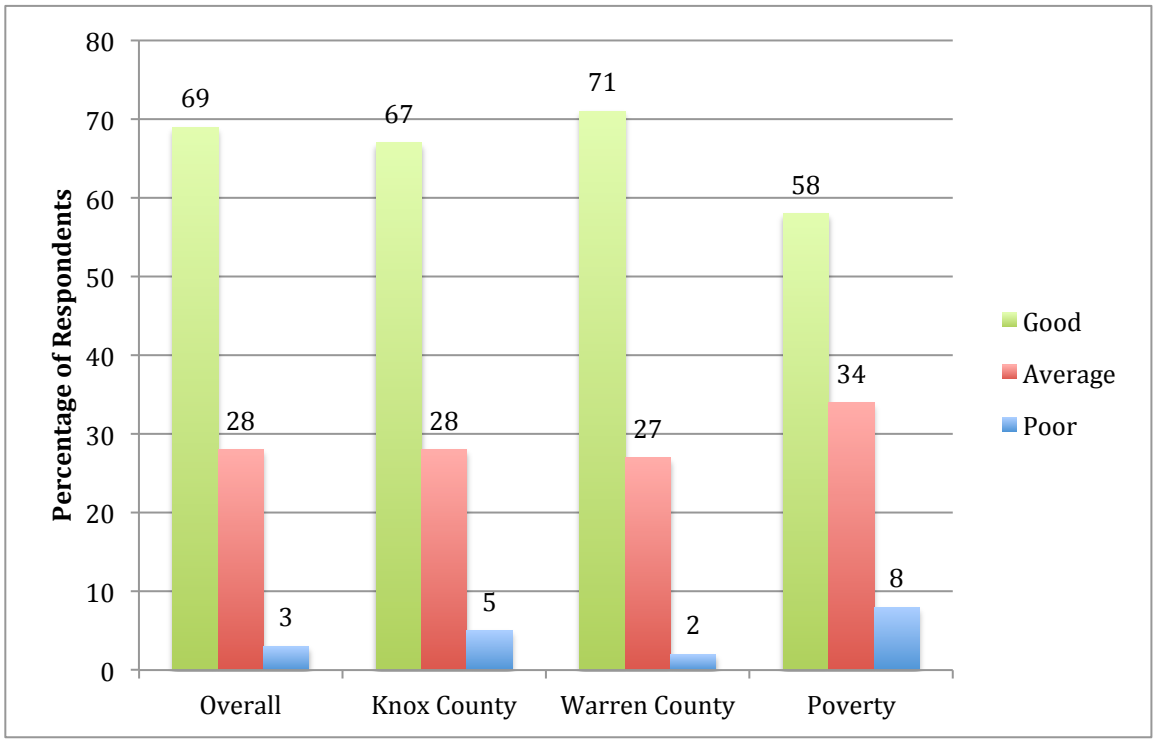


Numerous significant relationships exist between overall physical health and demographic variables. Specifically, a survey respondent was more likely to answer that he or she possessed better physical health if they were female, of Latino/a ethnicity, earned a higher income and had attained higher levels of education. Conversely, a survey respondent was more likely to answer that he or she possessed poorer physical health if they were homeless.

Table 9.4.2 Significant Correlations among Overall Physical Health, Demographic Variables, and Respective Counties

Gender	+
Latino/a	+
Education	+
Income	+
Homeless	-

Table 9.4.3 Frequencies for "Overall, my mental health is __"



Numerous significant relationships exist between overall mental health and demographic variables. Specifically, a survey respondent was more likely to answer that he or she possessed better mental health if they were older, earned a higher income, and had attained higher levels of education. Conversely, a survey respondent was more likely to answer that he or she possessed poorer mental health if they were homeless or were residents of Warren County.

Table 9.4.4 Significant Correlations among Overall Mental Health and Demographic Variables

Age	+
Latino/a	+
Education	+
Warren	-
Homeless	-

Healthy Behaviors: Strategic Implications

For healthy behaviors, Knox and Warren Counties residents who were younger, possessed higher income, or were more educated are more likely to exhibit healthy behaviors, although 22% of the population engages in exercise at least 3 times a week. Similarly for healthy eating habits, about 24% of the population consumes at least three servings of fruits/vegetables in a day. Given the documented research showing the benefits of physical exercise and healthy eating, this is a concern for the community, as most primary and secondary diagnoses in the CHNA can be mitigated, to some extent, by healthy lifestyle.

Data suggests smoking is a concern in Knox and Warren Counties for those who were younger, were homeless, were less educated, and earned less income.

In terms of self-perceptions of physical and mental health, 93% of the population indicated that they were in average or good physical health. Similar results were found for residents' self-perceptions of mental health.

