COMMUNITY HEALTH NEEDS ASSESSMENT 2013

SAINT ANTHONY MEDICAL CENTER

WINNEBAGO COUNTY

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EXECUTIVE SUMMARY

The Winnebago County Community Health-Needs Assessment is a collaborative undertaking by OSF Saint Anthony Medical Center to highlight the health needs and well being of residents in Winnebago County. Through this needs assessment, collaborative community partners have identified numerous health issues impacting individuals and families in the Winnebago County region. Several themes are prevalent in this health-needs assessment – the demographic composition of the Winnebago County region, 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) Winnebago County area 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 Winnebago County aged 60-64 increased from 4.9% to 5.6% between 2007 and 2010 and individuals aged 65-74 increased from 6.4% to 7.1% between 2007 and 2010.

Poverty – The percentage of families living in poverty is 16.8% in Winnebago County. These figures exceed the State of Illinois average (13.1%). For 2010, the median household income for Winnebago County ($45,611) was significantly less than the State of Illinois median household income ($55,010).

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 Winnebago County region. In terms of obesity, the

Winnebago County area as a whole is significantly higher than the state average and growing rapidly. Considering that Illinois has the 6th highest obesity rate in the U.S., this is an important issue.

Risky Behavior-Substance Abuse – Youth substance usage in Winnebago County exceeds the State of Illinois averages for 12th graders (alcohol and marijuana usage). Additionally, STIs and teenage pregnancy are significantly higher than State of Illinois averages.

Mental Health -- There was a 20% increase in the growth rate of Winnebago County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (13.8%) and 2009 (16.5%). For comparison, there was an 11% increase in the growth rate 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 Winnebago County (16.5%) exceed the State of Illinois average (13.8%).

Women's Health – A higher percentage of women in Winnebago County report the time since their last mammogram was more than one year ago (49.2%) when compared to women across the State of Illinois (43.6%). Additionally, 26.5% of Winnebago County female residents report more than one year has elapsed since their last pap smear. This is also higher than State averages.

Morbidity Issues – Several different diseases have seen significant growth.

Diabetes – Over 9% of Winnebago County residents reported they were informed they had Type II diabetes for the time period of 2007-2009. For comparison, the percentage of Illinois residents reporting they were informed they had diabetes was 8.2% for the same time period. Rates in Winnebago County now exceed the State of Illinois average.

COPD – The number of cases of COPD for individuals 45-64 years of age and older at Rockford area hospitals from the Winnebago region has increased 10% between 2009 (293 cases) and 2012 (322 cases).

Hypertension – 30.3% of Winnebago 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 36% growth in the percentage of Winnebago County residents reporting they were told their blood pressure was too high between 2006 (22.2%) and 2009 (30.3%).

Cardiovascular Disease – The number of cases of other cardiovascular disease at Rockford area hospitals from the Winnebago County region has increased 16% between 2009 (270 cases) and 2012 (313 cases)

Mortality – For Winnebago County, the two leading causes of mortality are cancer and heart disease. While there are other categories for mortality, heart disease and cancer are significantly more prevalent than all other categories.

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 "sexually transmitted diseases," "lung disease," "teen pregnancy," and "dental" as being relatively less important health concerns to the community. These results conflict with:

- Rates for chlamydia and gonorrhea in Winnebago County exceed the state average since 1990;
- The number of cases of COPD, a contributing factor of lung disease, increased for older individuals at Rockford area hospitals between 2009 and 2012;
- teen pregnancy rates in Winnebago County (13.6%) exceed the State of Illinois rate (9.6%) for 2009;
- and the aforementioned dental data suggesting nearly 20% of Winnebago County 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 – Only 62% of people living in deep poverty seek medical services at a clinic or doctor's office. For this segment of the population, it is very common to seek medical services from an emergency department (18%), or even more concerning is that 9% of this segment of the population will not seek any medical services at all.

Access to Medical Care and Prescription Medications – Over 28% 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, less than 50% of the aggregate Winnebago County population had a checkup in the last year. Specifically, younger respondents, Black ethnicity, less educated people and lower income were less likely to visit a dentist.

Access to Counseling -- Approximately 16% 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 lower education, lower income and homelessness. While affordability and insurance were the leading reasons, fear and embarrassment were also significant.

Access to Information – Across categories, residents of the Winnebago County area get most of their medical information from doctors.

Type of Insurance – Across Winnebago County, 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, 24% do not have any type of insurance at all.

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

Physical Exercise –Men are more likely to engage in physical exercise, while homeless residents are not. Only 11% of the population engages in exercise 5 or more times a week.

Healthy Eating – Only 4% of the population consumes at least the minimum recommended servings of fruits/vegetables in a day. Those that are more likely to have healthy eating habits include older residents, people with higher educations and more income.

Decrease Smoking – Smoking is on the decline; however, less educated people, younger people, Black residents, lower income respondents and homeless people are still more 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 Winnebago County 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**
- **Community Health Misperceptions**
- **Sexual Health**

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.

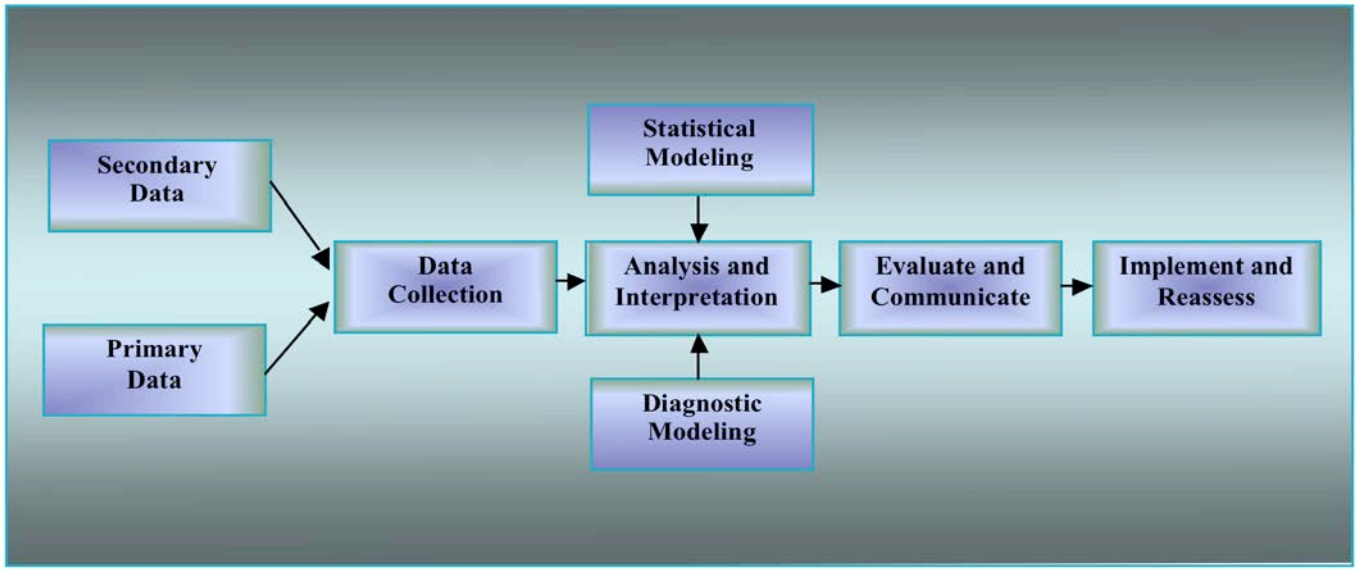
I. INTRODUCTION

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 Saint Anthony 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 Saint Anthony Medical Center, Members of the Rockford Health Council and administrators from key community partner organizations. Note that numerous 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 February 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:

> **Donna Bileto** serves as the Community Service Specialist at Northwestern Illinois Area Agency on Aging where she is responsible for administering Stanford's Chronic Disease Self Management program. Donna has worked in the field of aging for more than 20 years. She has been actively involved in program development, research and public policy aimed at developing initiatives and systems to improve and assist in the lives of older adults and their caregivers. Donna is a certified Medicare & Medicaid insurance counselor and received her CIRS-A certification in information and referral in 2006. Concerned about seniors and their limited choices of housing as they became disabled or frail prompted Donna to serve on committees such as the City of Rockford Community & Economic Development Department to advocate for home modifications due to health related illness and immobility. Donna is active in several professional organizations and serves on committees such as the Winnebago County Dental Coalition for Senior Dental Care and the University of Illinois College of Medicine, Healthy Community Study on Dental Care. Donna is a Stanford certified Chronic Disease Self-Management Master trainer and a member of (Admit) Admissions and Discharge Marketing Information Together. Donna will graduate with her Masters in Social Service Administration in May of 2013. She received her Bachelor's degree in Human Services from Judson University in 2009
>
> **Dr. Lori Fanello** has been the Boone-Winnebago Regional Superintendent the last two years and the Assistant Regional Superintendent the preceding 4 years. The rest of her career in education was in the Rockford Public School system as a teacher, school level Literacy Coach and as a District Literacy Trainer. Lori's doctorate is in Educational Leadership through National Louis University.
>
> **Rebecca (Becky) Cook Kendall** is Executive Director of Rockford Health Council, a healthy community collaborative that exists to promote better health in the Rockford region. In this role, Becky has been responsible for strategically providing direction in

coordination of the Healthy Community Study. This cornerstone activity documents the health status of the region and is the basis for identifying priority health issues for action, education and advocacy. Prior to her current position, Becky was Vice President of Community Investment for United Way of Rock River Valley for 15 years, and also worked in the private sector. Becky's involvement in boards and committees is impressive, and a role model whose community commitment is expansive. Becky has a degree in business administration and is continuing coursework toward a master's degree.

Linda Niemiec, CFRE (Certified Fund Raising Executive) has been the Vice President Development at Crusader Community Health for 23 years. She is a member of the Crusader Executive Management Team and is responsible along with the Crusader Community Health Foundation Board of Directors for planning, organizing, and managing all fund raising programs for gifts, grants, planned giving and pledges from individuals, corporations and foundations to benefit the needs of Crusader Community Health. Ms. Niemiec holds a master's degree in policy and planning from the University of Michigan.

Luz M. Ramirez, is married with two children. She is the Executive Director of La Voz Latina a non-profit Latino Community Resource Center. She oversees the day to day functions of the agency by ensuring that services and programs are made available to the Latino community to help them progress and become self-sufficient. The programs and services provided run the gamut from youth programs to adult education. Aside from servicing the Latino community, the agency also offers several services for a fee to anyone in the community in need of interpretations, translations, and/or Spanish classes. Prior to working with La Voz Latina, she was employed by Rockford Public Schools as the Special Assistant to the Superintendent and served as a member of the Superintendent's Cabinet. She began her career in education in 1996 where she worked as an Elementary Teacher, Teacher Recruiter and Director of Family Resource Center. Because of her vast experience in education, her goal is to increase the education side of the agency because she believes that education is the key to success. She is a Rockford native and Jefferson High School Graduate. She holds a Bachelors Degree in Business Administration, completed teacher certification coursework and holds a Masters in Administration and Supervision. She tries to remain an active member in the community through fundraising, tutoring and mentoring students, and sitting on various Boards and committees. In 2010 she was awarded the Latinos of Distinction award by La Voz Latina. She is a performer by nature and has always been involved in the performing arts in one way or another. In the last decade she has been the lead vocalist with the Latin musical group Escape, who was awarded the RAMI award for top Latino Band in the region in 2011 and 2012.

Don Vayr is the Director of Strategic Planning and Decision Support at OSF Saint Anthony Medical Center with responsibility for health services planning, analysis, reimbursement and government compliance. His career at OSF spans over thirty years during which he completed his Medical Technology internship and transitioned from student to Medical Technologist to laboratory supervisor. In 1988 he completed his Master's program in administration and moved from direct clinical care to health care

operations. Don's leadership career progressed through a variety of clinical and non-clinical operational responsibilities which affords a strong multi-disciplinary foundation for his current role within the medical center finance division. Don moved to the Rockford area in 1977 and is an alum of Rockford College. His high school sweetheart and wife of thirty four years is a RN clinic manager for the UIC College of Medicine, Rockford. Don and his wife have three adult children, two are local teachers and the third is a senior at University of Illinois – Springfield.

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 Saint Anthony Medical Center, analyses were completed to identify what percentage of inpatient and outpatient activity was represented from specific counties. Data show that Winnebago County represents over 60% of all patients for the hospital.

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 851 survey respondents (94 respondents used a version translated into Spanish) from Winnebago County, 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 Winnebago County 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 Winnebago County population that was living in poverty. Specifically, we multiplied the population of the county by its respective poverty rate to identify the minimum sample size to study the at-risk population. Poverty rate for Winnebago County was 16.8 percent. The populations used for the calculation was 293,993, yielding a total of 49.390 residents living in poverty in the Winnebago County area.

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 the total Winnebago County area, the minimum sample size for those living in poverty was 382. 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.

In order to satisfy sampling requirements for both those living in poverty as well as aggregate perspectives, the data collection effort for this CHNA yielded a total of 851 usable responses. This met the threshold of the desired confidence interval. Final results for data collection yielded a total of 526 respondents living in poverty for this CHNA and data for the total aggregate population yielded a total of 851 usable responses. This met the threshold of the desired 95% confidence interval. Specifically, these numbers met the 99% confidence interval threshold for the aggregate population.

C. Data Collection

The partner organization for Winnebago County was the Rockford Health Council. 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. Note that versions of both the online survey and paper survey were translated into Spanish given the percentage of the Latino/a population in Winnebago County.

To specifically target the at-risk population, surveys were distributed at all homeless shelters and soup kitchens. 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

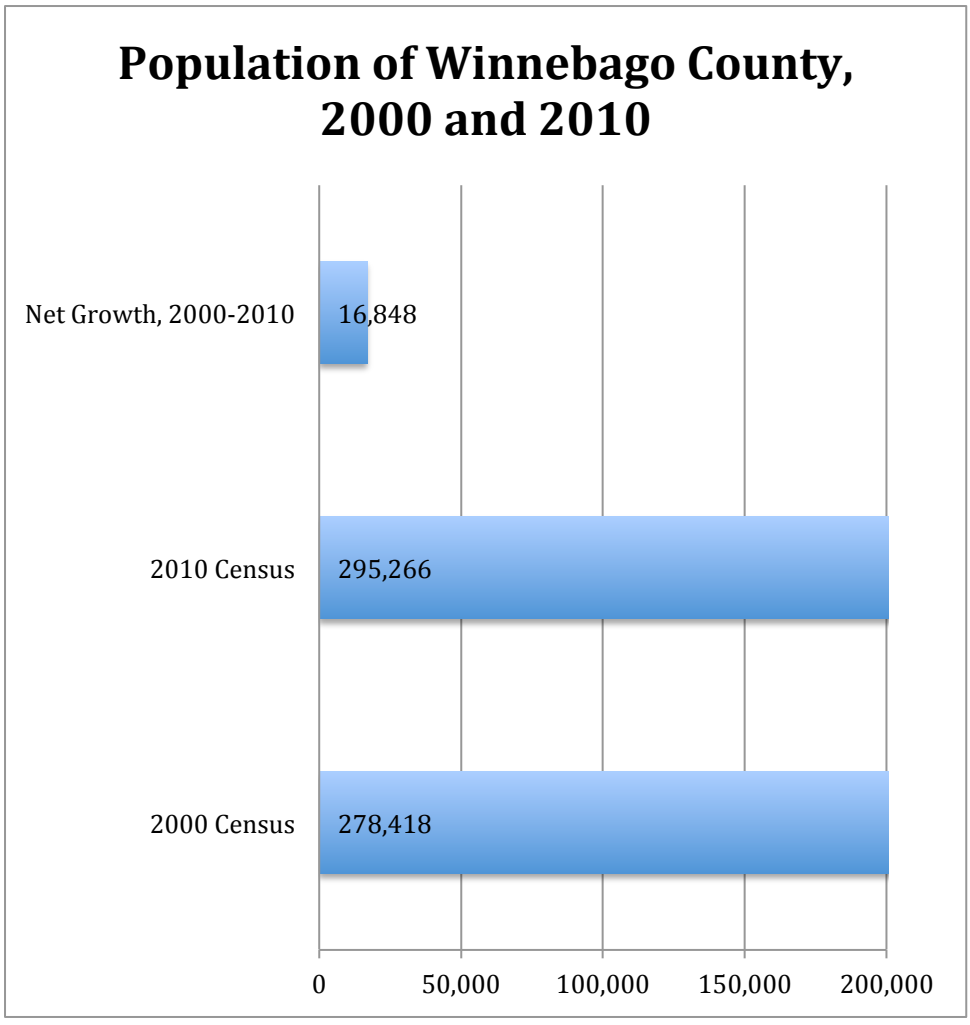
1.1 Population

Importance of the measure: Population data characterizes the individuals residing within the jurisdictional boundaries of Winnebago County. 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 Winnebago County indicated a population of 295,266 residents. Compared to the 2000 census of the Winnebago County population, the 2010 census of the Winnebago County population shows an increase of 16,848 residents. The vast majority of residents relocating to Winnebago County in the last decade live in Roscoe (+4,541), Rockford (+2,756), Machesney Park (+2,740), and South Beloit (+2,495).

Table 1.1.1-1 Population of Winnebago County, 2000 and 2010



Source: 2010 US Census; 2000 US Census

Table 1.1.1-2 Population of Municipalities in Winnebago County, 2000 and 2010

County/Municipality	2000 Census	2010 Census	Net Growth, 2000-2010
Winnebago County	278,418	295,266	16,848
Cherry Valley village (part)	2,191	2,815	624
Durand village	1,081	1,443	362
Lake Summerset CDP (part)	1,075	1,056	-19
Loves Park city (part)	19,990	22,410	2,420
Machesney Park village	20,759	23,499	2,740
New Milford village	541	697	156
Pecatonica village	1,997	2,195	198
Rockford city	150,115	152,871	2,756
Rockton village	5,296	7,685	2,389
Roscoe village	6,244	10,785	4,541
South Beloit city	5,397	7,892	2,495
Winnebago village	2,958	3,101	143

Source: 2010 US Census; 2000 US Census

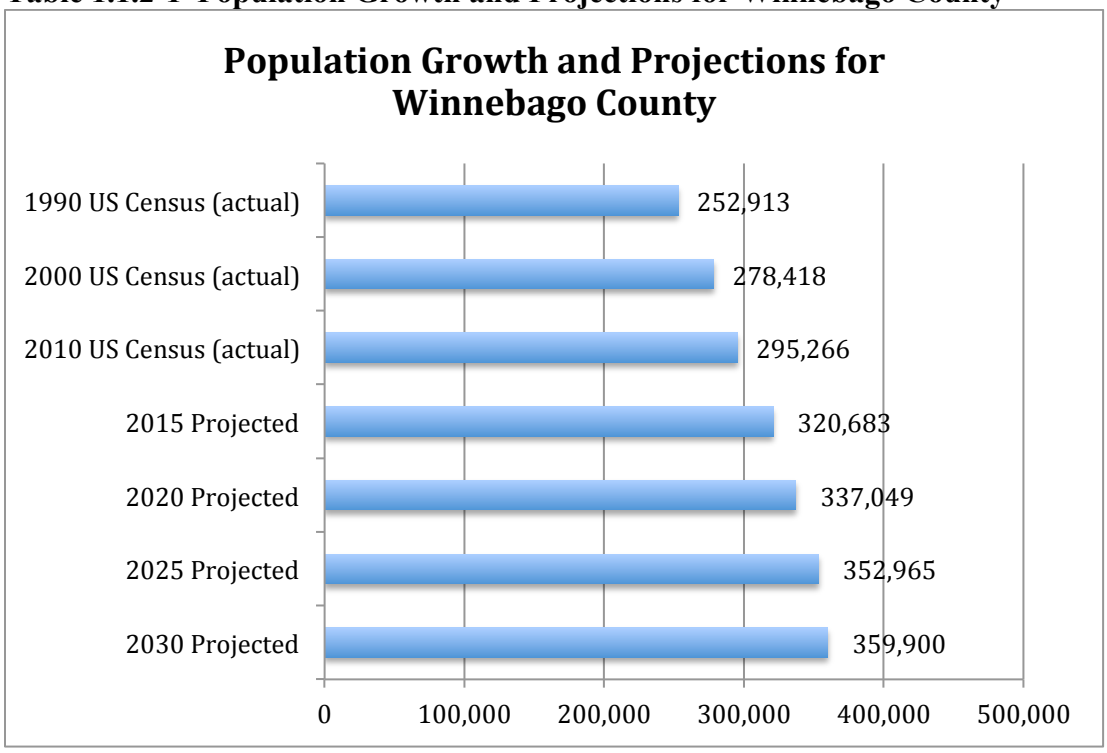
1.1.2 Growth Rates

Data from the last three censuses (1990, 2000, 2010) indicate positive population growth both between 1990 and 2000 and between 2000 and 2010 for Winnebago County. Data also suggest that the population of Winnebago County has grown 18% between 1980 and 2010.

With regard to Winnebago County, one municipality experienced negative population growth between 2000 and 2010 and eleven municipalities experienced positive growth between 2000 and 2010.

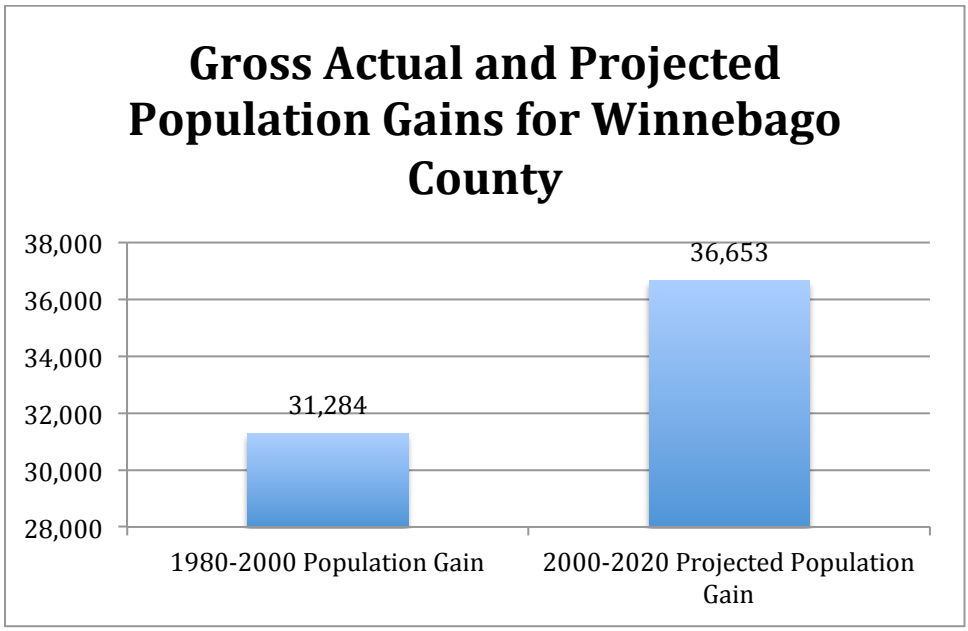
With regard to population projections for the next twenty years (2010 to 2030), Winnebago County is expected to maintain robust positive population growth through 2030.

Table 1.1.2-1 Population Growth and Projections for Winnebago County



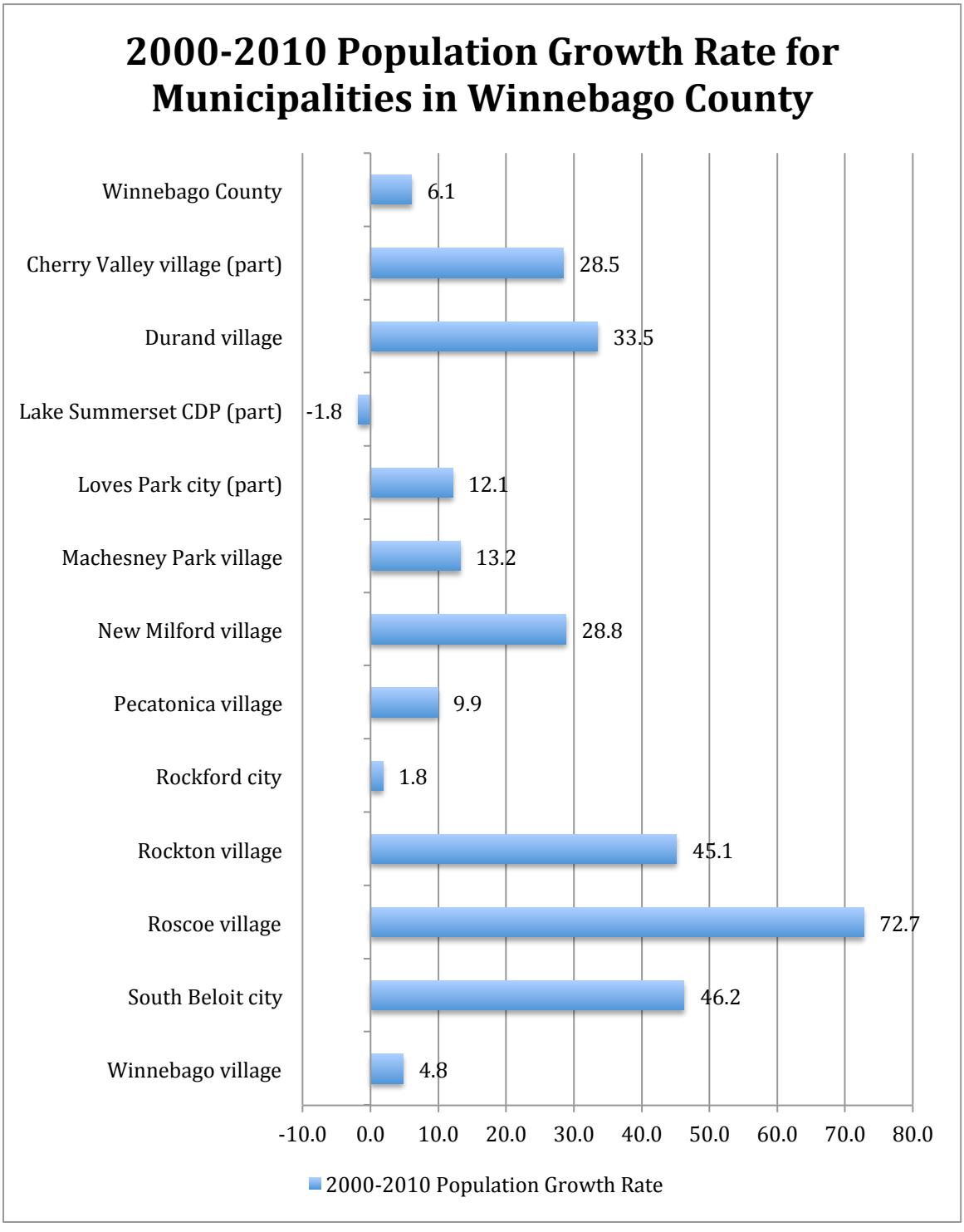
Source: 1990, 2000, & 2010 US Census;
Illinois Department of Commerce & Economic Opportunity

Table 1.1.2-2 Gross Actual and Projected Population Gains for Winnebago County



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 Winnebago County



Source: 2010 US Census; 2000 US Census

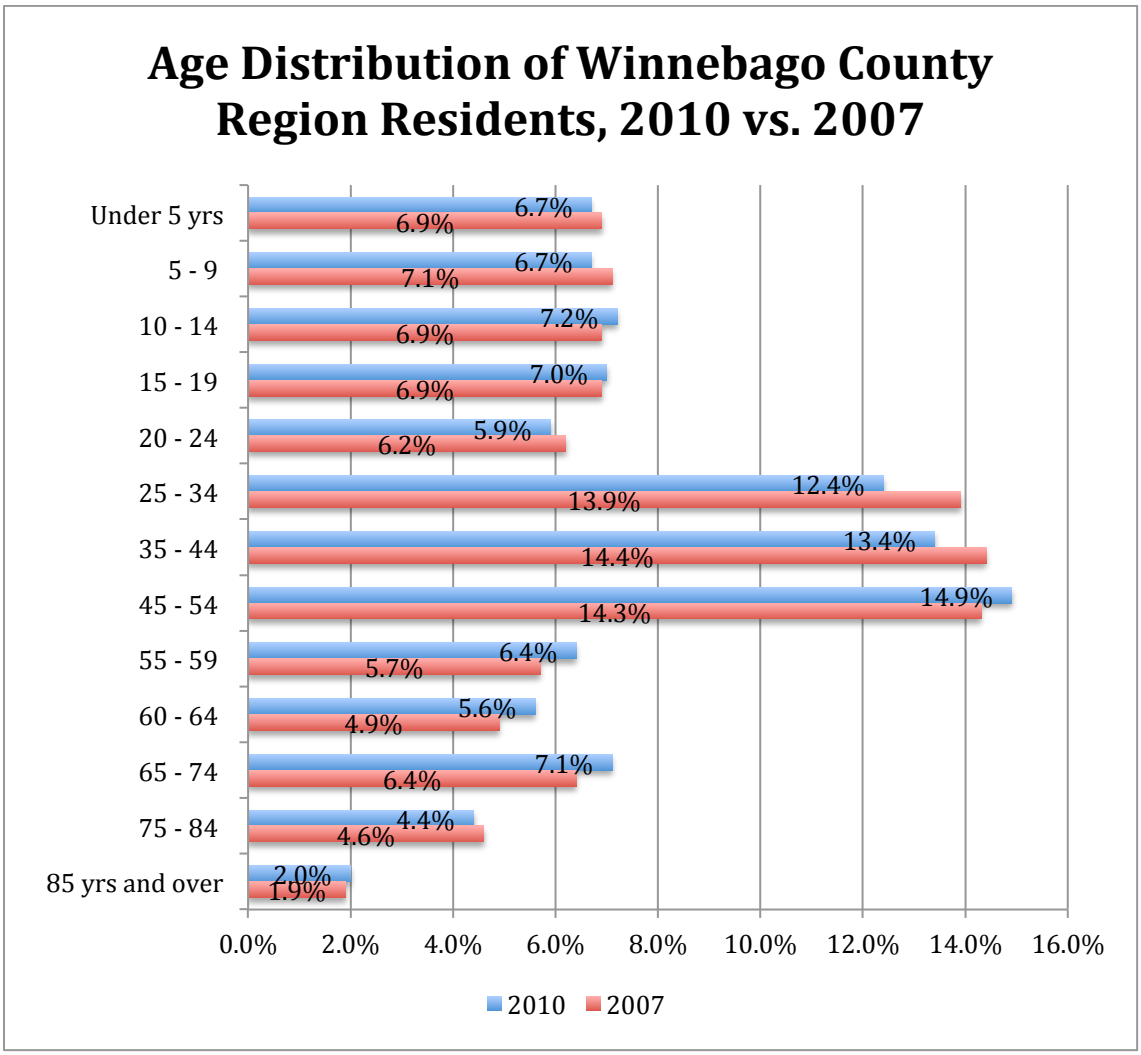
1.2 Age, Gender and Race Distribution

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 Winnebago County aged 60-64 increased from 4.9% to 5.6% between 2007 and 2010 and individuals aged 65-74 increased from 6.4% to 7.1% between 2007 and 2010.

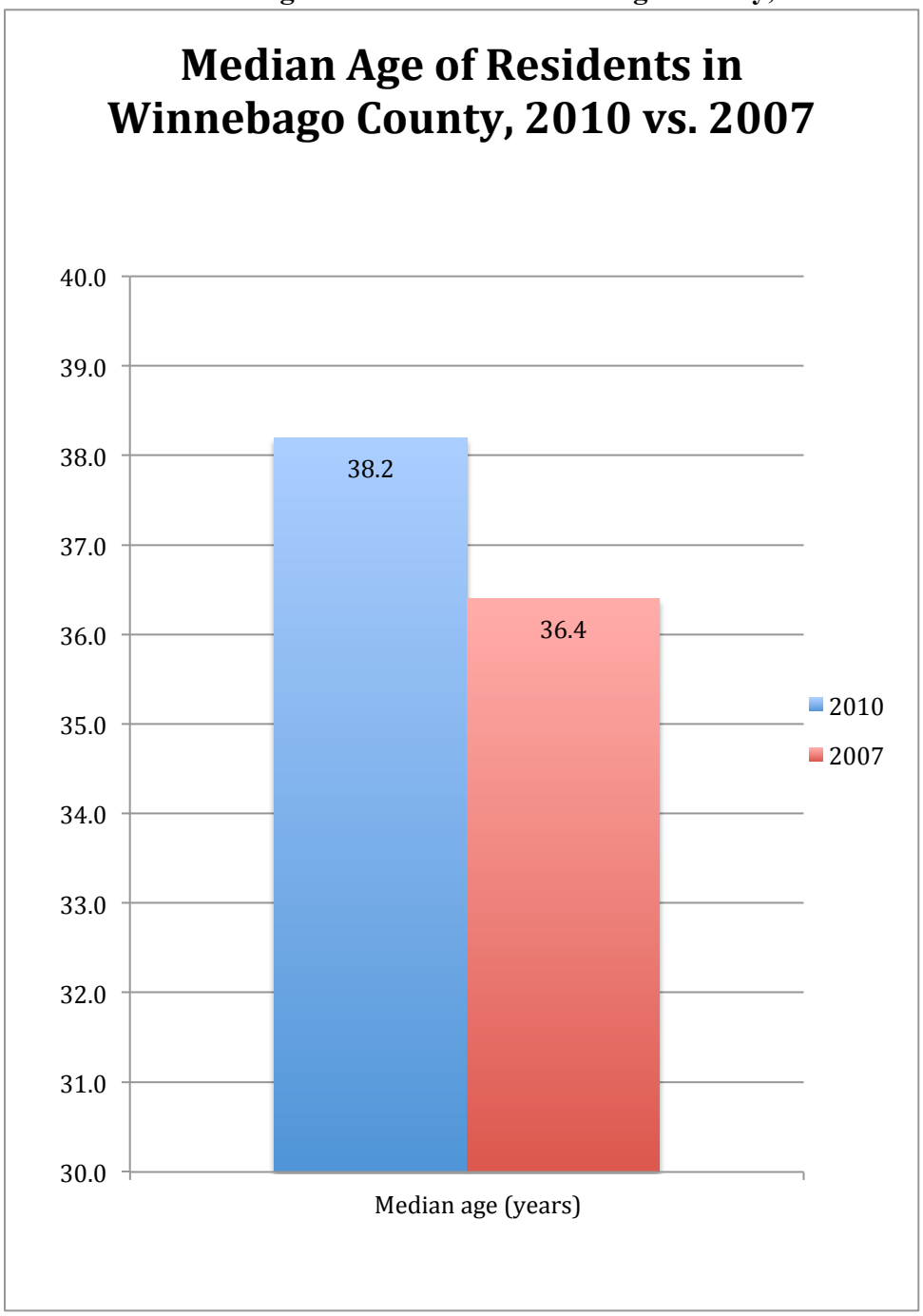
Table 1.2-1 Age Distribution of Winnebago County Residents, 2010 vs. 2007



Source: 2010 US Census; 2007 American Community Survey

With the increase in the population of older individuals in Winnebago County, the median age of residents has also increased. Median age of individuals in Winnebago County increased from 36.4 years to 38.2 years between 2007 and 2010.

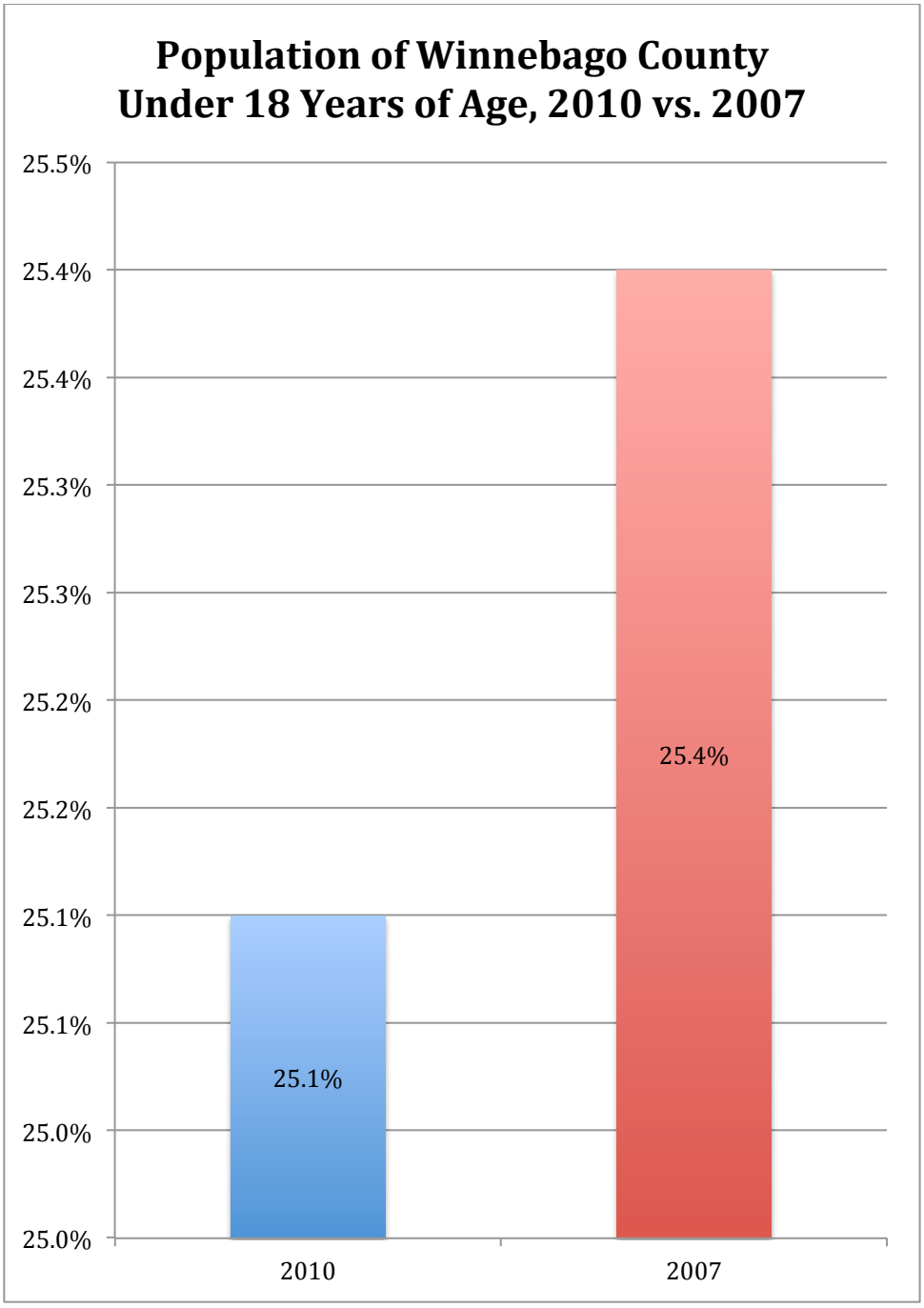
Table 1.2-2 Median Age of Residents in Winnebago County, 2010 vs. 2007



Source: 2010 US Census; 2007 American Community Survey

Data from 2010 suggest a slight decrease in the populations of youths and older adults. In Winnebago County, the under 18 population decreased slightly from 25.4% to 25.1%.

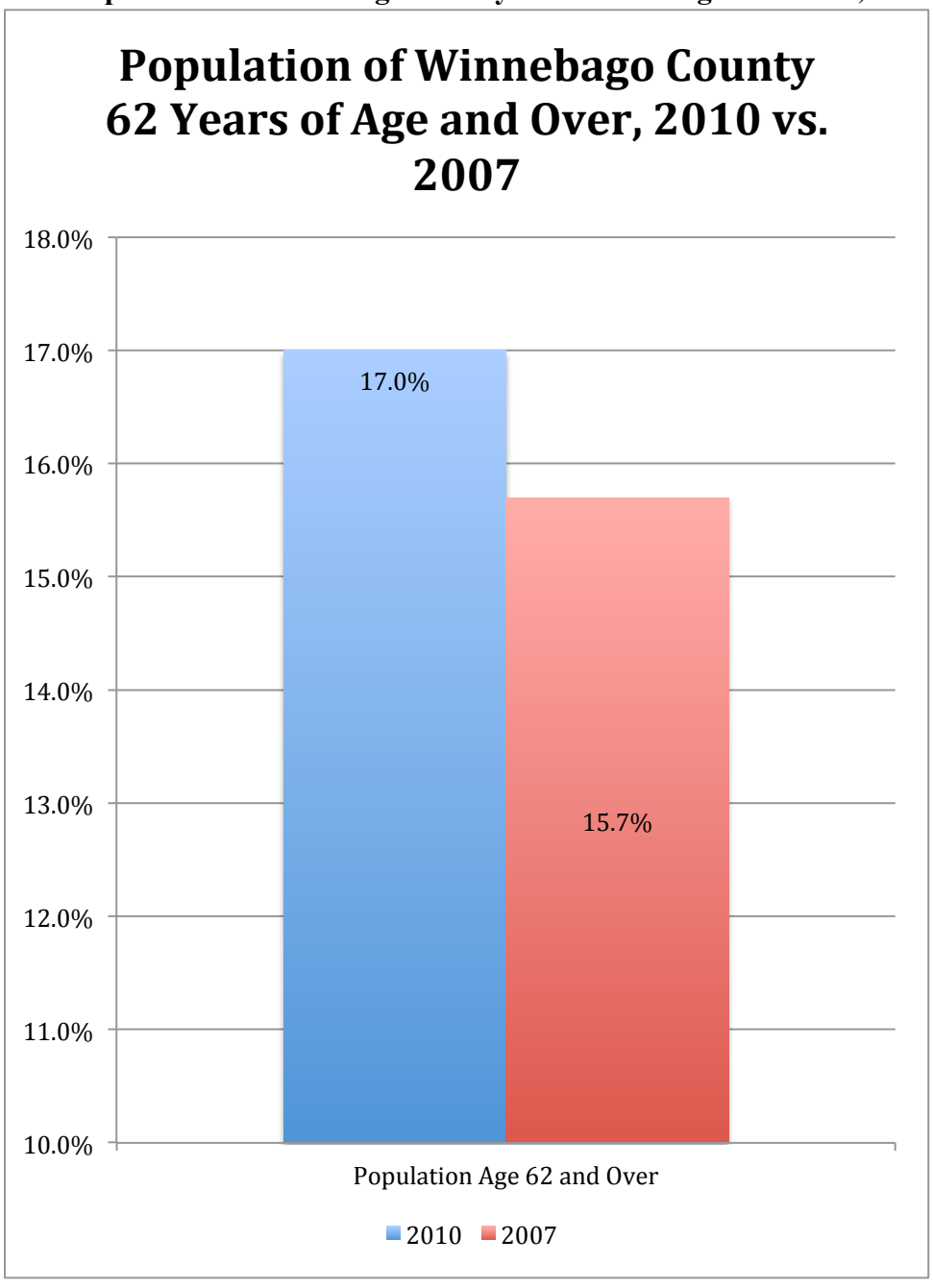
Table 1.2-6 Population of Winnebago County Under 18 Years of Age, 2010 vs. 2007



Source: 2010 US Census; 2007 American Community Survey

The national trend concerning the aging of the baby-boomer population is reflected in the 2010 data for Winnebago County, as 17% of the Winnebago County population is over 62 years of age. Between 2007 and 2010, the percentage of older adults, age 62 and over, increased from 15.7% of the population in 2007 to 17.0% of the population in 2010.

Table 1.2-7 Population of Winnebago County 62 Years of Age and Over, 2010 vs. 2007

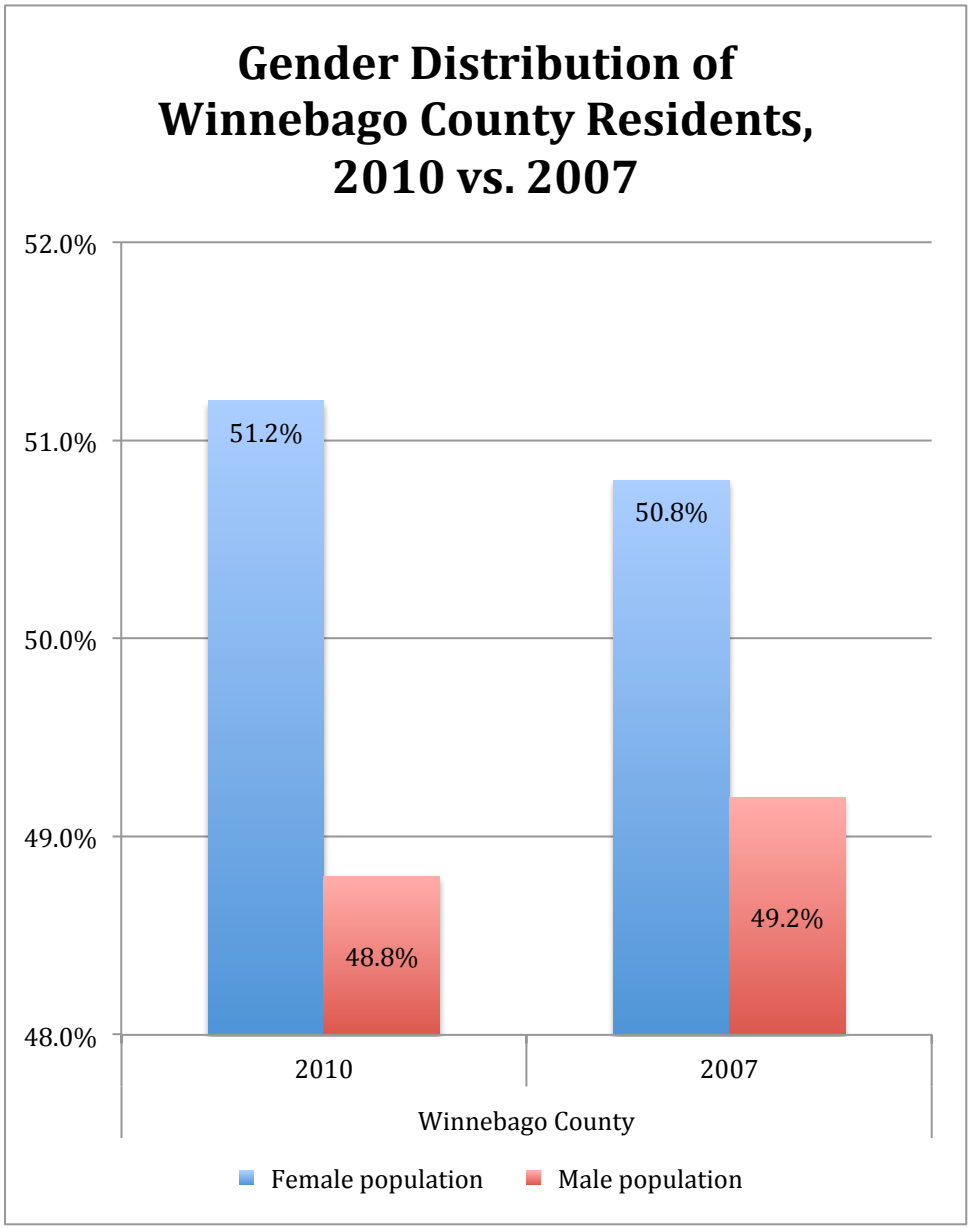


Source: 2010 US Census; 2007 American Community Survey

1.2.2 Gender

The gender distribution of Winnebago County residents has remained relatively consistent between 2007 and 2010. Data indicates that there were more women than men in 2007 and data from 2010 suggests the number of women in Winnebago County slightly increased from 2007.