PHASE III – PRIORITIZATION OF HEALTH-RELATED ISSUES

The identification and prioritization of the most important health-related issues in Knox and Warren Counties are identified in Phase III. To accomplish this, a summary of Phase I and Phase II were performed to provide a foundation for the prioritization process. After summarizing all of the issues in the Community Health Needs Assessment, a comprehensive assessment of existing community resources was performed to identify the efficacy to which health-related issues were being addressed. Finally a collaborative team of leaders in the healthcare community used an importance/urgency methodology to identify the most critical issues in the area. Results are included in Chapter 10.

CHAPTER 10. PRIORITIZATION OF HEALTH-RELATED ISSUES

In this chapter, we identify the most critical health-related needs in the community. To accomplish this, first we identified the most important areas of concern. Next we completed a comprehensive inventory of community resources, and finally we identified the most important health concerns in the community.

Specific criteria used to identify these issues included: (1) magnitude to the community; (2) strategic importance to the community; (3) existing community resources; (4) potential for impact; and (5) trends and future forecasts.

10.1 Summary of Community Health Issues

Based on findings from the previous analyses, a chapter-by-chapter summary of key takeaways was necessary to provide a foundation to identify the most important health-related issues in the community. Considerations for identifying key takeaways included prevalence of the issues, importance to the community, impact, trends and projected growth.

Demographics (Chapter 1) – Three factors were identified as the most important areas of concern from the demographic analyses: increasing elderly population, mental health rates and poverty.

Accessibility (Chapter 2) – Residents in both Knox and Warren Counties are getting fewer routine checkups for both medical and dental visits. There was also a significant decrease in the frequency of women getting pap smears.

Symptoms and Predictors (Chapter 3) – Based on prevalence and growth rates, factors were identified as having significant impact on the community. These include, obesity, poor nutrition and risky behaviors, including drug and alcohol abuse and smoking.

Diseases/Morbidity (Chapter 4) – By evaluating magnitude of morbidities and growth rates of morbidities, three specific issues were identified. These included hypertension, asthma and diabetes (specifically Type II diabetes).

Mortality (Chapter 5) – The two leading causes of mortality were heart disease and cancer. While there were other categories for mortality, heart disease and cancer were significantly more prevalent than all other categories.

Community Misperceptions (Chapter 7) – Based on results from the survey, respondents to the survey incorrectly perceived “heart disease” “diabetes” “dental health” and “teen pregnancy” as being relatively unimportant health concerns in the community.

Access to Health Services (Chapter 8) – Results from survey respondents defined as living in deep poverty indicated that access to healthcare services is limited. This includes medical, prescription, dental and mental healthcare.

Health-Related Behaviors (Chapter 9) – Results from survey respondents defined as living in deep poverty indicated that there are limited efforts at proactively managing one's own health. This includes limited exercise, poor eating habits and increased incidence of smoking

In order to provide parsimony in the prioritization of key community health-related issues, the findings were aggregated into 12 key categories, based on similarities and duplication. The 12 areas were:

- **Obesity**
- **Risky Behavior-Substance Abuse**
- **Mental Health**
- **Healthy Behavior/Nutrition**
- **Access to Health Services**
- **Respiratory Issues –Asthma and Pneumonia**
- **Heart Disease**
- **Cancer**
- **Diabetes**
- **Community Health Misperceptions**
- **Dental**
- **Women's Health**

10.2 Community Resources

After summarizing issues in the Community Health Needs Assessment, a comprehensive analysis of existing community resources was performed to identify the efficacy to which these 12 health-related issues were being addressed.

There are numerous forms of resources in the community. They are categorized as recreational facilities, county health departments, community agencies and area hospitals/clinics.

10.2.1 Recreational Facilities (4)

Galesburg Parks and Recreation
Obesity, Healthy Behaviors, Heart Disease
The Galesburg Parks and Recreation district offers a variety of year-round programs for infants, toddlers, early childhood, youth, adults, and seniors.

Knox County YMCA
Obesity, Healthy Behaviors, Heart Disease, Women's Health
The Illinois Valley YMCA is a community based service organization dedicated to building the mind, body and spirit for members of the Galesburg area communities. By offering value-based programs emphasizing education, health and recreation for individuals regardless of sex, race or socio-economic status the YMCA is increasing the quality of life in Knox County.

Monmouth Parks and Recreation
Obesity, Healthy Behaviors, Heart Disease
The Monmouth Parks and Recreation Department maintains nine parks, the Gibson Woods golf course, and the Municipal Pool.

Warren County YMCA
Obesity, Healthy Behaviors, Heart Disease, Women's Health
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 experience for children and adults of all ages.

10.2.2 Health Departments (2)

Knox County Health Department
Obesity, Addiction/Substance Abuse, Mental Health, Healthy Behaviors, Access to Health Services, Respiratory Issues, Community Health Misperceptions, Diabetes, Cancer, Dental, Women's Health
The Knox County Health Department serves Knox County by assessing health and environmental needs, developing policies, and assuring those needs are effectively addressed.