Table 1.2.2-1 Gender Distribution of Winnebago County Residents, 2010 vs. 2007

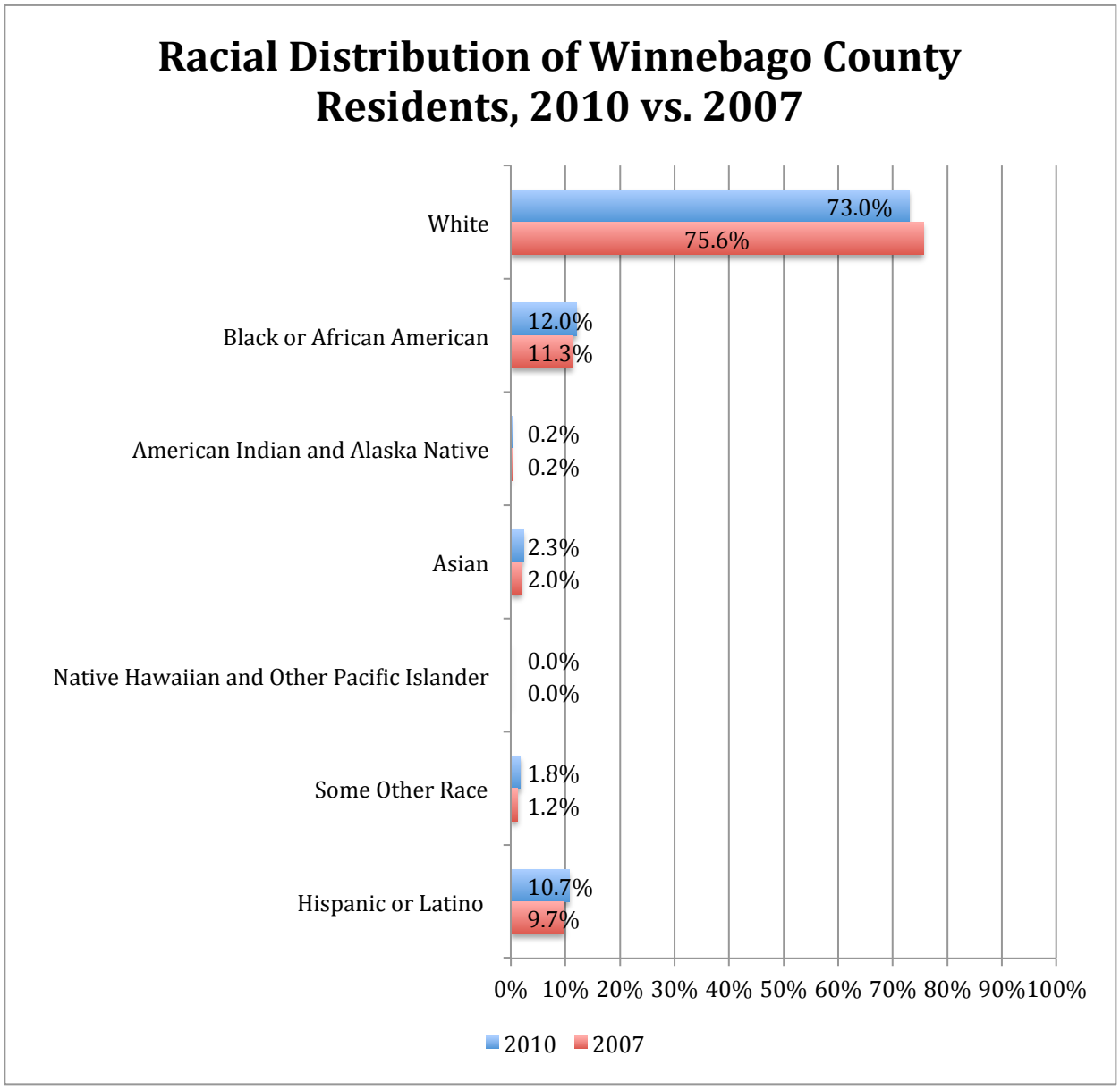


Source: 2010 US Census; 2007 American Community Survey

1.2.3 Race

With regard to race and ethnic background, Winnebago County is largely homogenous, yet in recent years is becoming more diverse. Data from 2010 suggest that Whites comprise approximately 75% of the population in Winnebago County. However, the non-White population of Winnebago County has been increasing since 2007, with individuals identifying with Black or African American ethnicity comprising 12.0% of the population, individuals identifying with Asian ethnicity comprising 2.3% of the population, and individuals identifying with Hispanic ethnicity comprising 10.7% of the population.

Table 1.2.3-1 Racial Distribution of Winnebago County Residents, 2010 vs. 2007



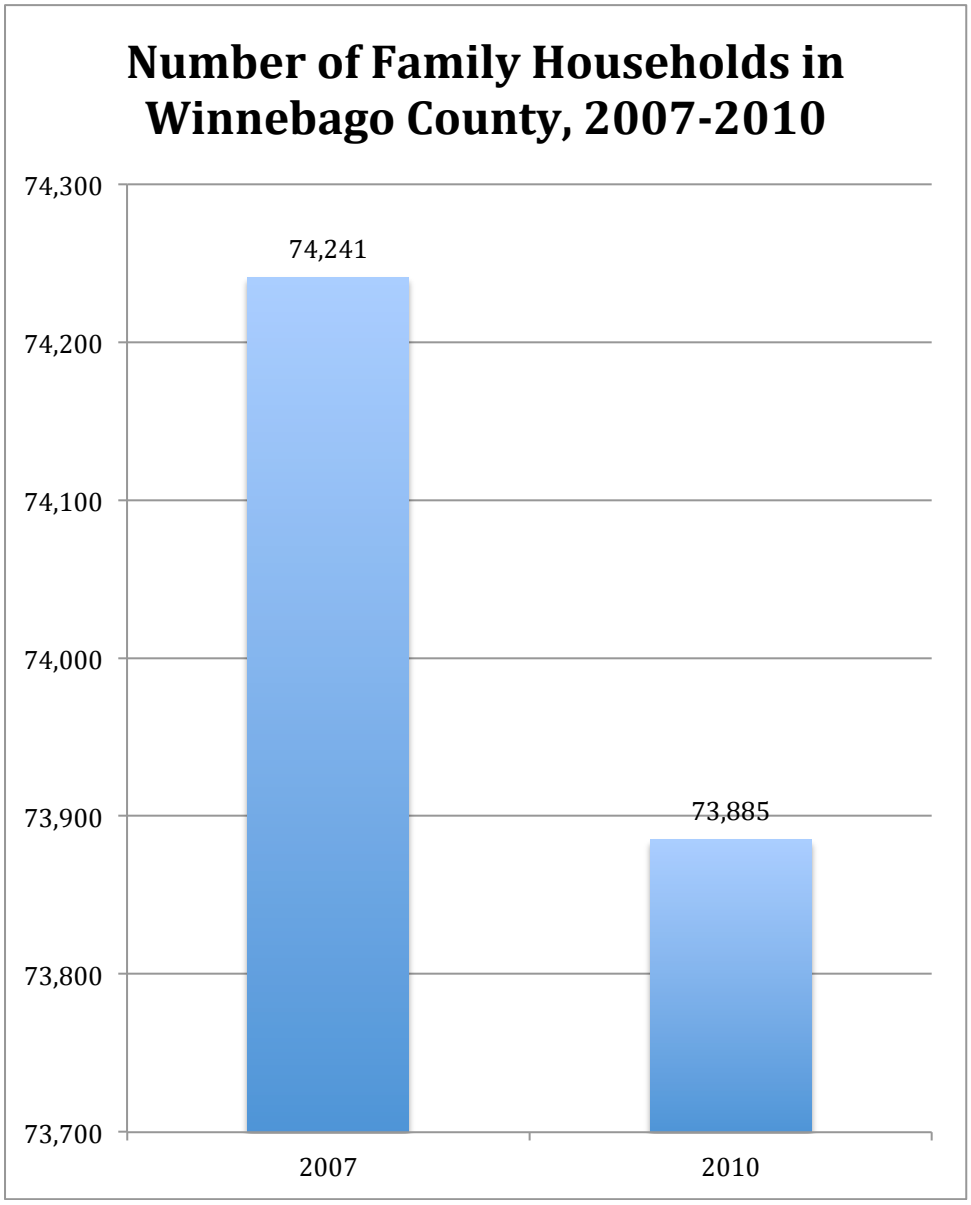
Source: 2010 US Census; 2007 American Community Survey

1.3 Household/family

Importance of the measure: Families are the backbone of society in Winnebago County, 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 Winnebago County decreased between 2007 and 2010.

Table 1.3-1 Number of Family Households in Winnebago County, 2007-2010

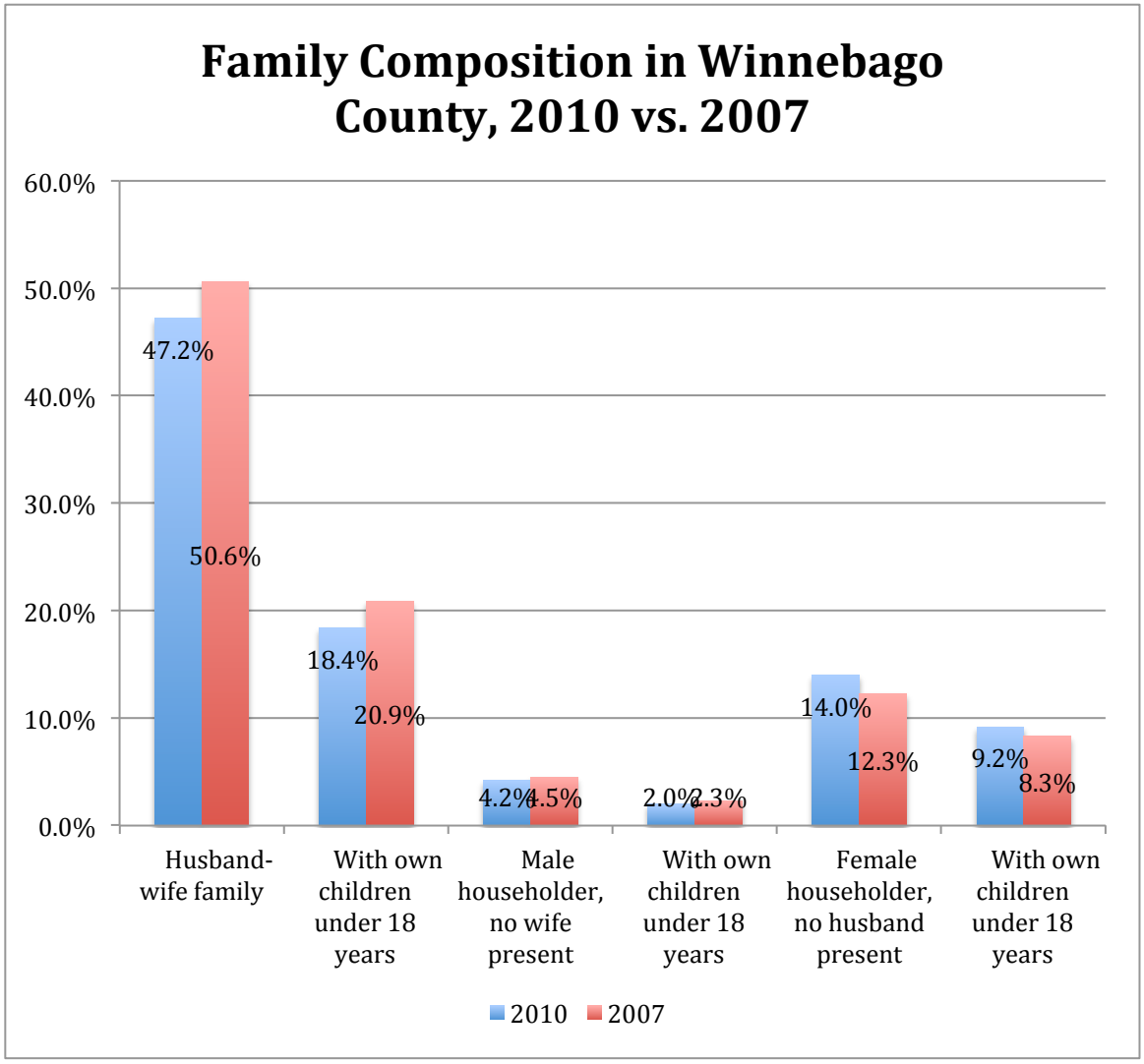


Source: 2010 US Census; 2007 American Community Survey

1.3.1 /1.3.2 Single and Related Family

In Winnebago County, data from 2010 suggest a 0.3% decrease from 2007 in the number of male households with no wife present. Between 2007 and 2010, the percentage of husband-wife families decreased in Winnebago County by 3.4%. When children under the age of 18 are considered, there has been a decrease in the percentage of children living in a family comprised of a female householder only, with no husband present from 8.3% in 2007 to 9.2% in 2010. Finally, families led by a female householder with no husband present increased from 12.3% to 14.0%.

Table 1.3.1-1 Family Composition in Winnebago County, 2010 vs. 2007

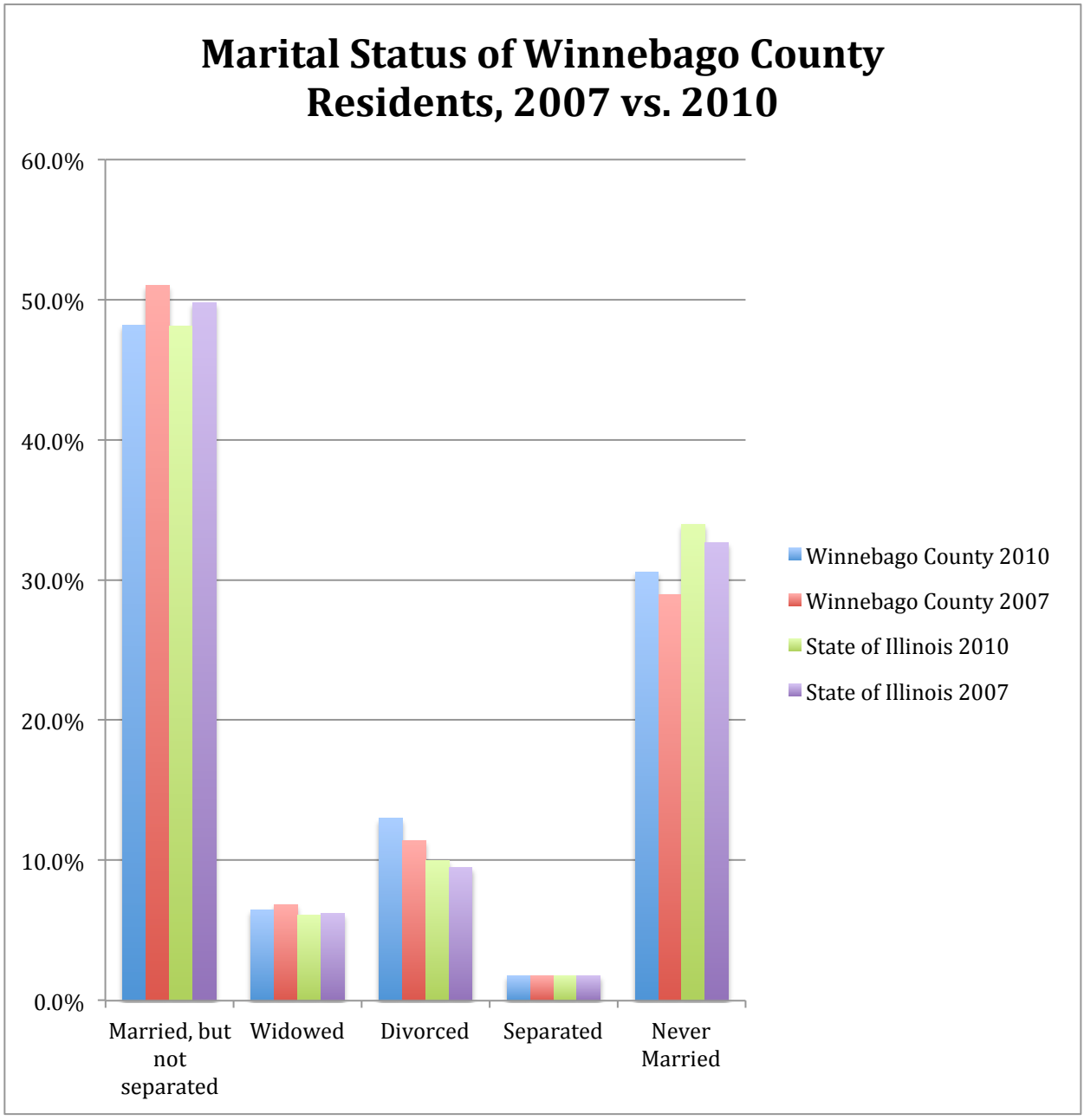


Source: 2010 US Census; 2007 American Community Survey

1.3.3 Marital status

Between 2007 and 2010, Winnebago County experienced a negative growth rate in the percentage of residents who are married but not separated and widowed and positive growth in the percentage of residents who were divorced and never married.

Table 1.3.3-1 Marital Status of Winnebago County Residents, 2007 vs. 2010

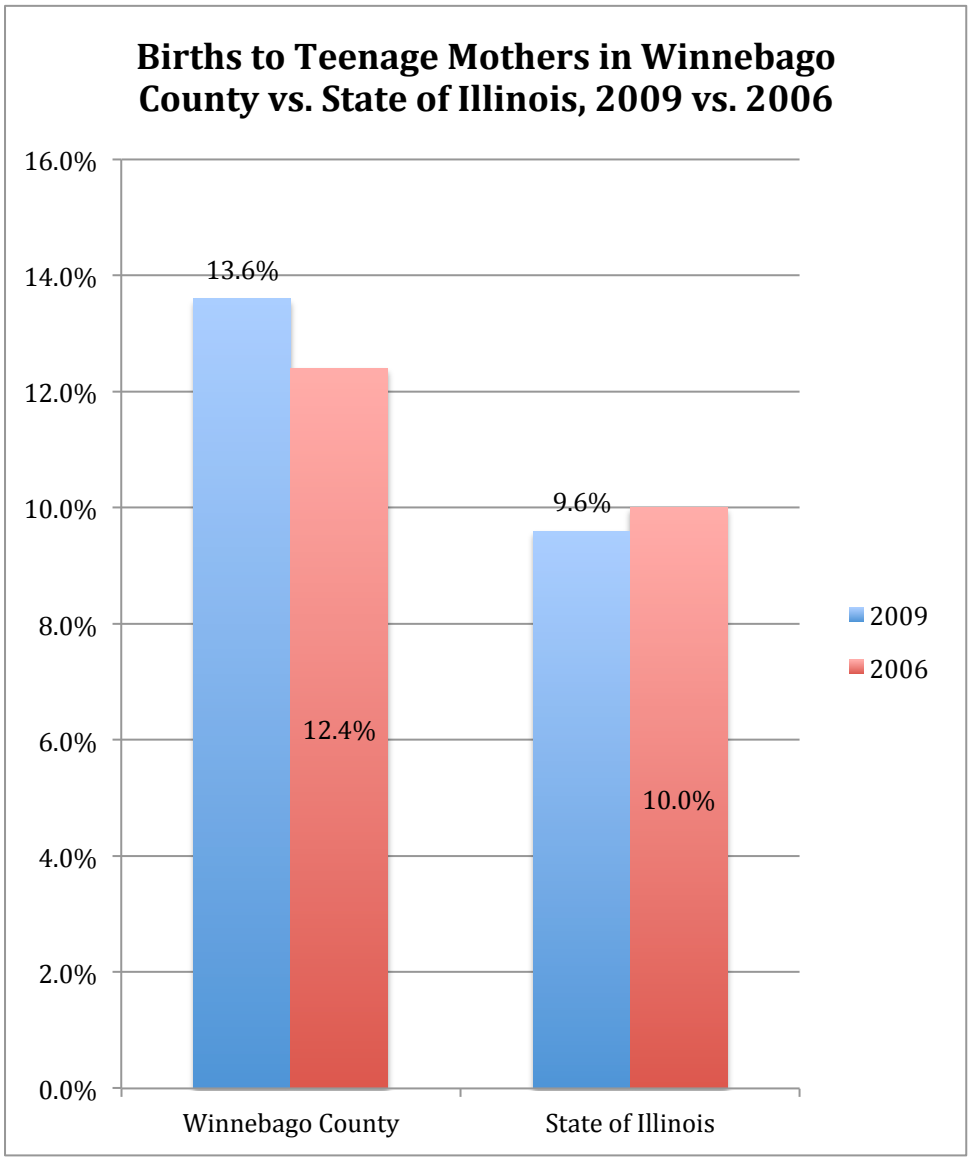


Source: 2010 US Census; 2007 American Community Survey

1.3.4 Early Sexual Activity Leading to Births from Teenage Mothers

With regard to teenage birth rates, Winnebago County has a higher teen birth rate than the State of Illinois. Between 2006 and 2009, Winnebago County saw a net increase in teenage births compared to a net decrease across State of Illinois during the same time frame.

Table 1.3.4-1: Births to Teenage Mothers in Winnebago County vs. State of Illinois, 2009 vs. 2006



Source: Illinois Department of Public Health

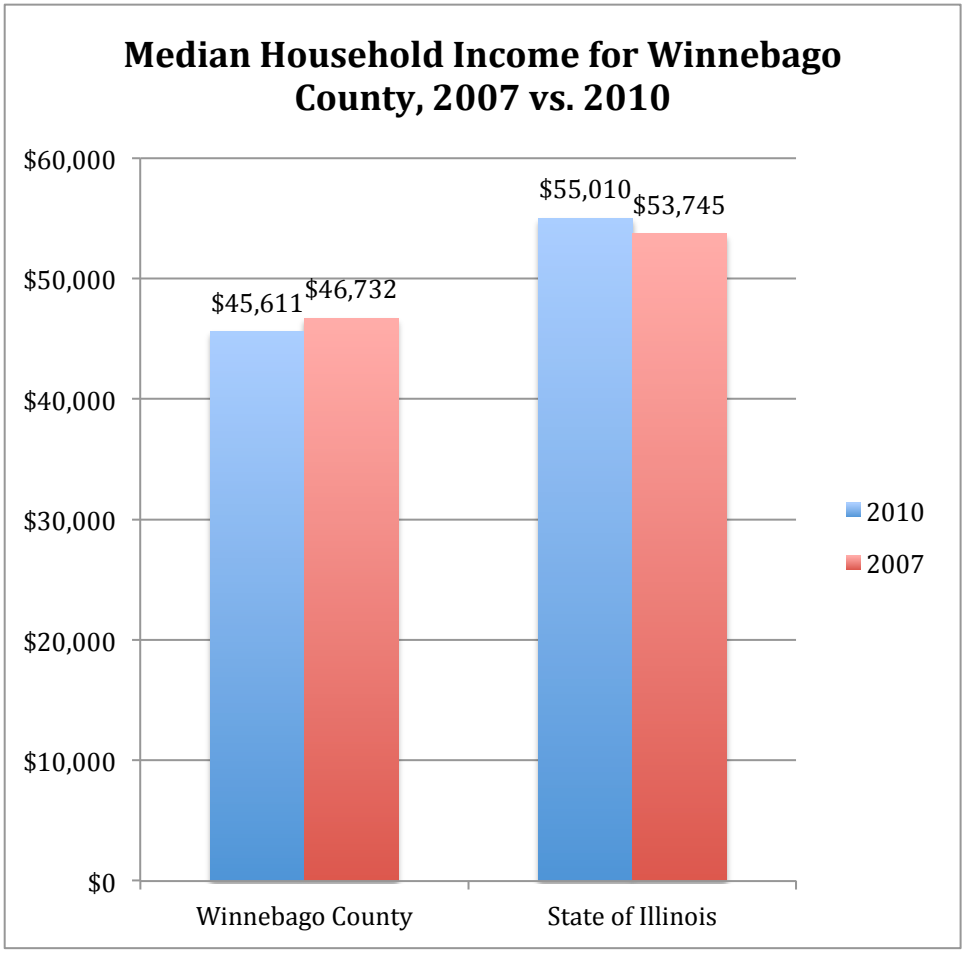
1.4 Economic information

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 2007 and 2010, the median household income in Winnebago County was lower than the State of Illinois median household income.

Table 1.4.1-1: Median Household Income for Winnebago County, 2007 vs. 2010

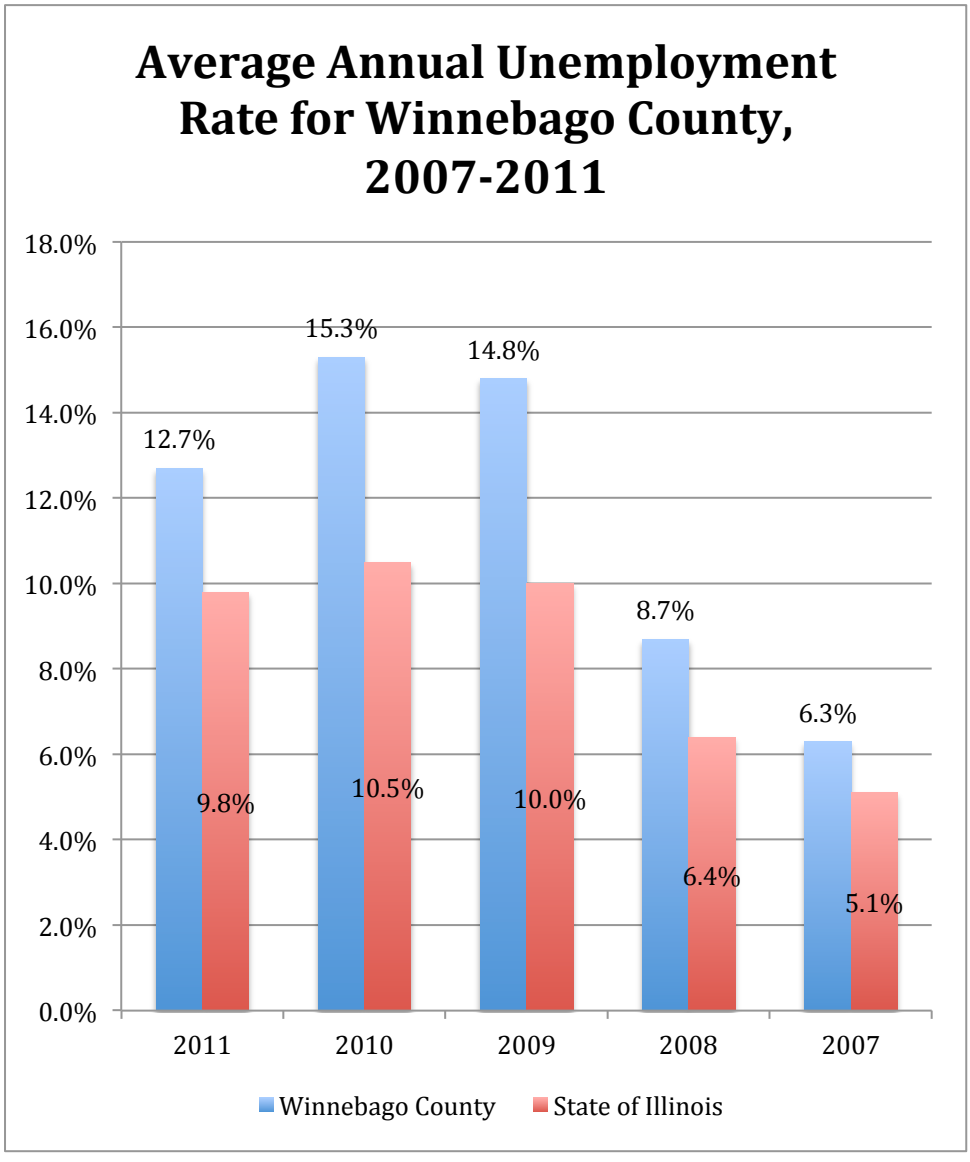


Source: 2007 & 2010 American Community Survey

1.4.2 Unemployment

For the years 2007 to 2011, the Winnebago County unemployment rate has been significantly higher than the State of Illinois unemployment rate. Between 2008 and 2009, the unemployment increased from 8.7% in 2008 to 14.8% in 2009 and rising to a peak of 15.3% in 2010. Data from 2011 suggests the unemployment rate in Winnebago County was 12.7% compared to the overall State of Illinois unemployment rate of 9.8%.

Table 1.4.2-1: Average Annual Unemployment Rate for Winnebago County Region, 2007-2011

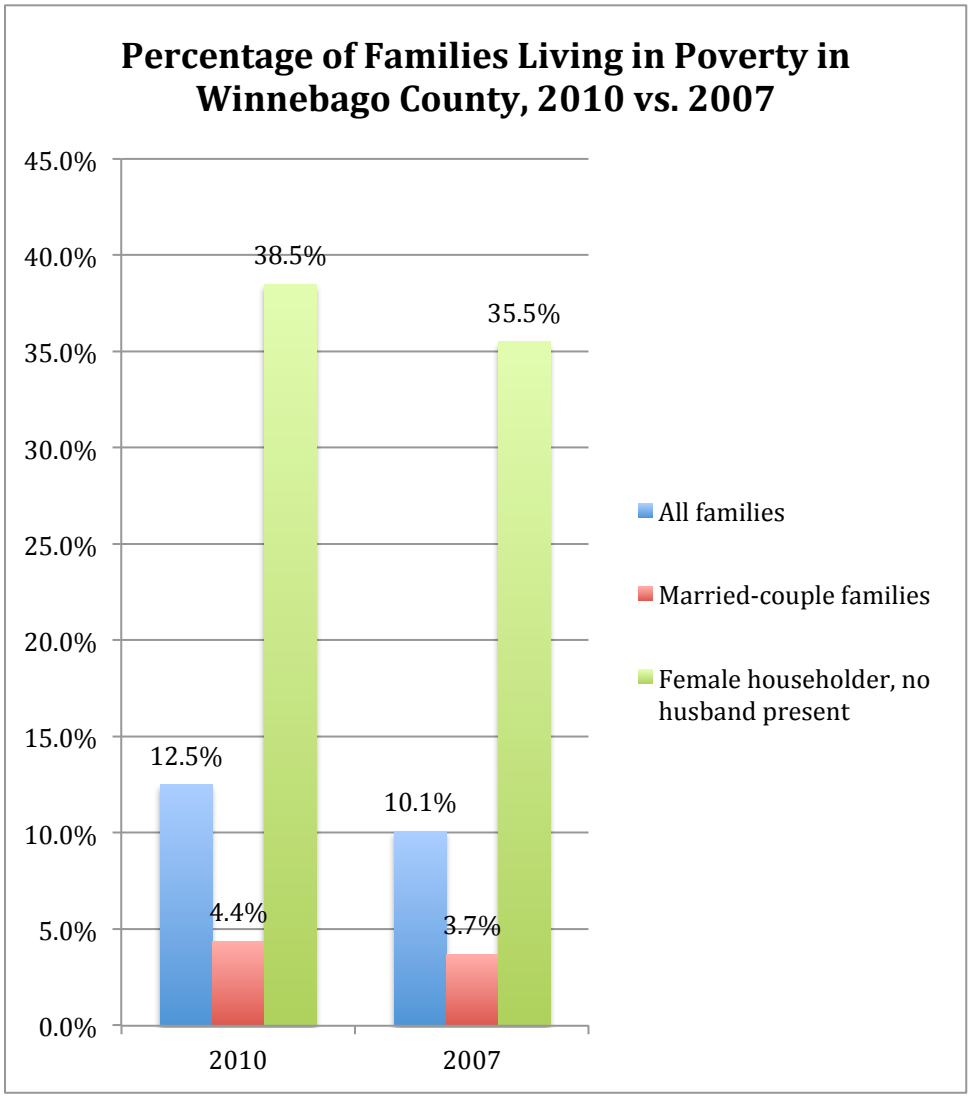


Source: Bureau of Labor Statistics

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. In Winnebago County, the percentage of all families, married-couple families, and female-householder families living in poverty increased between 2007 and 2010.

Table 1.4.3-1: Percentage of Families Living in Poverty in Winnebago County, 2010 vs. 2007



Source: 2010 and 2007 American Community Survey

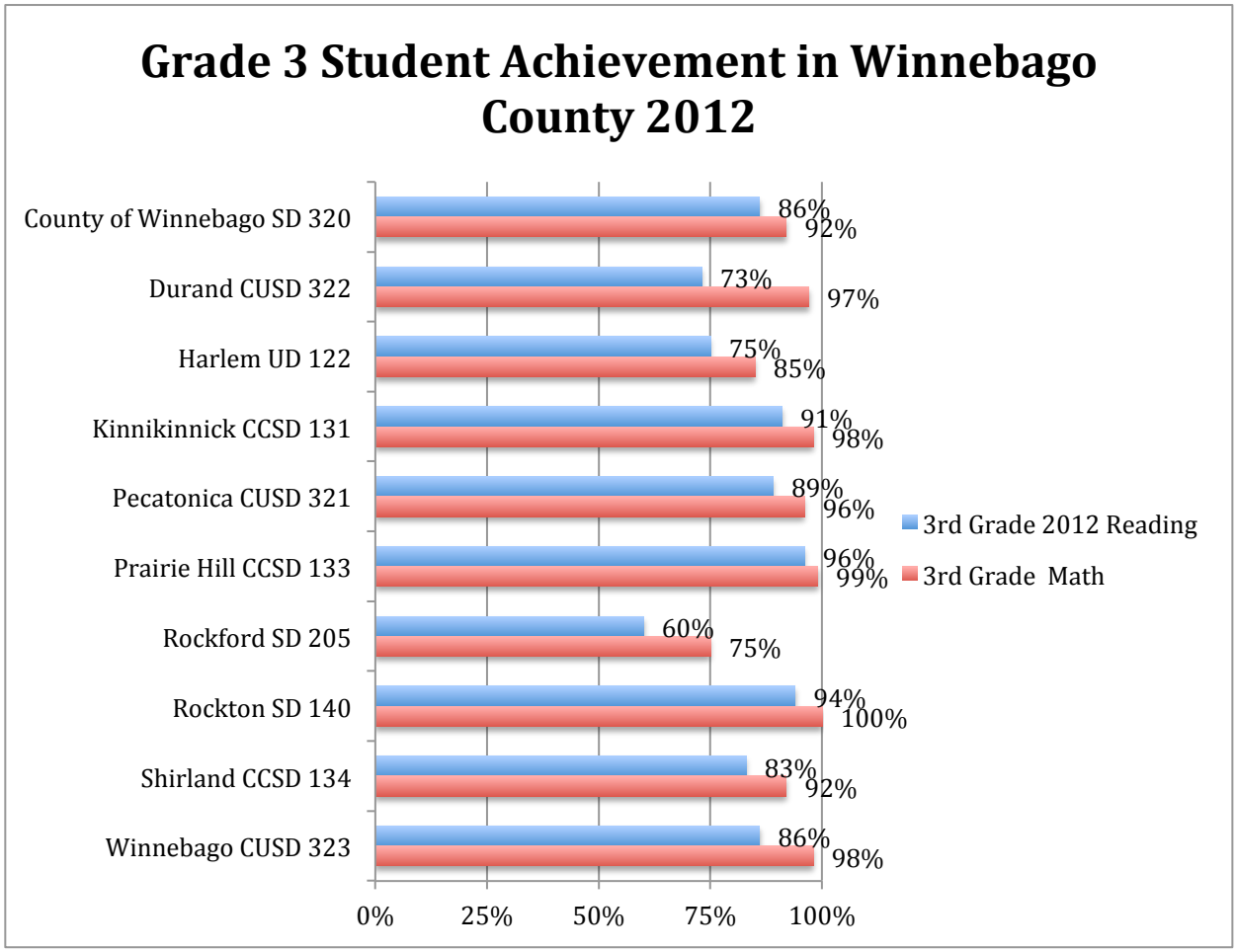
1.5 Education

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, nearly all of the school districts in Winnebago County had higher averages than the State of Illinois averages. However, two districts (Durand and Rockford) scored lower than the State of Illinois 3rd grade reading average (76%) and two districts (Harlem and Rockford) scored lower than the State of Illinois 3rd grade math average (88%).

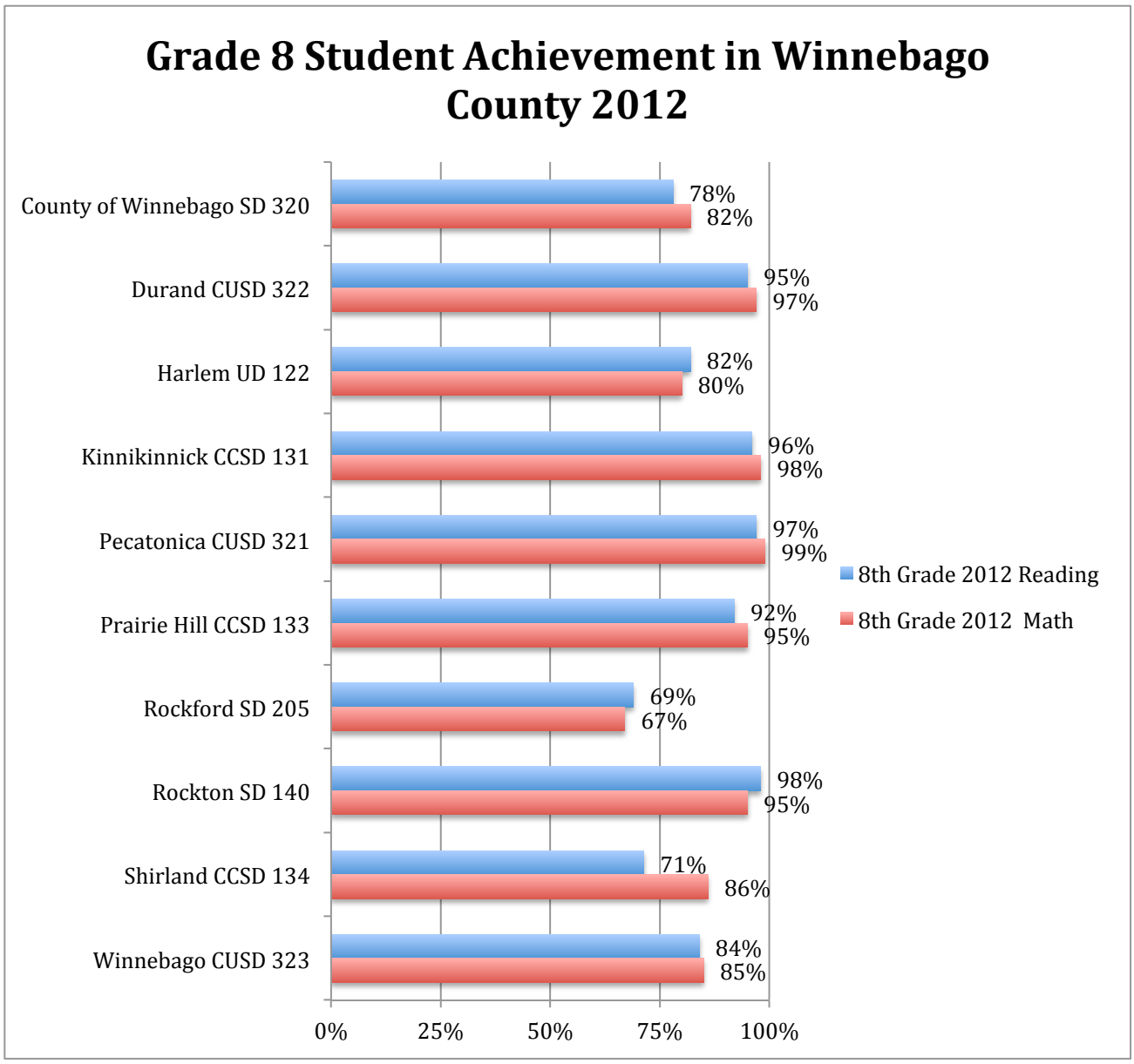
Table 1.5.1-1 Grade 3 Student Achievement in Winnebago County 2012



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

Similar to the 3rd grade scores, some of the school districts in Winnebago County had higher averages than the State of Illinois averages for 8th grade students. However, three districts (County of Winnebago, Harlem, and Rockford) scored lower than the State of Illinois 8th grade math average (85.0%) and five districts (County of Winnebago, Harlem, Rockford, Shirland, and Winnebago) scored lower than the State of Illinois 8th grade reading average (86.2%).

Table 1.5.1-2 Grade 8 Student Achievement in Winnebago County 2012

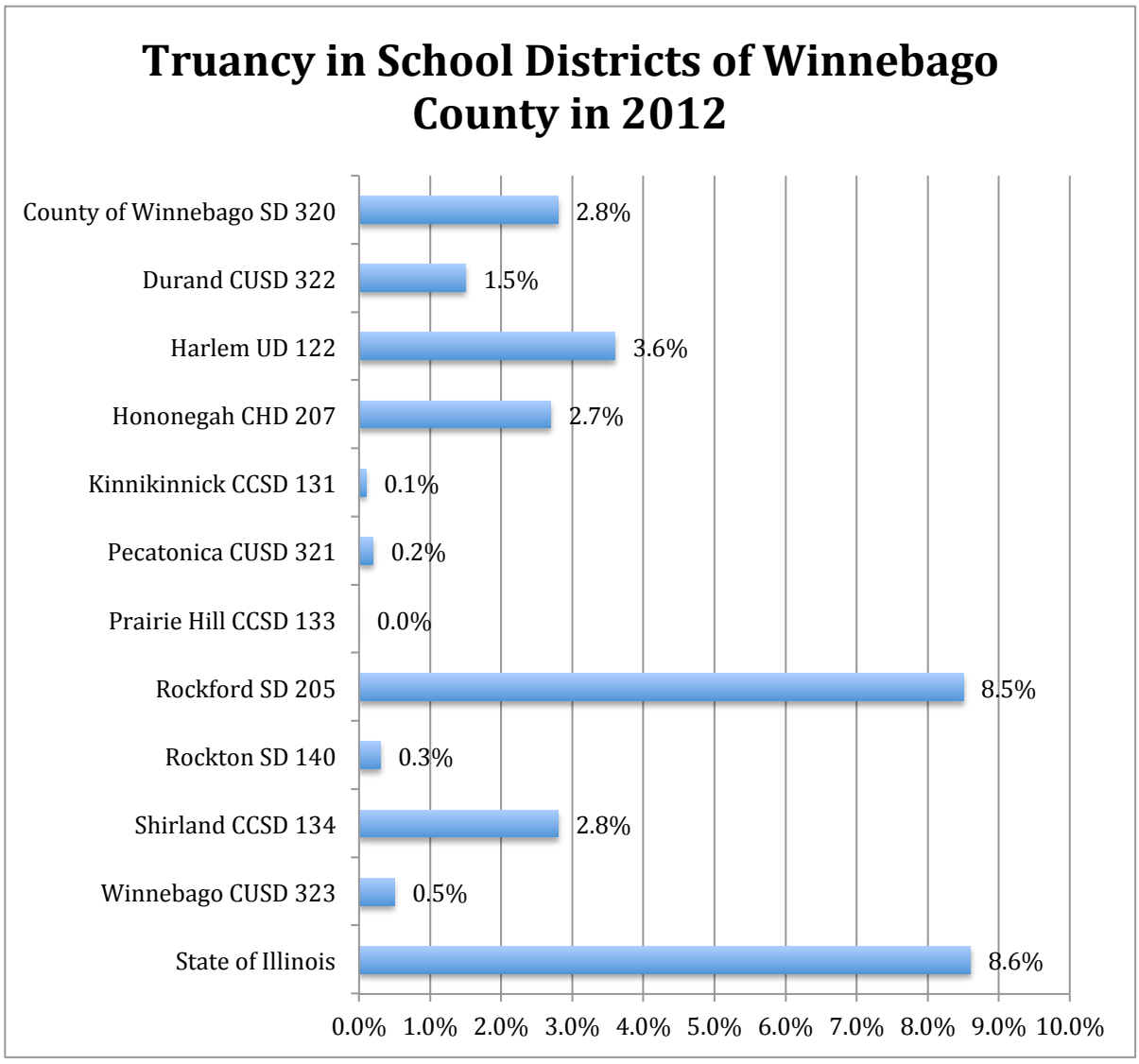


Source: Illinois State Board of Education, School Year 2010 District Report Card Summary

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 Winnebago County exceed the State of Illinois average truancy rate for 2012.

Table 1.5.2-1 Truancy in School Districts of Winnebago County in 2012

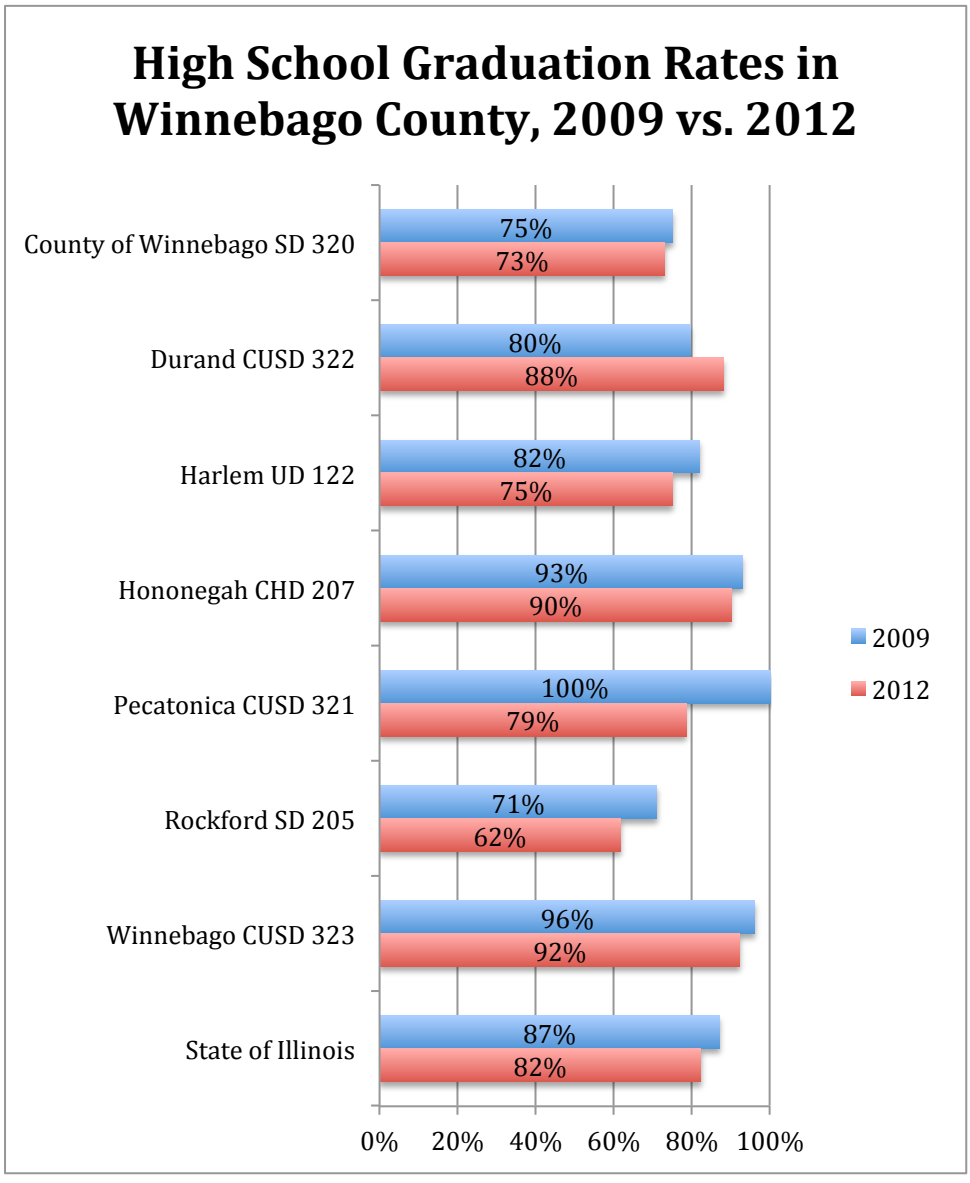


Source: Illinois State Board of Education, School Year 2012 District Report Card Summary

1.5.3 High School graduation rates

High school graduation rates in 2009 and 2012 in Winnebago County are above the state average (which is 87% and 82% for years 2009 and 2012, respectively), with the exception of County of Winnebago (2009 & 2012), Durand (2009), Harlem (2009 & 2012), Pecatonica (2012), and Rockford (2009 & 2012).

Table 1.5.3-1 High School Graduation Rates in Winnebago County, 2009 vs. 2012



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

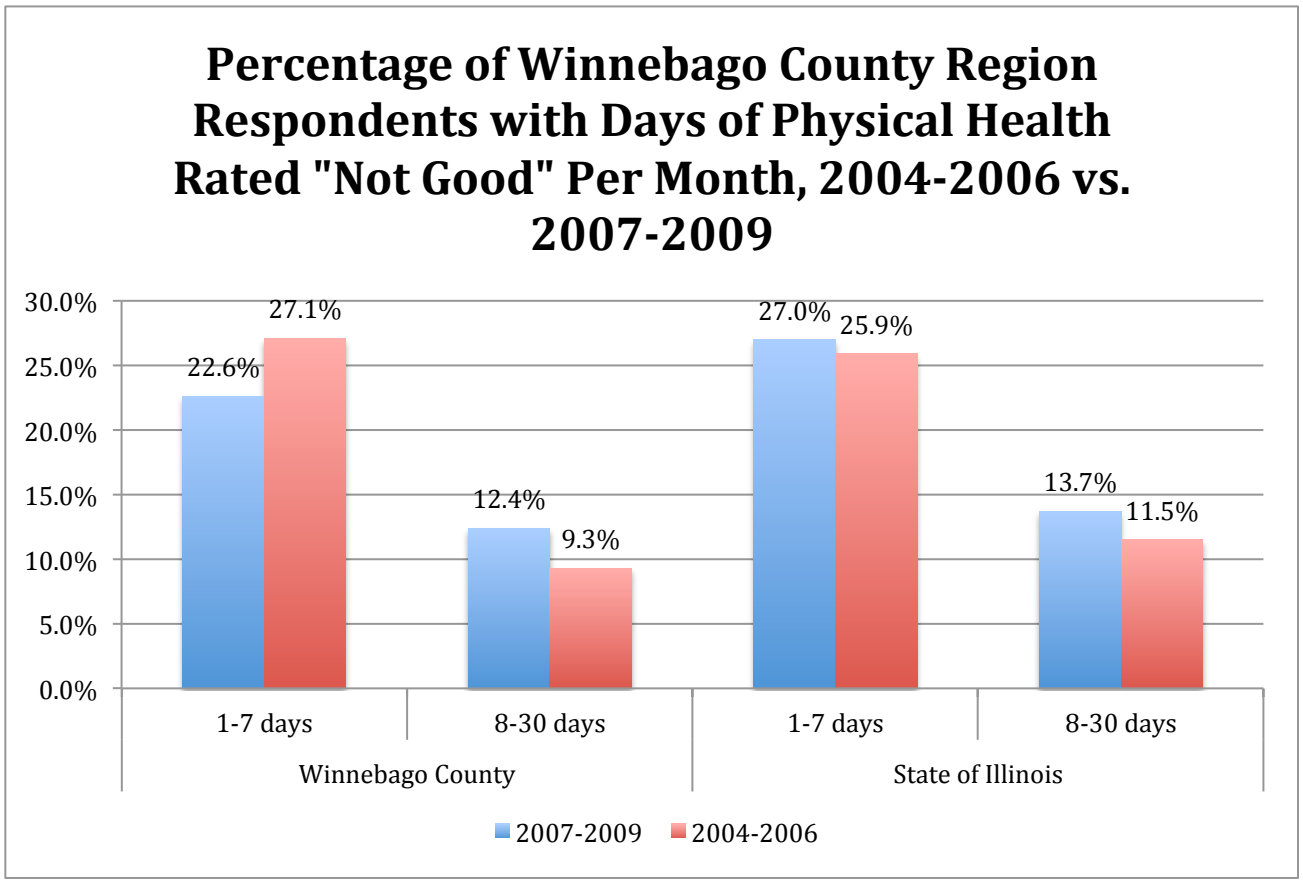
1.6 People with Disabilities

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

Approximately 23% of residents in Winnebago County reported they had experienced 1-7 days with poor physical health per month between 2007 and 2009. There was a 33% growth in the percentage of Winnebago County residents reporting they felt physically unhealthy on 8 or more days per month between 2006 (9.3%) and 2009 (12.4%). For comparison, there was only 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%).

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

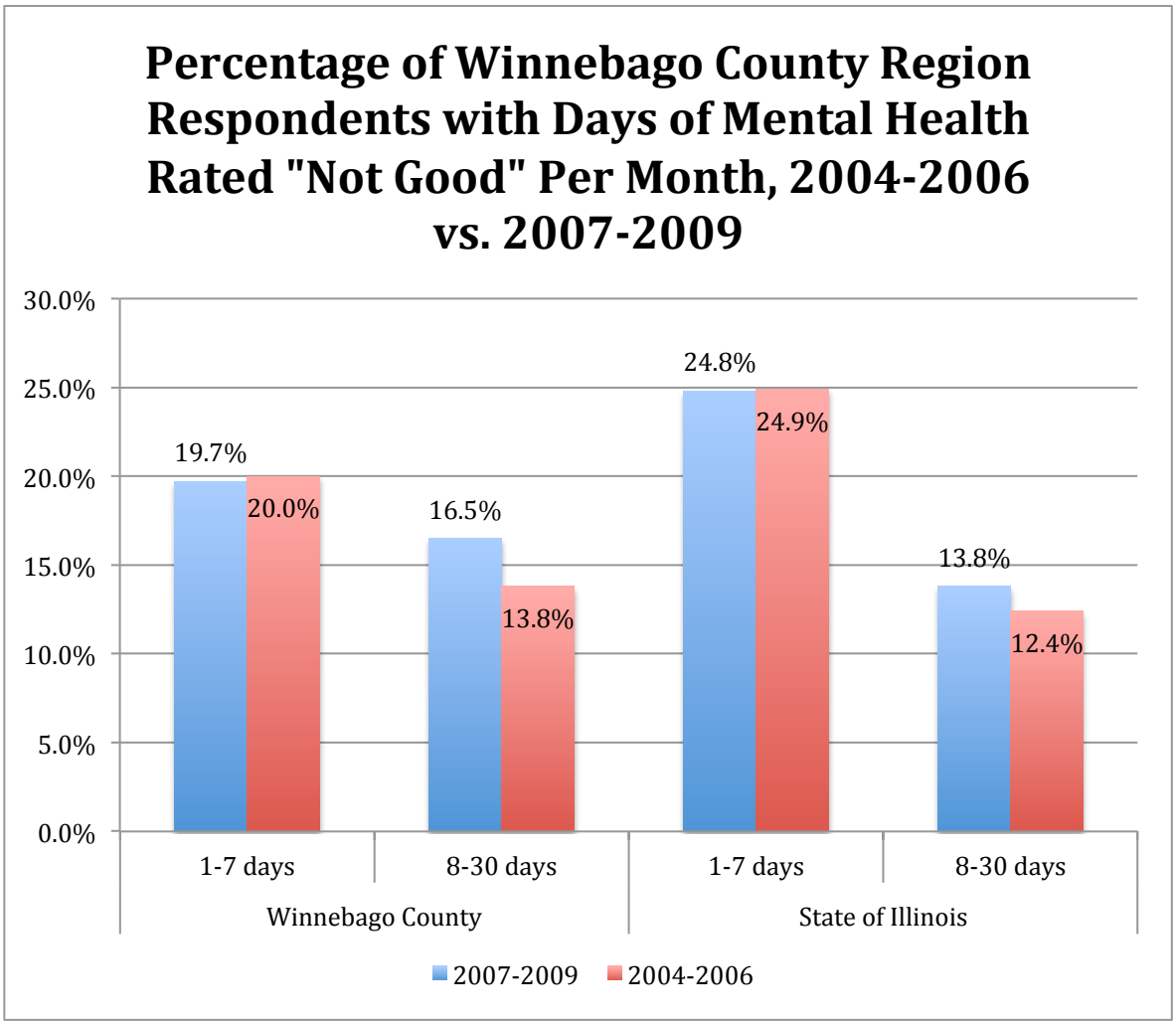


Source: Illinois Behavioral Risk Factor Surveillance System

1.6.2 Mental

Approximately 20% of residents in Winnebago County reported they had experienced 1-7 days with poor mental health per month between 2007 and 2009. There was a 20% growth in the percentage of Winnebago County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (13.8%) and 2009 (16.5%). 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 Winnebago County (16.5%) exceed the State of Illinois average (13.8%).

Table 1.6.1-2 Percentage of Winnebago County Region 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, 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 Winnebago County as seen in Chapter 1. Of particular note, individuals in Winnebago County aged 60-64 increased from 4.9% to 5.6% between 2007 and 2010 and individuals aged 65-74 increased from 6.4% to 7.1% between 2007 and 2010. Additionally, the median age of individuals in Winnebago County increased from 36.4 years to 38.2 years between 2007 and 2010.

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 Winnebago County 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, be 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 nearly all school districts are above the State of Illinois averages, Durand and Rockford school districts 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. Regrettably, Winnebago County has seen the percentages of families living in poverty increase between 2007 and 2010. Unemployment rates in Winnebago County exceed the State of Illinois average and in 2010, the unemployment rate in Winnebago County was nearly 50% higher than the state average. Additionally, in 2010 the Winnebago County median household income was less than the State of Illinois median household income. Finally, early sexual activity can contribute to child poverty. Again, current rates for births to teenage mothers in Winnebago County are 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

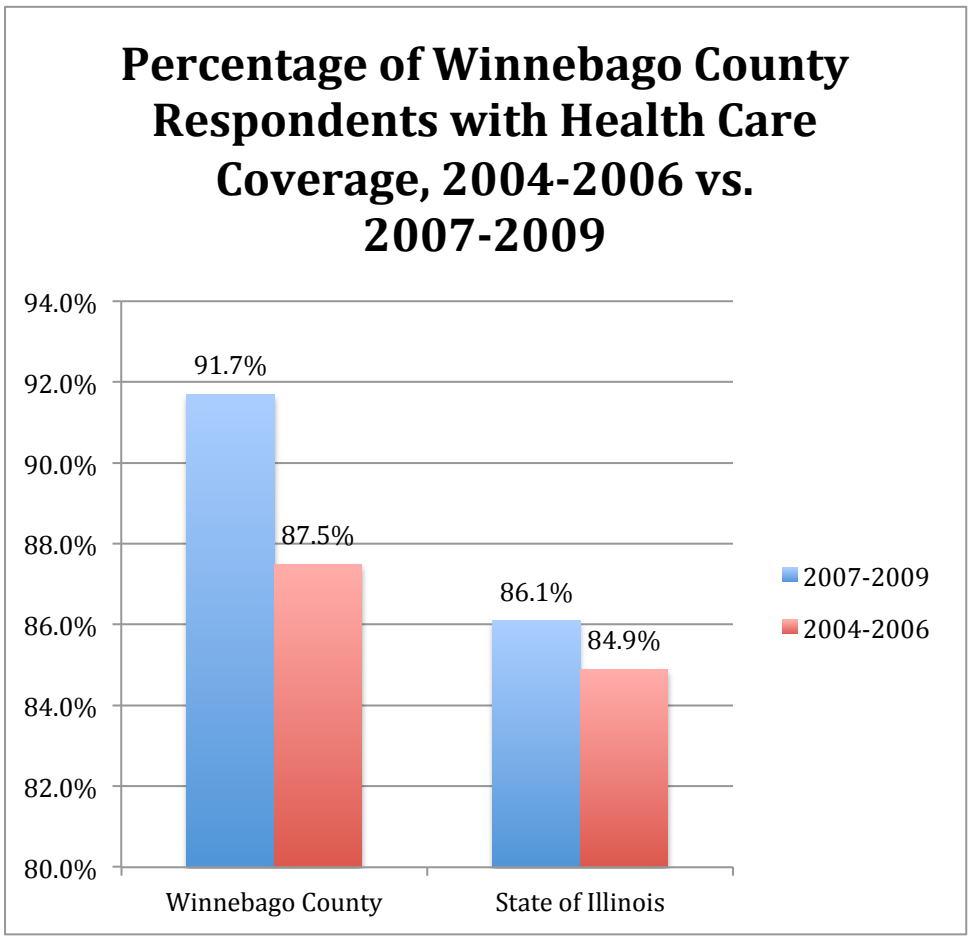
2.1 Accessibility

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 Winnebago County possess health care coverage at a higher percentage than the State of Illinois average.

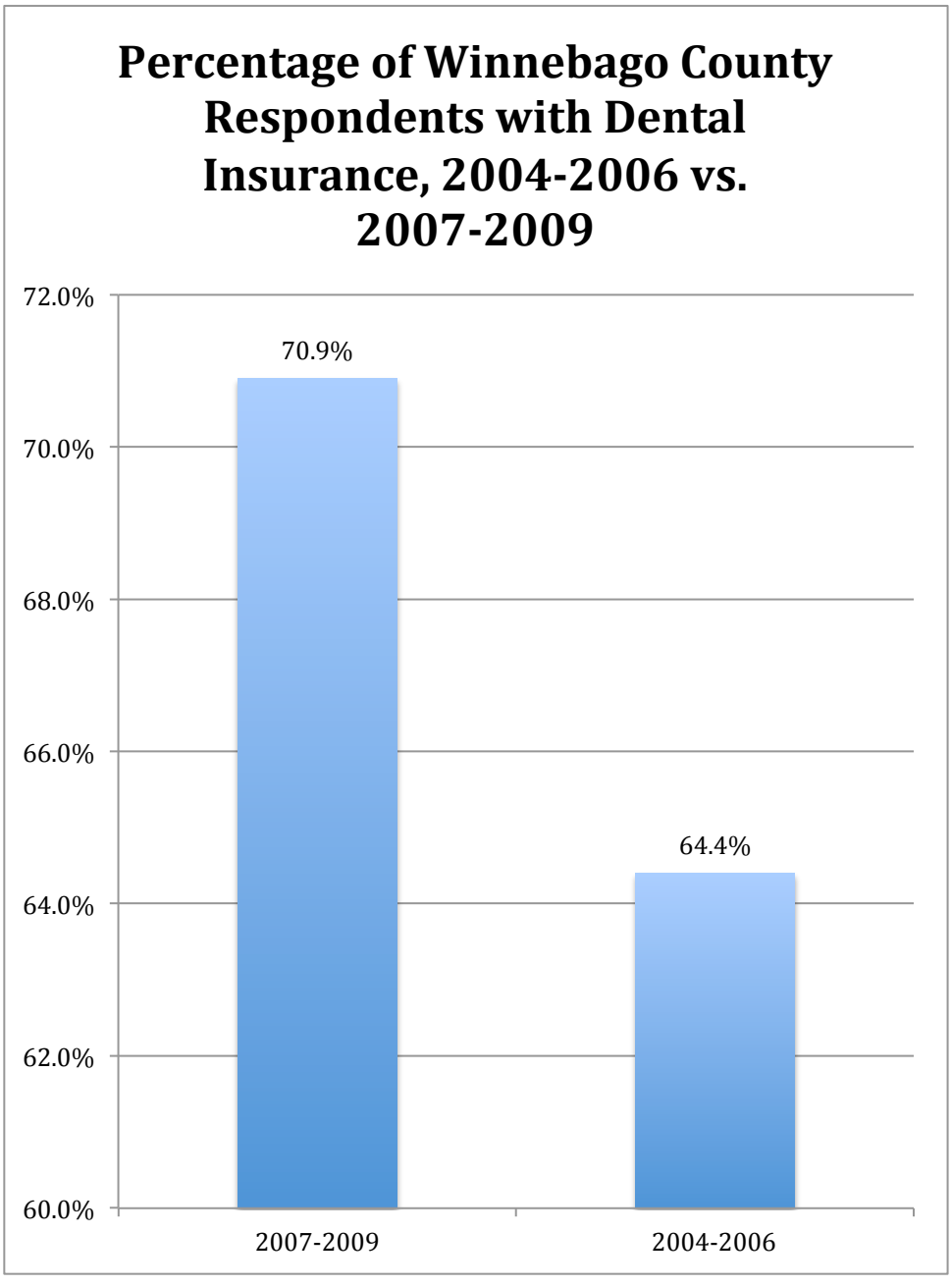
Table 2.1.1-1 Percentage of Winnebago County Respondents with Health Care Coverage, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to dental insurance, the most recent data from the Illinois BRFSS indicate 70.9% of Winnebago County residents possessed dental insurance coverage in 2007-2009 compared to 64.4% of Winnebago County residents in 2004-2006.

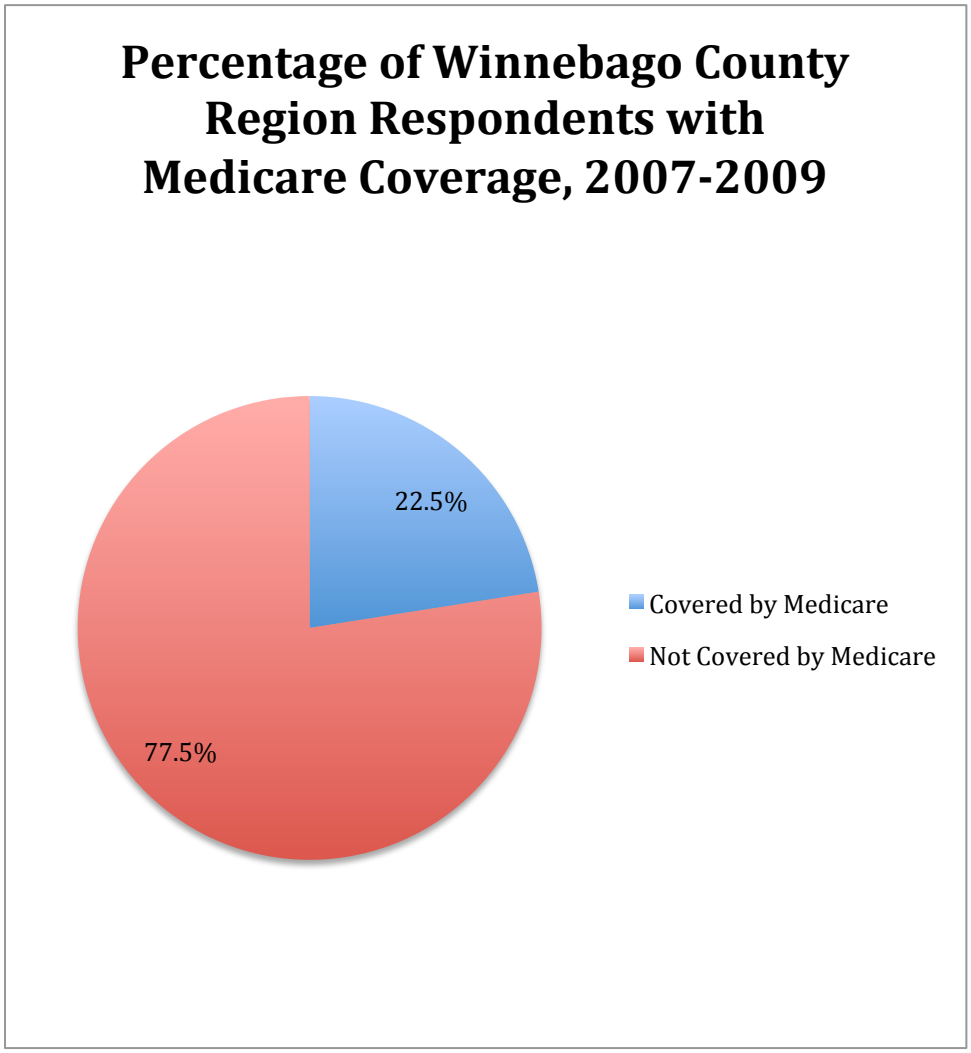
Table 2.1.1-2 Percentage of Winnebago County Respondents with Dental Insurance, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to Medicare Coverage, approximately 23% of Winnebago County residents received Medicare coverage between 2007 and 2009.

Table 2.1.1-3 Percentage of Winnebago County Respondents with Medicare Coverage, 2007-2009



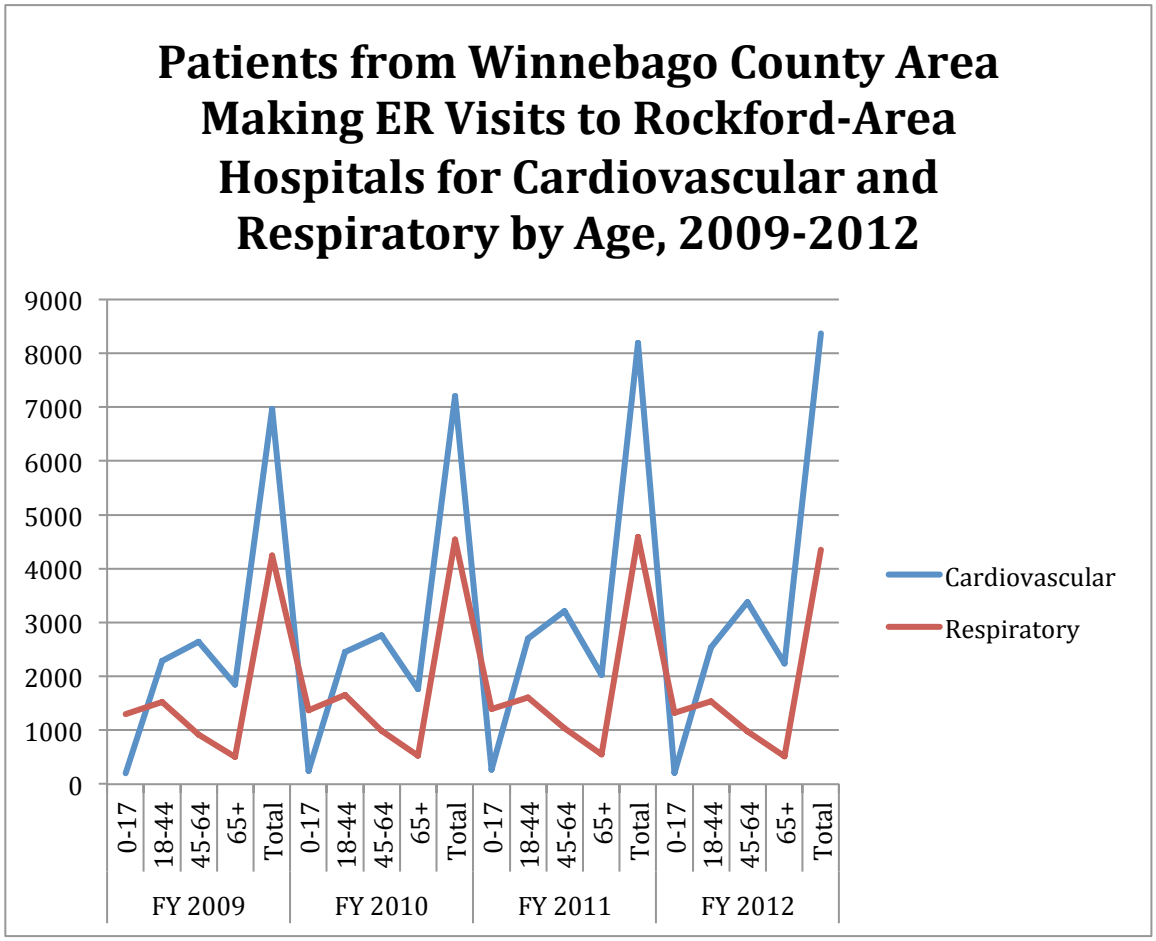
Source: Illinois Behavioral Risk Factor Surveillance System

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 have 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.

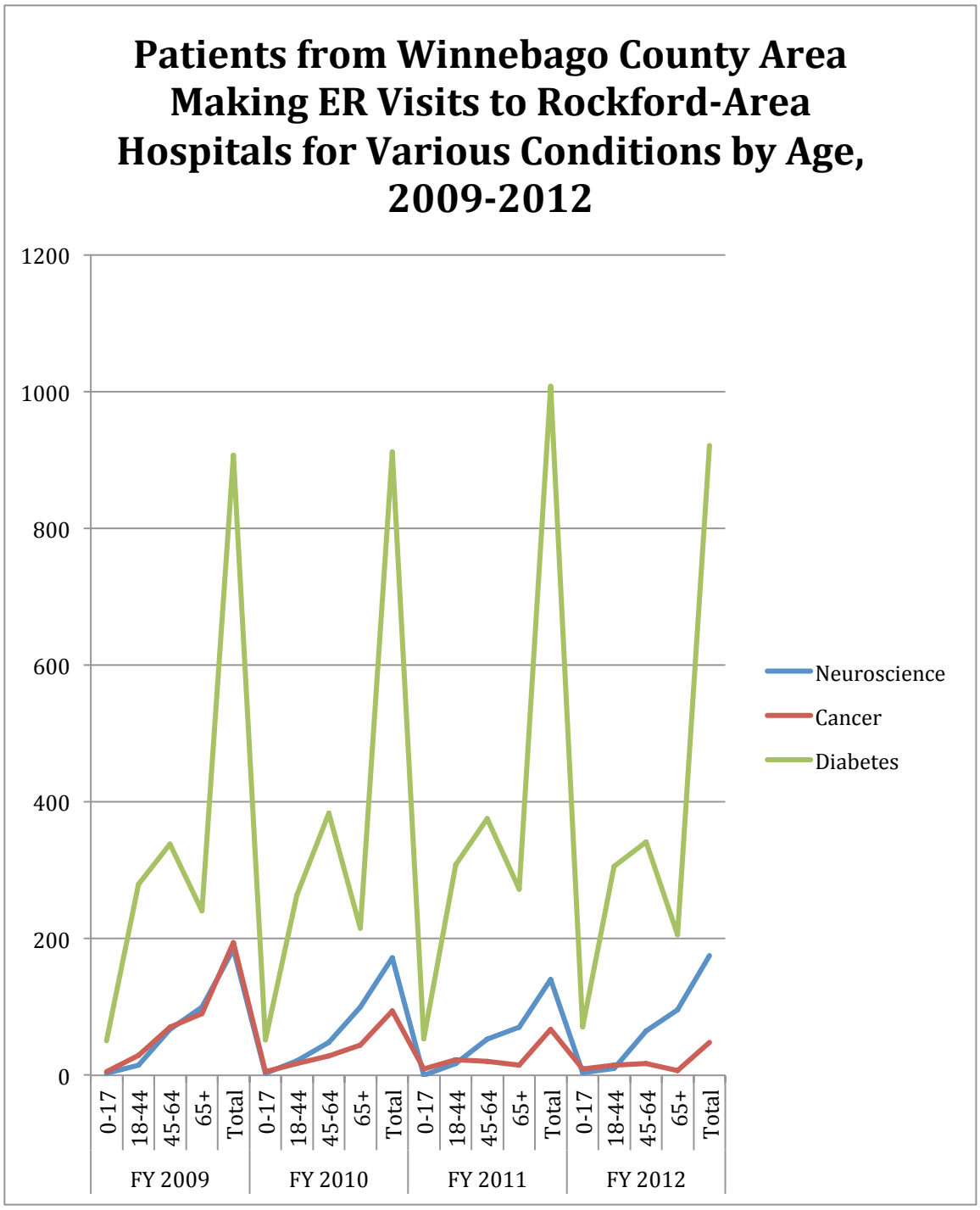
Tables 2.1.2-1 and 2.1.2-2 reflect the number of emergency room visits by condition. Of particular note, the number of emergency room visits for cardiovascular conditions has increased for the Rockford-area hospitals (defined as OSF St. Anthony Medical Center, Swedish American Hospital, and Rockford Memorial Hospitals) by 20% between 2009 and 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 Winnebago County Area Making ER Visits to Rockford-Area Hospitals for Cardiovascular and Respiratory by Age, 2009-2012



Source: COMPData 2012

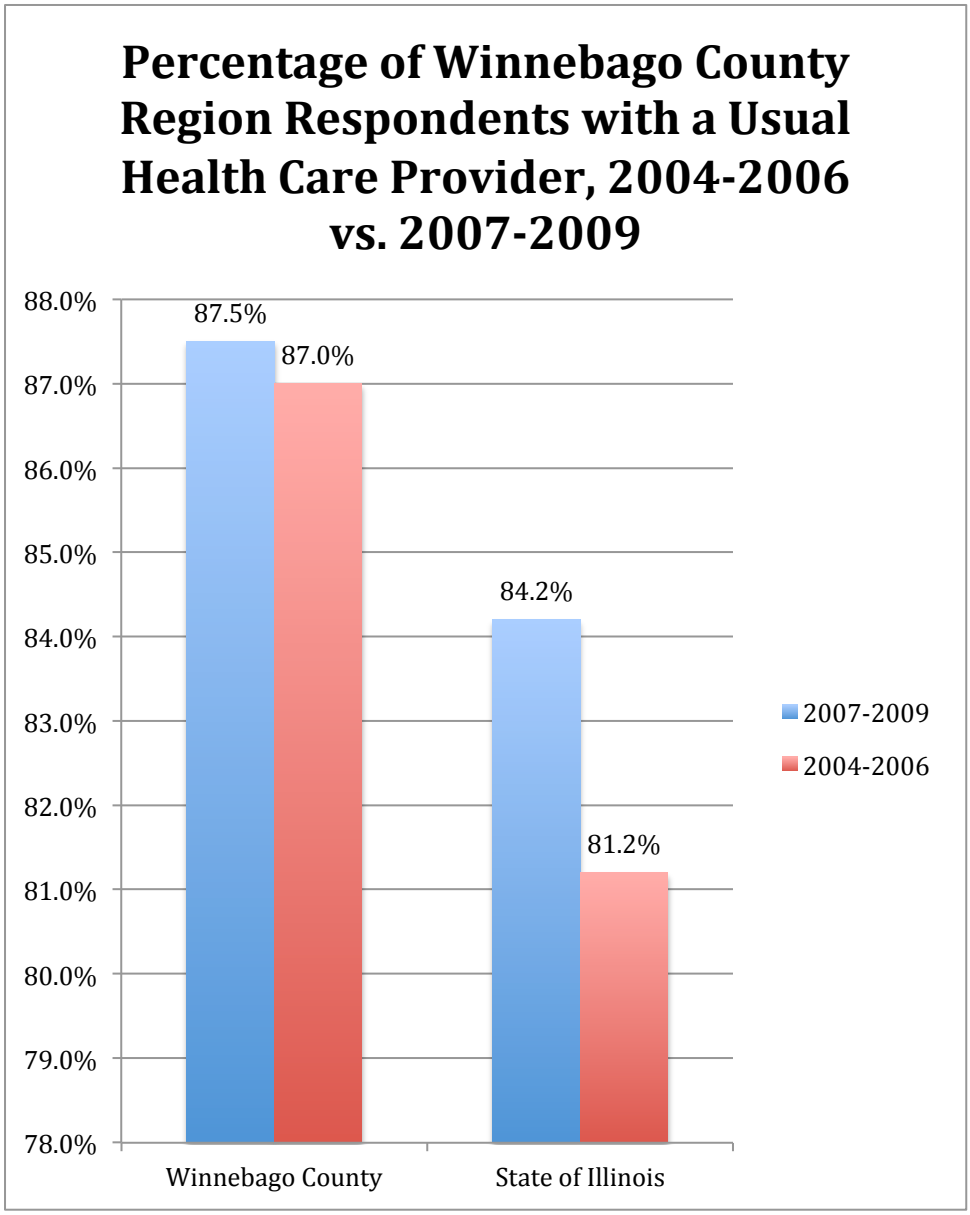
Table 2.1.2-1 Patients from Winnebago County Area Making ER Visits to Rockford-Area Hospitals for Various Conditions by Age, 2009-2012



Source: COMPData 2012

In Winnebago County, the most recent data indicate approximately 88% of residents utilize a regular health care provider. Between 2004-2006 and 2007-2009, the percentage of residents in Winnebago County reporting a usual health care provider increased by 0.5%. Similarly, the percentage of State of Illinois residents increased by 3.0% during the same time frame.

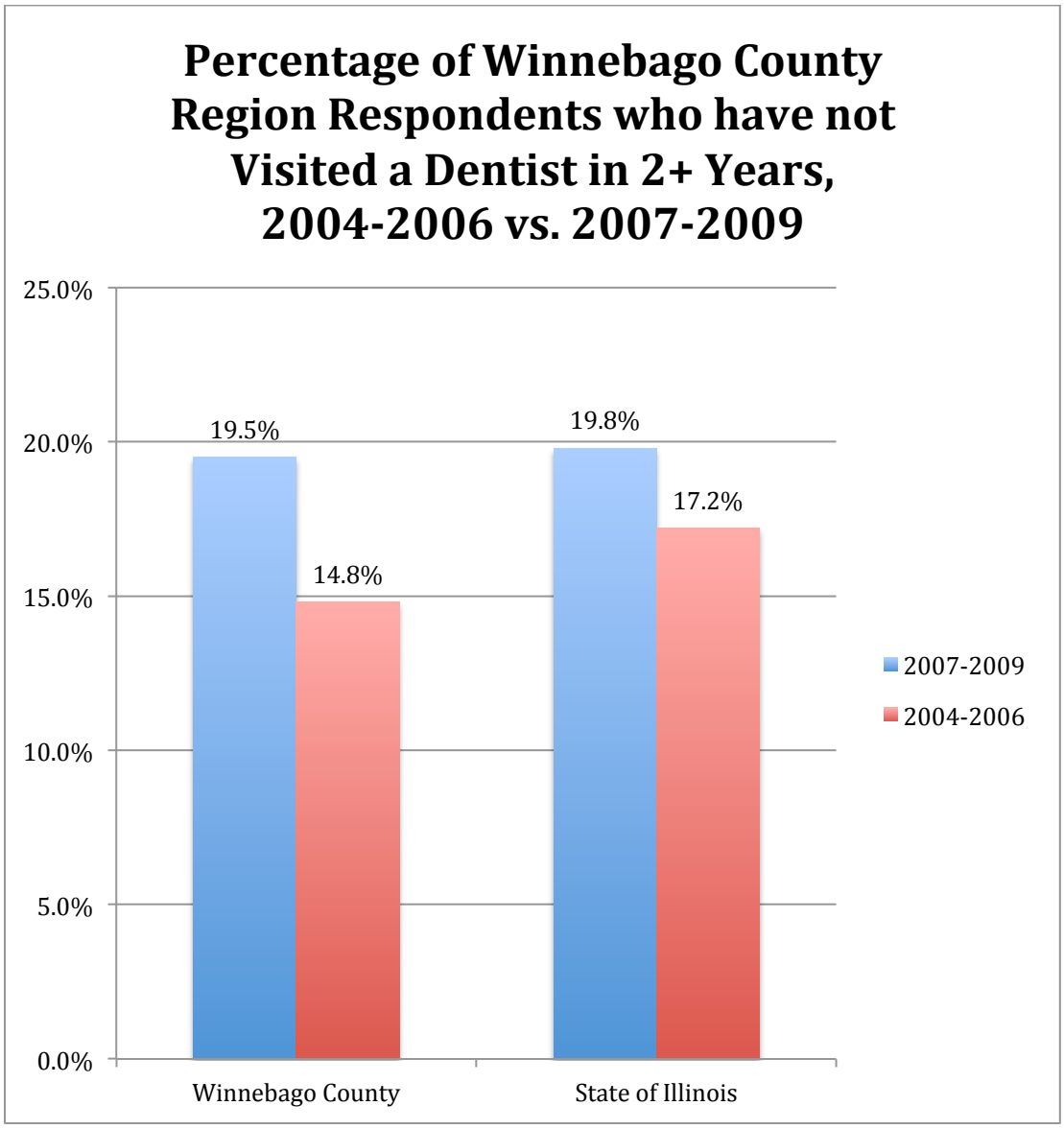
Table 2.1.2-3 Percentage of Winnebago County Respondents with a Usual Health Care Provider, 2004-2006 vs. 2007-2009



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, Winnebago County is slightly better than the State of Illinois average for 2007-2009. Furthermore, Winnebago County denoted negative growth in the percentage of respondents who have not visited a dentist in two or more years, as 19.5% of Winnebago County residents have not visited a dentist in 2 or more years.

Table 2.1.2-4 Percentage of Winnebago County Respondents who have not Visited a Dentist in 2+ Years, 2004-2006 vs. 2007-2009



Source: Illinois Behavioral Risk Factor Surveillance System

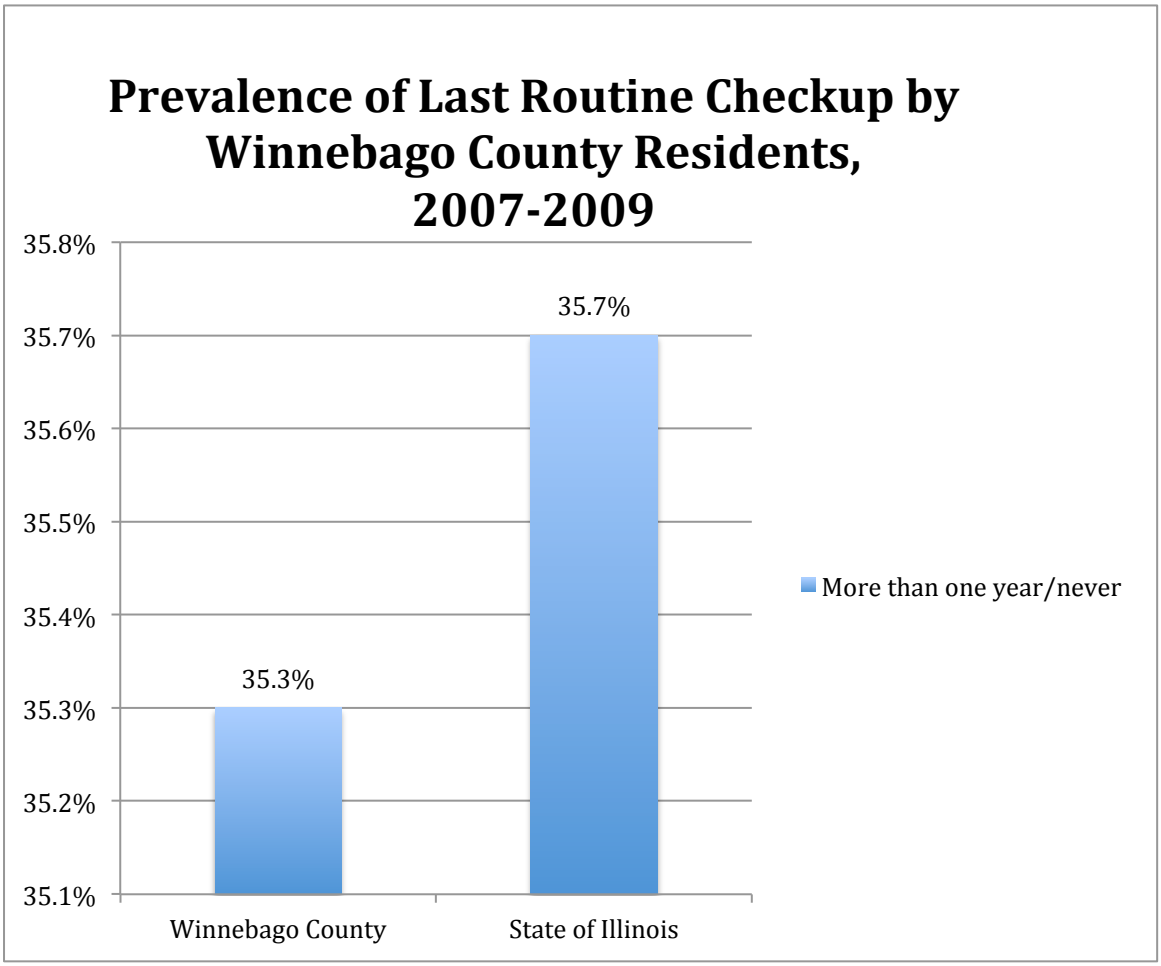
2.2 Wellness

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, 64.7% of residents in Winnebago County report having had a routine checkup within the last year. In addition, 35.3% of Winnebago County residents report that it has been more than one year since their last check-up or they have never had one.

Table 2.2.1-1: Prevalence of Last Routine Checkup by Winnebago County Residents, 2007-2009



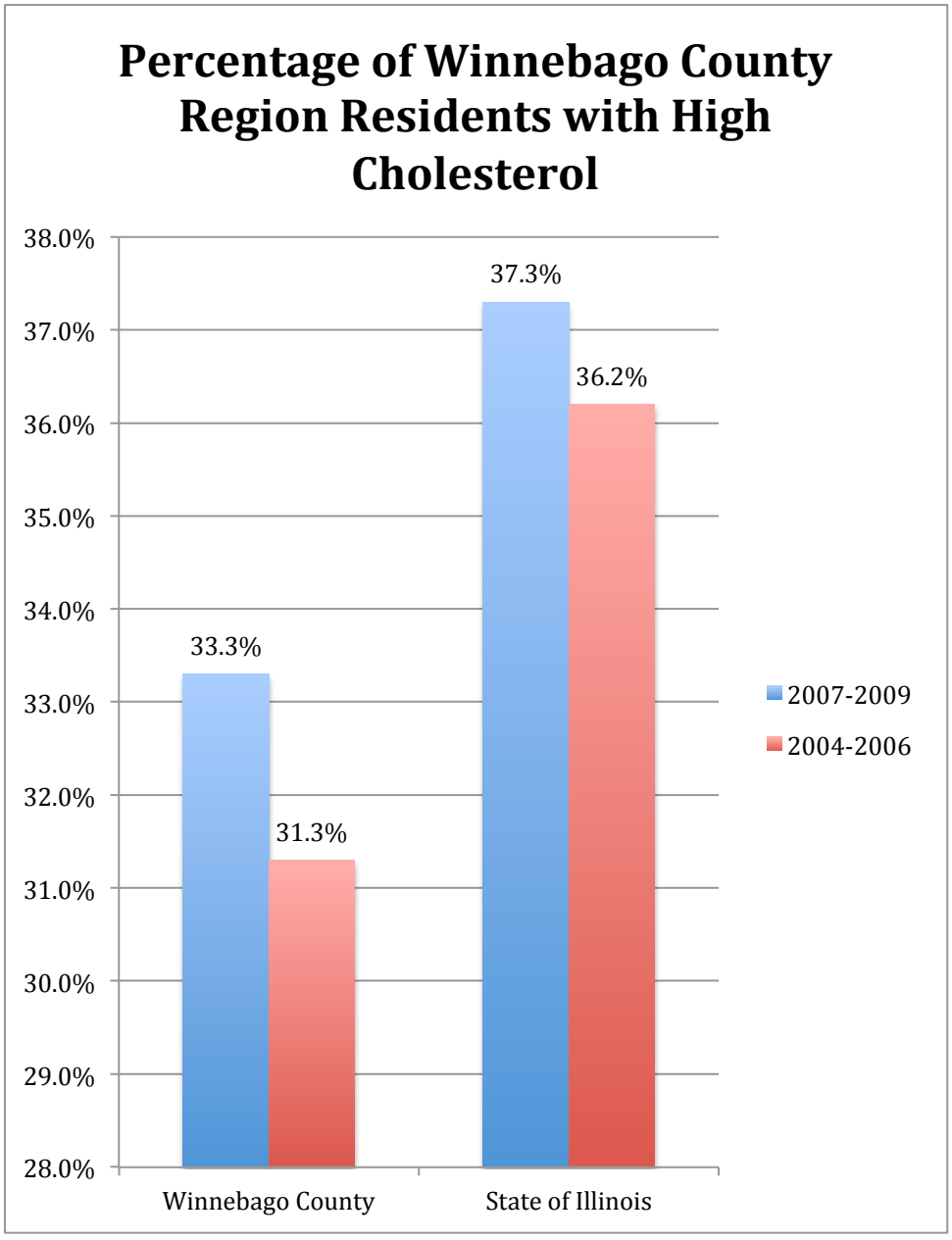
Source: Illinois Behavioral Risk Factor Surveillance System

2.2.2 Early detection

Residents in Winnebago County report varying prevalence of high cholesterol. The percentage of residents who report they have high cholesterol is lower in Winnebago County (33.3%) than the State of Illinois average of 37.3%.

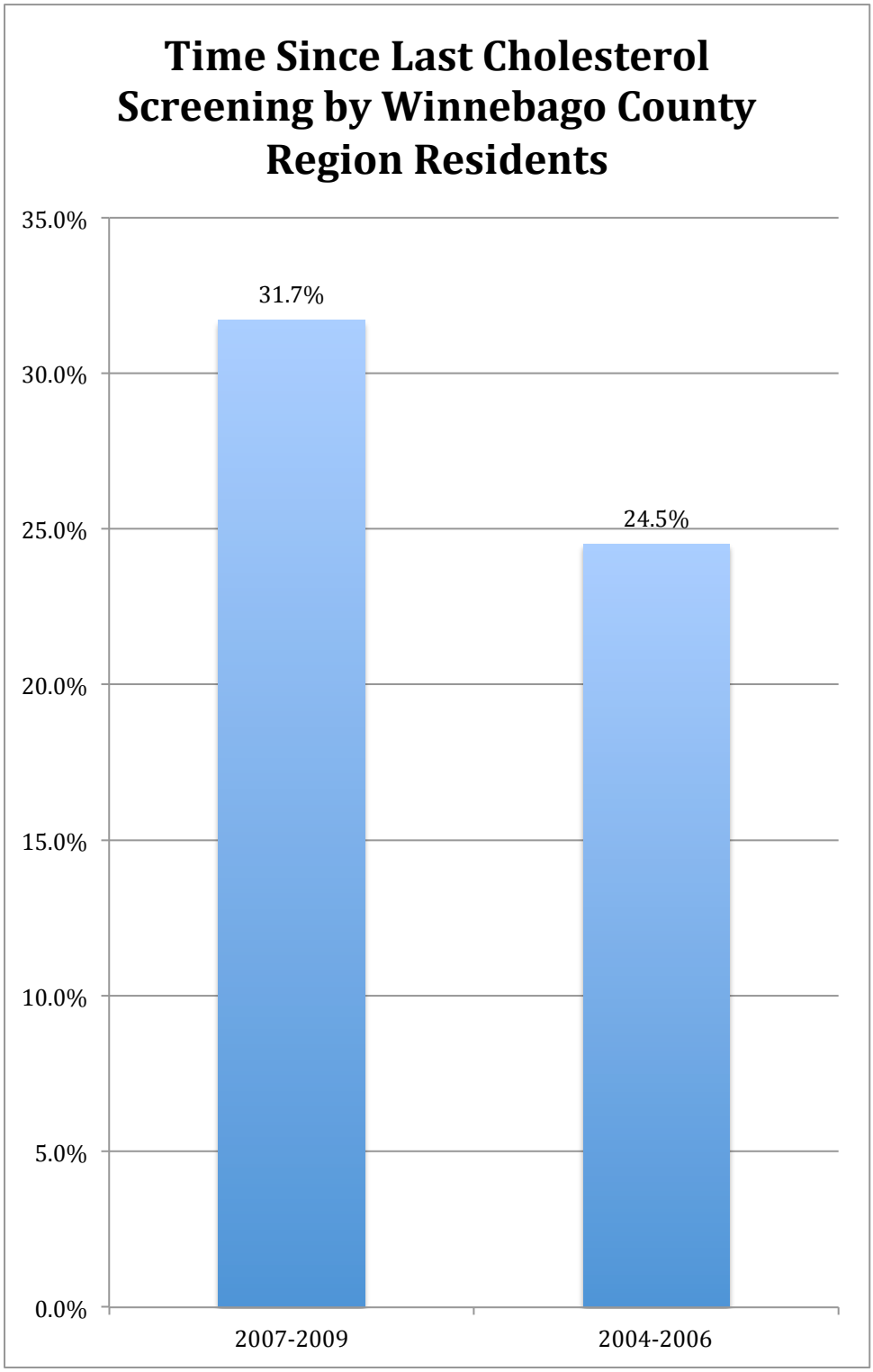
In addition, 68.3% of residents in Winnebago County report having had a cholesterol screening within the last year. These data for 2007-2009 are slightly lower than the State of Illinois average of 68.4%.