Warren County Health Department
Obesity, Addiction/Substance Abuse, Mental Health, Healthy Behaviors, Access to Health Services, Respiratory Issues, Community Health Misperceptions, Diabetes, Cancer, Dental, Women's 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.

10.2.3 Community Agencies/Private Practices (4)

Bridgeway Mental Health and Family Services
Addiction/Substance Abuse, Mental Health, Access to Health Services
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.

Crossroads Counseling and Life Coaching
Addiction/Substance Abuse, Mental Health
Crossroads Counseling and Life Coaching is dedicated to improving the health and well-being of clients through individual, marital/family, and group counseling.

United Way of Knox County
Warren County United Way
Access to Health Services, Community Health Misperceptions
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.

Various private practice clinicians
Addiction/Substance Abuse, Mental Health, Dental
Several private practice clinicians offer services to address addiction/substance abuse, mental health, and dental needs.

10.2.4 Hospitals/Clinics (4)

Galesburg Cottage Hospital
Obesity, Addiction/Substance Abuse, Mental Health, Healthy Behaviors, Access to Health Services, Respiratory Issues, Heart Disease, Cancer, Diabetes, Community Health Misperceptions, Women's Health
Galesburg Cottage Hospital is a 173-bed hospital. 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.

OSF Holy Family Medical Center
Obesity, Addiction/Substance Abuse, Mental Health, Healthy Behaviors, Access to Health Services, Respiratory Issues, Heart Disease, Cancer, Diabetes, Community Health Misperceptions, Women's Health
OSF Holy Family Medical Center is a 23-bed acute/intermediate care, critical access hospital. OSF Holy Family provides a broad range of acute care and outpatient services including a variety of specialist, emergency, rehabilitation, and diagnostic imaging services. Through Holy Family Clinics, primary, pediatric, and surgical medical care is provided for patients of all ages. The Clinics are staffed by several physicians, physician assistants, advanced practice nurses and support staff. A variety of different services are provided through the Clinics including women's health, podiatry, cardiology, and neurology.

OSF St. Mary Medical Center

Obesity, Addiction/Substance Abuse, Mental Health, Healthy Behaviors, Access to Health Services, Respiratory Issues, Heart Disease, Cancer, Diabetes, Community Health Misperceptions, Women's Health

OSF St. Mary Medical Center is a 99-bed acute care facility in Galesburg. The medical center provides state-of-the art therapeutic, diagnostic, medical and surgical services for our patients and medical staff. A strong, specialized nursing and technical staff is maintained by the hospital. Professional health educators are the nucleus of the in-house and outreach health screening, information and education programs. Supported by certified social workers, nutritionists and therapists, this team insures the ability to provide high quality patient care and education in the pre- and post- medical center experiences.

Inter Community Cancer Center

Cancer

The Inter Community Cancer Center offers radiation therapy, external beam therapy, and high dose rate.

Table 10.2 illustrates the relationships between the community resources and the 12 summary areas identified in section 10.1. Assessment of these relationships was performed to identify potential gaps in coverage as the collaborative team prioritized health-related issues in the community.

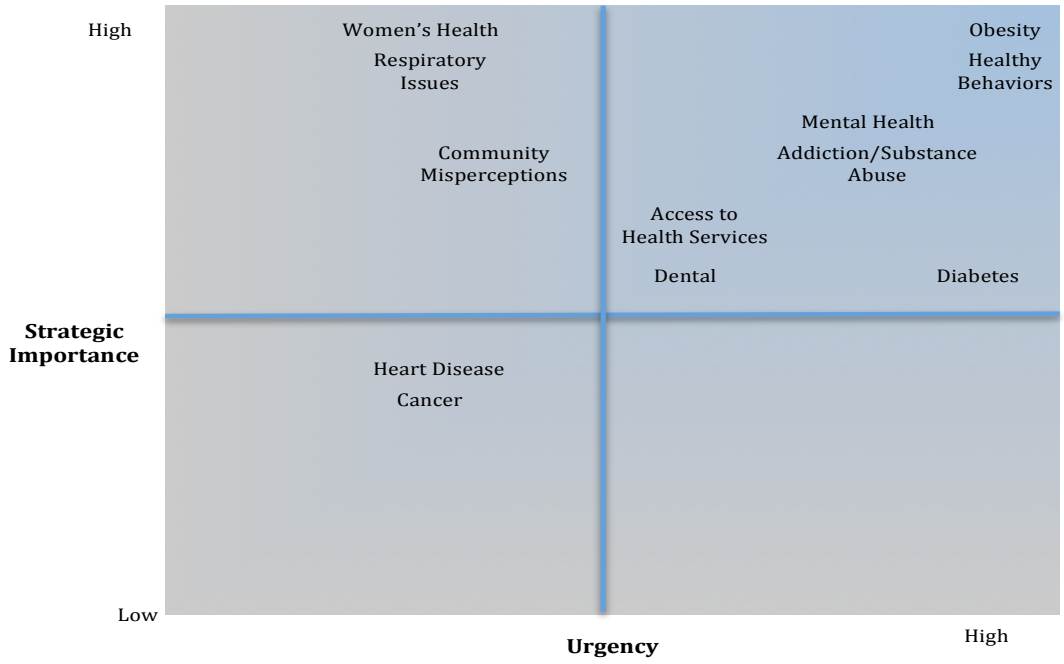
Table 10.2 Relationship between Community Resources and Community Needs