Table 2.2.2-1: Percentage of Winnebago County Region Residents with High Cholesterol



Source: Illinois Behavioral Risk Factor Surveillance System

Table 2.2.2-2: Time Since Last Cholesterol Screening by Winnebago County Residents

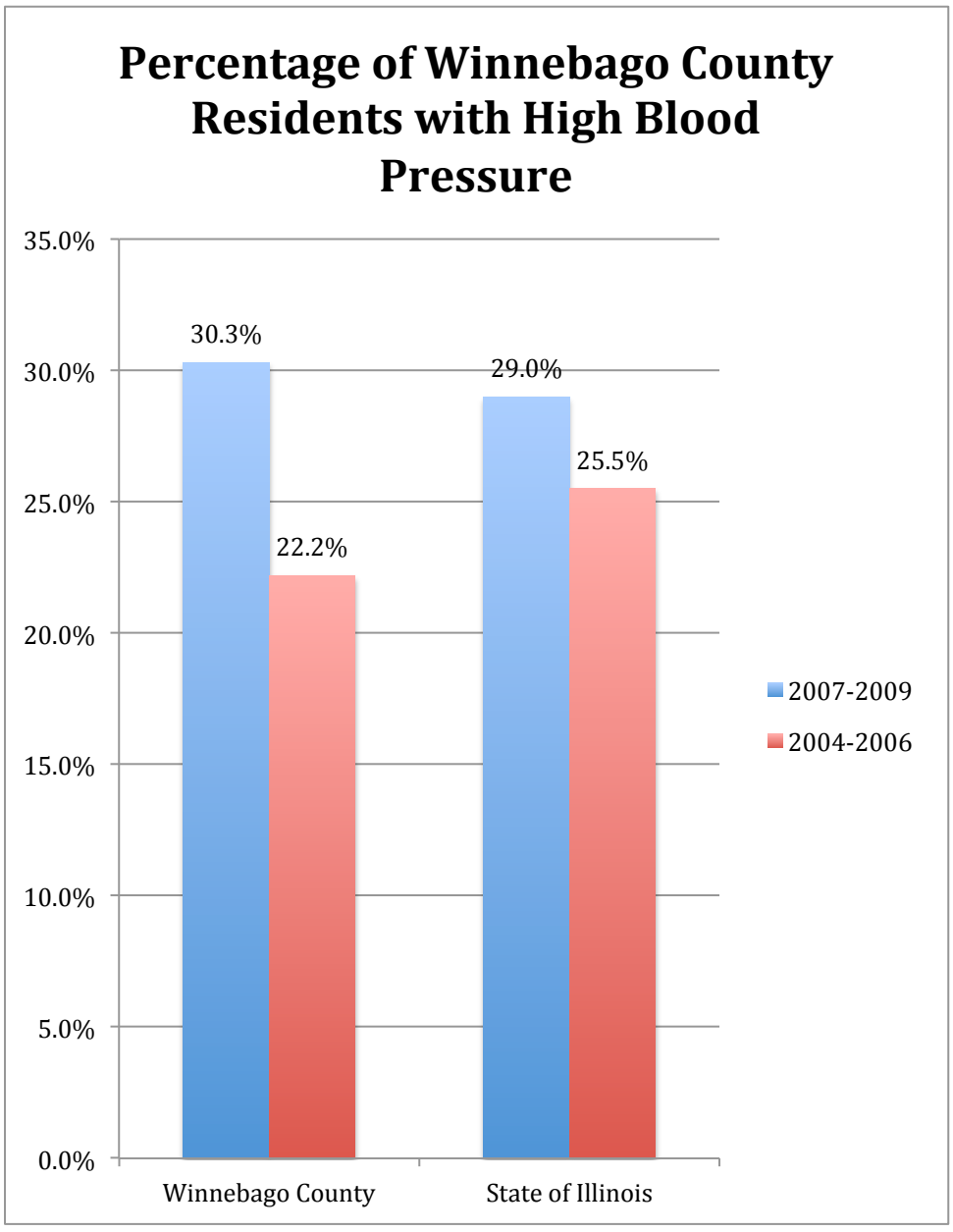


Note: Duration of time is "greater than 1 year" or "never"

Source: Illinois Behavioral Risk Factor Surveillance System

With regard to high blood pressure, the residents in Winnebago County report a slightly higher percentage of individuals with high blood pressure than residents in the State of Illinois as a whole for 2007-2009. Between 2007-2009 and 2004-2006, the percentage of Winnebago County residents reporting they have high blood pressure grew by 36%, whereas the percentage for residents across the State of Illinois only grew by 14%.

Table 2.2.2-3: Percentage of Winnebago County Residents with High Blood Pressure

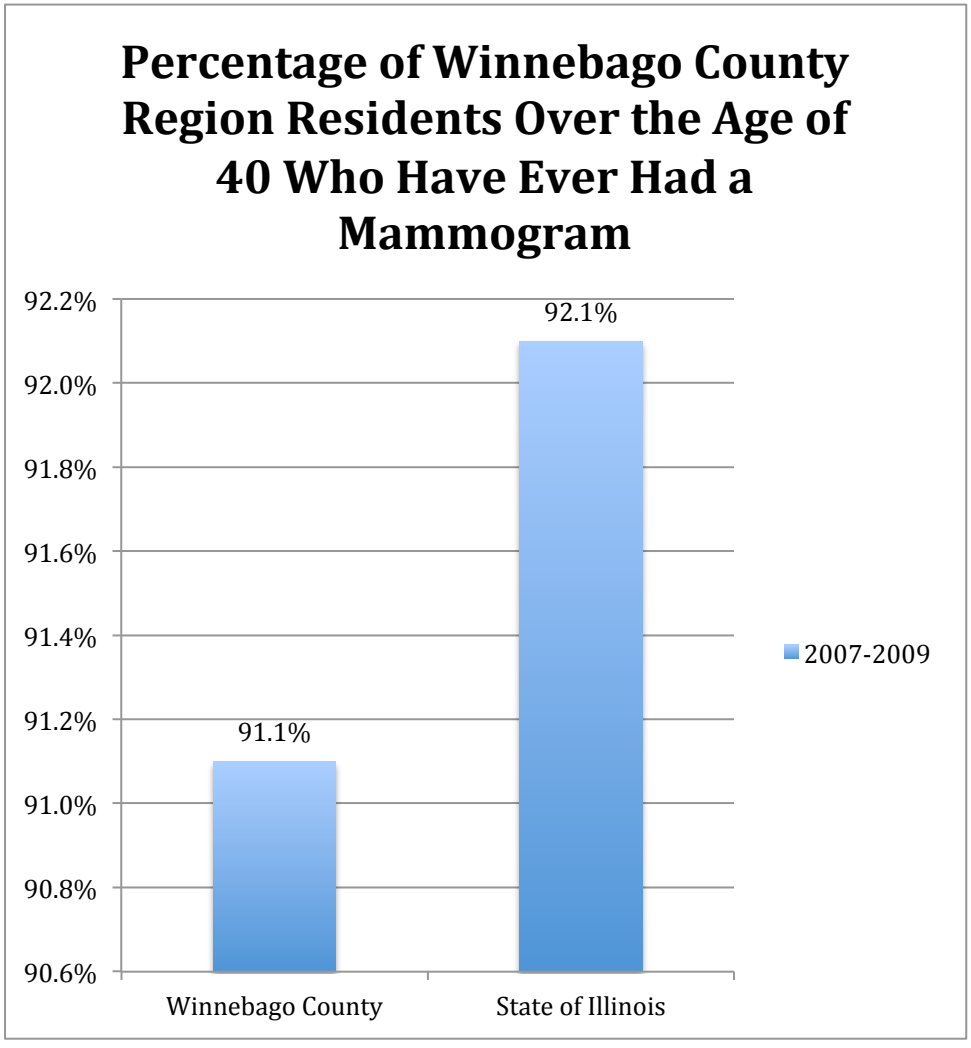


Source: Illinois Behavioral Risk Factor Surveillance System

Mammograms and PSA tests help to screen individuals for breast and prostate cancers. With regard to mammograms, 91.1% of individuals over the age of 40 in Winnebago County report that they have had a mammogram at some point in their life. These data are lower than the State of Illinois average of 92.1%.

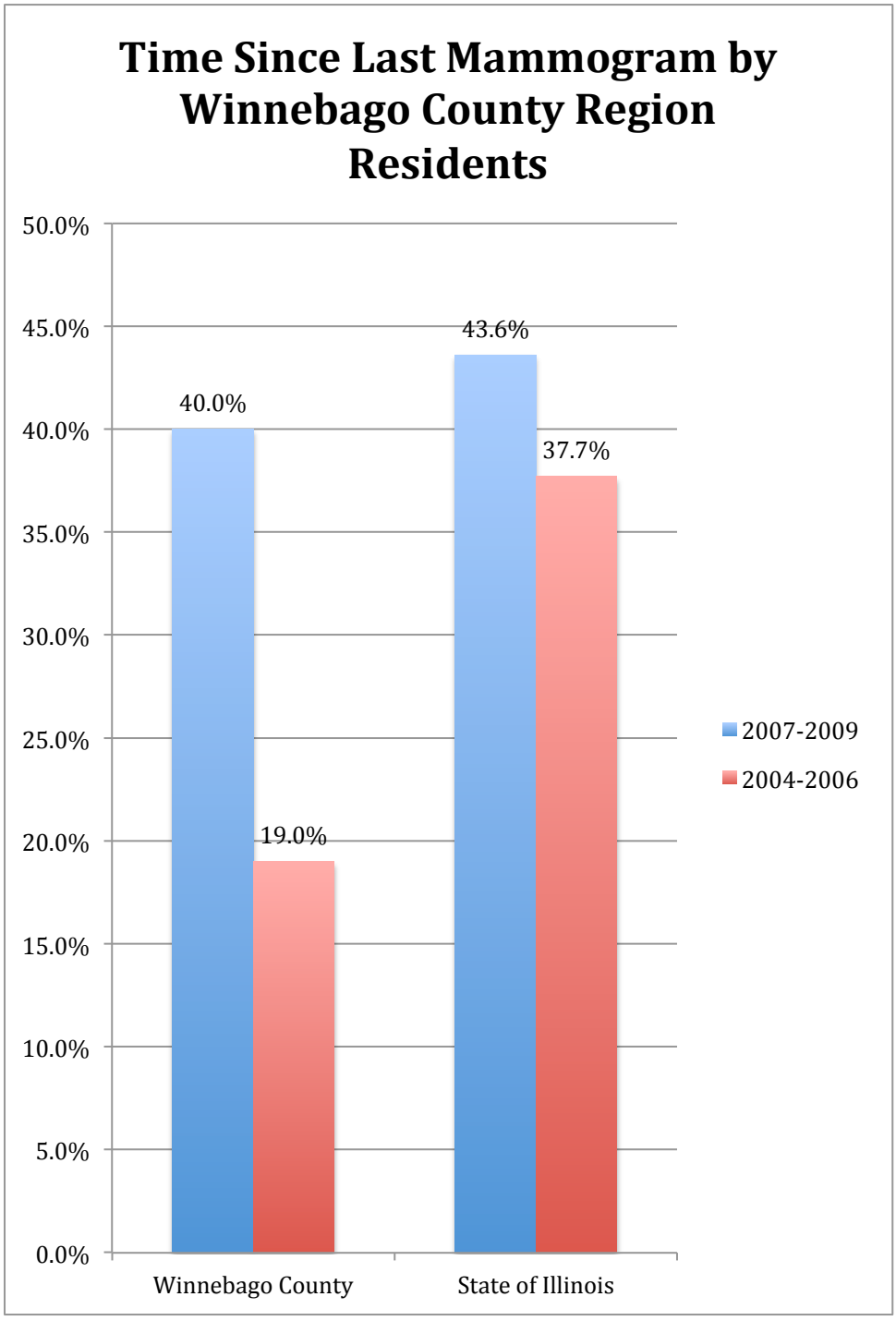
With regard to the time elapsed since one's last mammogram, 60.0% of residents from Winnebago County reported they had a mammogram within the last year. This statistic is better than the State of Illinois average, where only 56.4% of residents reported they had a mammogram within the last year.

Table 2.2.2-4 Percentage of Winnebago County Region 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 by Winnebago County Region Residents

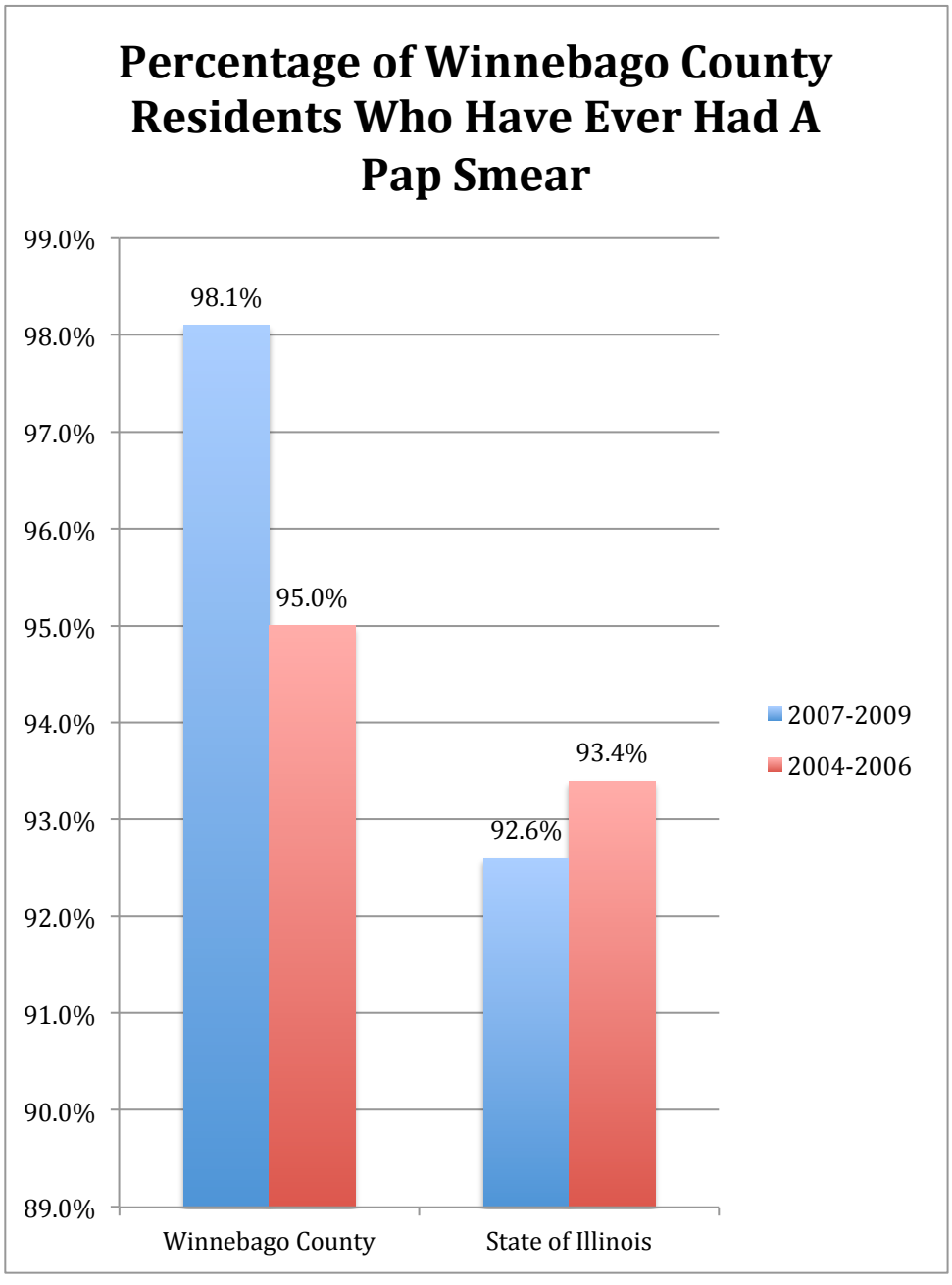


Note: Duration of time is "greater than 1 year" or "never"

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 98.1% of Winnebago County residents have ever had a pap smear. These percentages are higher than the State of Illinois average (92.6%).

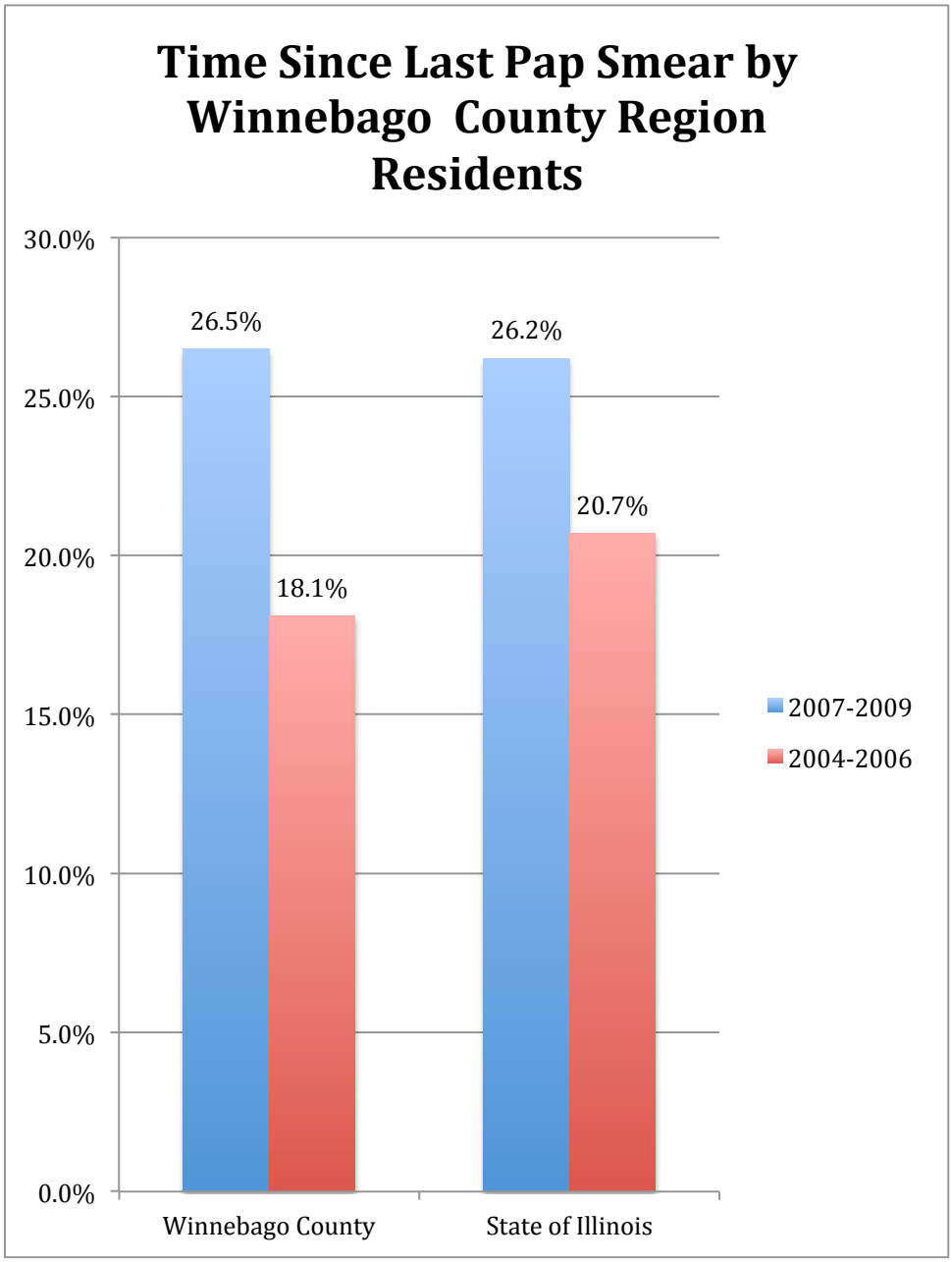
Table 2.2.2-6 Percentage of Winnebago County Residents Who Have Ever Had Pap Smear



Source: Illinois Behavioral Risk Factor Surveillance System

With regard to the time elapsed since one's last pap smear, residents from Winnebago County reported a increase of 8.4 percentage points between 2004-2006 and 2007-2009 for greater than 1 year elapsing between pap smears with 26.5% of residents indicating 1 year or more between pap smears.

Table 2.2.2-9 Time Since Last Pap Smear by Winnebago County Residents



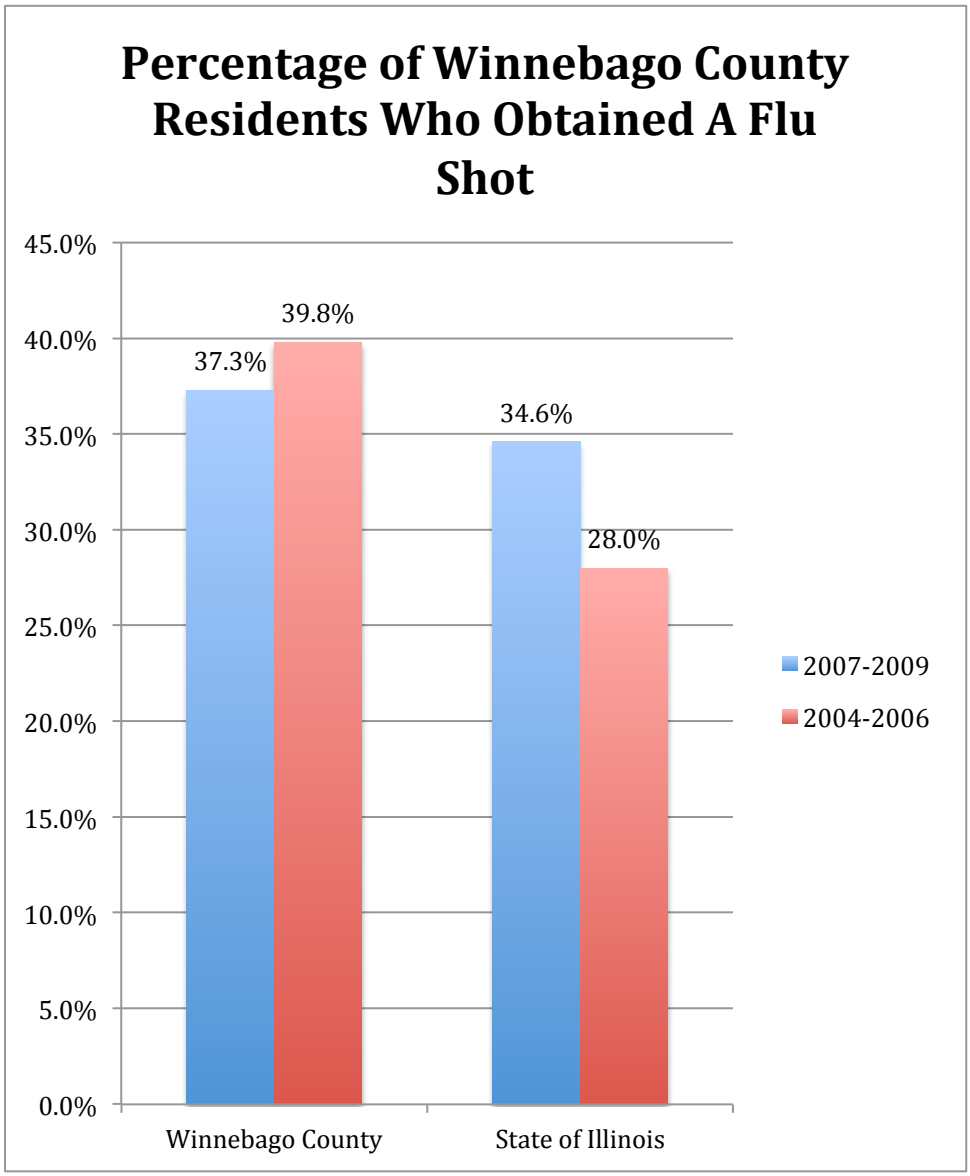
Note: Duration of time is "greater than 1 year" or "never"

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. The percentage of people who have had a flu shot in the past year is approximately 35% for both Winnebago County as well as the State of Illinois, although the Winnebago County average (37.3%) is higher than the state (34.6%). While the State of Illinois experienced positive percentage growth of 24% between 2004-2006 and 2007-2009, Winnebago County experienced negative percentage growth of 6% in the percentage of residents who obtained a flu shot.

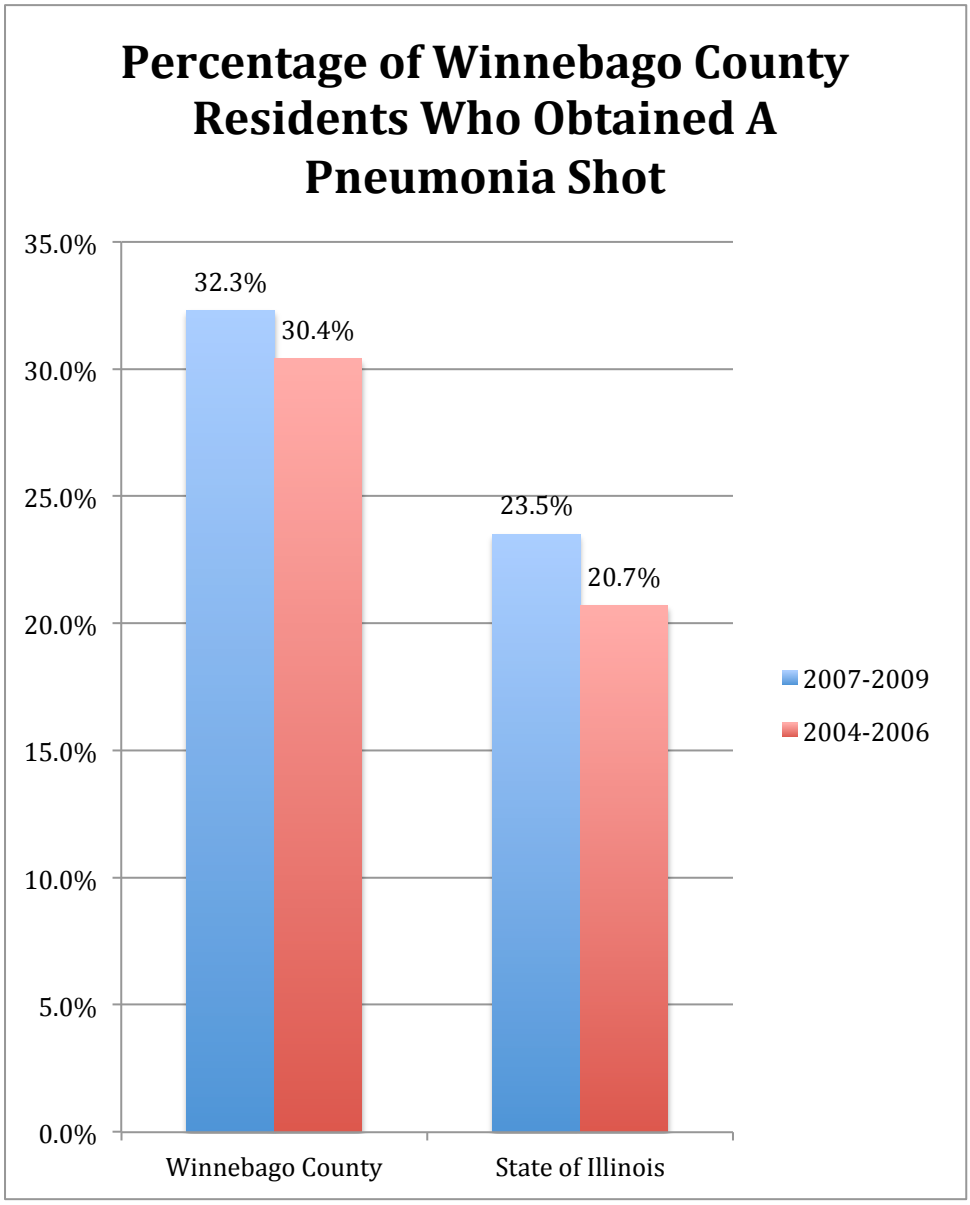
Table 2.2.3-1 Percentage of Winnebago County Residents Who Obtained A Flu Shot



Source: Illinois Behavioral Risk Factor Surveillance System

There was 6% positive growth in the percentage of Winnebago County residents reporting they had ever received a pneumonia shot between 2006 (30.4%) and 2009 (32.3%). For comparison, there was a 14% growth in the percentage of Illinois residents reporting they had ever received a pneumonia shot between 2006 (20.7%) and 2009 (23.5%). Compared to the State of Illinois average (23.5%), a higher percentage of Winnebago County residents (32.3%) receive pneumonia shots.

Table 2.2.3-2 Percentage of Winnebago County Residents Who Obtained A Pneumonia Shot



Source: Illinois Behavioral Risk Factor Surveillance System

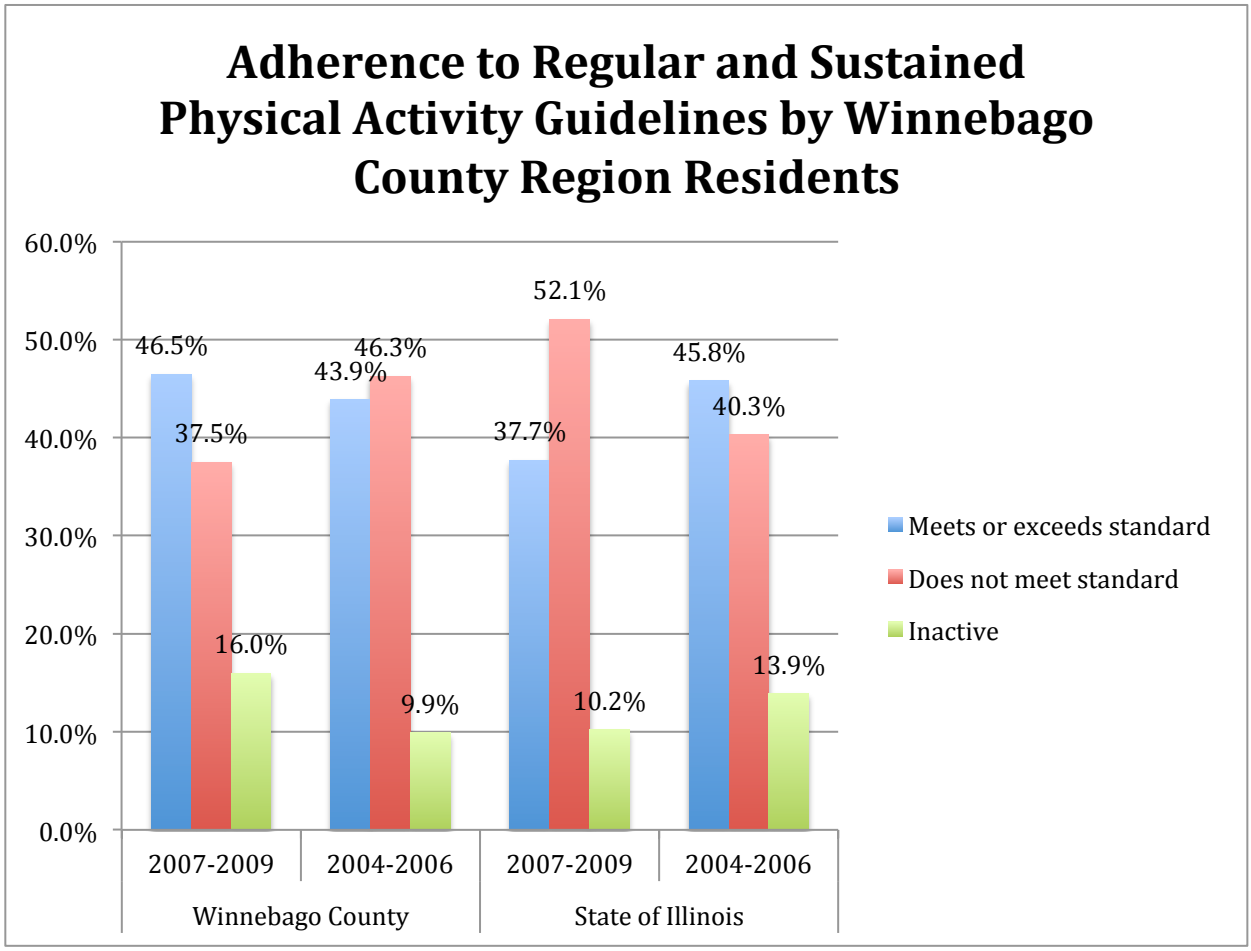
2.2.4 Healthy lifestyle

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

Residents in Winnebago County 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 46.5% of Winnebago County residents meet or exceed the regular and sustained physical activity guidelines.

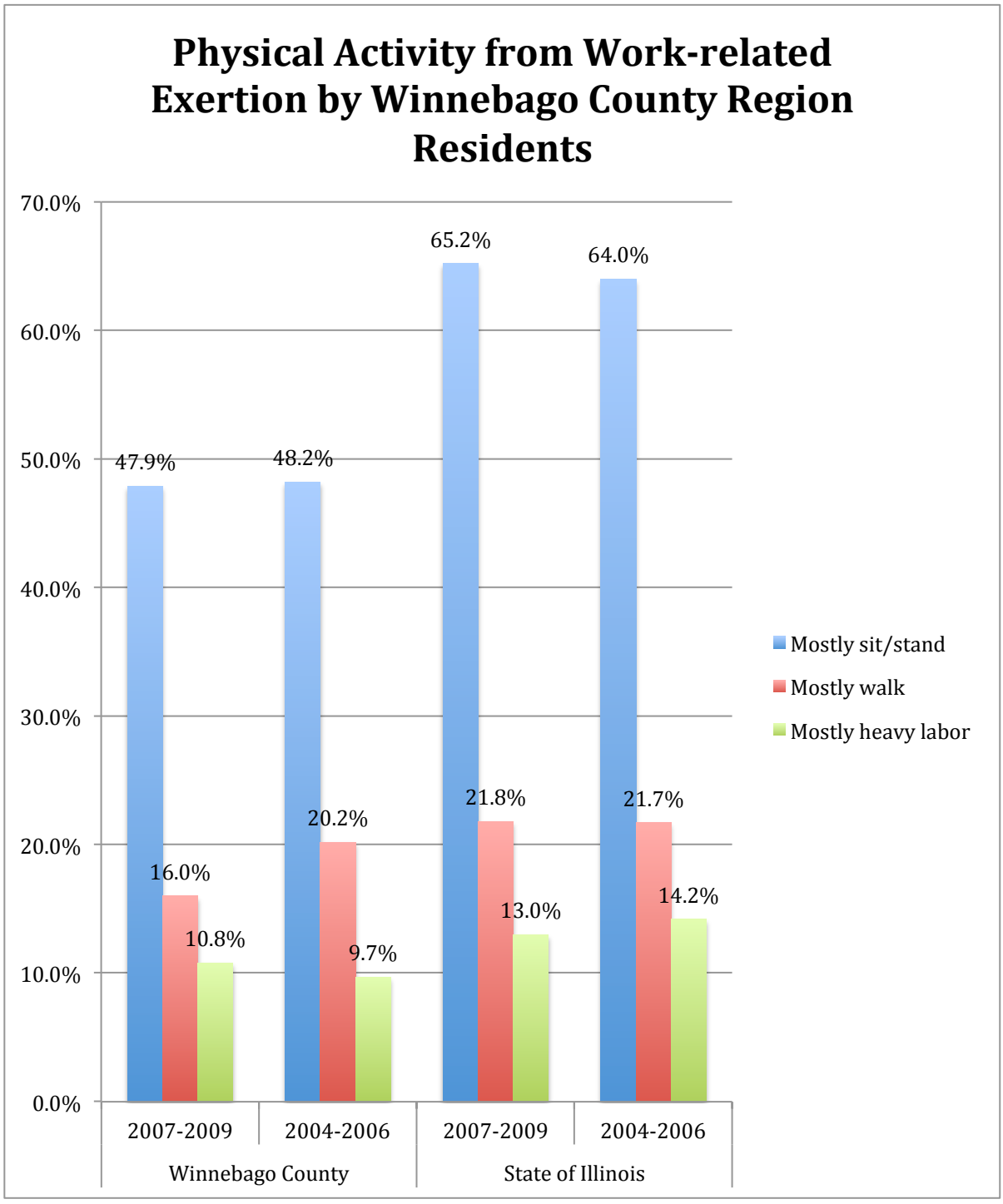
With regard to work-related activity, upwards of 48% of Winnebago County residents mostly sit or stand to execute their job tasks. The specific percentage in 2007-2009 for Winnebago County (47.9%) is lower than the State of Illinois average of 65.2%.

Table 2.2.4-1 Adherence to Regular and Sustained Physical Activity Guidelines by Winnebago County Residents



Source: Illinois Behavioral Risk Factor Surveillance System

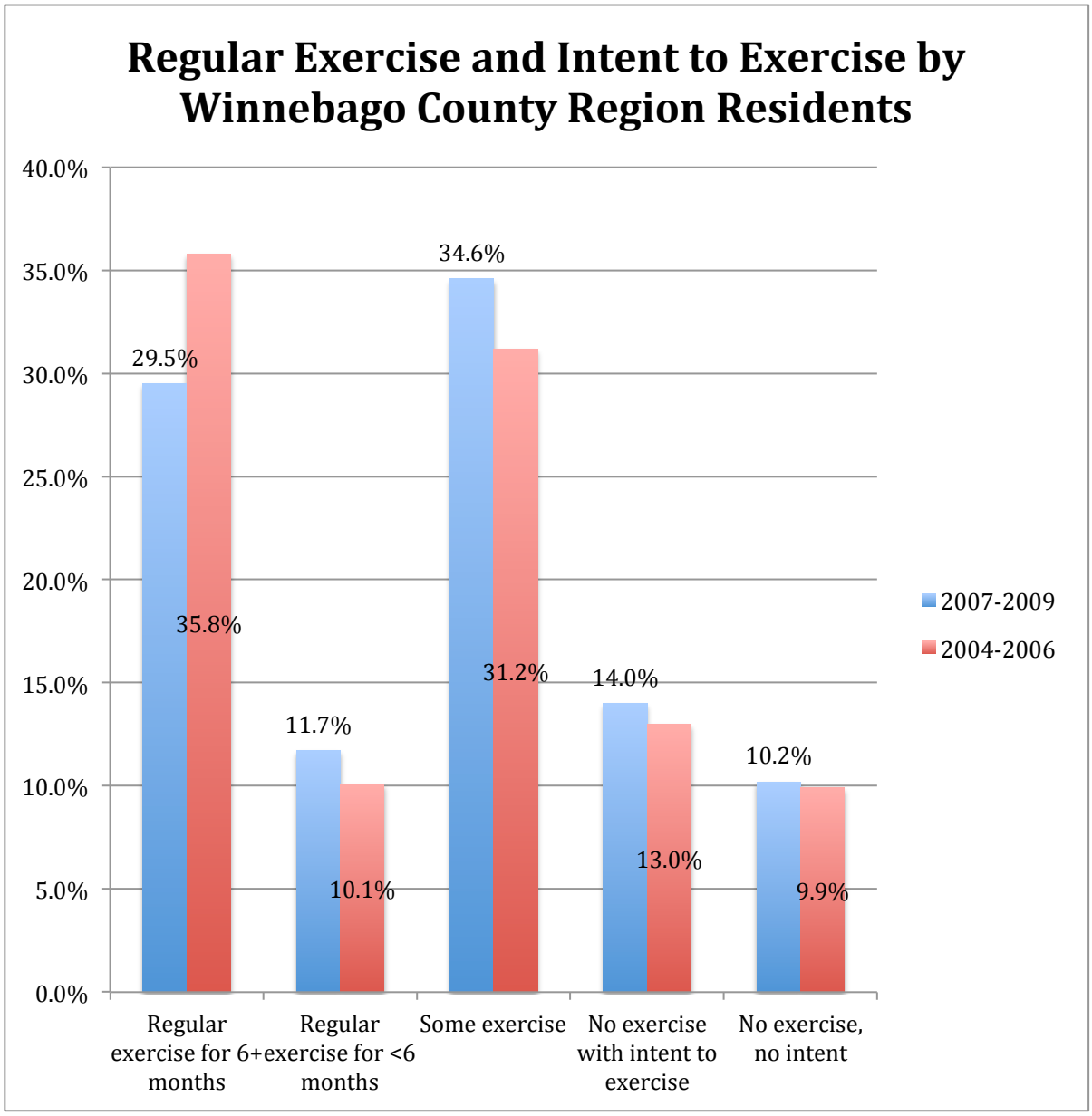
Table 2.2.4-2 Physical Activity from Work-related Exertion by Winnebago County Residents



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 Winnebago County. According to recent data, 14% of the residents in Winnebago County have the intent to exercise but do not actually follow through with exercising. The percentage of individuals in Winnebago County who do not exercise and do not have any desire to exercise slightly increased between the periods of 2004-2006 and 2007-2009.

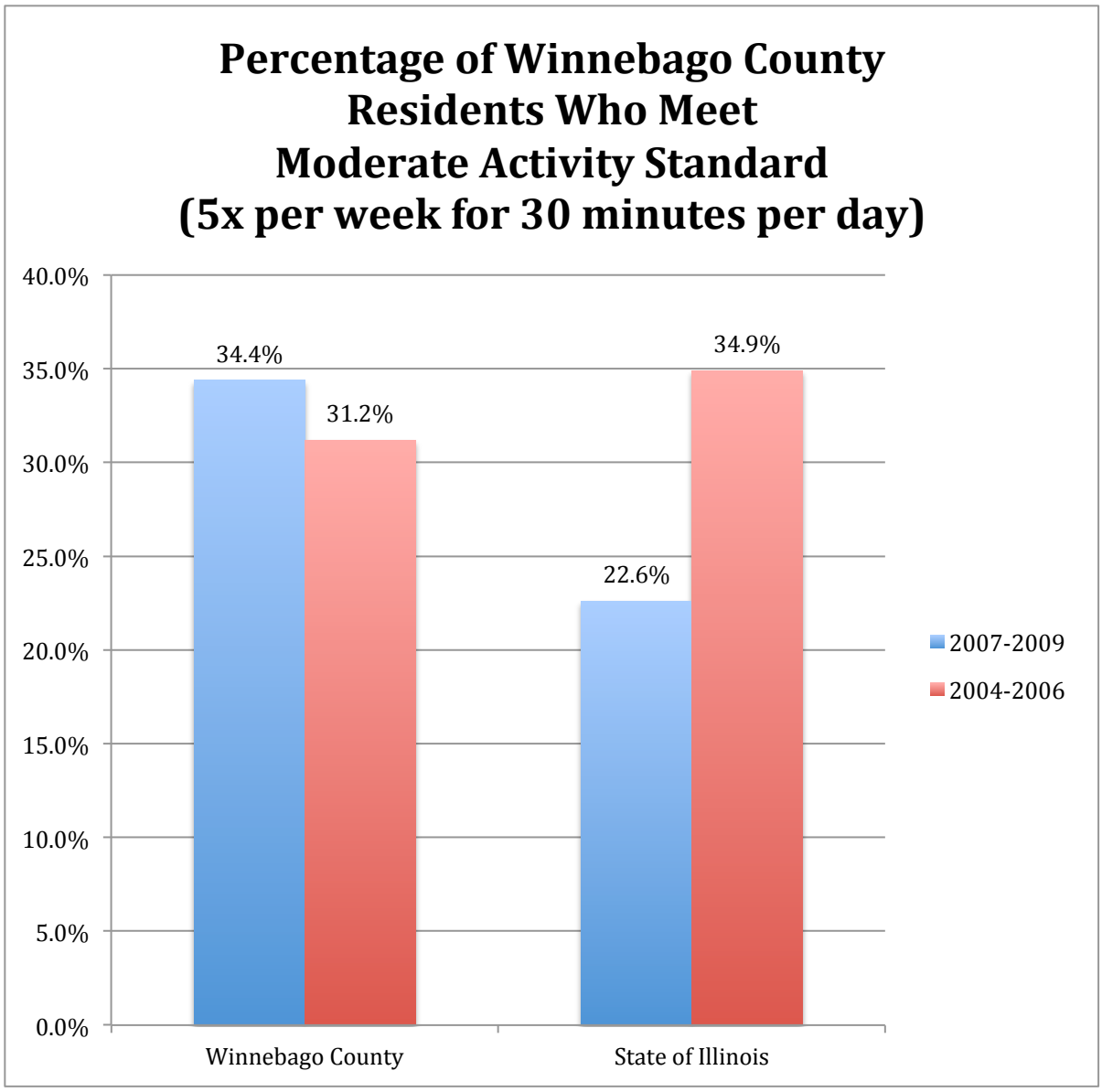
Table 2.2.4-3 Regular Exercise and Intent to Exercise by Winnebago County Residents



Source: Illinois Behavioral Risk Factor Surveillance System

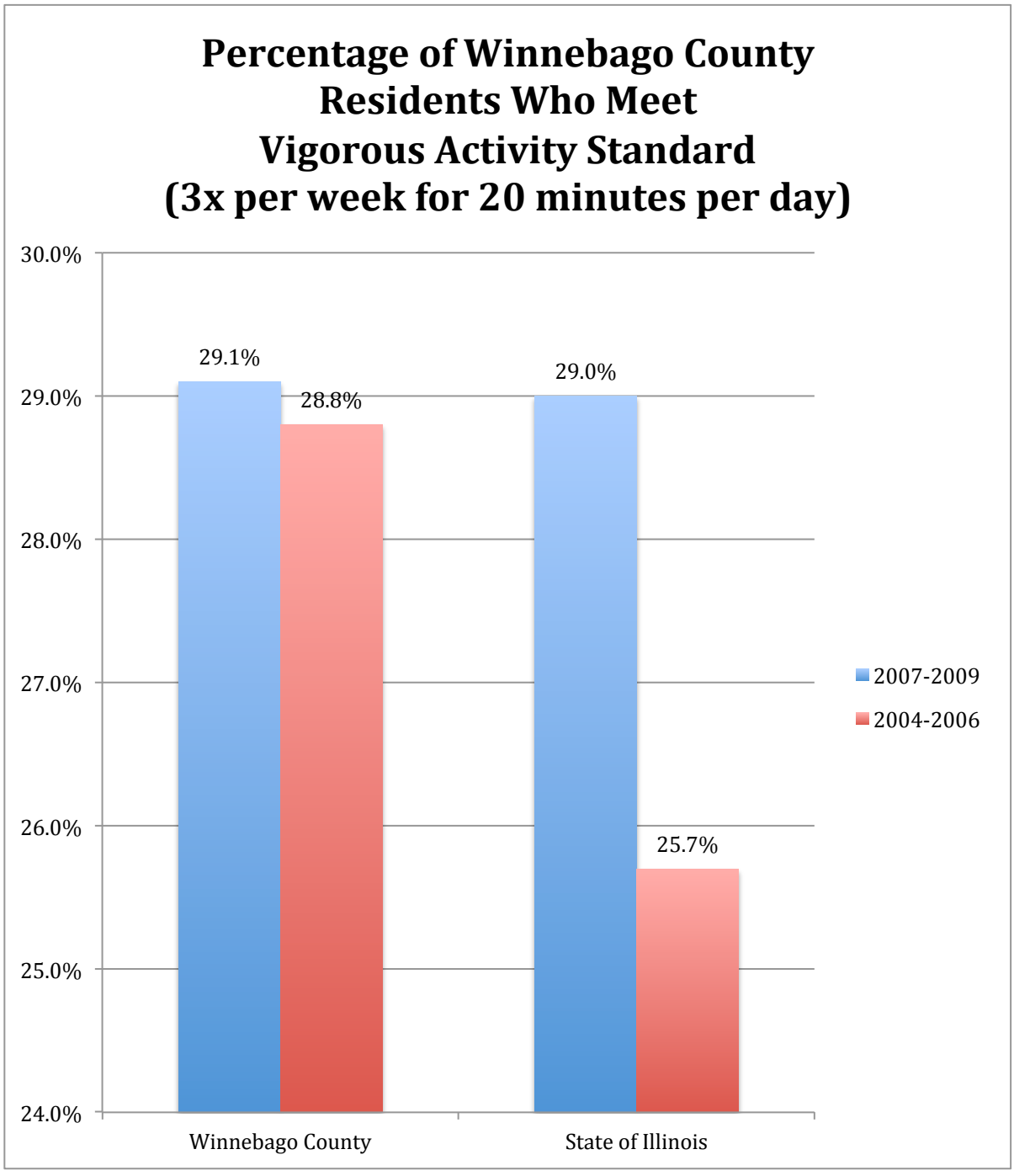
When evaluating physical activity, the intensity and duration of the exercise is important. Residents in Winnebago County report approximately 35% of individuals meet the moderate activity standard compared to 22.6% of individuals in the State of Illinois as a whole. The moderate activity standard (based on heart rate) is defined as five 30-minute sessions per week. With regard to the vigorous activity standard (based on heart rate), defined as three 20-minute sessions per week, Winnebago County residents are slightly higher than the state average.

Table 2.2.4-4 Percentage of Winnebago County Residents Who Meet Moderate Activity Standard (5x per week for 30 minutes per day)



Source: Illinois Behavioral Risk Factor Surveillance System

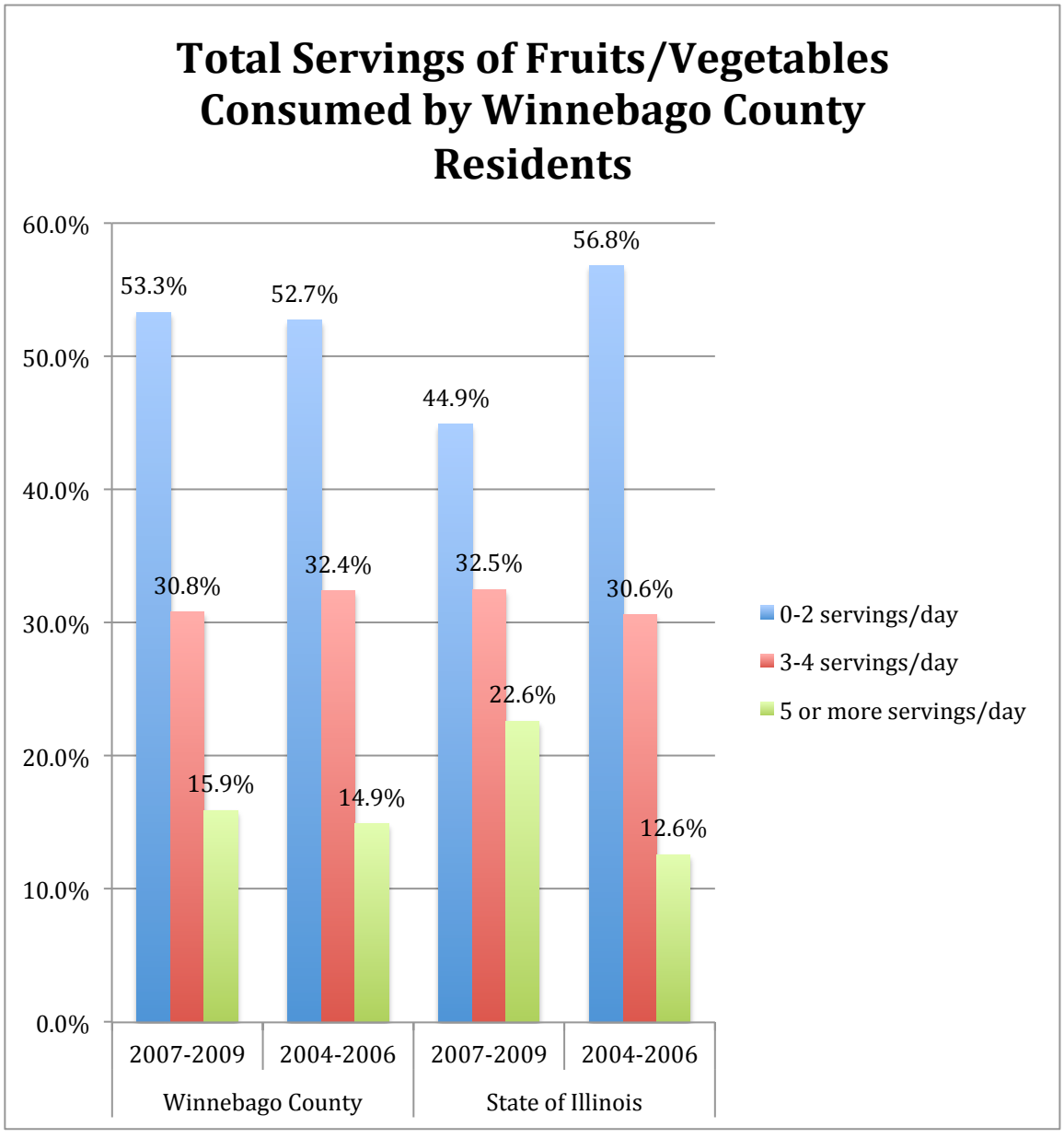
Table 2.2.4-5 Percentage of Winnebago County Residents Who Meet Vigorous Activity Standard (3x per week for 20 minutes per day)



Source: Illinois Behavioral Risk Factor Surveillance System

Nutrition and diet are critical to preventative care. Over half (53.3%) of Winnebago County residents report low consumption (0-2 servings per day) of fruits and vegetables. This percentage is higher than the State of Illinois average of 44.9% for the same measure. Note that the percentage of Winnebago County residents who consume 5 or more servings per day is lower (15.9%) than the State of Illinois percentage (22.6%).

Table 2.2.4-6 Total Servings of Fruits/Vegetables Consumed by Winnebago County Residents

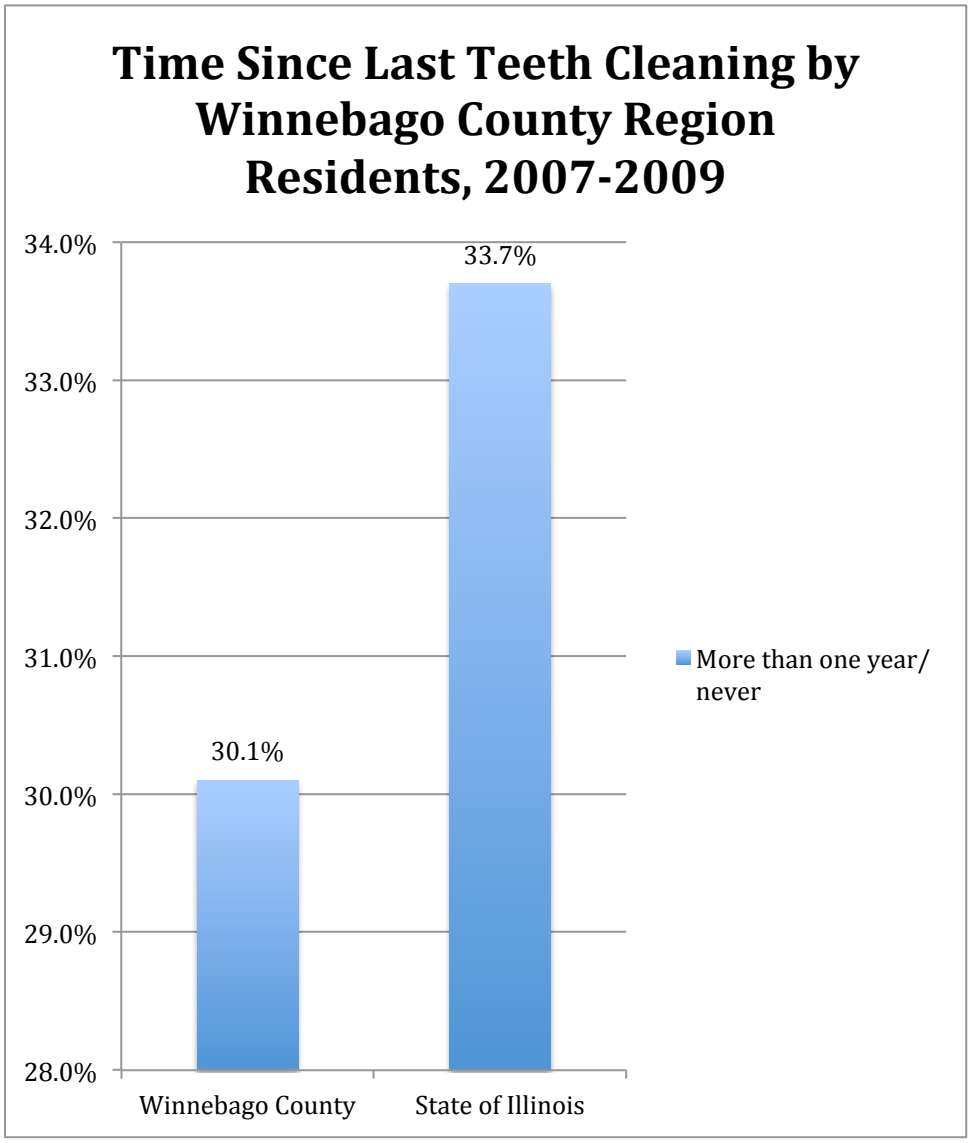


Source: Illinois Behavioral Risk Factor Surveillance System

2.2.5 Oral Health

Research suggests that poor oral hygiene leads to more serious medical concerns. For the 2007-2009 time frame, 69.9% of Winnebago County residents had their teeth cleaned within the last year. The percentages for Winnebago County are better than that of the State of Illinois average (66.3%).

Table 2.2.5-1 Time Since Last Teeth Cleaning by Winnebago County Region Residents



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 Winnebago County, approximately 23% of residents rely on Medicare coverage as their primary insurance coverage. Recent data suggest nearly 92% of Winnebago County residents possess medical health care coverage. This percentage is well above the 86% response rate for the State of Illinois. Similarly, dental insurance coverage across Winnebago County is higher than the state average, as 70.9% of Winnebago County residents report possessing 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 predictors 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. Research suggests many rural communities have dramatic medical professional shortages.[8] With regard to women's health issues, a higher percentage of women in Winnebago County report the time since their last mammogram was more than one year ago (49.2%) when compared to women across the State of Illinois (43.6%). Furthermore, growth rates for this category are dramatically higher in Winnebago County (124% growth between 2006 and 2009) than in the State of Illinois (15% growth between 2006 and 2009).

26.5% of Winnebago 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).

18.9% of Winnebago County female residents report more than one year has elapsed since their last clinical breast exam. For comparison, 15.9% of female residents across the state of Illinois report more than one year has elapsed since their last clinical breast exam for the same time period (2007-2009).

Finally, according to the BRFSS, 91.1% of Winnebago County female residents age 40 and over report they have ever had a mammogram. This figure is 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 Winnebago County, the percentage of residents who obtained a flu shot is 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.*

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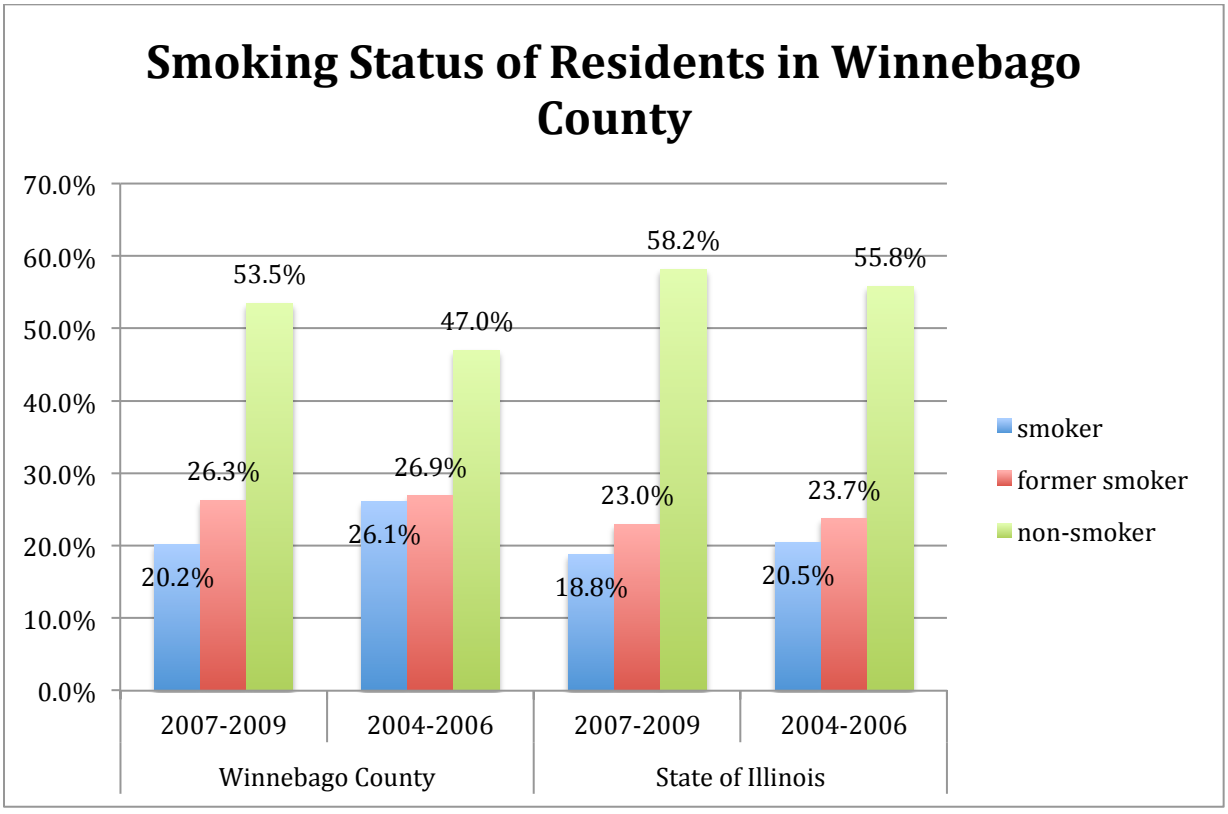
CHAPTER 3. SYMPTOMS AND PREDICTORS

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 Winnebago County yet smoking rates are still higher than the State of Illinois averages. There was a 23% decrease in the percentage of Winnebago County residents reporting they were current smokers between 2006 (26.1%) and 2009 (20.2%). For comparison, there was a 8% decrease in the percentage growth of Illinois residents reporting they were current smokers between 2006 (20.5%) and 2009 (18.8%). Approximately 54% of Winnebago County residents classify themselves as non-smokers, whereas approximately 26% of residents are former smokers.

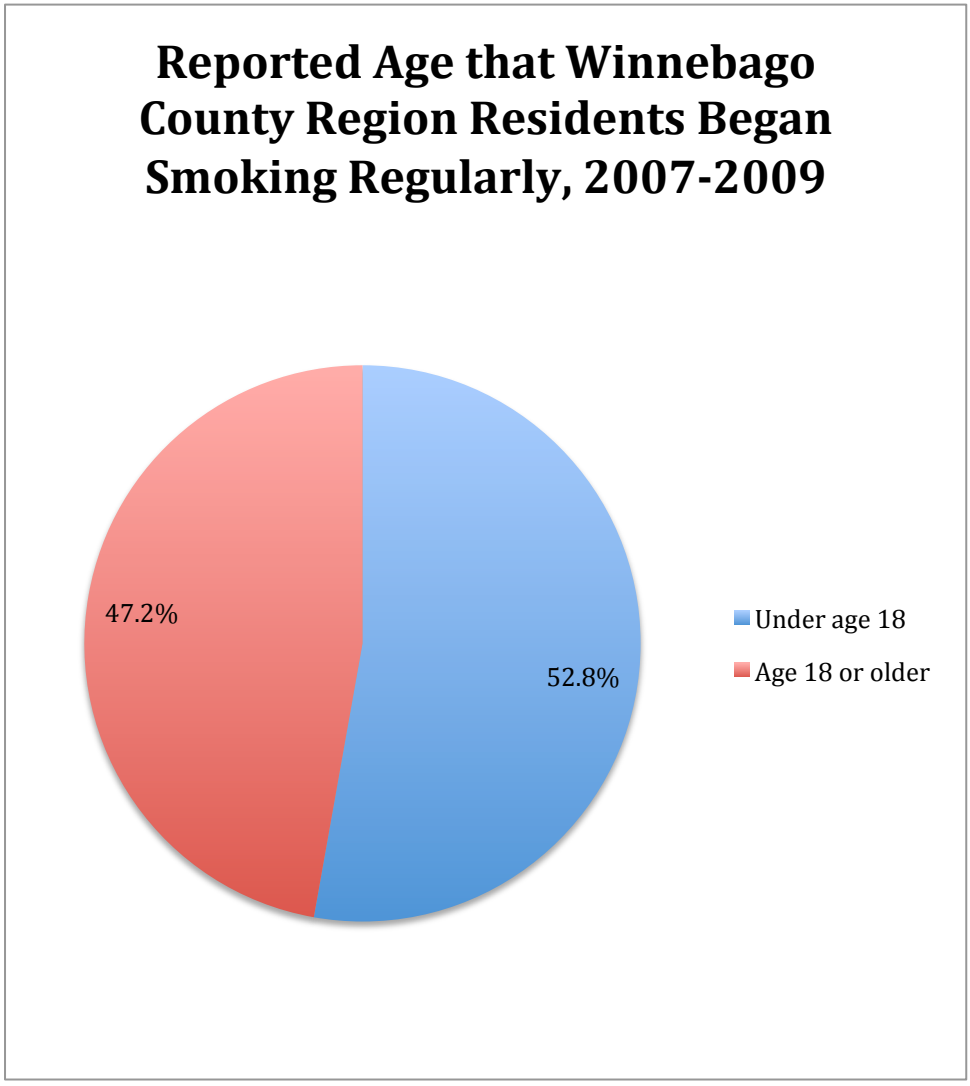
Table 3.1-1: Smoking Status of Residents in Winnebago County



Source: Illinois Behavioral Risk Factor Surveillance System

Many individuals begin smoking tobacco as teenagers. 52.8% of Winnebago County residents began smoking regularly before the age of 18.

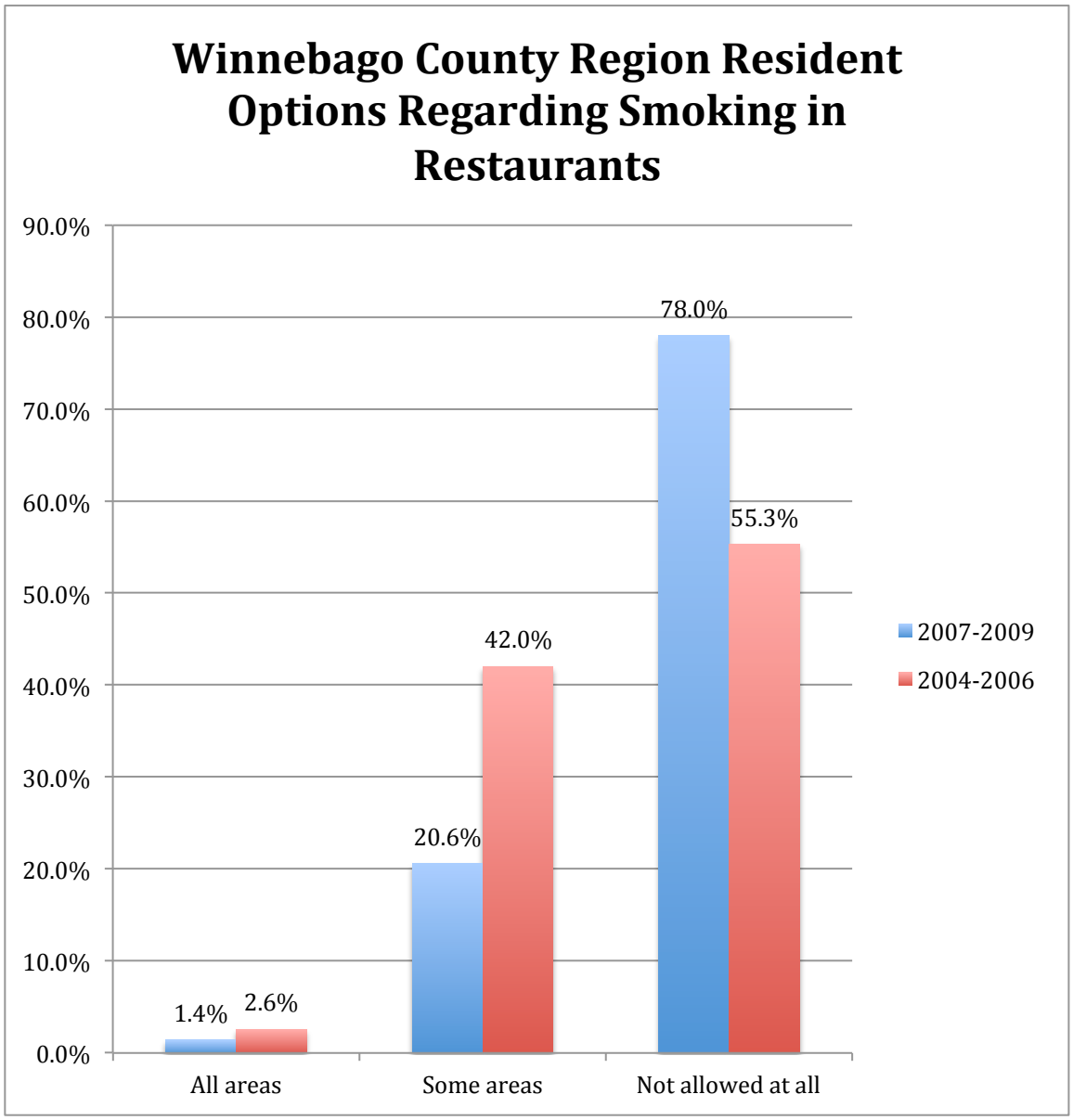
Table 3.1-2: Reported Age that Winnebago County Residents Began Smoking Regularly



Source: Illinois Behavioral Risk Factor Surveillance System

Attitudes toward smoking in restaurants have changed in the past six years. In 2004-2006, 42.0% of Winnebago County residents believed that smoking should be allowed in some areas within restaurants. However, by 2007-2009, the percentage of respondents who agreed with that statement had dropped significantly to 20.6%.

Table 3.1-3: Winnebago County Resident Options Regarding Smoking in Restaurants



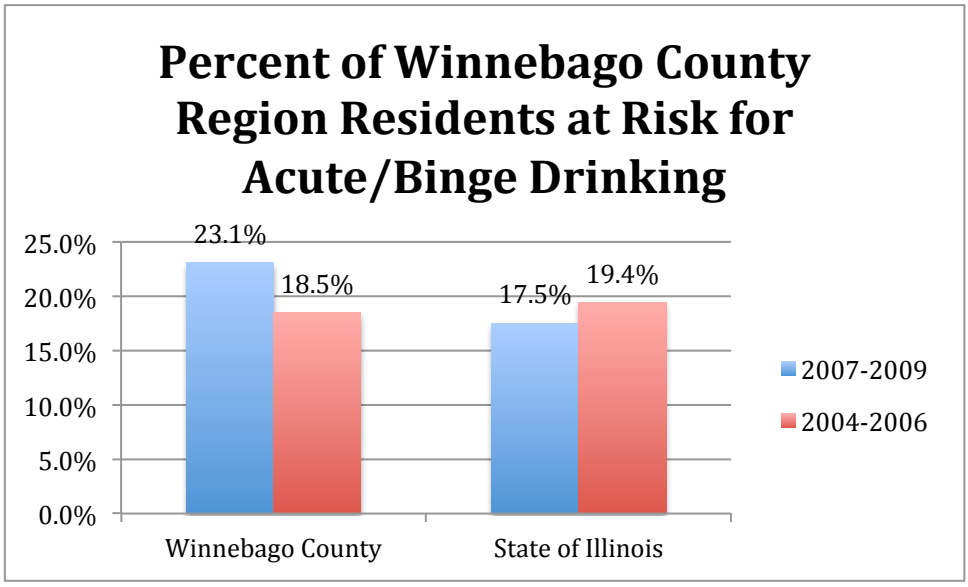
Source: Illinois Behavioral Risk Factor Surveillance System

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%), Winnebago County has a higher percentage of residents at risk for acute or binge drinking. Whereas rates for binge drinking have decreased across the State of Illinois, rates for binge drinking in Winnebago County have increased.

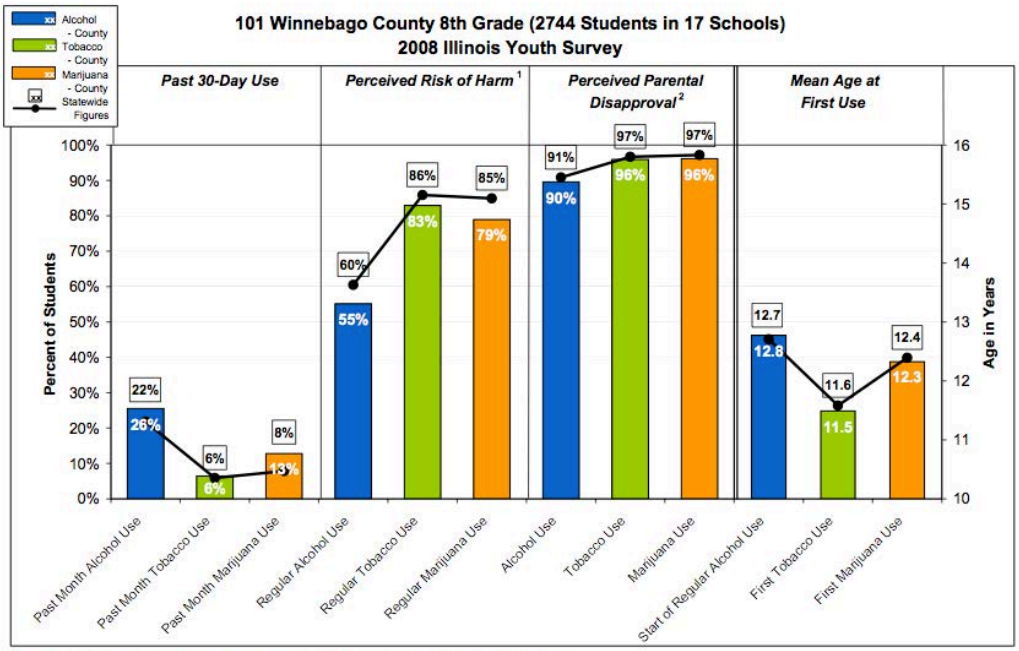
Table 3.2-1: Percent of Winnebago County Residents at Risk for Acute/Binge Drinking



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 Winnebago County among 8th graders, the average age at first use of alcohol, tobacco and marijuana is 12.8, 11.5 and 12.3 years respectively. The same average age for 12th graders is 15.9, 13.8 and 14.7 years respectively. In Winnebago County, the past 30-day use is higher for alcohol use (8th graders and 12th graders) and marijuana use (8th graders and 12th graders) when compared to State of Illinois averages.

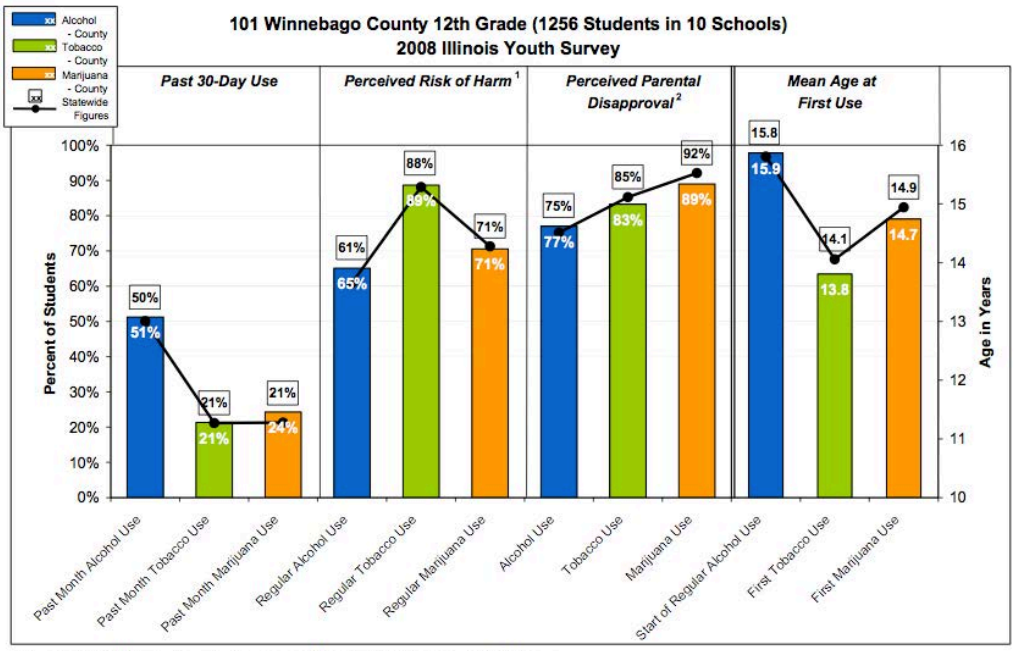
Table 3.2-2: Reported Substance Abuse Usage of Winnebago County 8th Graders, 2008



[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 Winnebago 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.

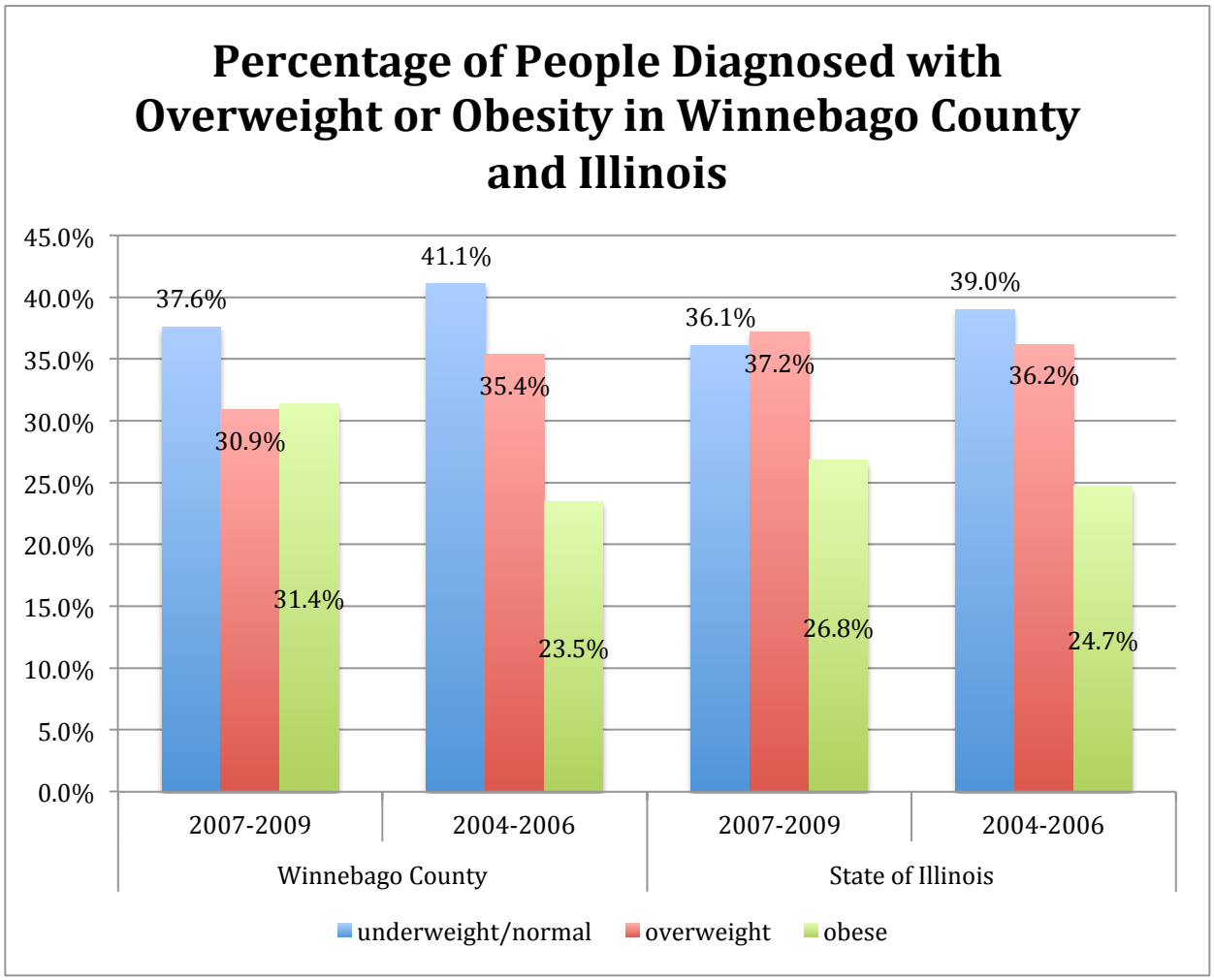
Source: http://iys.cprd.illinois.edu/PDFs/2008_CountyCharts_Full_Report.pdf

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 Winnebago County, the number of people who have trouble with their weight has increased over the five years from 2004 to 2009. Note specifically that both the percentage of obese people experienced a significant increase.

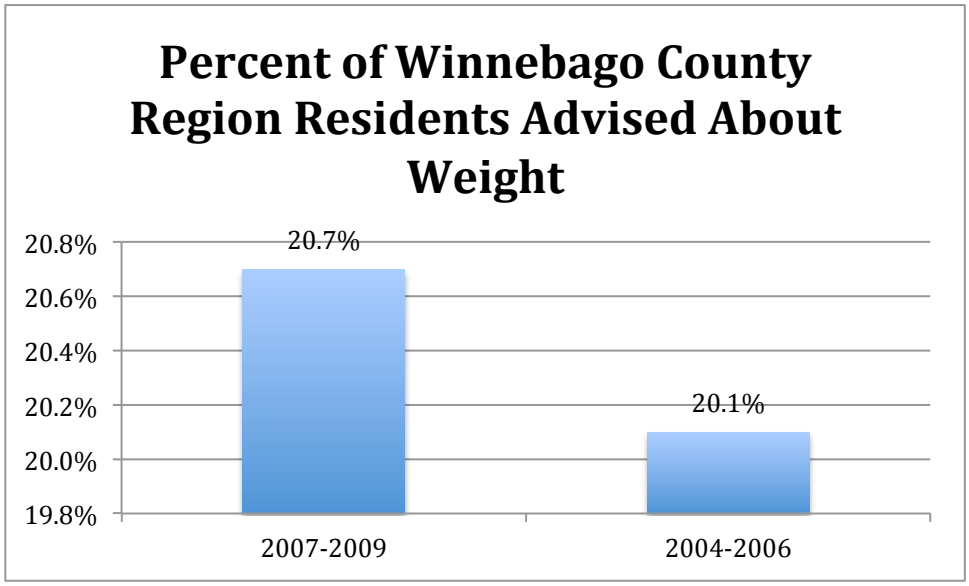
Table 3.3-1: Percentage of People Diagnosed with Overweight or Obesity in Winnebago County and Illinois



Source: Illinois Behavioral Risk Factor Surveillance System

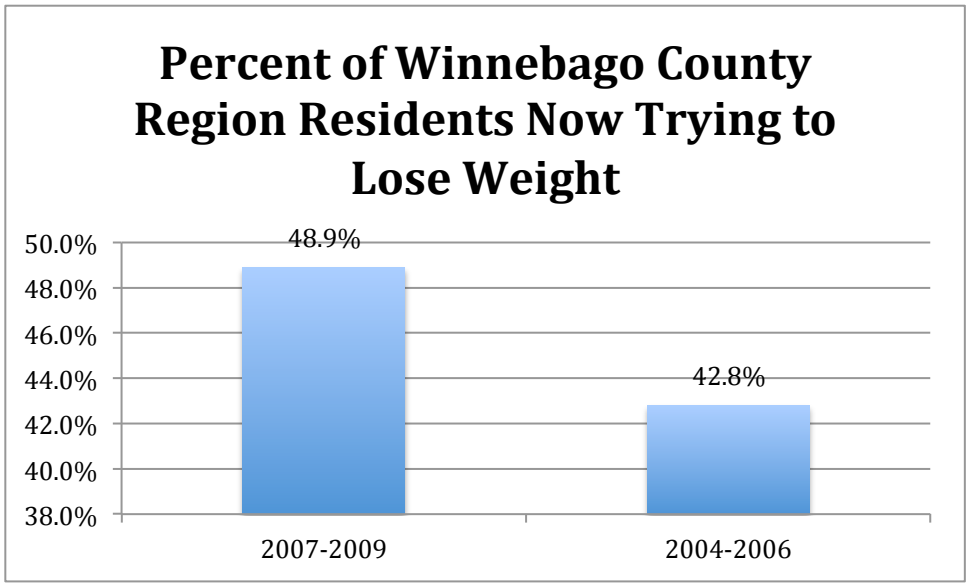
With regard to those individuals advised by a medical professional about their weight, nearly 21% of residents in Winnebago County have been advised about their weight during the 2007-2009 time frame. In Table 3.3-3, nearly half of Winnebago County residents are attempting to lose weight and Table 3.3-4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

Table 3.3-2: Percent of Winnebago County Residents Advised About Weight



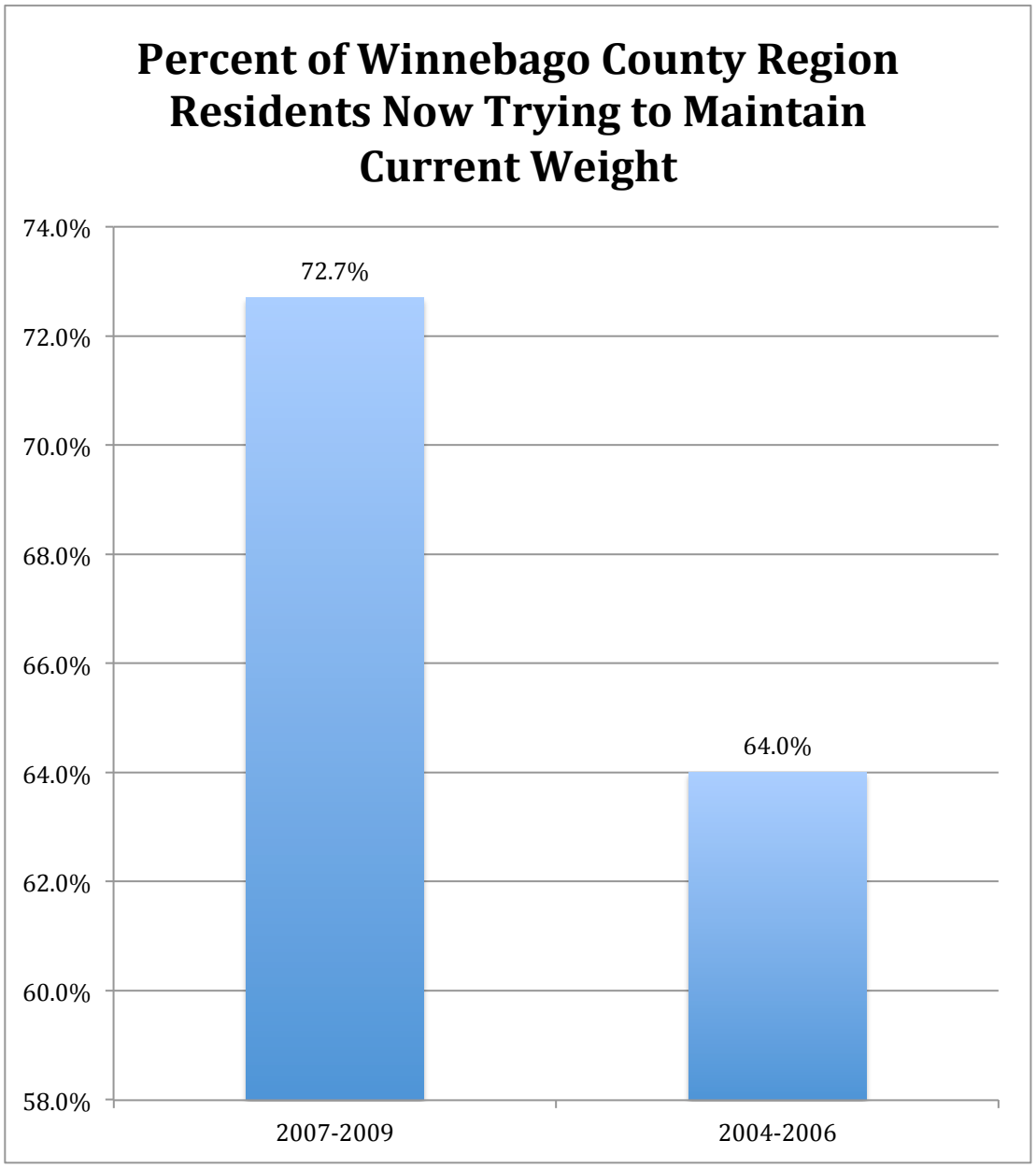
Source: Illinois Behavioral Risk Factor Surveillance System

Table 3.3-3: Percent of Winnebago County Residents Now Trying to Lose Weight



Source: Illinois Behavioral Risk Factor Surveillance System

Table 3.3-4: Percent of Winnebago County 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 Winnebago County. 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 Winnebago County, leading indicators suggest obesity is a growing concern. With regard to nutrition, evidence suggests residents in Winnebago County are not eating enough fruits and vegetables. Table 2.2.4-6 indicates that between 2007 and 2009, only 15.9% of Winnebago 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 Winnebago County 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 Winnebago County. 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 Winnebago County report approximately 35% of individuals meet the moderate activity standard compared to 22.6% of individuals in the State of Illinois as a whole. However, this means approximately 65% 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 that "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 Winnebago County, youth substance usage exceeds the State of Illinois averages for both 8th graders (alcohol and marijuana usage) and 12th graders (alcohol and marijuana usage). With regard to smoking, the percentage of Winnebago residents who identify as smokers (20.2%) exceeds the State of Illinois average (18.8%) for 2007-2009. Finally, rates for binge drinking in Winnebago are problematic, as there was a 25% growth in the percentage of Winnebago County residents reporting they were at risk for binge drinking between 2006 (18.5%) and 2009 (23.1%). For comparison, there was a10% 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 Winnebago 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/

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[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

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[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 three Boone and Winnebago County hospitals: OSF St. Anthony Medical Center, Swedish American Hospital, and Rockford Memorial Hospital.

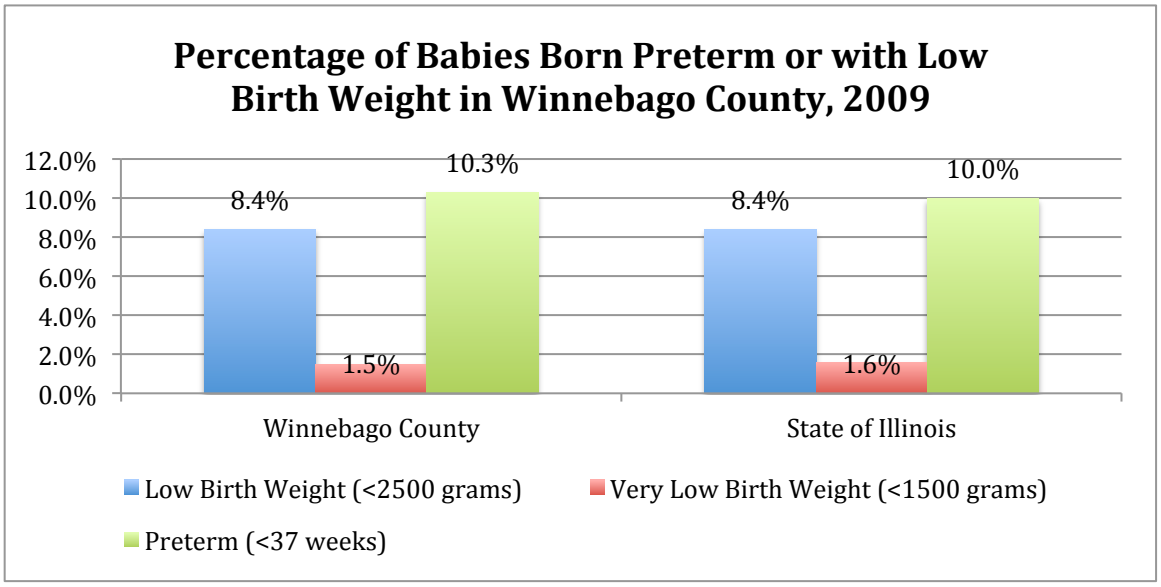
4.1 Age related

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 preterm in Winnebago County was greater than the State of Illinois averages in 2009.

Table 4.1.1-1: Percentage of Babies Born Preterm or with Low Birth Weight in Winnebago County, 2009



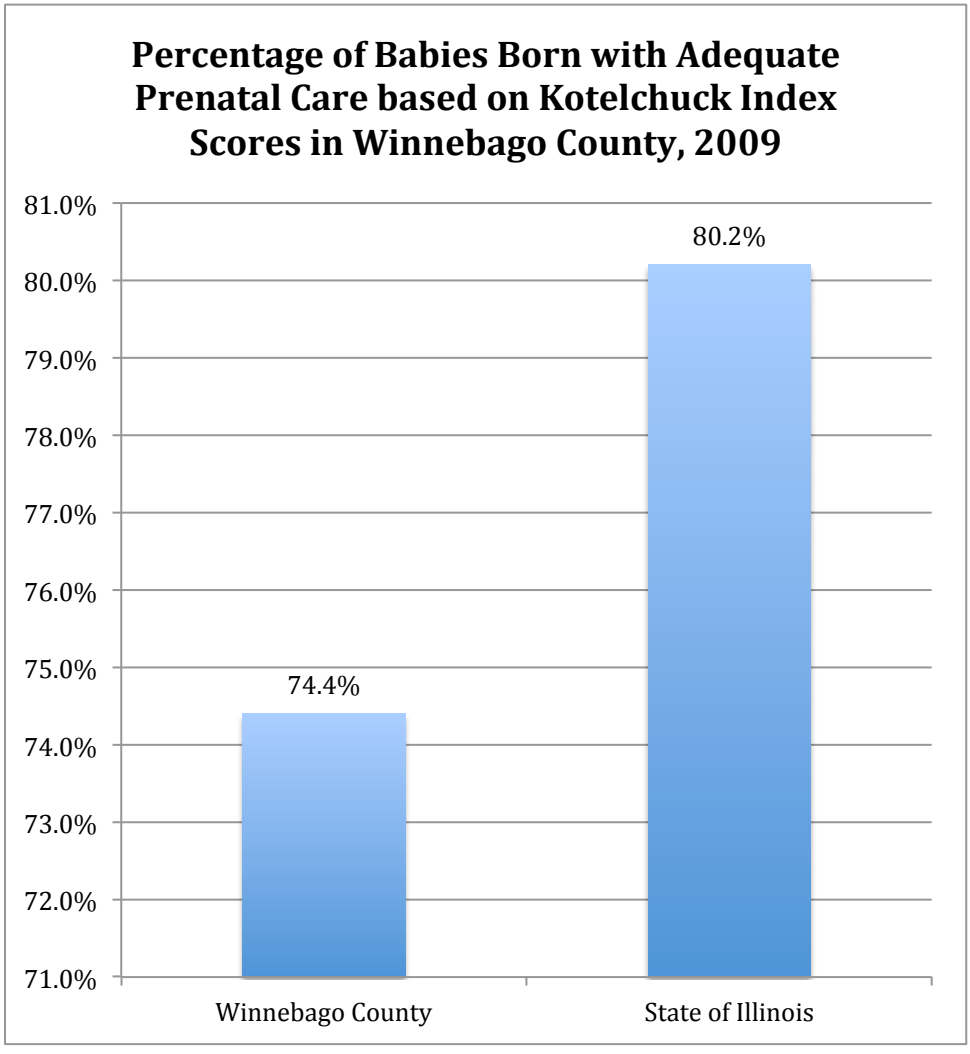
Source: Illinois Department of Public Health

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 Winnebago County, 74.4% were born with "Adequate" or "Adequate Plus" prenatal care. This figure is significantly lower 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 Winnebago County, 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.