	Organization Name	Obesity	Addiction/ Substance Abuse	Mental Health	Healthy Behaviors/ Nutrition	Access to Health Services	Respiratory Issues	Heart Disease	Cancer	Diabetes	Community Health Misperceptions	Dental	Women's Health
Recreational Facilities (4)	Galesburg Parks and Recreation	X			X			X					
	Knox County YMCA	X			X			X					X
	Monmouth Parks and Recreation	X			X			X					
	Warren County YMCA	X			X			X					X
Health Departments (2)	Knox County Health Department	X	X	X	X	X	X		X	X	X	X	X
	Warren County Health Department	X	X	X	X	X	X		X	X	X	X	X
Community Agencies (4)	Bridgeway Mental Health and Family Services		X	X		X							
	Crossroads Counseling and Life Coaching		X	X									
	United Way					X					X		
	Various private practice clincians		X	X								X	
Hospitals/Clinics (4)	Galesburg Cottage Hospital	X	X	X	X	X	X	X	X	X	X		X
	OSF Holy Family Medical Center	X	X	X	X	X	X	X	X	X	X		X
	OSF Saint Mary Medical Center	X	X	X	X	X	X	X	X	X	X		X
	Inter Community Cancer Center								X				

10.3 Prioritization of Community Health-Related Issues

In order to prioritize the previously identified dimensions, the collaborative team considered health needs based on: (1) short-term urgency – issues that need immediate attention; and (2) long-term strategic importance – issues that will have the most significant impact on the future health of the community. Additional considerations included the magnitude of the issues (e.g., what percentage of the population was impacted by the issue), growth rate or projected trend of the issue, magnitude to the community, existing community resources, and the potential to make a significant impact to the community. Using these criteria, the collaborative team prioritized the previously identified health issues. Results can be seen in Figure 10.3.

Figure 10.3 Importance/Urgency Matrix for Community Health Needs



In conclusion, the collaborative identified the seven most critical health-related issues in Knox and Warren Counties as:

OBESITY

Research strongly suggests that obesity is a significant problem facing youth and adults nationally, as it has been linked to numerous morbidities (e.g., type II diabetes, hypertension, cardiovascular disease, cancer, etc.). There was a 50% increase in the relative percentage of Knox County residents reporting they were obese between 2006 (21.5%) and 2009 (32.2%). For comparison, there was a 9% increase in the relative percentage of Illinois residents reporting they were obese between 2006 (24.7%) and 2009 (26.8%). Rates in Knox County now exceed the State of Illinois average. This is a significant concern given that the State of Illinois has the 6th worst incidence of obesity in the U.S.

HEALTHY BEHAVIORS

Results from survey respondents indicated that there are limited efforts at proactively managing one's own health. This includes limited exercise, as 78% of Knox and Warren Counties residents indicated they exercised 2 or fewer times per week. With regard to eating habits, 76% of survey respondents consume less than 2 servings of fruits/vegetables per day. With regard to smoking,

31% of Knox and Warren Counties residents living in poverty smoke 5 or more cigarettes per day. However, note that 87% of respondents believe they are average or above average in terms of physical health and 92% of respondents believe they are average or above average in terms of mental health.

RISKY BEHAVIORS-SUBSTANCE ABUSE

Youth substance usage in Knox County exceeds the State of Illinois averages for 12th graders (tobacco and marijuana usage). Youth substance usage in Warren County exceeds the State of Illinois averages for 8th graders (tobacco). Moreover, there was a 33% increase in the relative percentage of Knox County residents reporting they were at risk for binge drinking between 2006 (15.1%) and 2009 (20.1%). For comparison, there was a 10% *decrease* in the relative percentage of Illinois residents reporting they were at risk for binge drinking between 2006 (19.4%) and 2009 (17.5%). Rates in Knox County now exceed the State average.

MENTAL HEALTH

There was a 39% increase in the relative percentage of Knox County residents and a 31% increase in relative percentage of Warren County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (Knox: 13.7%; Warren: 10.8%) and 2009 (Knox: 19.1%; Warren: 14.1%). For comparison, there was an only an 11% increase in the relative percentage of Illinois residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (12.4%) and 2009 (13.8%). Furthermore, rates in Knox County (19.1%) and Warren County (14.1%) exceed the State average (13.8%).

ACCESS TO HEALTH SERVICES

Results from survey respondents living in poverty indicated that access to healthcare is limited. This includes medical, dental and mental healthcare. Poverty is a key factor, as 13% of people living in poverty in Knox and Warren Counties consider the Emergency Department their primary source of health care. Furthermore, 23% of people in poverty were unable to obtain medical care when they needed it. Results also suggest a strong correlation between ethnicity and socioeconomic status and one's ability to obtain medical care. Survey data suggest individuals who identify as Black, possessing less education, and of lower income are more likely to use the emergency department. Furthermore, residents residing in Knox County are more likely to use the emergency department.

With regard to prescription drugs, 28% of individuals living in poverty in Knox and Warren Counties were unable to fill a prescription because they lacked health care coverage. With regard to dental care, 35% of individuals living in poverty in Knox and Warren Counties needed dental care and were unable to obtain it and 15% of individuals living in poverty in Knox and Warren Counties needed counseling and were unable to obtain it. "Affordability" was cited as the leading impediment to various types of health care.

DENTAL

Twenty-five percent of Knox County residents and 24.2% of Warren County residents reported their last dental visit was more than 2 years ago or never between for the time period 2007-2009. For comparison, the percentage of Illinois residents reporting their last dental visit was more than 2 years ago or never was 19.8% for the same time period.

DIABETES

There was a 33% increase in the relative percentage of Knox County residents reporting they were informed they had Type II diabetes between 2006 (8.0%) and 2009 (10.6%). For comparison, the percentage of Illinois residents reporting they were informed they had diabetes remained steady between 2006 (8.2%) and 2009 (8.2%). Rates in Knox County now exceed the State of Illinois average.

Note that while other factors, such as heart disease, community misperceptions, women's health, respiratory issues and cancer are all important attributes, in terms of importance and urgency, the collaborative team rated the other five categories as more important. As a validity check, note that the findings from this study are similar with the health assessments completed by the County Health Department.

Appendix

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. HEALTH PROBLEMS IN THE COMMUNITY
Please identify the three **(3) most important health problems** in the community.

- ☐ Aging issues, such as Alzheimer's disease, hearing loss or arthritis
- ☐ Birth defects
- ☐ Cancer
- ☐ Chronic pain
- ☐ Dental health
- ☐ Diabetes
- ☐ Heart disease/heart attack
- ☐ HIV/AIDS
- ☐ Infant death
- ☐ Infectious/contagious diseases such as flu, pneumonia, food poisoning
- ☐ Injuries
- ☐ Kidney disease
- ☐ Lead poisoning
- ☐ Liver disease
- ☐ Lung disease (asthma)
- ☐ Mental health issues such as depression, anger, etc
- ☐ Obesity/overweight
- ☐ Sexually transmitted infections
- ☐ Stroke
- ☐ Teenage pregnancy
- ☐ Other _____

II. UNHEALTHY BEHAVIORS
Please identify the three **(3) most important unhealthy behaviors** in the community.

- ☐ Angry behavior/violence
- ☐ Alcohol abuse
- ☐ Child abuse
- ☐ Domestic violence
- ☐ Don't use seatbelts
- ☐ Drug abuse
- ☐ Elder abuse (physical, emotional, financial, sexual)
- ☐ Lack of exercise
- ☐ Not able to get a routine checkup
- ☐ Poor eating habits
- ☐ Reckless driving
- ☐ Smoking
- ☐ Suicide
- ☐ Multiple partners without a condom
- ☐ Other _____

III. ISSUES WITH QUALITY OF LIFE
Please identify the three **(3) most important factors that impact your quality of life** in the community.

- ☐ Access to health services
- ☐ Affordable housing
- ☐ Availability of child care
- ☐ Better school attendance
- ☐ Job opportunities
- ☐ Good public transportation
- ☐ Healthy food choices
- ☐ Less poverty
- ☐ Safer neighborhoods/schools
- ☐ 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 ☐ Health Department ☐ Urgent Care Center
☐ Emergency Department ☐ I don't seek medical attention ☐ 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.
☐ I couldn't afford to pay my co-pay or deductible.
☐ I didn't have any way to get to the doctor.
☐ Fear
☐ Other _____
☐ The doctor or clinic refused to take my insurance or Medicaid.
☐ I didn't know how to find a doctor.
☐ Too long to wait for appointment.