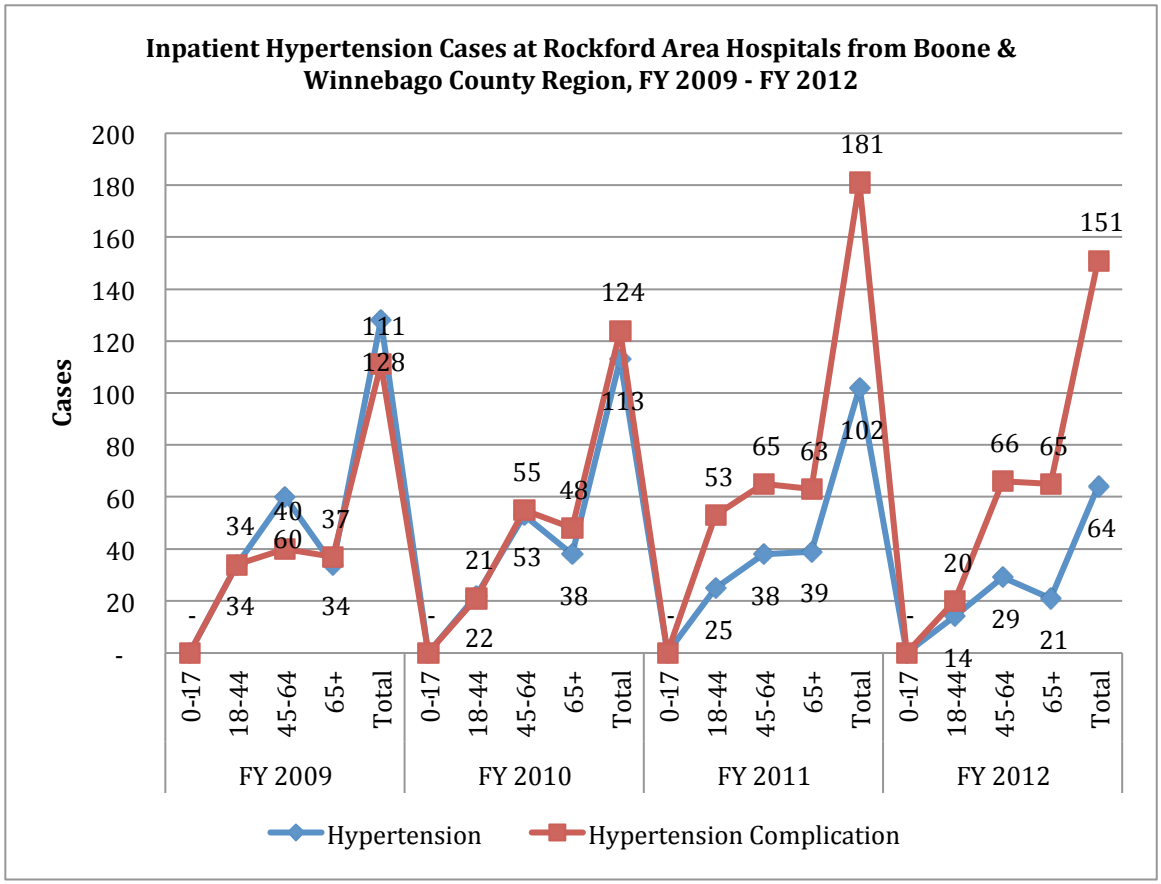
4.2.1 Hypertension

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.

The number of cases of inpatient hypertension complication at Rockford area hospitals from the Winnebago and Boone County region has increased 36% between 2009 (111 cases) and 2012 (151 cases).

Cases of hypertension complication peaked in FY 2011 when 181 instances were reported overall. The most recent data indicate 64 cases of hypertension and 151 case of hypertension complication in FY 2012.

Table 4.2.1-1 Inpatient Hypertension Cases at Rockford Area Hospitals from Boone and Winnebago County Region, FY 2009 - FY 2012

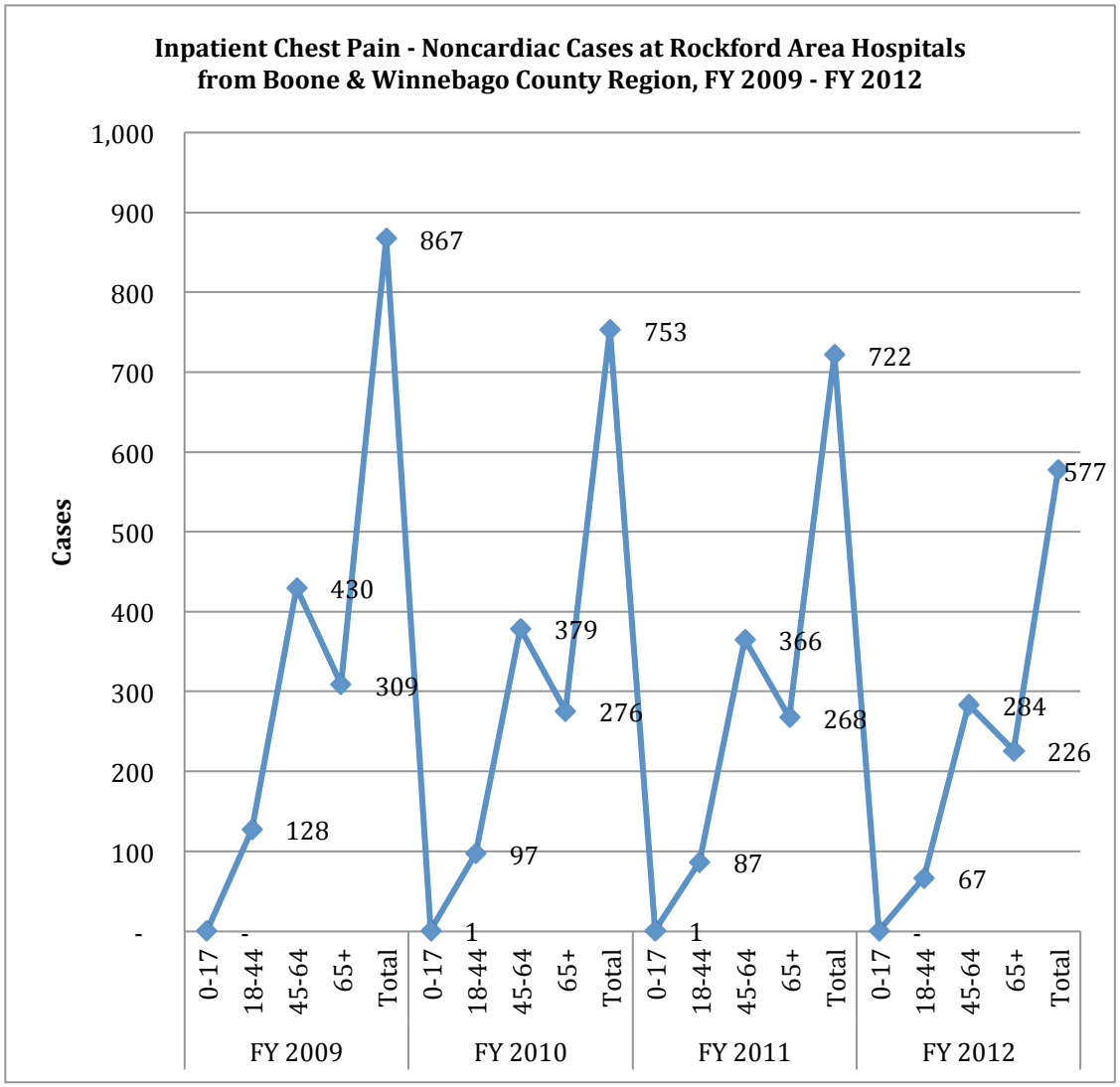


Source: COMPdata 2012

4.2.2 Coronary artery

There has been a 33% decrease in the number of treated cases of noncardiac chest pain at Rockford area hospitals in Boone and Winnebago County between 2009-2012. Cases of noncardiac chest pain peaked in FY 2009 with 867 reported cases.

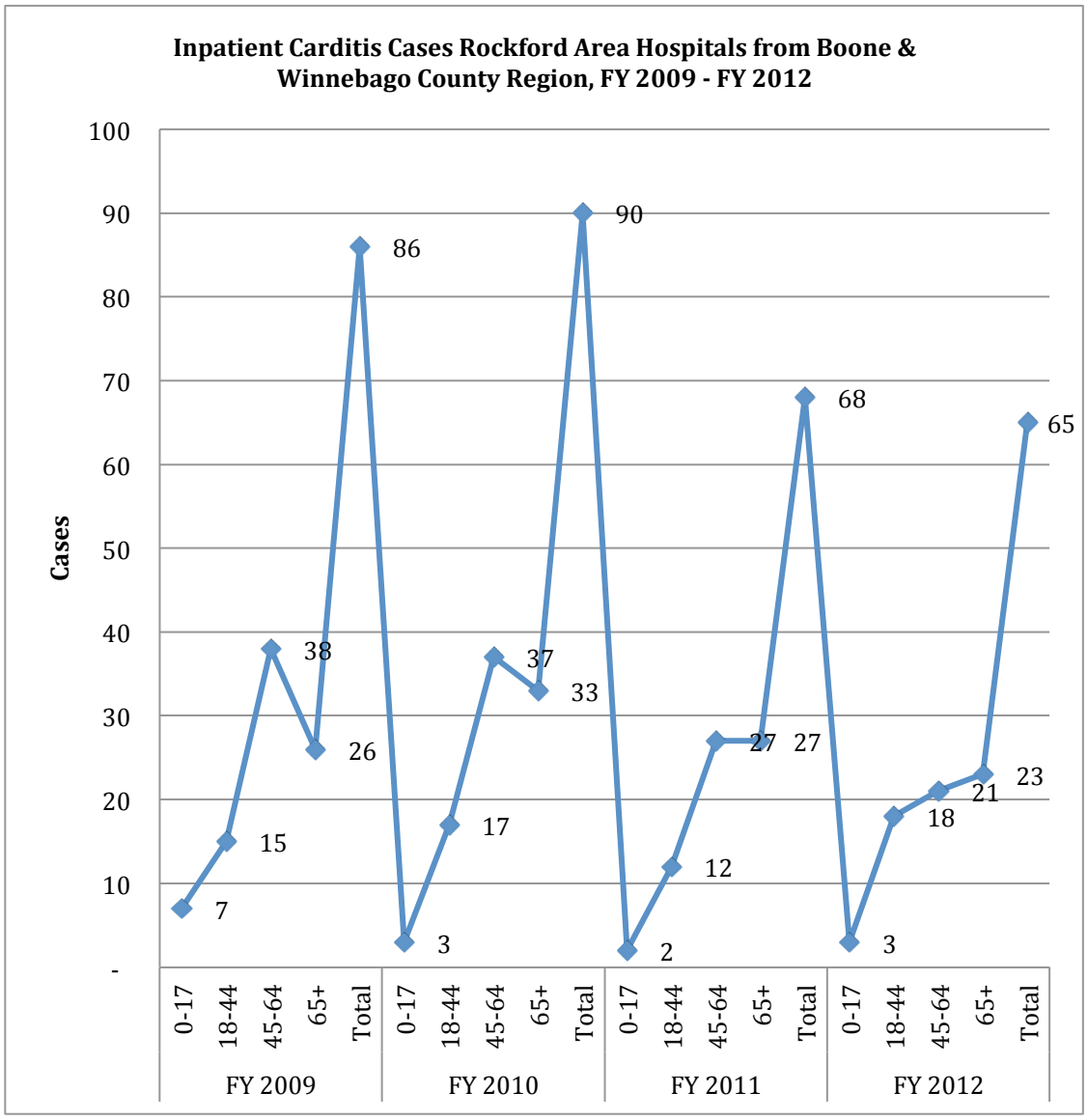
Table 4.2.2-1 Inpatient Chest Pain - Noncardiac Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of carditis at Rockford area hospitals in Boone and Winnebago County peaked in FY 2010 when 90 cases were reported. Between FY 2009 and FY 2012, the number of cases of carditis has decreased 24%.

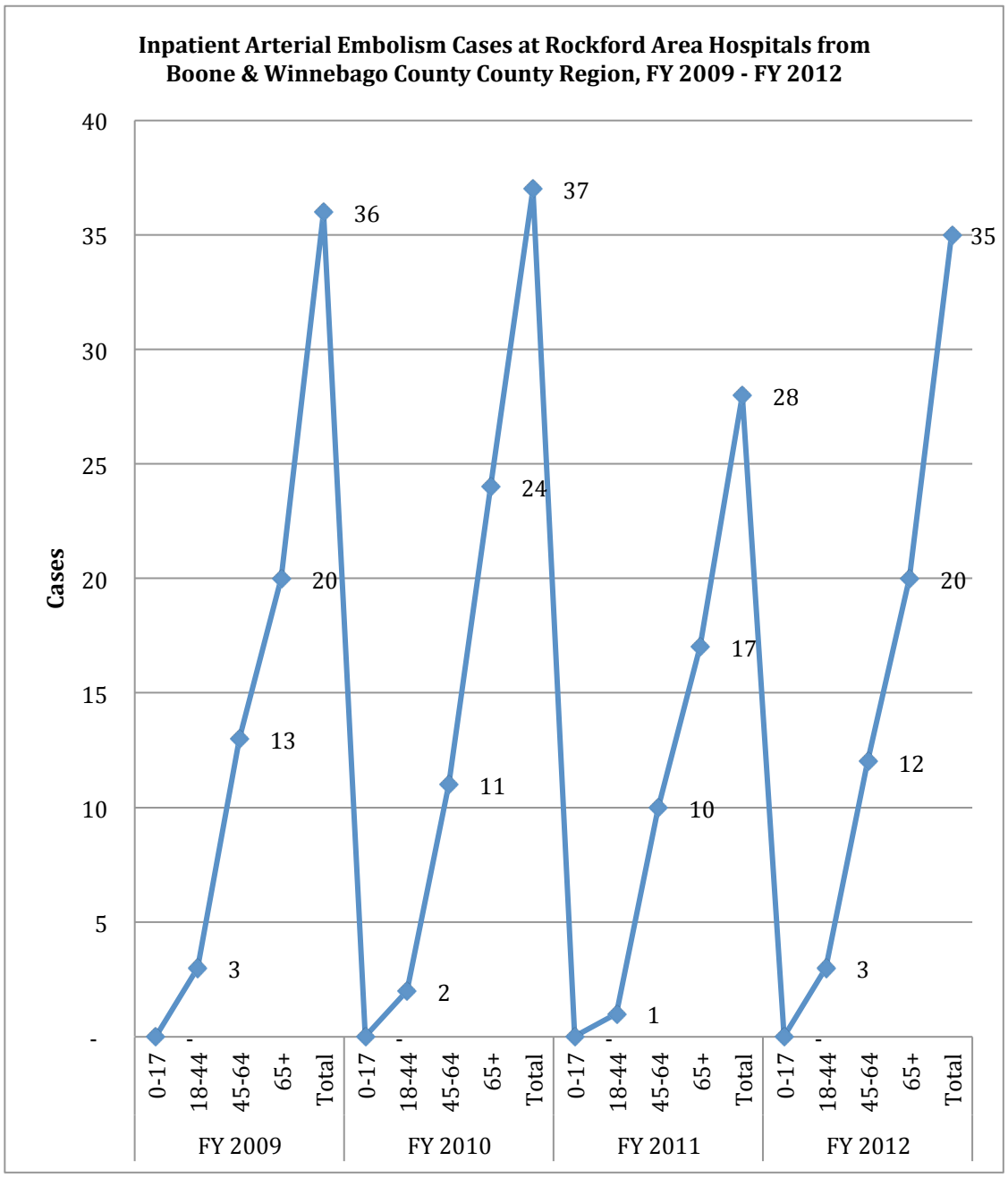
Table 4.2.2-2 Inpatient Carditis Cases Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of arterial embolism at Rockford area hospitals in Boone and Winnebago County have remained constant across three of the four years, as 36, 37, and 35 cases were reported in FY 2009, 2010, and 2012, respectively. In FY 2011, there were 28 reported cases of arterial embolism.

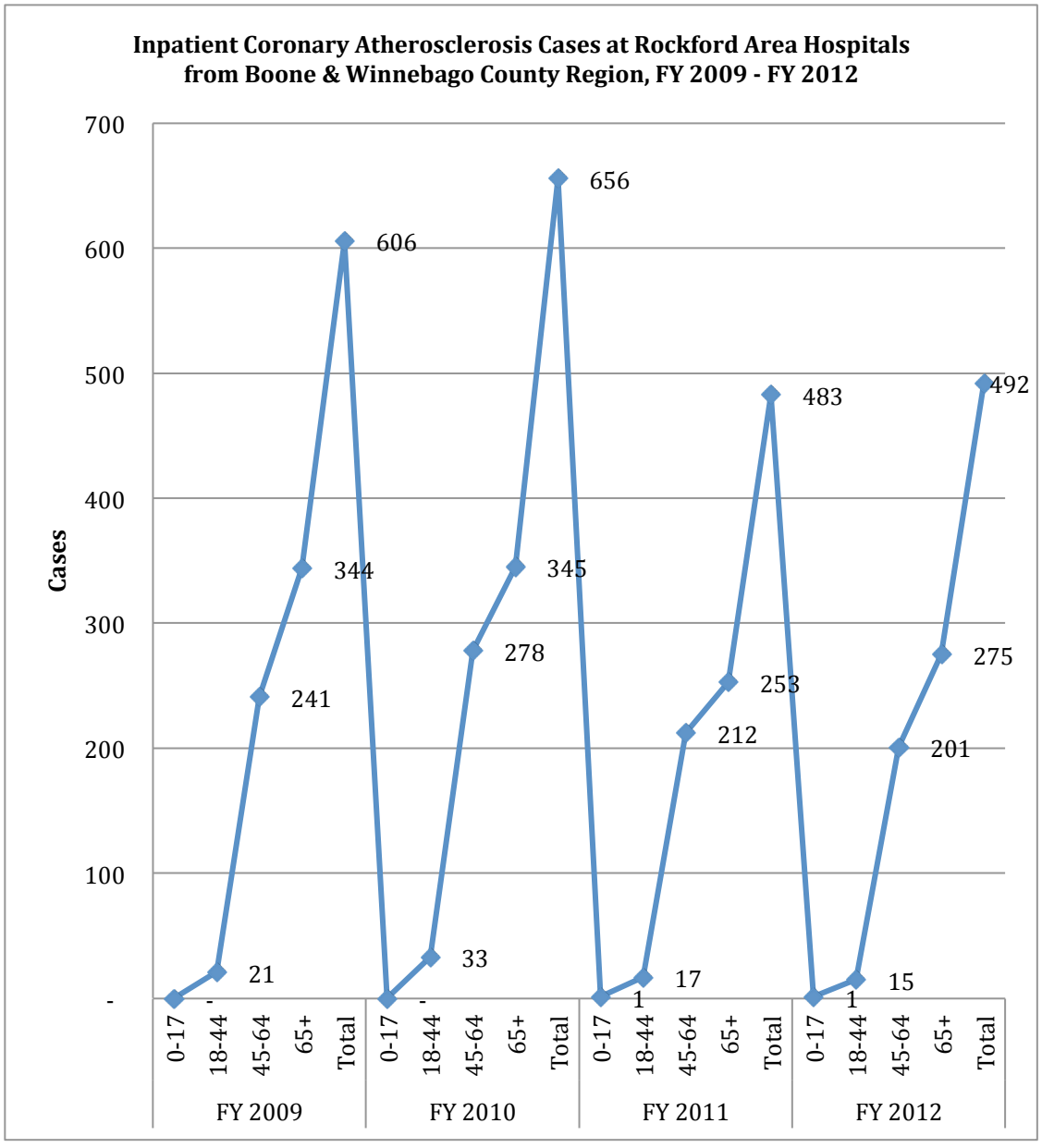
Table 4.2.2-3 Inpatient Arterial Embolism Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of coronary atherosclerosis at Rockford area hospitals from Boone and Winnebago County have decreased 18% between FY 2009 and FY 2012. After peaking in FY 2010 when 656 cases were reported, 492 cases were reported in FY 2012.

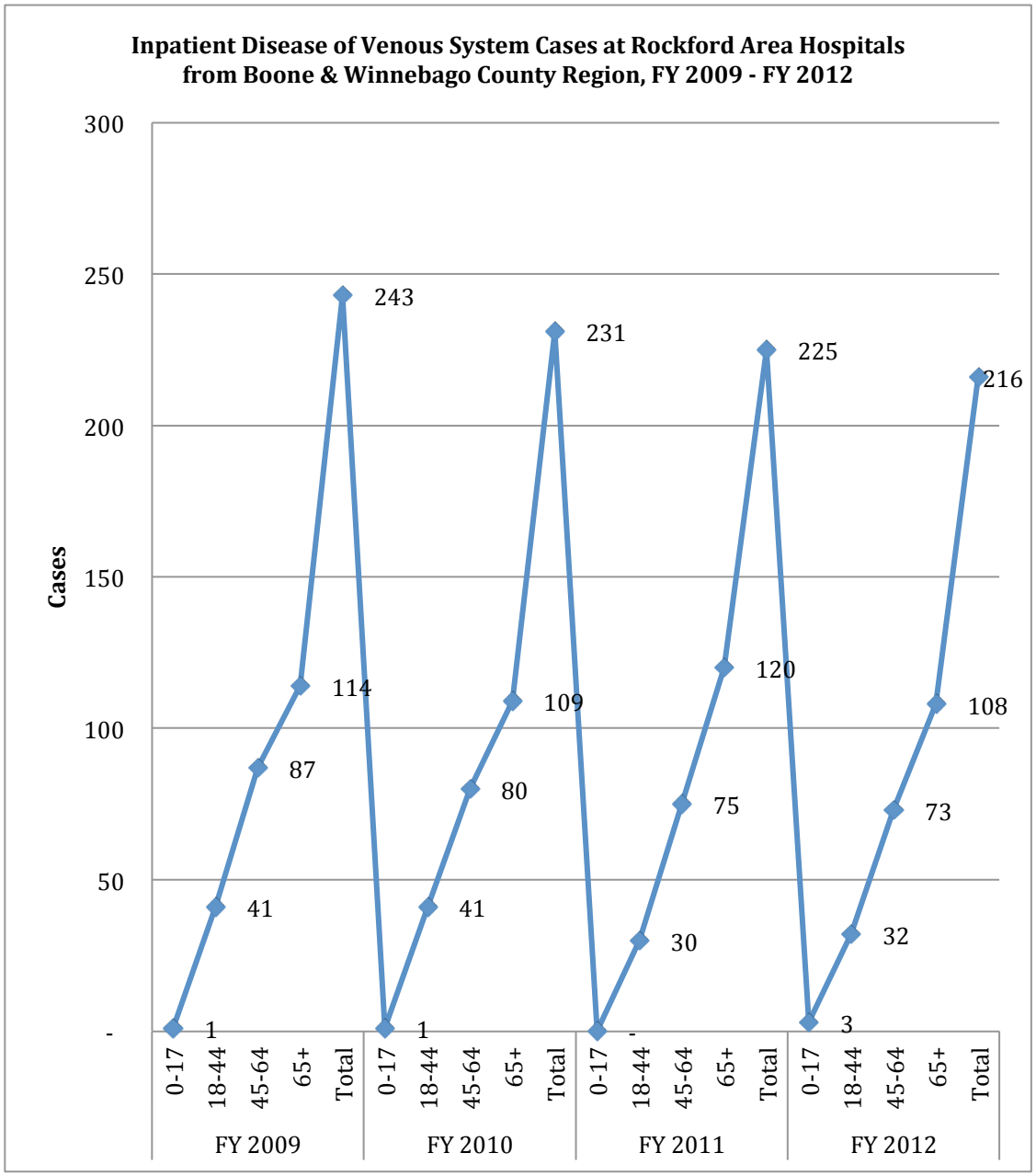
Table 4.2.2-4 Inpatient Coronary Atherosclerosis Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

The number of cases of inpatient disease of the venous system at Rockford area hospitals from the Boone and Winnebago County region has decreased 11% between 2009 (243 cases) and 2012 (216 cases). Disease of the venous system cases peaked in FY 2009 when 243 cases were reported.

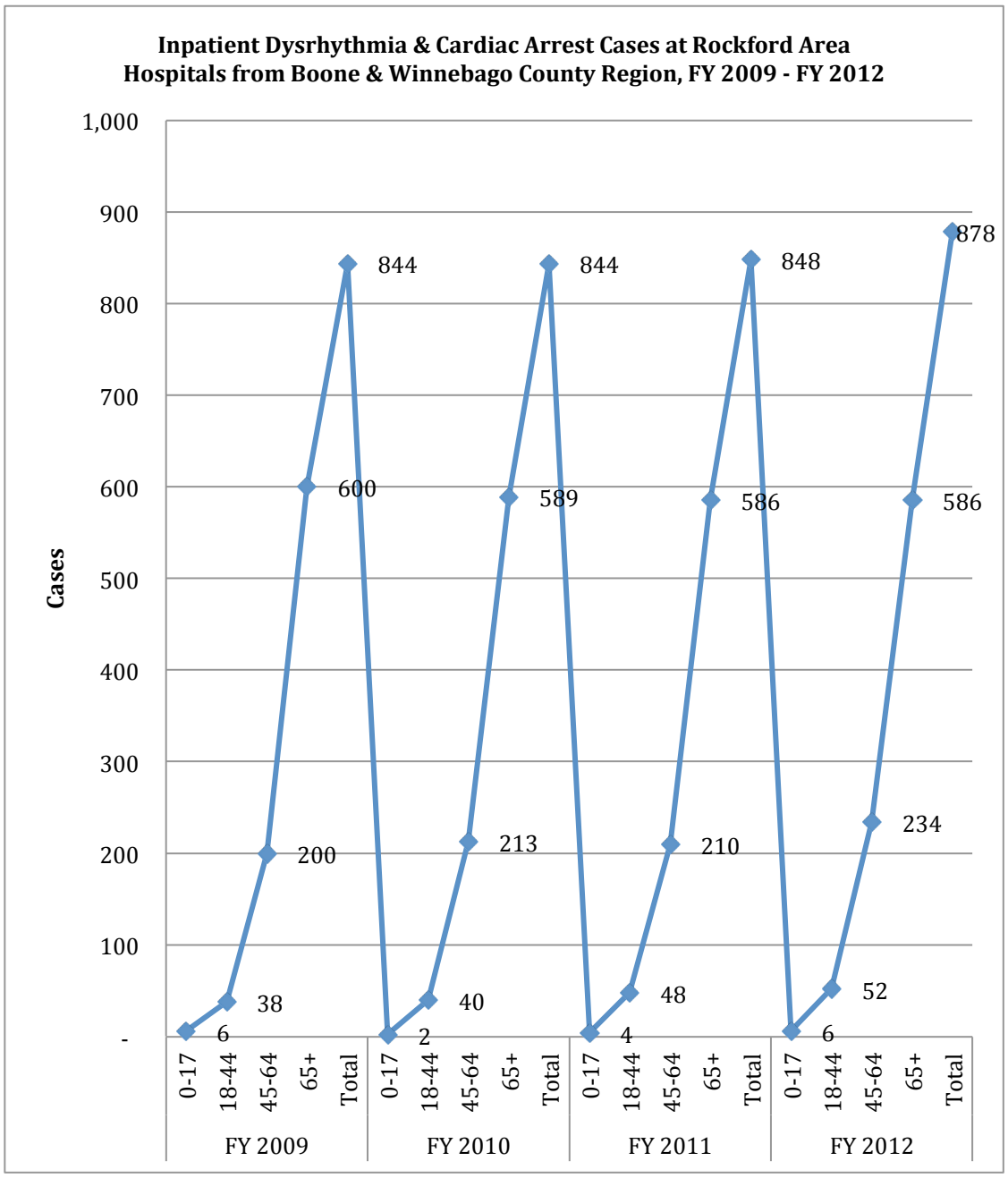
Table 4.2.2-5 Inpatient Disease of Venous System Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of dysrhythmia and cardiac arrest at Rockford area hospitals from Boone and Winnebago County have increased by 4% between FY 2009 and FY 2012. Similarly, the number of cases for individuals aged 45 to 64 has increased 17% and the number of cases for individuals aged 18-44 has increased 37% for inpatient admissions.

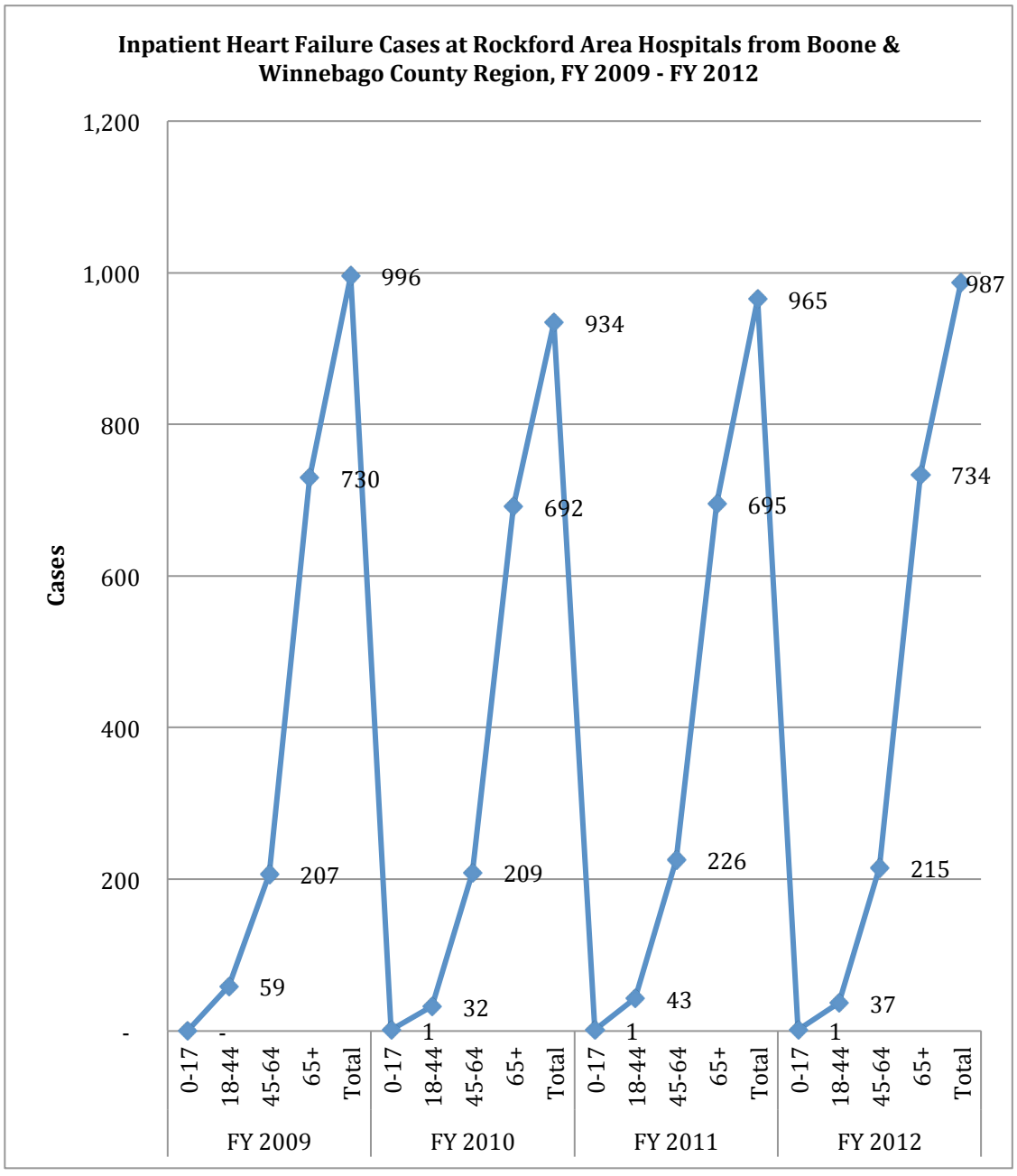
Table 4.2.2-7 Inpatient Dysrhythmia & Cardiac Arrest Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

There has been a 1% decrease in the number of treated cases of heart failure at Rockford area hospitals from Boone and Winnebago County between FY 2009 and FY 2012. However, the number of cases for individuals aged 45-64 years of age and older increased by 4% during the same time frame (207 cases in FY 2009 and 215 cases in FY 2012).

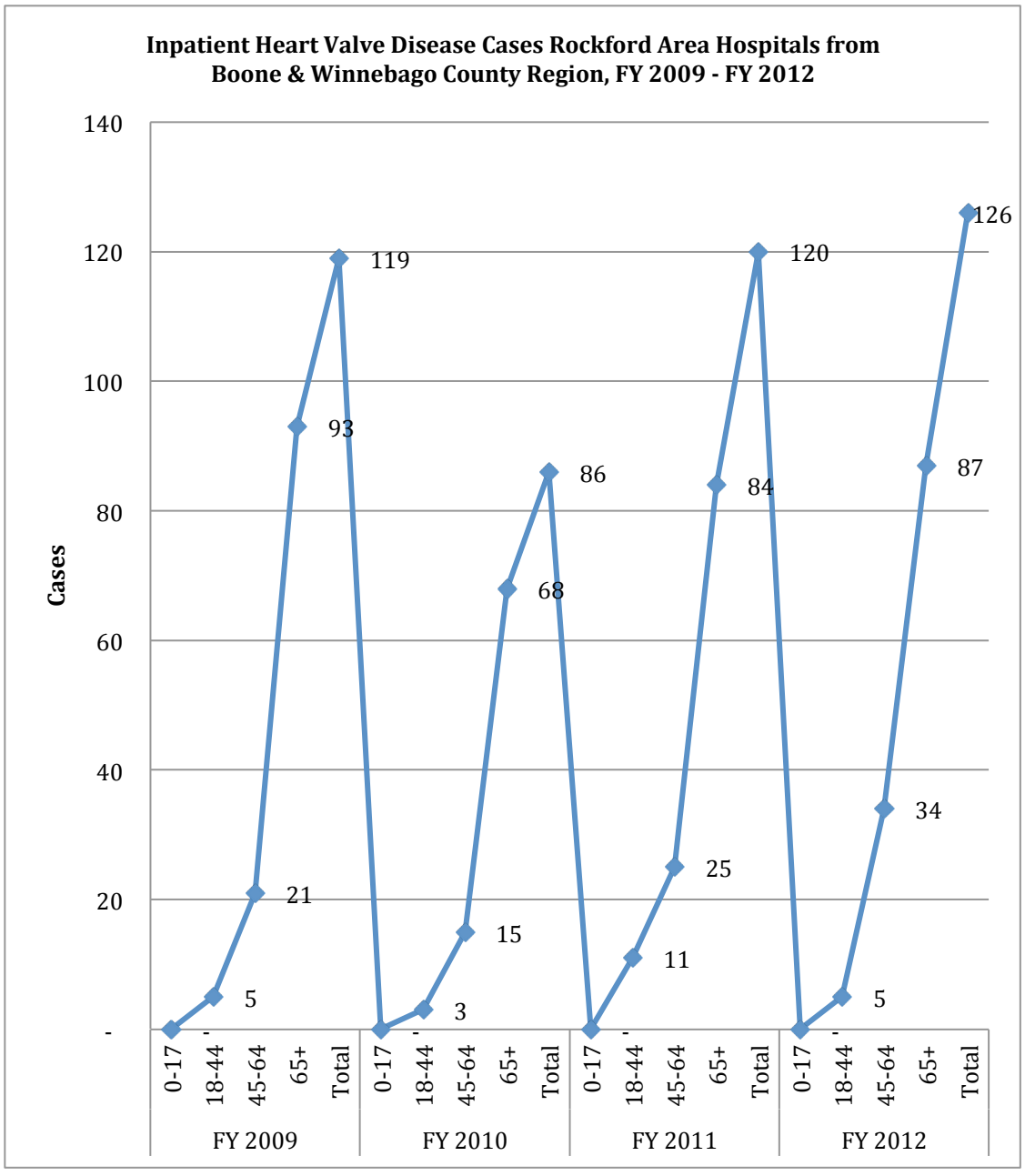
Table 4.2.2-7 Inpatient Heart Failure Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, reported cases of heart valve disease at Rockford area hospitals in Boone and Winnebago County have increased 6%. The number of cases of inpatient heart valve disease at Rockford area hospitals from the Winnebago and Boone County region has increased 62% between 2009 (21 cases) and 2012 (34 cases) for individuals 45 to 64 years of age. Cases of heart valve disease peaked in FY 2012 with 126 cases reported.

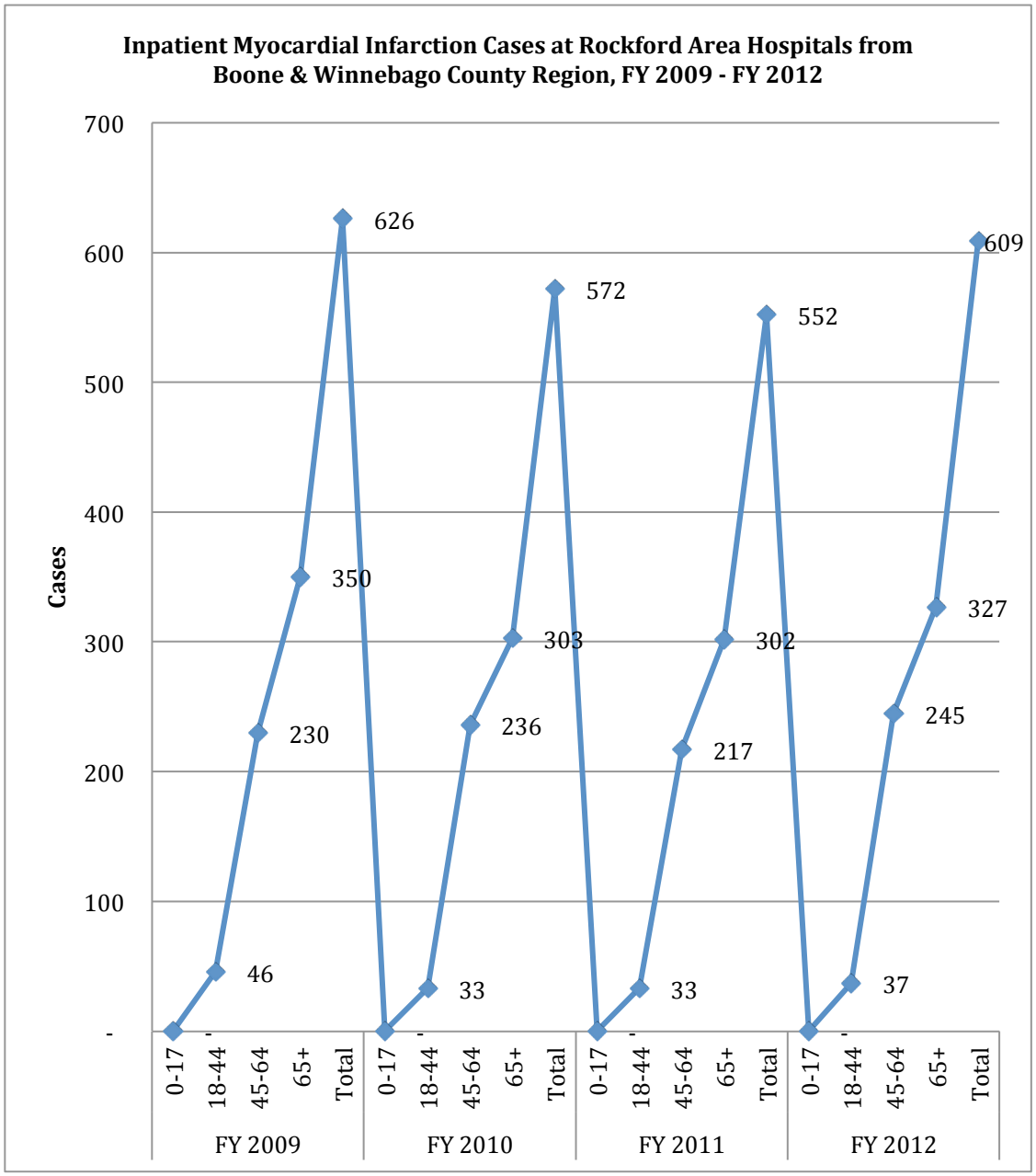
Table 4.2.2-8 Inpatient Heart Valve Disease Cases Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of myocardial infarction at Rockford area hospitals from Boone and Winnebago County have decreased by 3% between FY 2009 and FY 2012 and peaked in FY 2009 with 626 reported cases. The number of cases of inpatient myocardial infarction for individuals 45 to 64 years of age has increased 7% between 2009 (230 cases) and 2012 (245 cases).

Table 4.2.2-9 Inpatient Myocardial Infarction Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

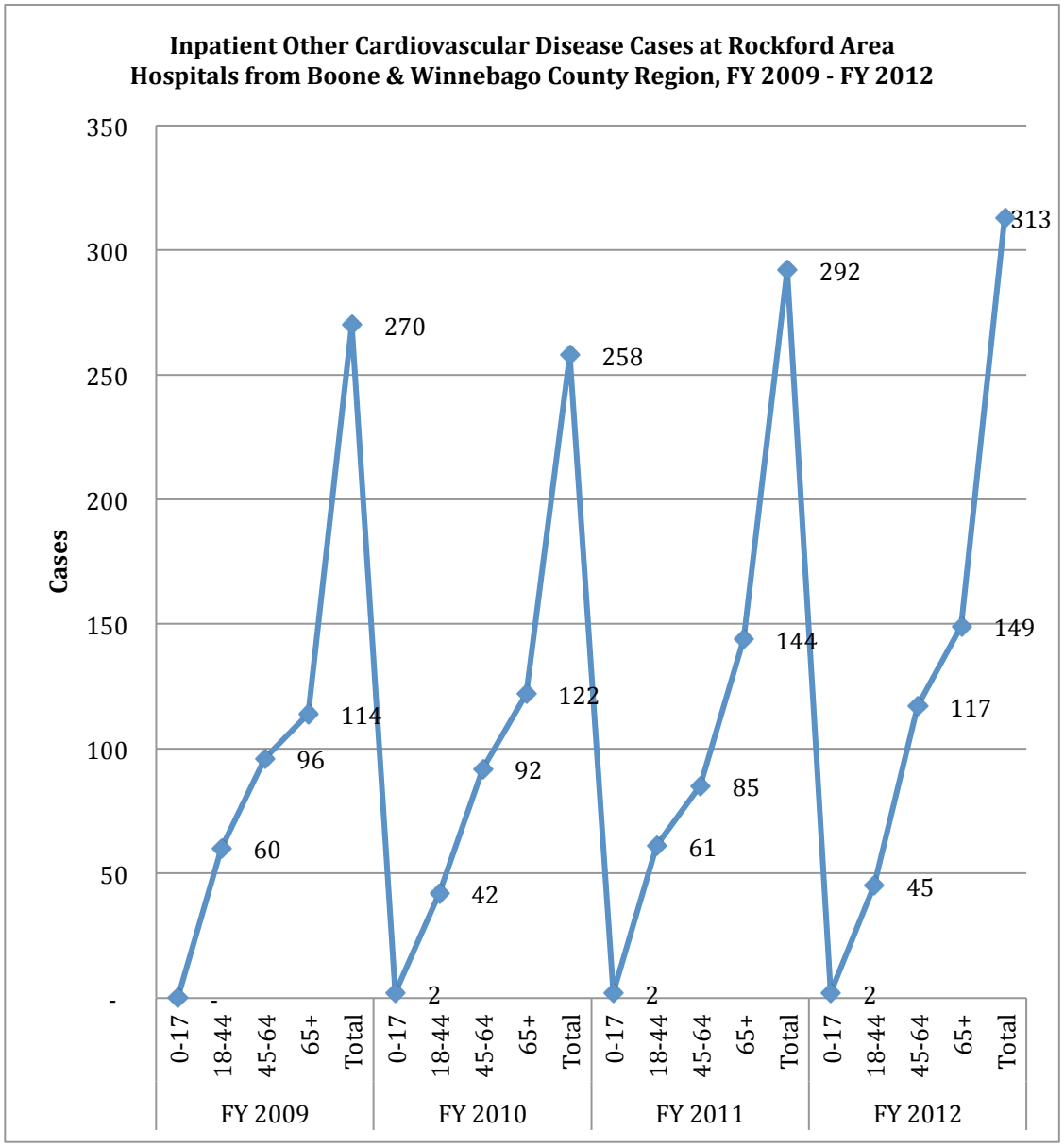


Source: COMPdata 2012

The number of cases of other cardiovascular disease at Rockford area hospitals from the Winnebago and Boone County region has increased 16% between 2009 (270 cases) and 2012 (313 cases).

Of particular interest, cases of other cardiovascular disease in individuals 65 years of age and older increased by 31% during the same time frame for inpatient admissions.