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

10. In the last year, was there a time when you needed 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 counseling? Choose all that apply.
☐ I didn't have insurance.
☐ I couldn't afford to pay my co-pay or deductible.
☐ I didn't have any way to get to a counselor.
☐ Fear.
☐ Embarrassment.
☐ The counselor refused to take my insurance or Medicaid.
☐ I didn't know how to find a counselor.
☐ Too long to wait for appointment.
☐ Other _____

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 ☐ 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.
☐ I don't have any time to exercise.
☐ It is not important to me.
☐ I don't have access to an exercise facility.
☐ I don't have child care while I exercise.
☐ Other _____
☐ I don't like to exercise.
☐ I can't afford the fees to exercise.
☐ I am too tired.
☐ I have a physical disability.

14. On a typical day, how many servings of fruits and/or vegetables do you have?
☐ None ☐ 1 - 2 ☐ 3 - 5 ☐ More than 5

15. On a typical day, how many cigarettes do you smoke?
☐ None ☐ 1 - 4 ☐5 - 8 ☐9 - 12 ☐ More than 12

16. Where do you get most of your medical information *(check **only one**)*
☐ Doctor ☐ Friends/family ☐ Internet ☐Pharmacy ☐ Other _____

17. Do you have a personal physician? ☐ No ☐ Yes

18. Overall, my physical health is: ☐ Good ☐ Average ☐ Poor

19. Overall, my mental health is: ☐ Good ☐ Average ☐ Poor

V. BACKGROUND INFORMATION

What county do you live in?
☐ Henderson ☐ Knox ☐ Warren ☐ Other

What type of insurance do you have?
☐ Medicare ☐ Medicaid ☐ Private/commercial ☐ None

What is your gender? ☐ Male ☐ Female

What is your age?
☐ Under 20 ☐ 21-30 ☐ 31-40 ☐ 41-50 ☐ 51-60 ☐ 61-70 ☐ 71 or older

What is your race?
☐ White ☐ Black/African American
☐ Hispanic/Latino ☐ Native American/American Indian/Alaska Native
☐ Asian (Indian, Pakistani, Japanese, Chinese, Korean, Vietnamese, Filipino/a)
☐ Pacific Islander (Native Hawaiian, Samoan, Guamanian/Chamorro)
☐ Other race not listed here: _____

What is your highest level of education?
☐ Less than high school ☐ Some high school ☐ High school degree (or GED/equivalent)
☐ Some college (no degree) ☐ Associate's or technical degree
☐ Bachelor's degree ☐ Graduate or professional degree
☐ Other: _____

What was your total income last year, before taxes?
☐ Less than $20,000 ☐ $20,001 to $40,000 ☐ $40,001 to $60,000
☐ $60,001 to $80,000 ☐ $80,001 to $100,000 ☐ over $100,000

Do you: ☐ Rent ☐ Own ☐ Other

How many people live in your home? _____

What is your job status?
☐ Full-time ☐ Part-time ☐ Unemployed ☐ Homemaker
☐ Retired ☐ Disabled ☐ Student ☐ Armed Forces

Is there anything else you would like to tell us about community concerns, health problems or services in the community?

_____

_____

_____

_____

Thank you very much for sharing your views with us!

This survey instrument was approved by the Committee on the Use of Human Subjects and Research (CUSHR), Bradley University Institutional Review Board (IRB) in May 2012.

ENCUESTA SOBRE LAS NECESIDADES DE SALUD EN LA COMUNIDAD

INSTRUCSIONES
Queremos saber cómo ves a nuestra comunidad, por eso los estamos invitando a participar en un estudio de investigación de las necesidades de salud en la comunidad. Sus opiniones son importantes. Este cuestionario le tomará aproximadamente 10 minutos para completir. Todas sus respuestas individuales seran confidenciales. Vamos a utilizer los resultados de las encuestas para mejorar nuestra comprensión de las necesidades de la comunidad.

Por favor lea cada pregunta y marque la respuesta que mejor representa su punto de vista de las necesidades de la comunidad.

I. **PROBLEMAS DE SALUD EN LA COMUNIDAD**
Por favor identifique **tres (3) de los más importantes problemas** de salud en la comunidad.

- ☐ Cuestiones relativas al envejecimiento, como la enfermedad da Alzheimer, pérdida de la audición, o la artritis
- ☐ Defectos de Nacimiento
- ☐ Cáncer
- ☐ El dolor crónico
- ☐ La salud dental
- ☐ Diabetes
- ☐ Enfermedad del corazón / infarto
- ☐ HIV / SIDA
- ☐ Muerte infantile
- ☐ Las enfermedades infecciosas / contagiosas, Como la gripe, la neumonía, o la intoxicación alimentaria
- ☐ Lesiones
- ☐ Enfermedad renal
- ☐ Saturnismo
- ☐ Enfermedad hepática
- ☐ Las enfermedades pulmonares (asma)
- ☐ Problemas de salud mentales como la depression, la ira, etc.
- ☐ Obesidad / sobrepeso
- ☐ Infecciones de transmisión sexual
- ☐ Infarto del miocardio
- ☐ Embarazo en la adolescencia
- ☐ Otro _____

II. **CONDUCTAS NO SALUDABLES**
Por favor identifique los **tres (3) conductas más importantes que no son saludables** de la comunidad.

- ☐ Comportamiento agresivo / violencia
- ☐ El abuso del alcohol
- ☐ Abuso infantile
- ☐ La violencia doméstica
- ☐ No usando el cinturón de seguridad
- ☐ Abuso de drogas
- ☐ Maltrato a personas anciano (físico, emocional, Financier, sexual)
- ☐ La falta de ejercicio
- ☐ No sos capaz de obtener un chequeo rutina
- ☐ Malos hábitos alimenticios
- ☐ Fumar cigarrillos
- ☐ Suicidio
- ☐ Múltiples parejas sin condón
- ☐ Otro _____

III. **PROBLEMAS CON LA CALIDAD DE VIDA**
Por favor identifique los **tres (3) factores más importantes que afectan su calidad de vida** en la comunidad.

- ☐ El acceso a los servicios de salud
- ☐ Viviendas económicas
- ☐ Disponibilidad de cuidado infantil
- ☐ Mejor asistencia escolar
- ☐ Oportunidades de empleo
- ☐ Buen transporte público
- ☐ Opciones de alimentos saludables
- ☐ Menos pobreza
- ☐ Barrios más seguros / escuelas
- ☐ Otro _____

IV. ACCESO A SERICIOS DE SALUD
Las siguientes preguntas son acerca de sus propias decisions de salud personal y la salud. Recuerde que esta encuesta no se vinculará a usted de ninguna manera.

1. Cuando usted se enferma, ¿a dónde vas? Por favor, elija solo uno.

- ☐ Clínica / officinal de médicos
- ☐ Departamento de salud
- ☐ Centro de atención de urgencia
- ☐ Epartamento de emergencias
- ☐ Yo no solicite atención médica
- ☐ Otro _____

2. ¿Cuánto tiempo ha pasado desde que he estado en el medico para un chequeo cuando estaba bien (no porque ya estaba endermo)?

- ☐ En el ultimo año
- ☐ 1 – 2 años
- ☐ 3 – 5 años
- ☐ 5 o más años
- ☐ Nunca he ido al médico para un chequeo

3. En el ultimo año, ¿hubo algún momento en que necesitó atención médica, pero no fueron capaces de conseguirlo?

- ☐ No (por favor pase a la pregunta 5)
- ☐ Sí (pase a la siguiente prebunta)

4. Si usted acaba de respondir "sí" a la preguntas 3, ¿por qué no fuiste capaz de recibir atención médica? Elija todas las que apliquen.

- ☐ No tenía seguro salud
- ☐ No tenía manera de pagar el co-pago o deducible
- ☐ No tenía ninguna manera de llegar al médico
- ☐ Miedo
- ☐ Otro _____
- ☐ El medico o la clínica se negó a tomar mi seguro medico o Medicaid
- ☐ Yo no sabía cómo encontrar un médico
- ☐ Demasiado tiempo para esperar por una cita

5. En el ultimo año, ¿hubo algún momento en que usted necesita medicamentos recetados, per no pudieron conseguirlo?

☐ No (por favor pase a la pregunta 7) ☐ Sí (pase a la siguiente prebunta)

6. Si usted acaba de respondir "sí" a la pregunta 5, ¿ por qué no fuiste capaz de obtener medicamentos recetados? Elija todas las que apliquen.

☐ No tenía seguro de salud
☐ No pude pagar el mi co-pago o deducible
☐ Yo no sabía cómo encounter una farmacia
☐ Otro _____
☐ El farmacia se negó a tomar mi seguro o Medicaid
☐ No teniá ninguna manera de llegar a la farmacia

7. ¿Cuánto tiempo ha pasado desde que usted ha ido al dentista para obtener un chequeo (no para casos de emergencia)?

☐ En el ultimo año ☐ 1 – 2 años ☐ 3 – 5 años
☐ 5 o más años ☐ Nunca he ido a un dentista para un chequeo

8. En el ultimo año, ¿hubo algún momento en que necesitó atención dental, per no pudo conseguirlo?

☐ No (pase a la pregunta 10) ☐ Sí (pase a la siguiente prebunta)

9. Si usted acaba de respondió "sí" a la pregunta 8, ¿por qué no fuiste capaz de recibir atención dental? Elija todas las que apliquen.

☐ No tenía seguro de salud
☐ No pude pagar mi co-pago o deducible
☐ No tenía ninguna manera de ir al dentista
☐ Miedo
☐ Otro _____
☐ El dentista se negó a tomar mi seguro medico o Medicaid
☐ Yo no sabía cómo encontrar un médico
☐ Demasiado tiempo para esperar por una cita

10. En el ultimo año, ¿hubo algún momento en que necesitaba asesoramiento, per no pudo conseguirlo?

☐ No (por favor vaya a la pregunta 12) ☐ Sí (pase a la siguiente prebunta)

11. Si usted acaba de respondió "sí" a la pregunta 10, ¿por qué no fuiste capaz de obtener asesoramiento? Elija todas las que apliquen.