Table 4.2.2-10 Inpatient Other Cardiovascular Disease Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

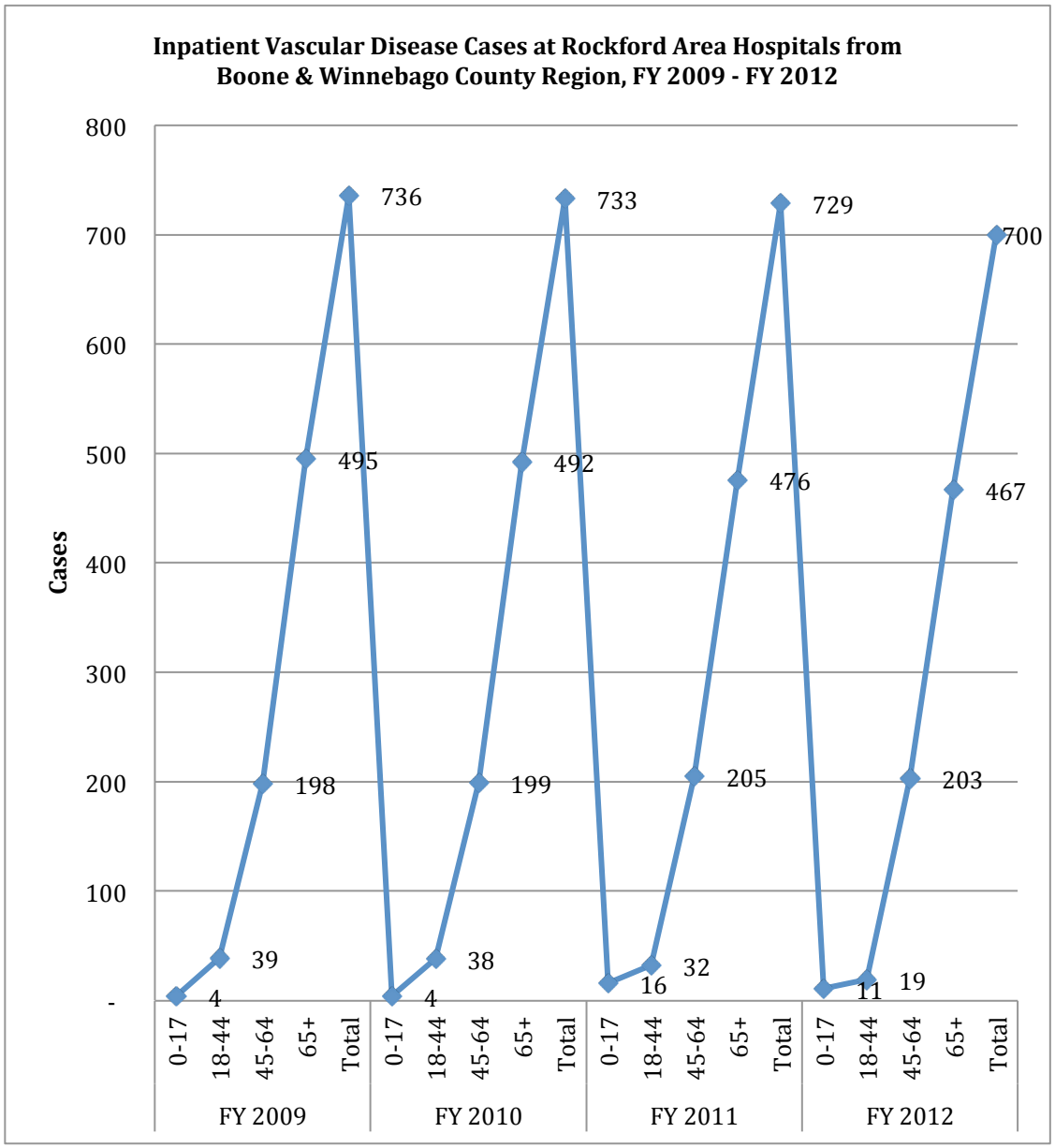


Source: COMPdata 2012

Cases of vascular disease at Rockford area hospitals from Winnebago County have decreased by 5% between FY 2009 and FY 2012 for inpatient admissions.

Of particular interest, cases of vascular disease in individuals aged 45-64 have increased by 3% during the same time frame for inpatient admissions.

Table 4.2.2-11 Inpatient Vascular Disease Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

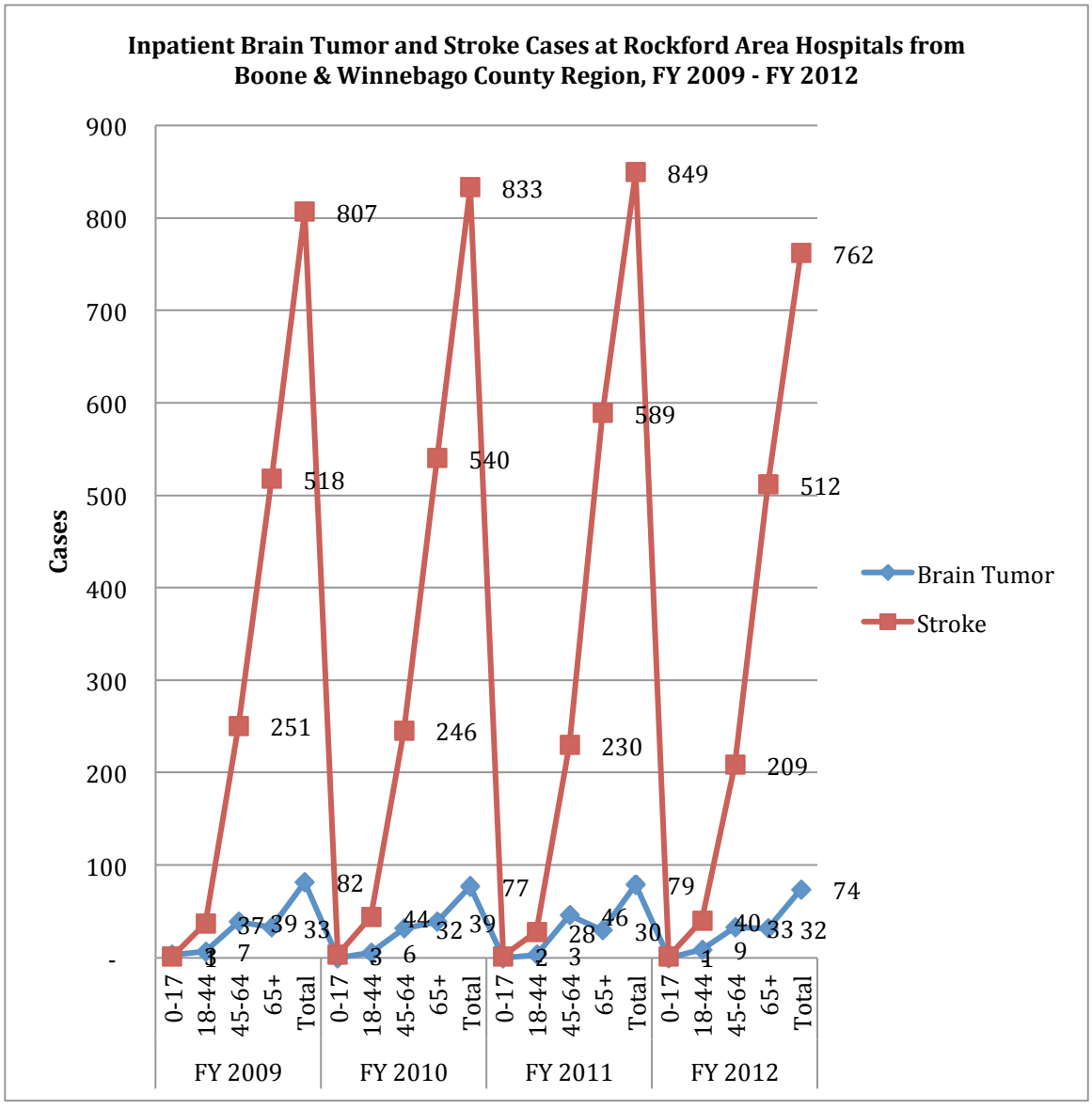


Source: COMPdata 2012

4.2.3 Stroke

Cases of stroke at Rockford area hospitals from Boone and Winnebago County have decreased by 6% between FY 2009 and FY 2012 for inpatient admissions. An average of 78 cases of brain tumor are reported annually with 74 cases reported in FY 2012.

Table 4.2.3-1 Inpatient Brain Tumor and Stroke Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

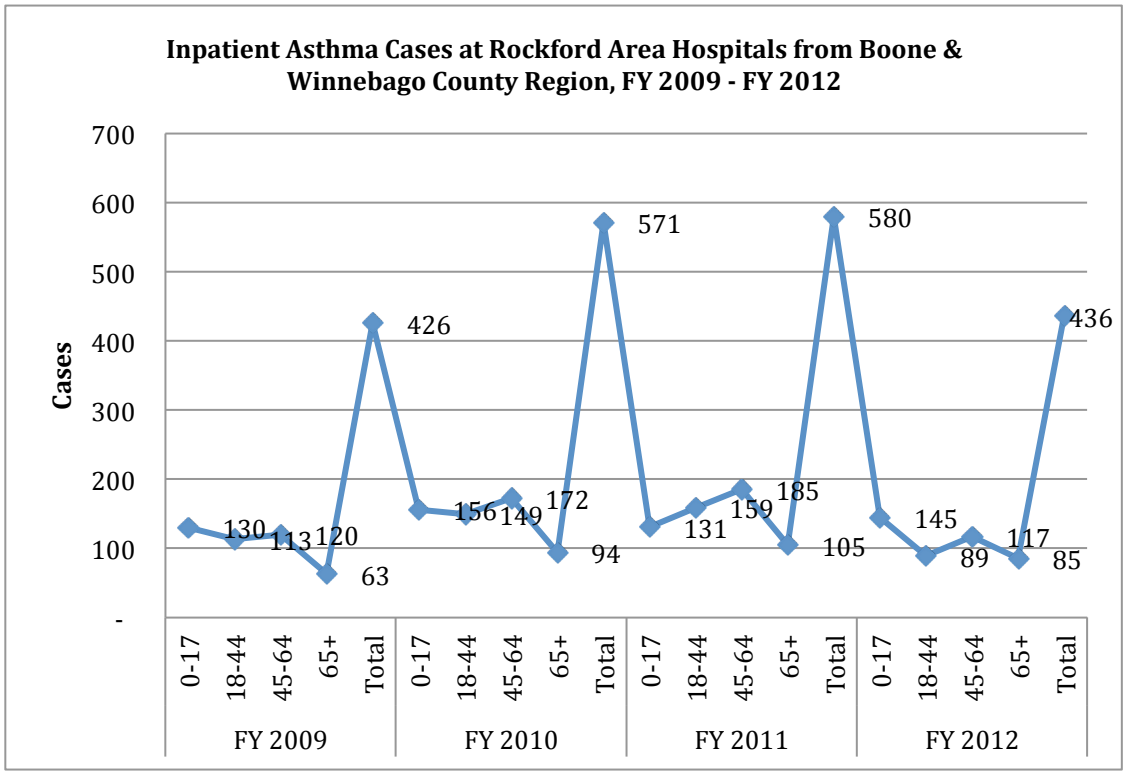
4.3 Respiratory

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

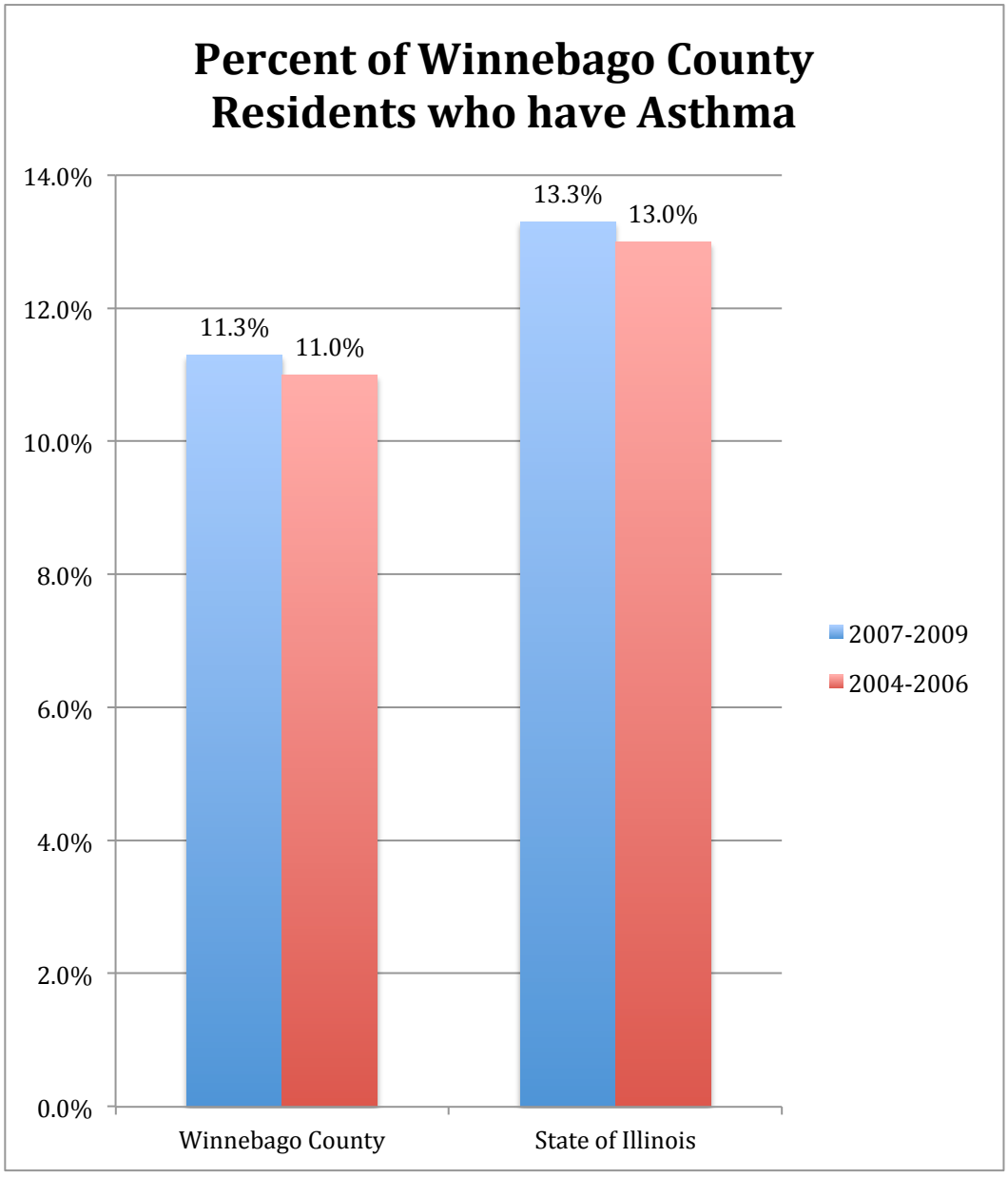
Treated cases of asthma at Rockford area hospitals from Boone and Winnebago County have increased by 3% between FY 2009 and FY 2012 for inpatient admissions. Of particular interest, cases of asthma in individuals over 65 years of age have increased 35% for inpatient admissions (85 cases in FY 2012 vs. 63 cases in FY 2009). According to the Illinois BRFSS, asthma rates in Winnebago County increased between 2006 and 2009.

Table 4.3.1-1 Inpatient Asthma Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Table 4.3.1-2 Percent of Winnebago County Residents who have Asthma

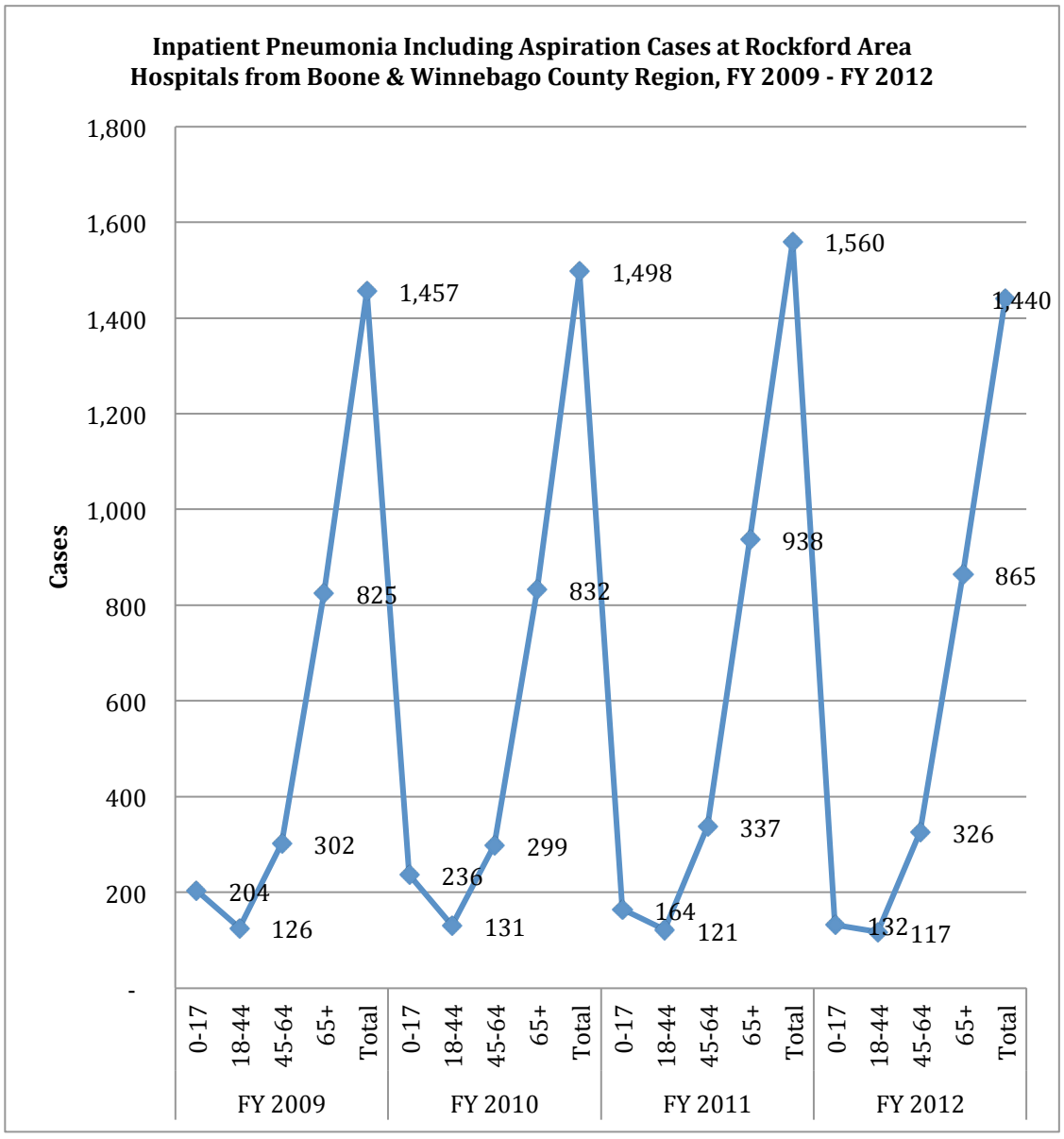


Source: Illinois Department of Public Health

4.3.2 Pneumonia

Treated cases of pneumonia at Rockford area hospitals from Boone and Winnebago County have decreased by 1% between FY 2009 and FY 2012 for inpatient admissions. However, cases of asthma in individuals 65 years of age and older have increased 5% during the same time frame.

Table 4.3.2-1 Inpatient Pneumonia Including Aspiration Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

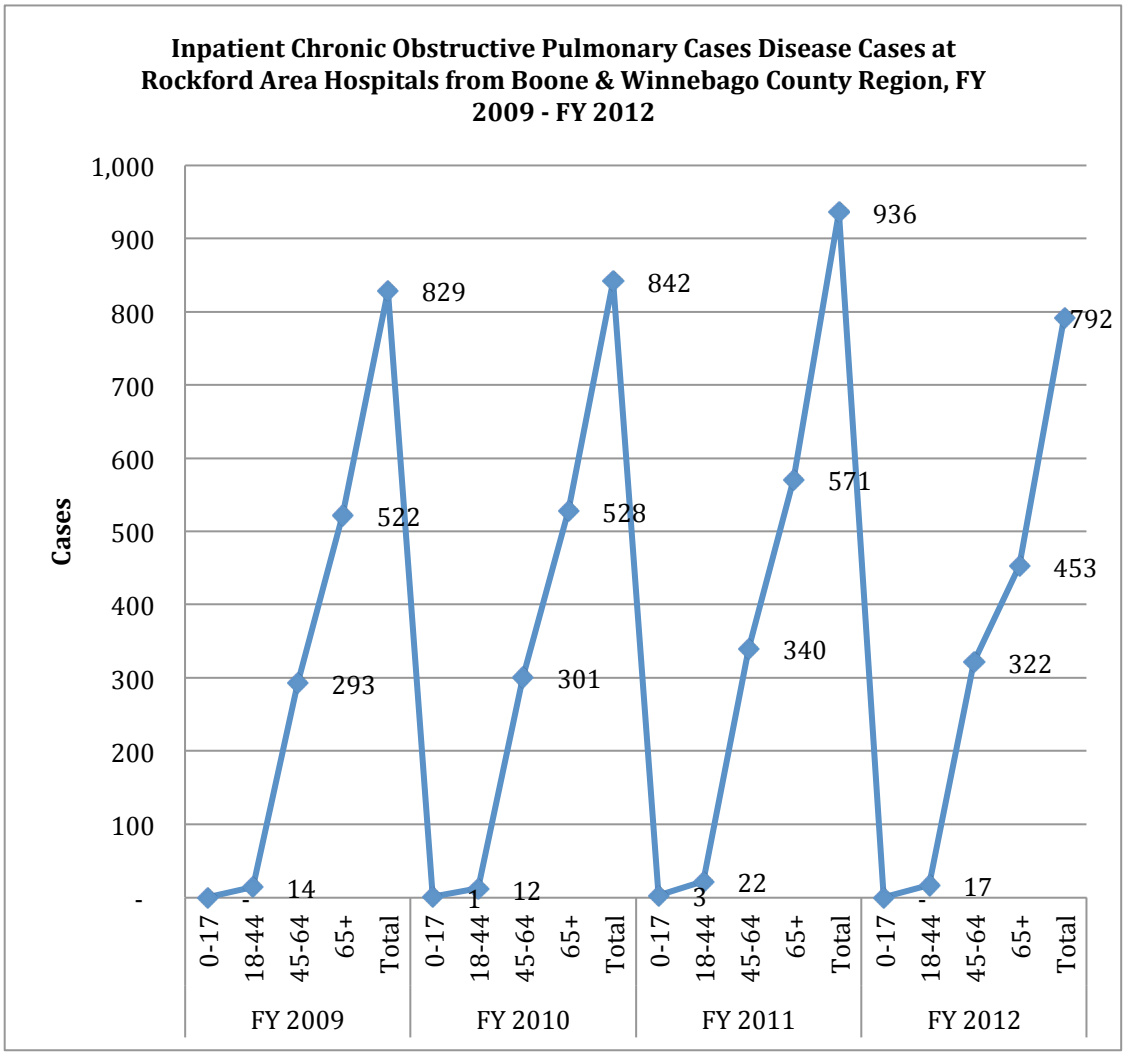


Source: COMPdata 2012

4.3.3 COPD

There has been a 4% decrease in the number of treated cases of COPD at Rockford area hospitals from Boone and Winnebago County between FY 2009 and FY 2012 for inpatient admissions. The number of cases of COPD for individuals age 45-64 years of age has increased 10% between 2009 (293 cases) and 2012 (322 cases).

Table 4.3.3-1 Inpatient Chronic Obstructive Pulmonary Cases Disease Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



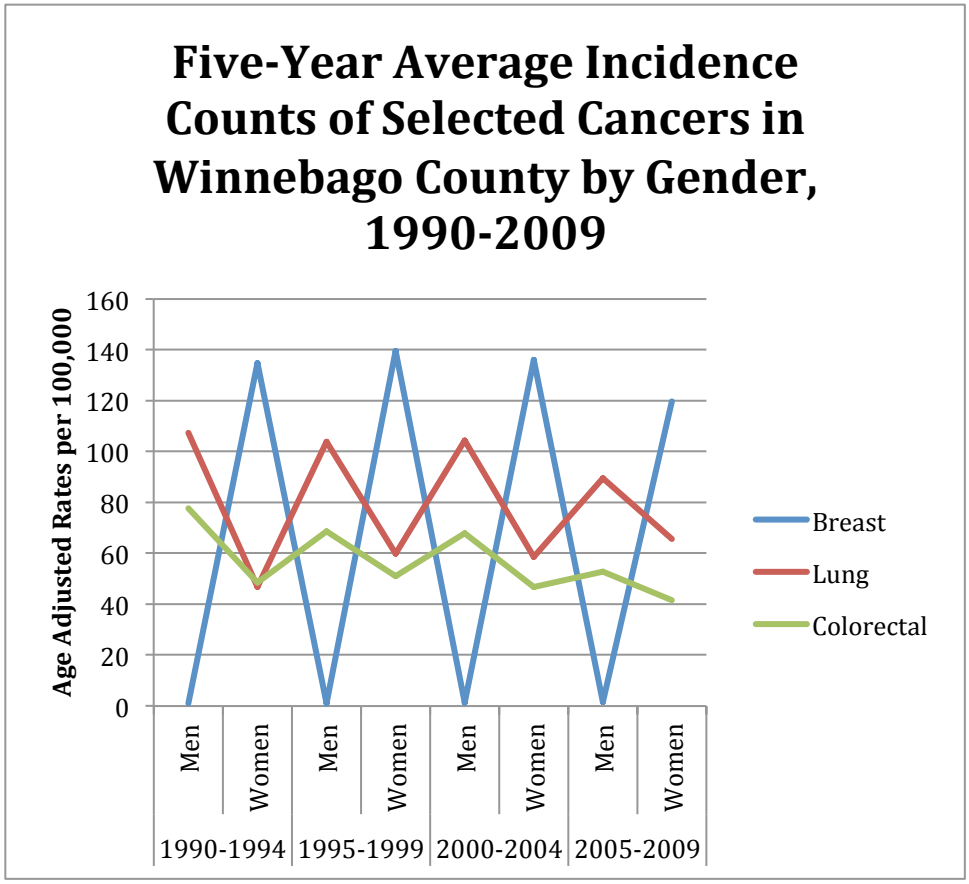
Source: COMPdata 2012

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 the leading cause of death in Winnebago County.

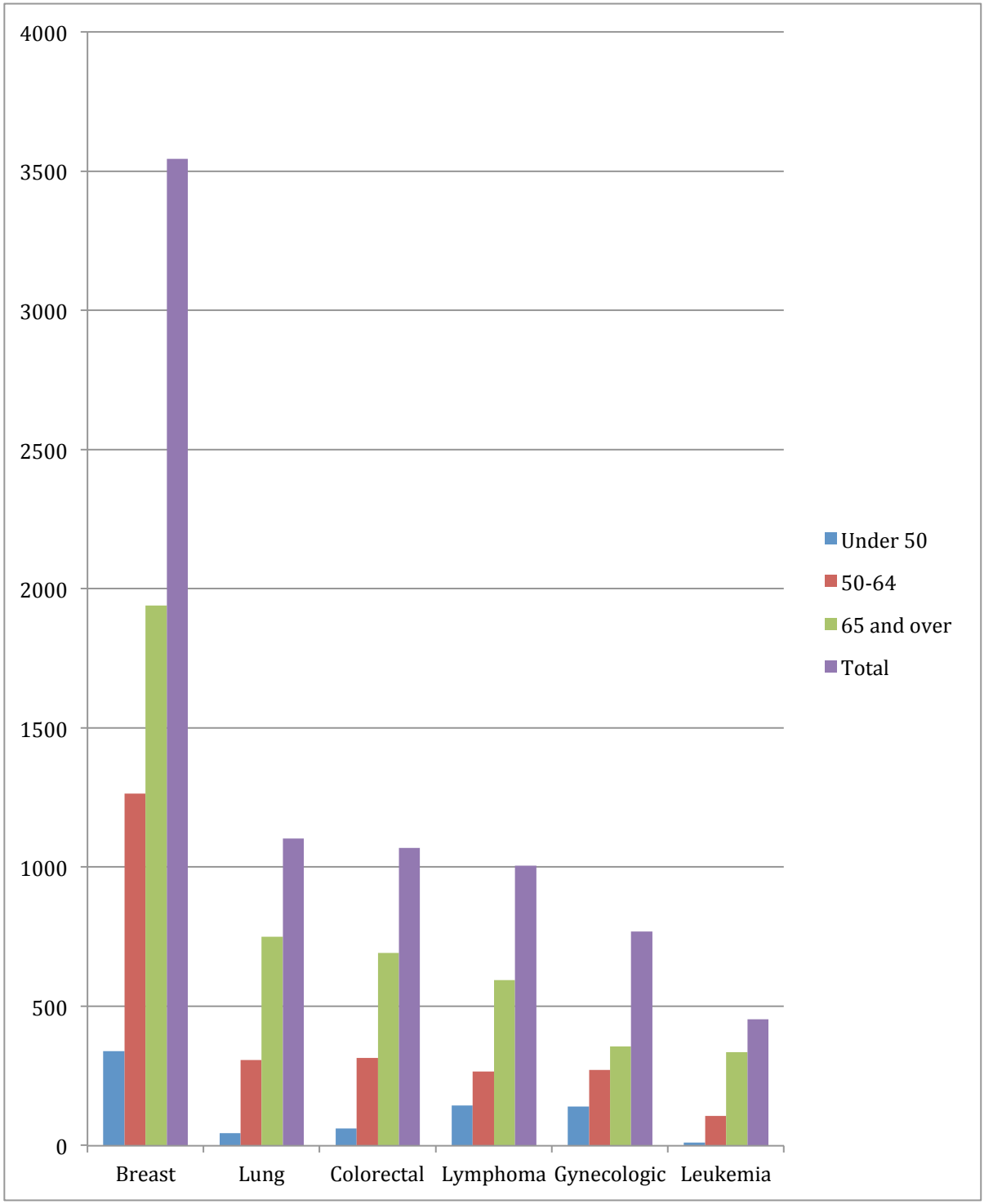
Table 4.4-1 provides longitudinal data on the incidence counts of breast, lung, and colorectal cancers in Winnebago County. Tables 4.4-2 and 4.4-3 offer insight into the number of treated cases of the top 6 cancers by treatment in Illinois by age and percentage breakdown by gender.

Table 4.4-1 Five-Year Average Incidence Counts of Selected Cancers in Winnebago County by Gender, 1990-2009



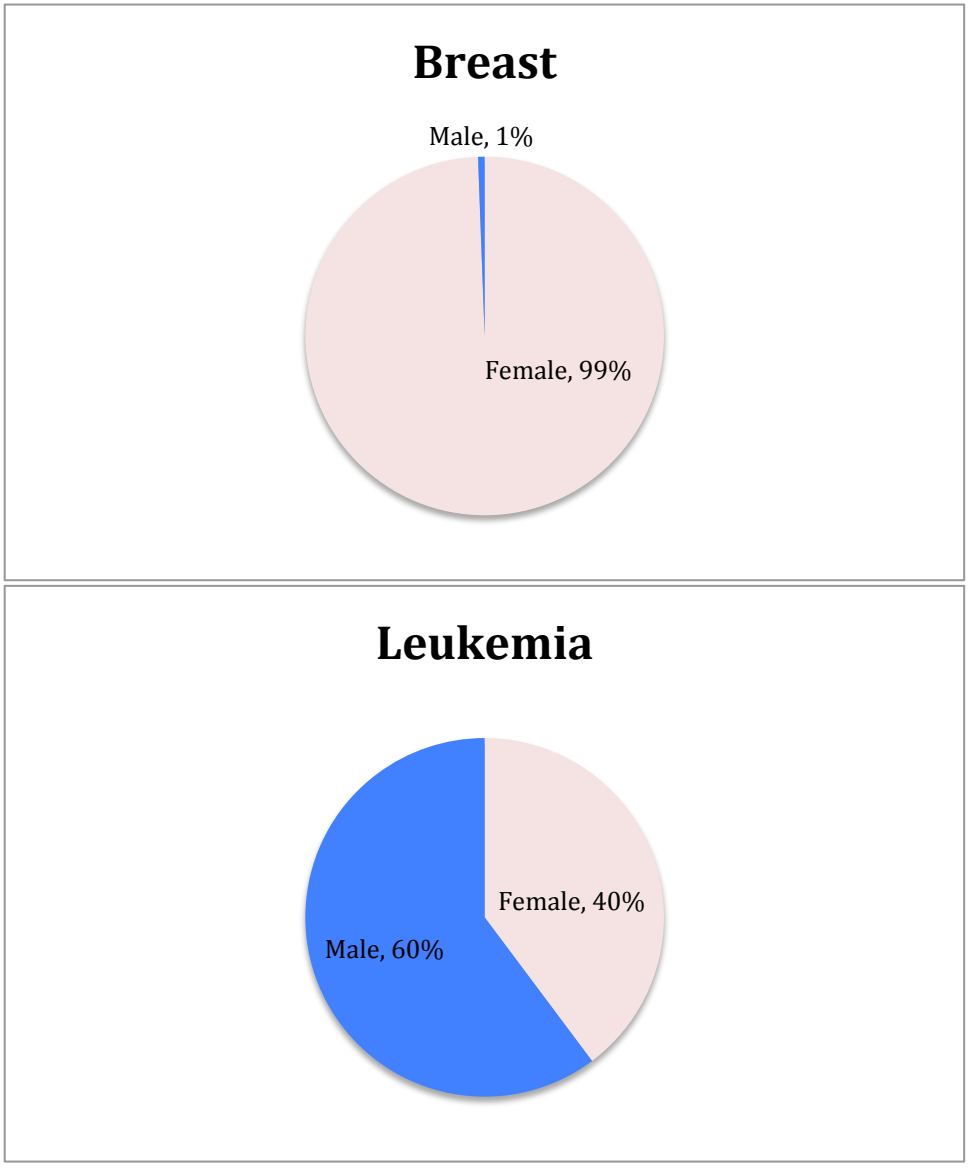
Source: IL Department of Public Health

Table 4.4-2 Top 6 Cancers by Treatment

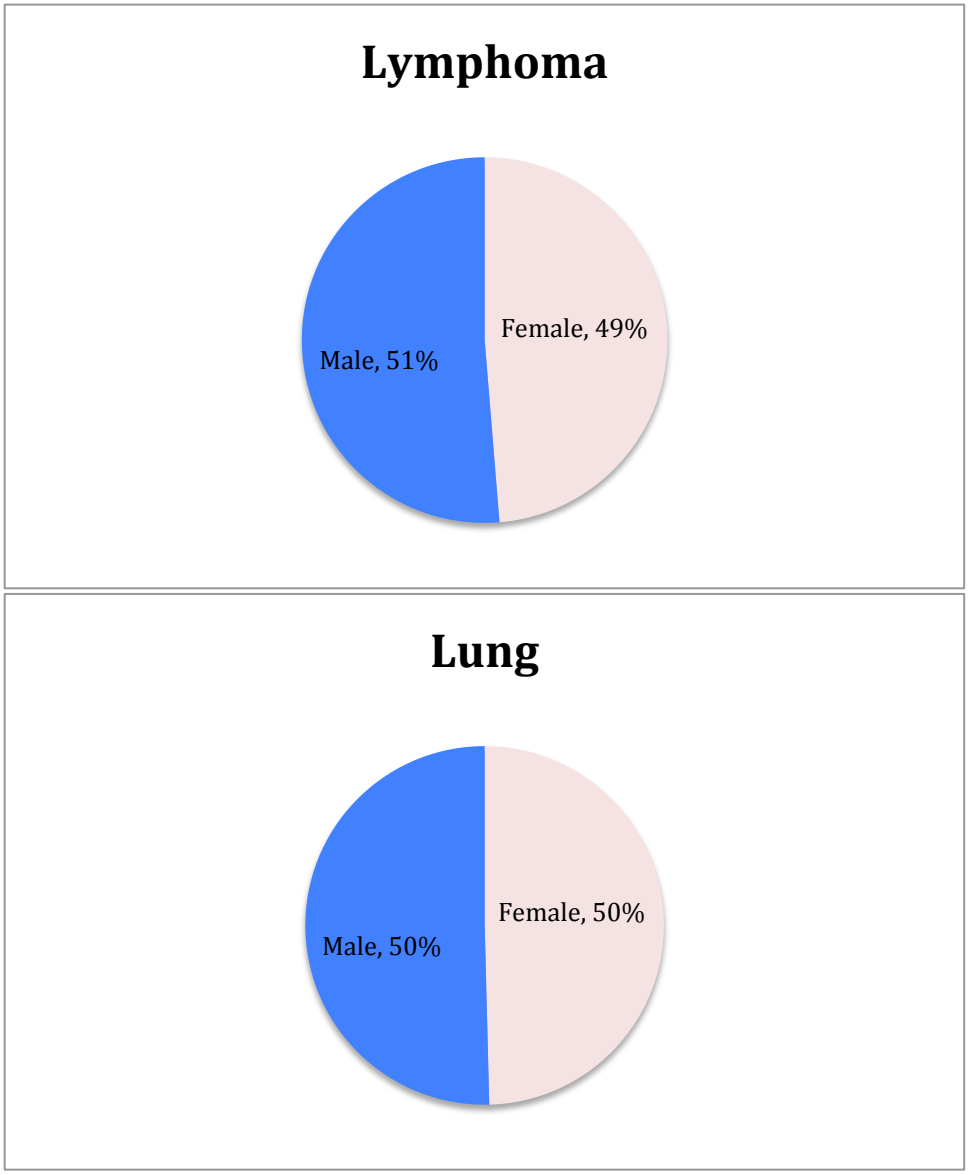


Source: IL Cancer Care, 2011

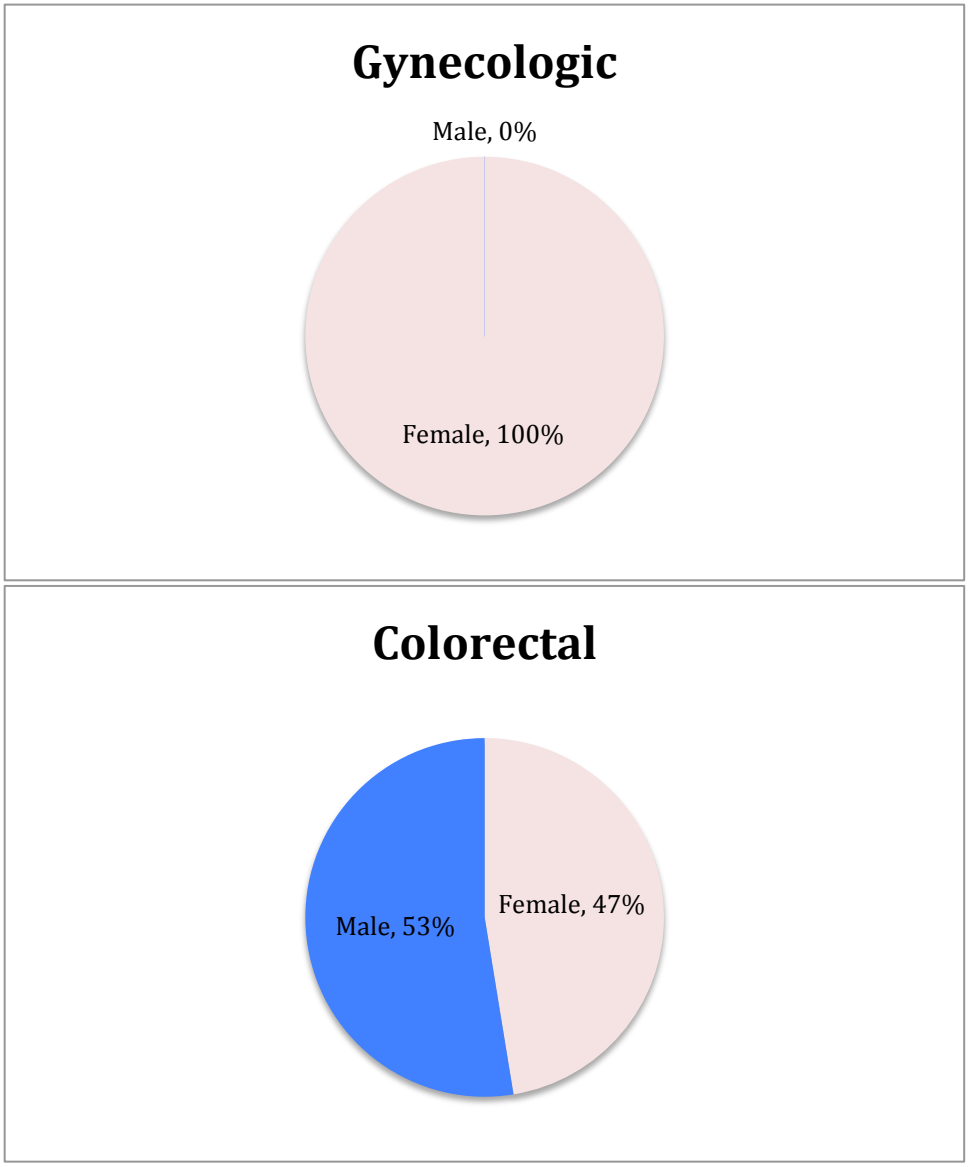
Table 4.4-4 Cancer by Gender



Source: IL Cancer Care, 2011



Source: IL Cancer Care, 2011

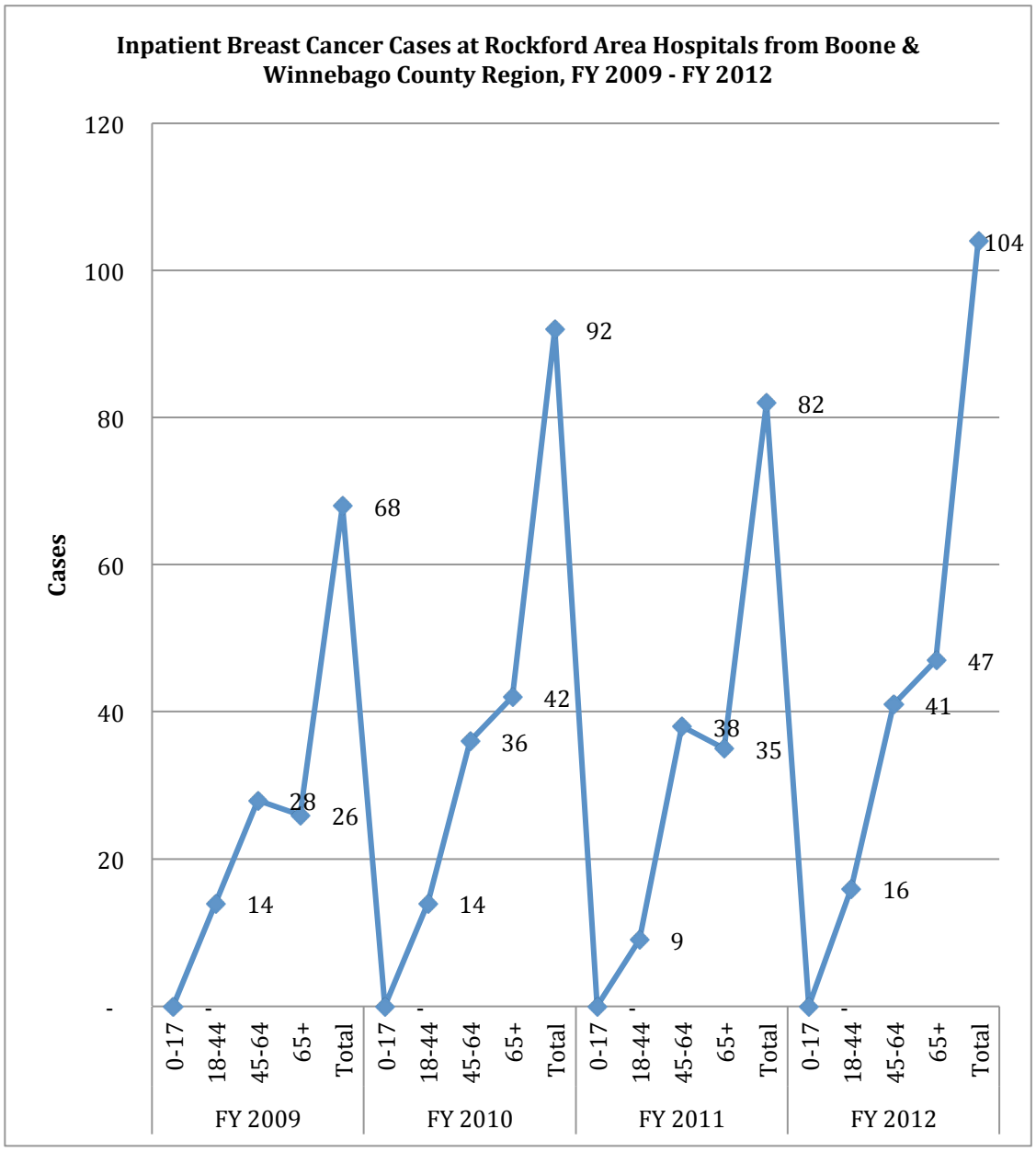


Source: IL Cancer Care, 2011

4.4.1 Carcinoma

The number of cases of inpatient breast cancer at Rockford area hospitals from the Winnebago and Boone County region has increased 53% between 2009 (68 cases) and 2012 (104 cases).

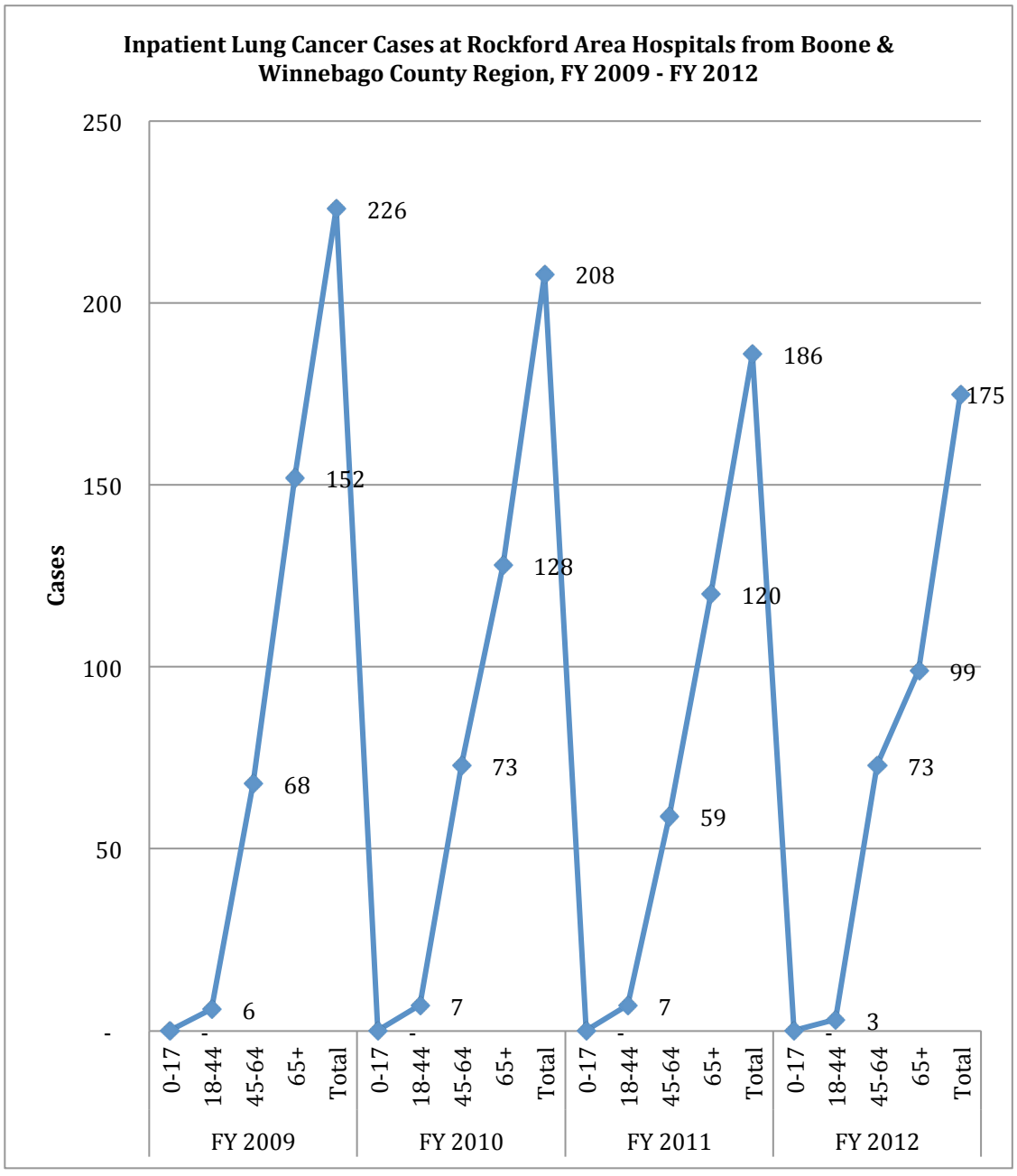
Table 4.4.1-1 Inpatient Breast Cancer Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Cases of inpatient lung cancer have steadily decreased by 23% between FY 2009 and FY 2012 at Rockford area hospitals in Winnebago County. Cases in individuals 45-64 years of age have increased by 7% during the same time frame (68 cases in FY 2009 and 73 cases in FY 2012).