- ☐ No tenía seguro de salud
- ☐ No pude pagar mi co-pay o deducible
- ☐ Yo no tenía una manera de llegar a un consejero
- ☐ Miedo
- ☐ Vergüenza
- ☐ Otro _____
- ☐ El consejero se negó a tomar mi seguro o Medicaid
- ☐ Yo no sabía cómo encontrar un consejero
- ☐ Demasiado tiempo para esperar por una cita

12. En la última semana ¿cuántas veces usted participa en el ejercicio deliberado, (como caminar, correr, golf, levantamiento de pesas, clases de ejercicio) que a durado al menos 30 minutos o más.

☐ Ninguno ☐ 1 – 2 ☐ 3 – 5 ☐ Más de 5

13. Si su respuesta es "ninguno" a la pregunta anterior, ¿por qué no hacer ejercicio durante la semana pasada? Elija todas las que apliquen.

- ☐ Yo no tengo tiempo para hacer ejercicio
- ☐ No es importante para mí
- ☐ Yo no tengo acceso a un gimnasio
- ☐ Yo no tengo cuidado de niños mientras hago ejercicio
- ☐ Otro _____
- ☐ No me gusta hacer ejercicio
- ☐ No puedo pagar los honorarios de un ginmasio
- ☐ Estoy demasiado cansado
- ☐ Tengo una discapacidad fisica

14. En un día típico ¿cuántas porciones de frutas y / o verduras tienen?

☐ Ninguno ☐ 1 – 2 ☐ 3 – 5 ☐ Más de 5

15. En un día típico ¿cuántos cigarillos fuma usted?

☐ Ninguno ☐ 1 – 4 ☐ 5 – 8 ☐ 9 – 12 ☐ Más de 12

16. ¿De dónde obtiene la mayor parte de su información médica (marque solo uno)?

☐ Médico ☐ Amigos / familia ☐ Internet ☐ Farmacia
☐ Otro _____

17. ¿Tiene un medico personal? ☐ Si ☐ No

18. En general, mi salud fisica es: ☐ Bueno ☐ Promedio ☐ Pobre

19. En general, mi salud mental es: ☐ Bueno ☐ Promedio ☐ Pobre

V. **INFORMACIÓN DE ANTECEDENTES**

¿Qué condado vive usted?
☐ Knox ☐ Warren ☐ Otro

¿Qué tipo de seguro tiene usted?
☐ Medicare ☐ Medicaid ☐ Privado / commercial ☐ Ninguno

¿Cuál es su género? ☐ Masculino ☐ Femenino

¿Cuál es su edad?
☐ Bajo 20 ☐ 21 – 30 ☐ 31 – 40 ☐ 41 – 50 ☐ 51 – 60 ☐ 61 - 70
☐ 71 años o más

¿Cuál es su raza?
☐ Blanco ☐ Negro / Afro Americano
☐ Hispano / Latino ☐ Nativo Americano / Indios Americanos / Nativos de Alaska
☐ Asia (India, Pakistán, Japonés, Chino, Coreano, Vietnamita, Filipino/a)
☐ Isla del Pacifico (Nativo de Hawai, Samoa, Guam / Chamorro)
☐ Otro raza no figuran en esta lista: _____

¿Cuál es su nivel de educación?
☐ Menos de escuela secundaria ☐ Algo de escuela secundaria
☐ Grado de secundaria (o GED / equivalente) ☐ Algunos estudios universitarios (sin título)
☐ Grado de asociado o técnico ☐ Bachillerato
☐ Licenciatura o profesional ☐ Otro _____

¿Cuál fue su ingreso total del año pasado, antes de impuestos?
☐ Menos de $20,000 ☐ $20,001 - $40,000 ☐ $40,001 - $60,000
☐ $60,001 - $80,000 ☐ $80,001 - $100,000 ☐ Más de $100,000

Usted: ☐ Alquila ☐ Eres dueño de una casa ☐ Orto

¿Cuántas personas viven en su hogar? _____

¿Cuál es su estado del trabajo?

☐ De jornada complete ☐ De media jornada ☐ Desempleadol ☐ Ama de casa
☐ Retirado ☐ Discapacitado ☐ Estudiante ☐ De las Fuerzas Armadas

¿Hay algo más que le gustaría decirnos acerca de las preocupaciones de la comunidad, problemas de salud, o servicios en la comunidad?

_____

_____

_____

Muchas gracias por compartir sus opinions con nosotros!

Este instrument de studio fue aprobabo por la Committee of Human Subjects and Reasearch (CUSHR) Bradley University Institutional Review Board (IRB) in May 2012.