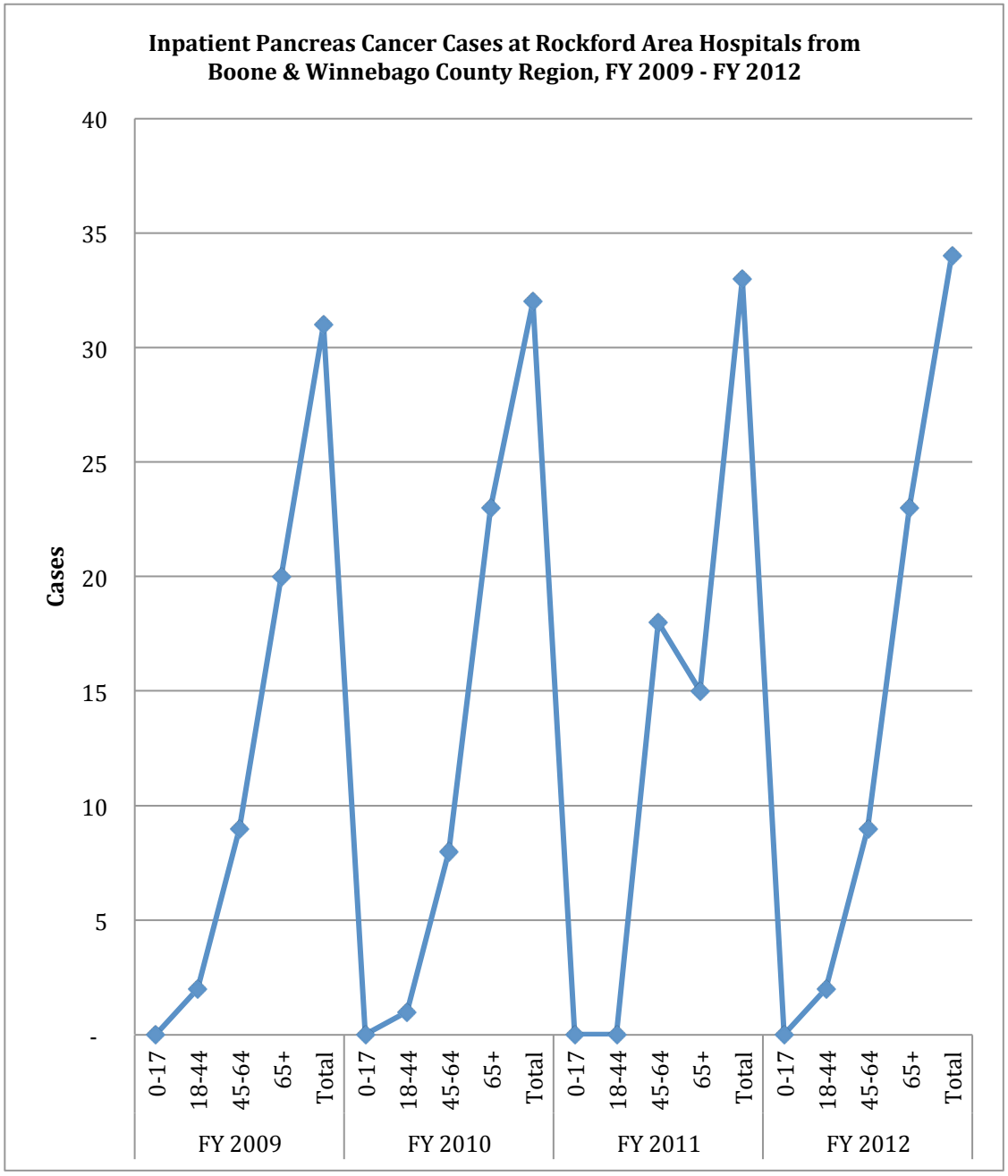
Table 4.4.1-2 Inpatient Lung Cancer Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

The number of cases of inpatient pancreatic cancer at Rockford area hospitals from the Winnebago and Boone County region has increased 10% between 2009 (31 cases) and 2012 (34 cases).

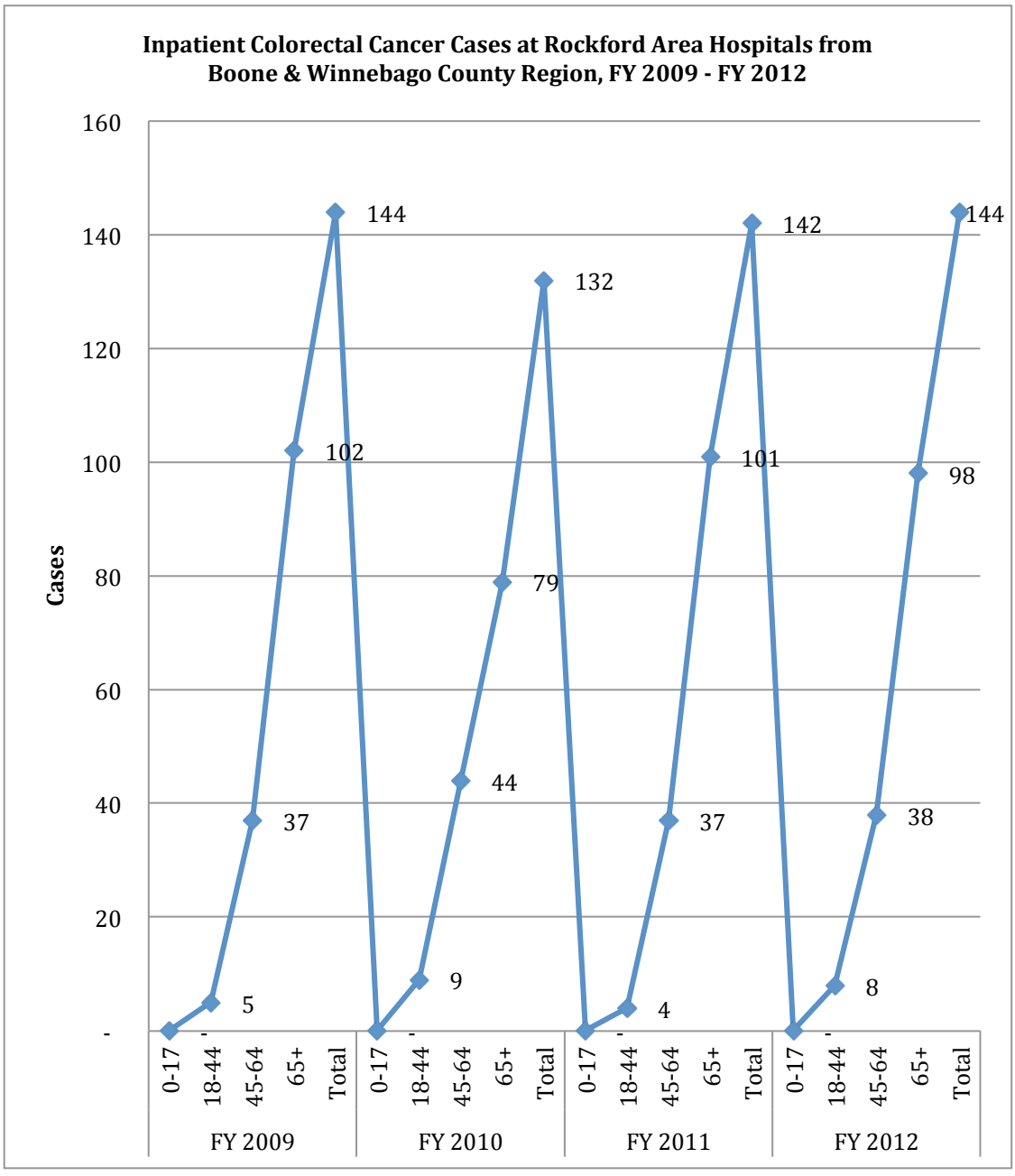
Table 4.4.1-3 Inpatient Pancreas Cancer Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, there was an average of 141 reported cases of inpatient colorectal cancer at Rockford area hospitals in Winnebago County. Overall, cases have remained constant during the same time frame. Inpatient cases of colorectal cancer peaked in FY 2012 with 144 cases.

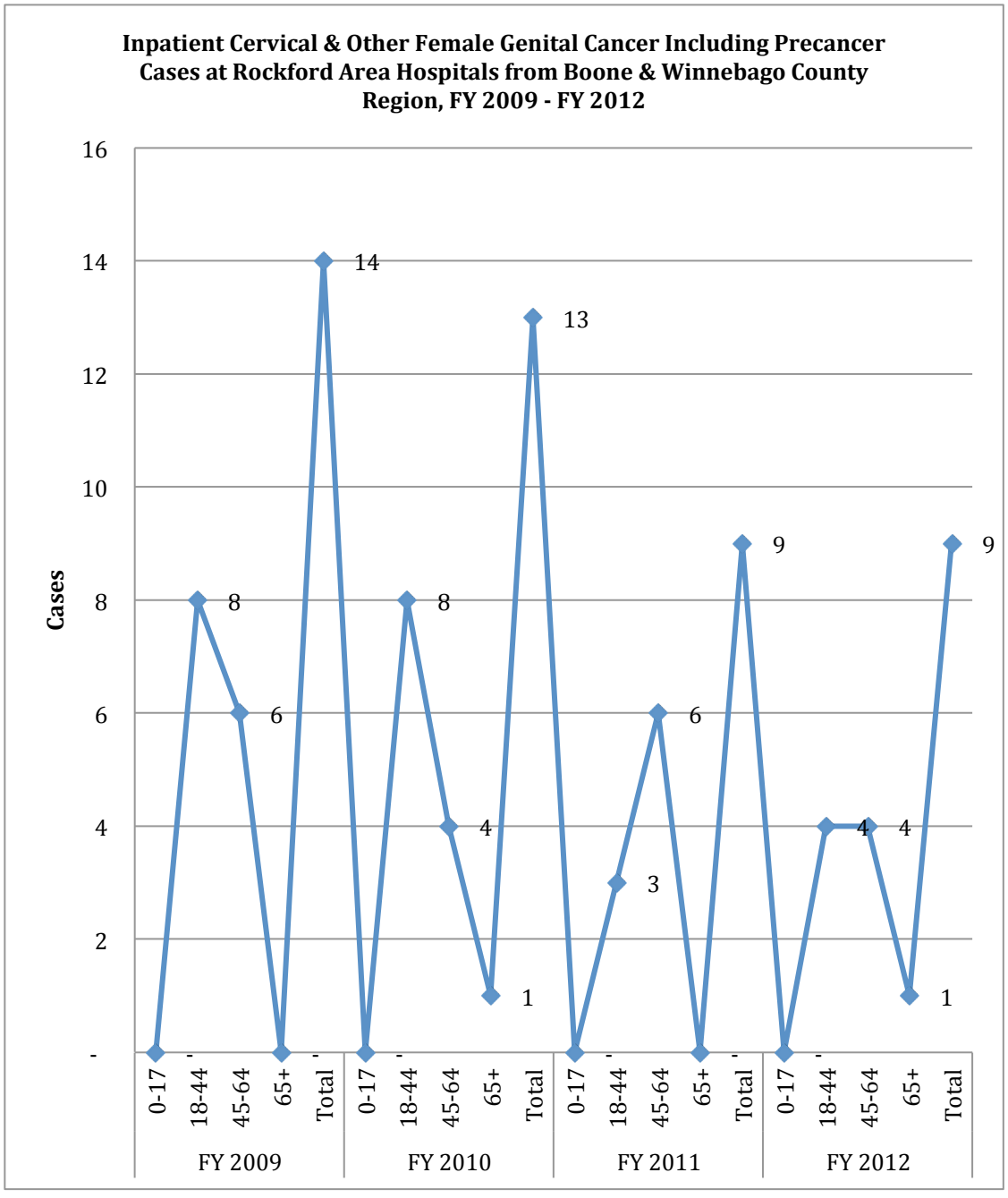
Table 4.4.1-4 Inpatient Colorectal Cancer Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Between FY 2009 and FY 2012, there were 45 cases of inpatient cervical cancer at Rockford area hospitals from Boone and Winnebago County. Cases of inpatient cervical cancer peaked in FY 2009 when 14 cases were reported.

Table 4.4.1-6 Inpatient Cervical & Other Female Genital Cancer Including Precancer Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

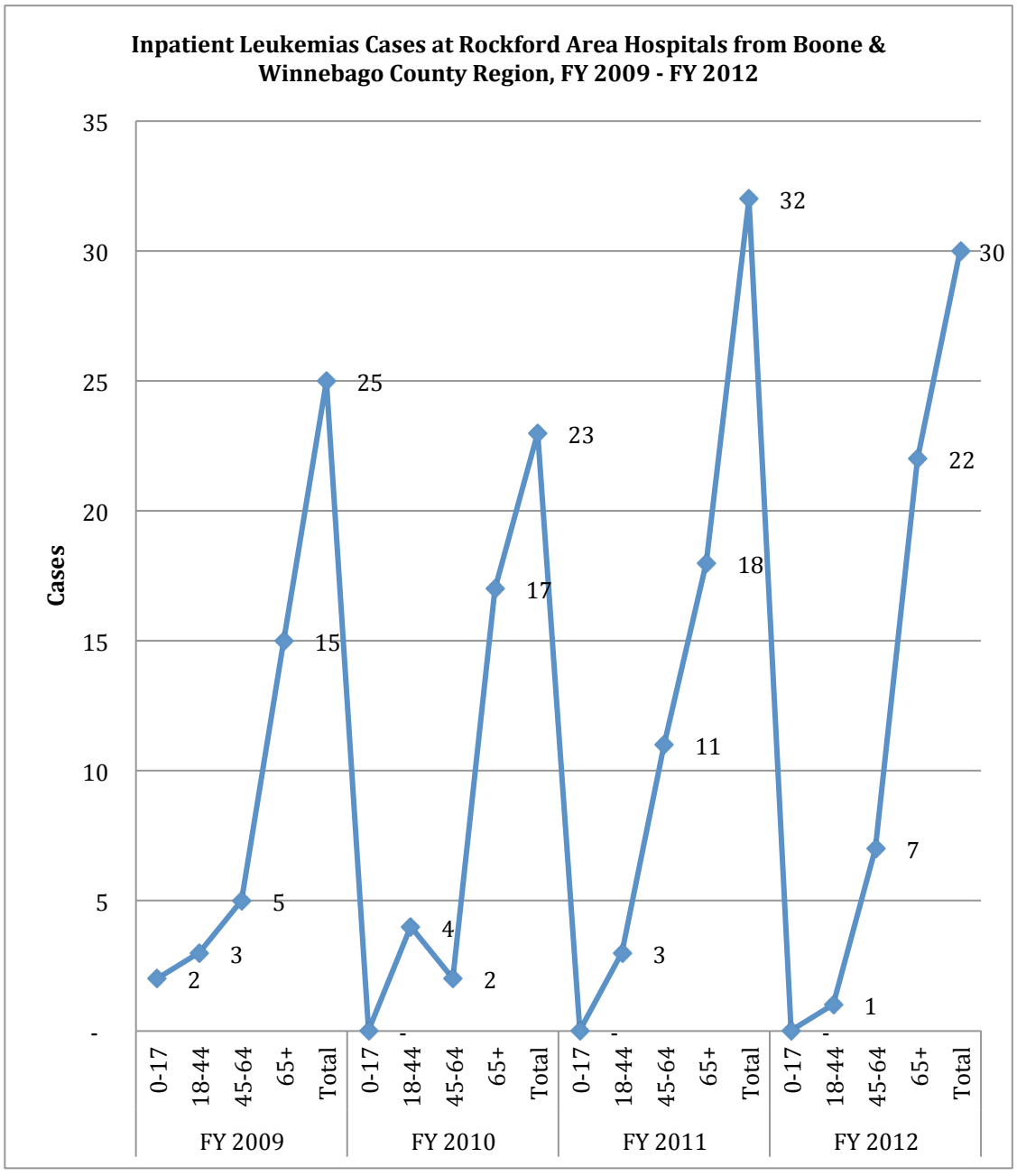


Source: COMPdata 2012

4.4.2 Leukemia

The number of cases of inpatient leukemia at Rockford area hospitals from the Winnebago and Boone County region has increased 20% between 2009 (25 cases) and 2012 (30 cases).

Table 4.4.2-1 Inpatient Leukemia Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

4.5 Type II Diabetes

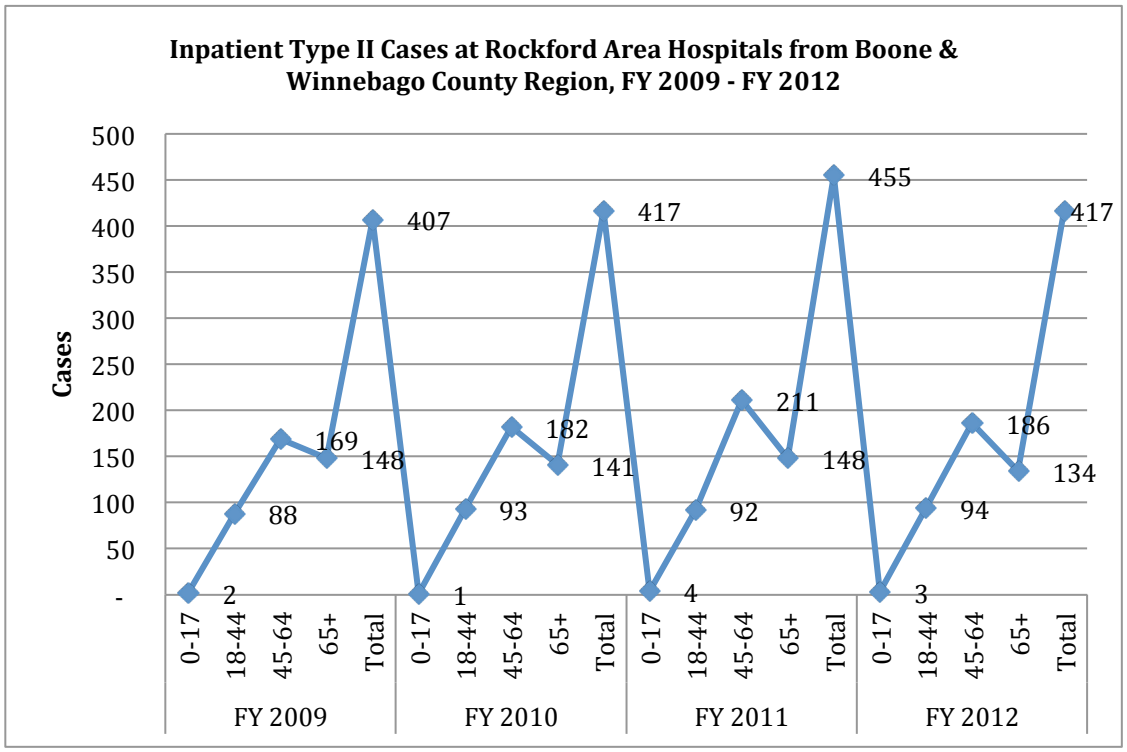
Importance of the measure:
Diabetes is the leading cause of kidney failure, adult blindness and amputations and is a leading contributor to strokes and heart attacks. It is estimated that 90-95% of individuals with diabetes have Type II diabetes (previously known as adult-onset diabetes). Only 10-15% of individuals with diabetes have Type I diabetes (previously known as juvenile diabetes).

Cases of Type II diabetes at Rockford area hospitals from Winnebago County have increased by 2% between FY 2009 and FY 2012 for inpatient admissions. The number of cases of inpatient Type II diabetes for individuals age 45-64 years of age and older at Rockford area hospitals from the Winnebago and Boone County region has increased 10% between 2009 (169 cases) and 2012 (186 cases).

Cases of Type I diabetes at Rockford area hospitals from Winnebago County have decreased by 7% between FY 2009 and FY 2012 for inpatient admissions.

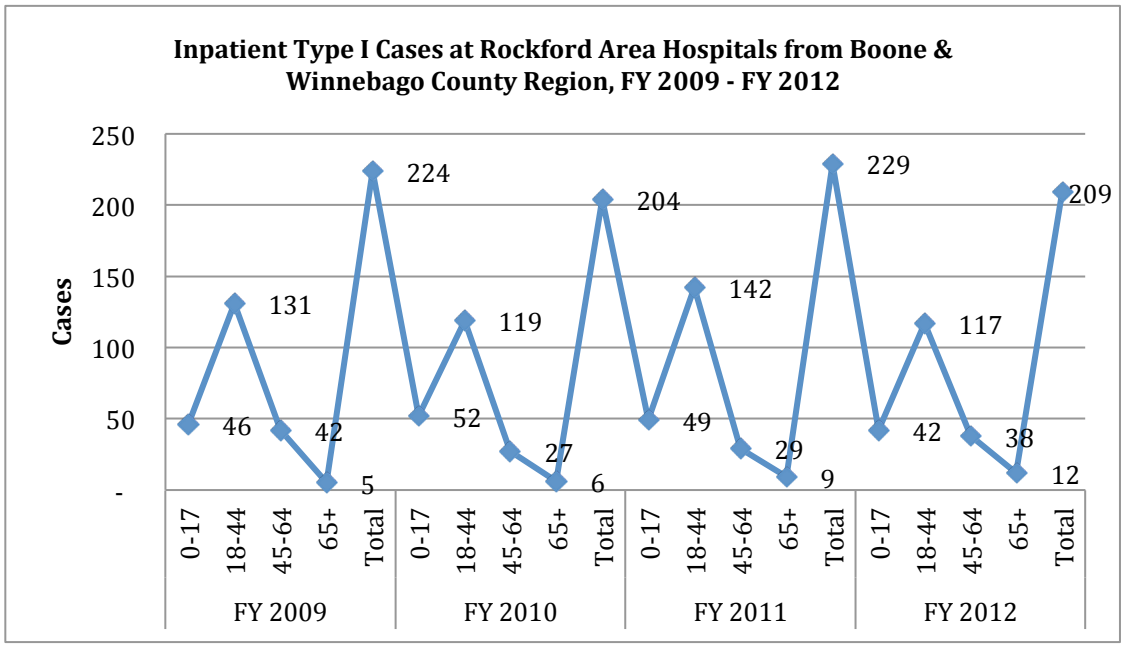
Data from the Illinois BRFSS indicate that 9.2% of Winnebago County residents have diabetes. Compared to data from the State of Illinois, the prevalence of diabetes is higher in Winnebago County.

Table 4.5-1 Inpatient Type II Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



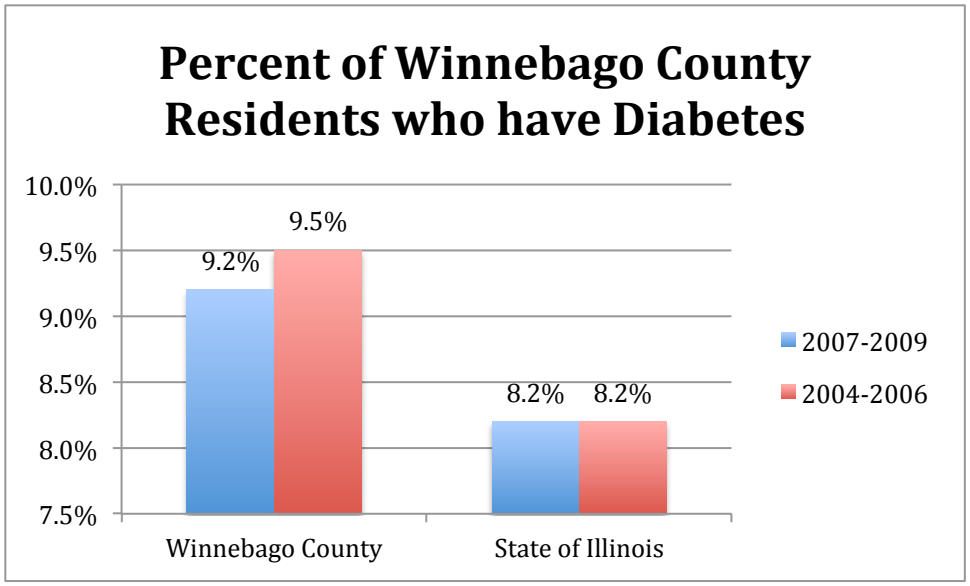
Source: COMPdata 2012

Table 4.5-2 Inpatient Type I Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

Table 4.5-3 Percent of Winnebago County Residents who have Diabetes



Source: Illinois Department of Public Health

4.6 Infectious Diseases

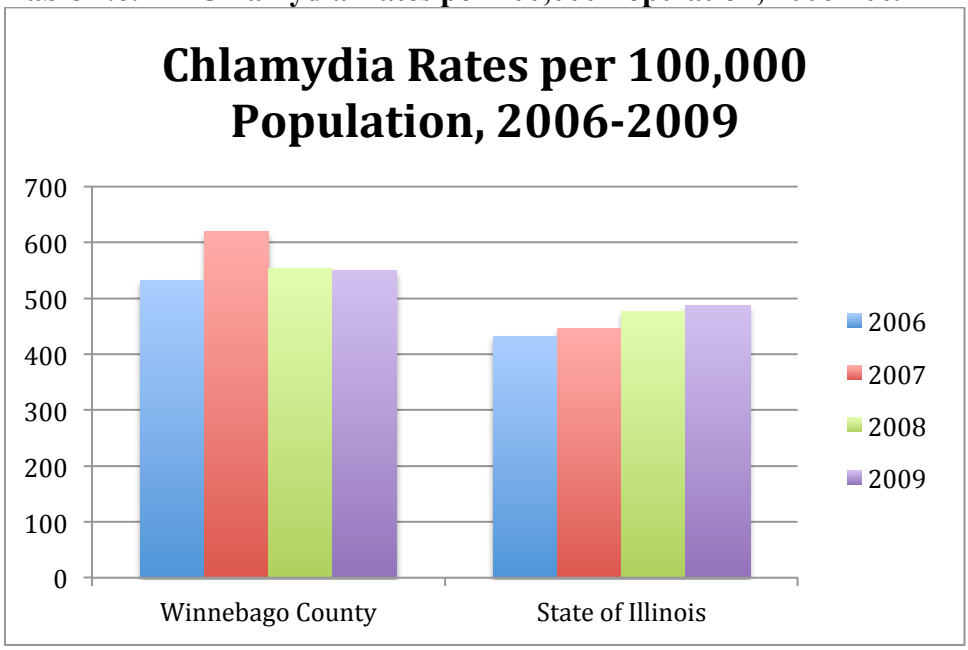
Importance of the measure: Infectious diseases, including sexually transmitted infections and hepatitis, are impacted by high-risk sexual behavior, drug and alcohol abuse, limited access to health care, and poverty. It would be highly cost-effective for both individuals and society if more programs focused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

4.6.1 STIs

Rates for chlamydia, per 100,000 individuals, in Winnebago County have exceeded the State of Illinois average since 1990. Data from 2009 indicate rates of 550.6 cases per 100,000 individuals in Winnebago County compared to rates of 487.5 cases per 100,000 individuals across the State of Illinois.

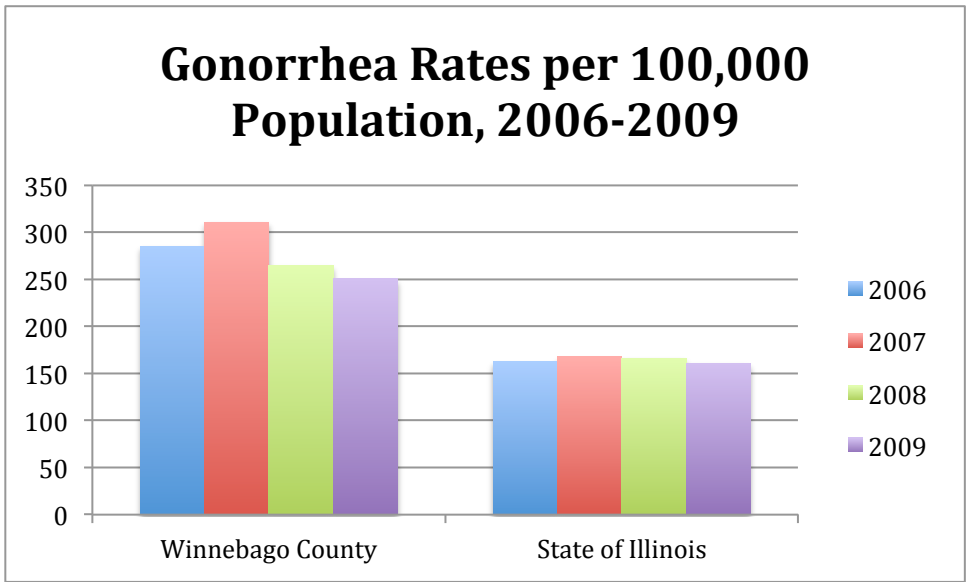
Rates for gonorrhea, per 100,000 individuals, in Winnebago County have exceeded the State of Illinois average since 1990. Data from 2009 indicate rates of 250.7 cases per 100,000 individuals in Winnebago County compared to rates of 160.7 cases per 100,000 individuals across the State of Illinois.

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



Source: Illinois Department of Public Health

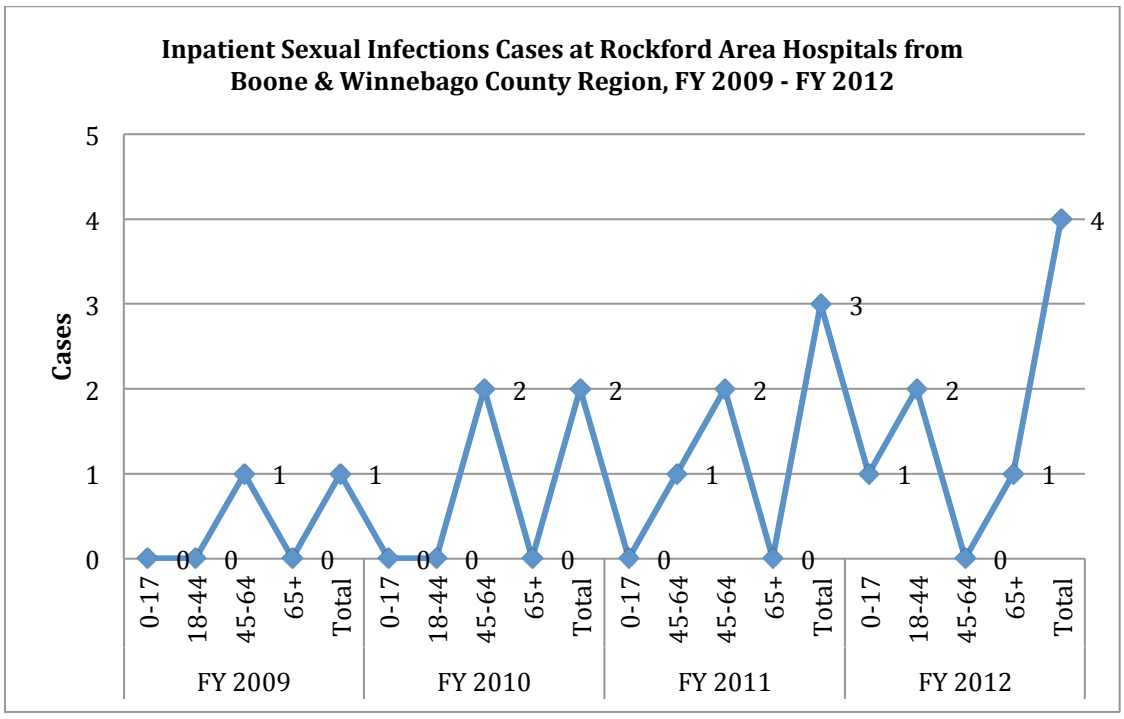
Table 4.6.1-2 Gonorrhea Rates per 100,000 Population, 2006-2009



Source: Illinois Department of Public Health

Ten reported cases of inpatient sexual infection was reported at Rockford area hospitals from Boone and Winnebago County between FY 2009 and FY 2012.

Table 4.6.1-3 Inpatient Sexual Infections Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012

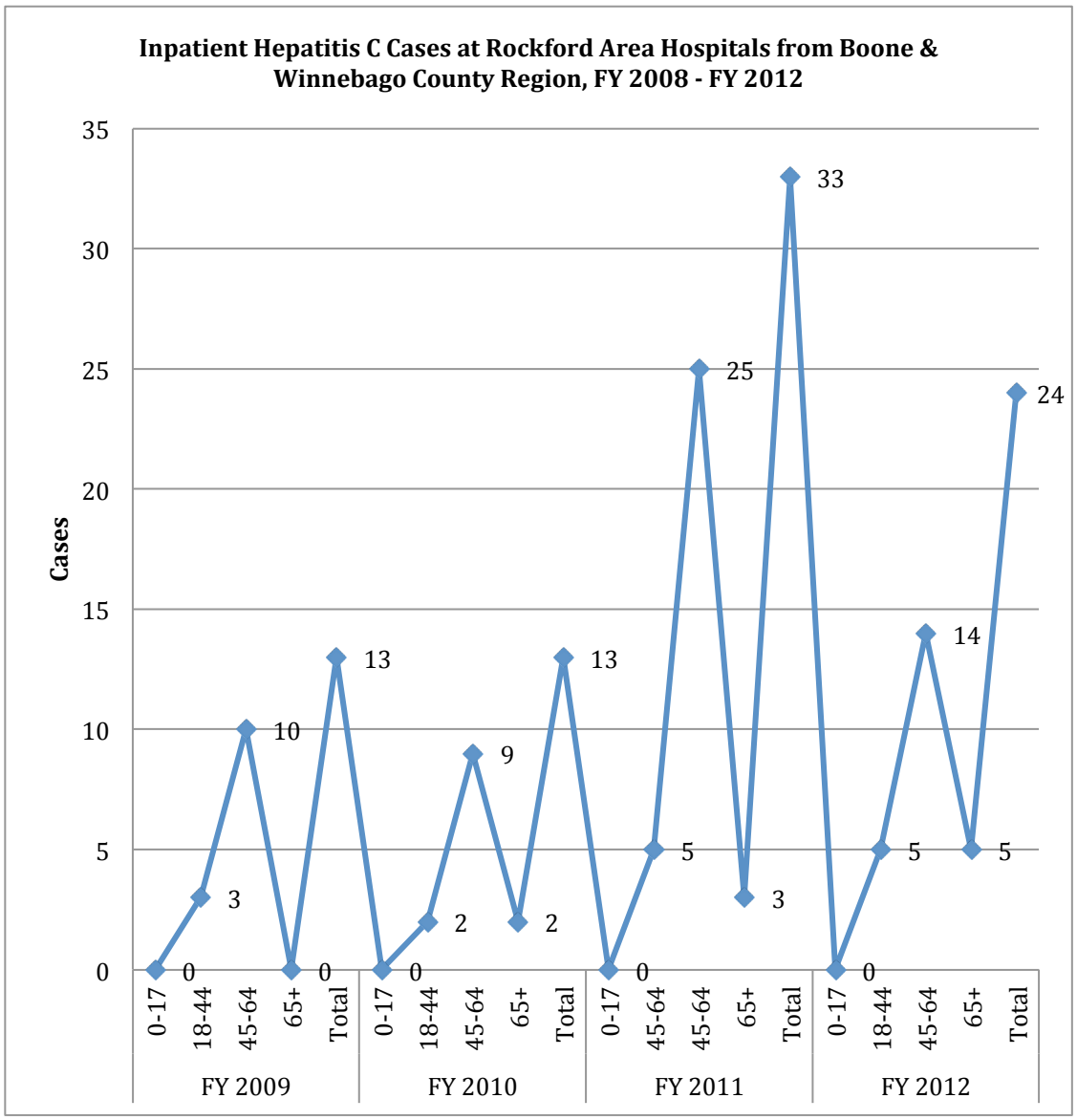


Source: COMPdata 2012

4.6.2 Hepatitis C

Cases of inpatient hepatitis C increased by 85% at Rockford area hospitals from Boone and Winnebago County between FY 2009 and FY 2012.

Table 4.6.1-3 Inpatient Hepatitis C Cases at Rockford area hospitals from Winnebago County Region, FY 2009 - FY 2012



Source: COMPdata 2012

4.7 Secondary Diagnoses

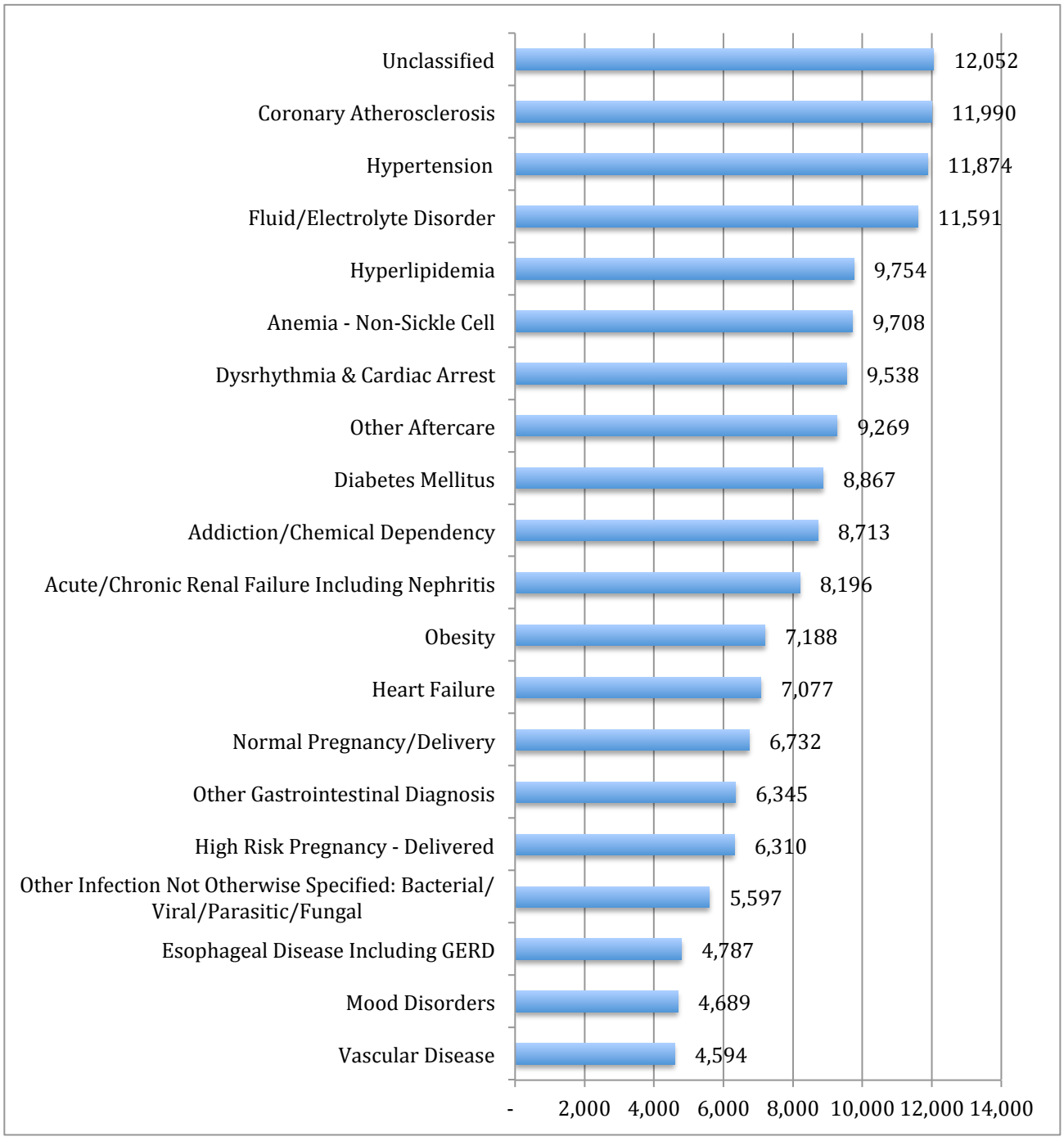
Importance of the measure:
Secondary diagnoses are additional conditions diagnosed upon hospital intake. These diagnoses may complicate treatment efforts aimed at alleviating the primary diagnosis and exacerbate health care costs.

Tables 4.7.1-1 and 4.7.1-2 identify the top 20 secondary diagnoses in Winnebago County. "Unclassifed" is the most prevalent secondary diagnosis.

Between 2009 and 2012, the number of cases categorized as "addiction/chemical dependency" increased 113%.

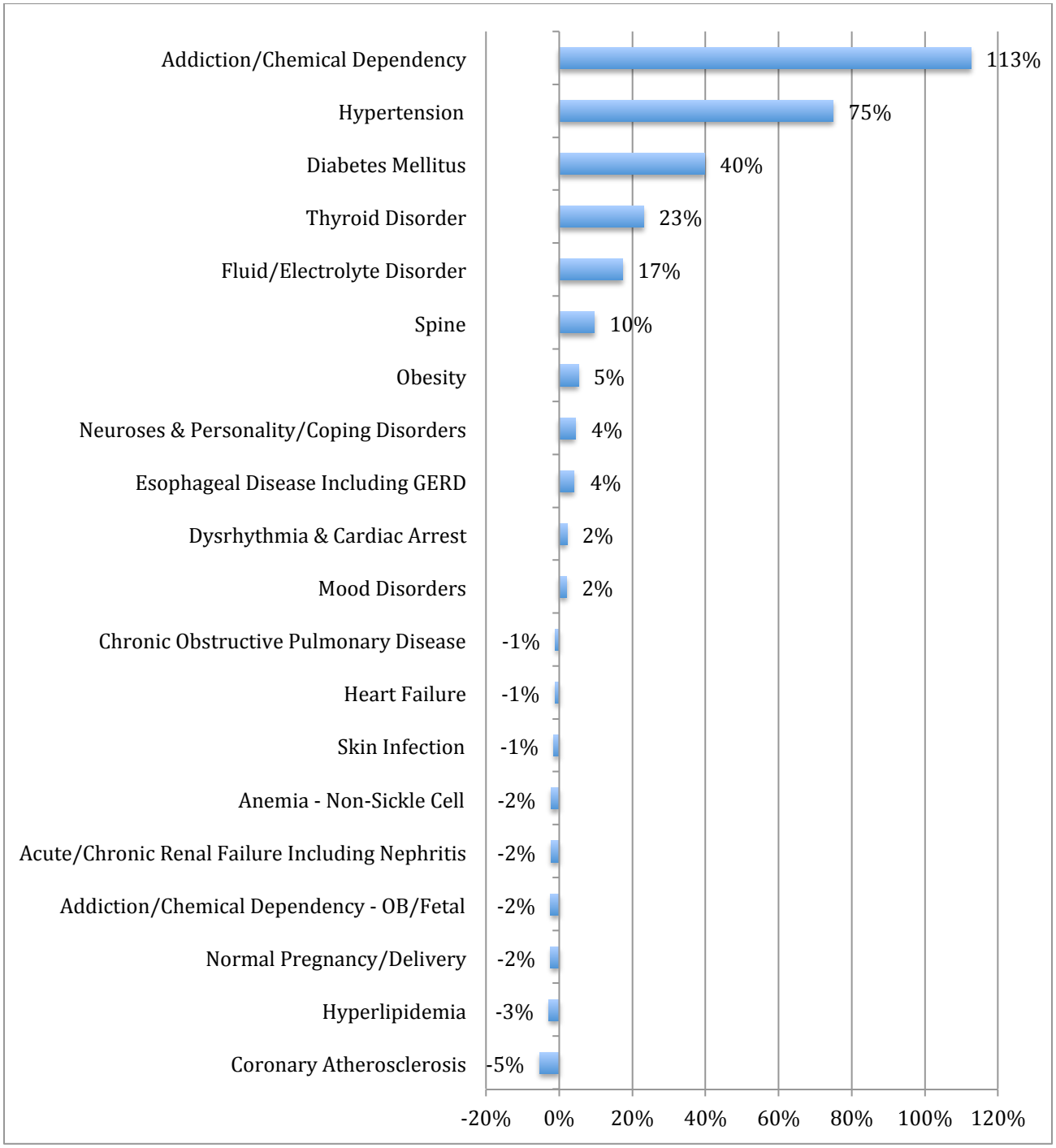
It should be noted that the same patients may have multiple secondary diagnoses.

Table 4.7.1-1 Number of Cases of Top 20 Secondary Diagnoses at Rockford 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 Winnebago County Hospitals, Inpatient Only, 2009-2012



Source: COMPdata 2012

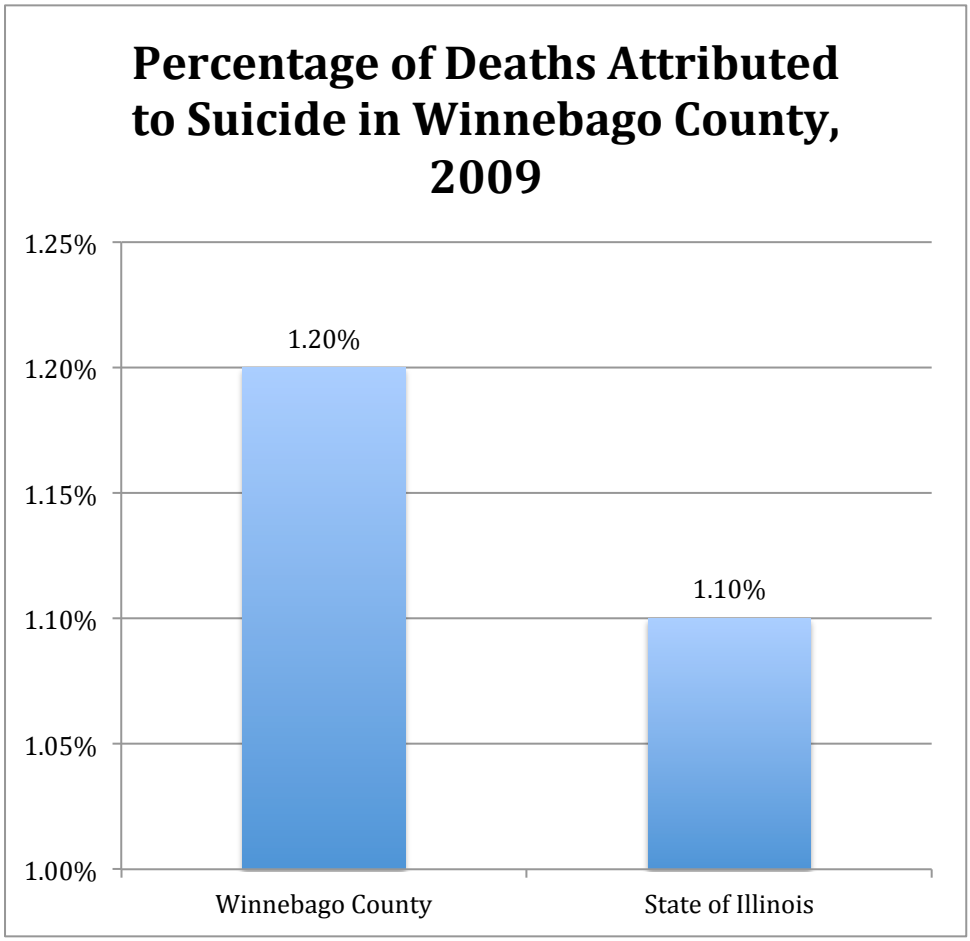
4.8 Injuries

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

For Winnebago County in 2009, the percentage of deaths attributed to suicide is 1.2% and slightly higher than the State of Illinois average.

Table 4.8.1-1 Percentage of Deaths Attributed to Suicide in Winnebago County, 2009

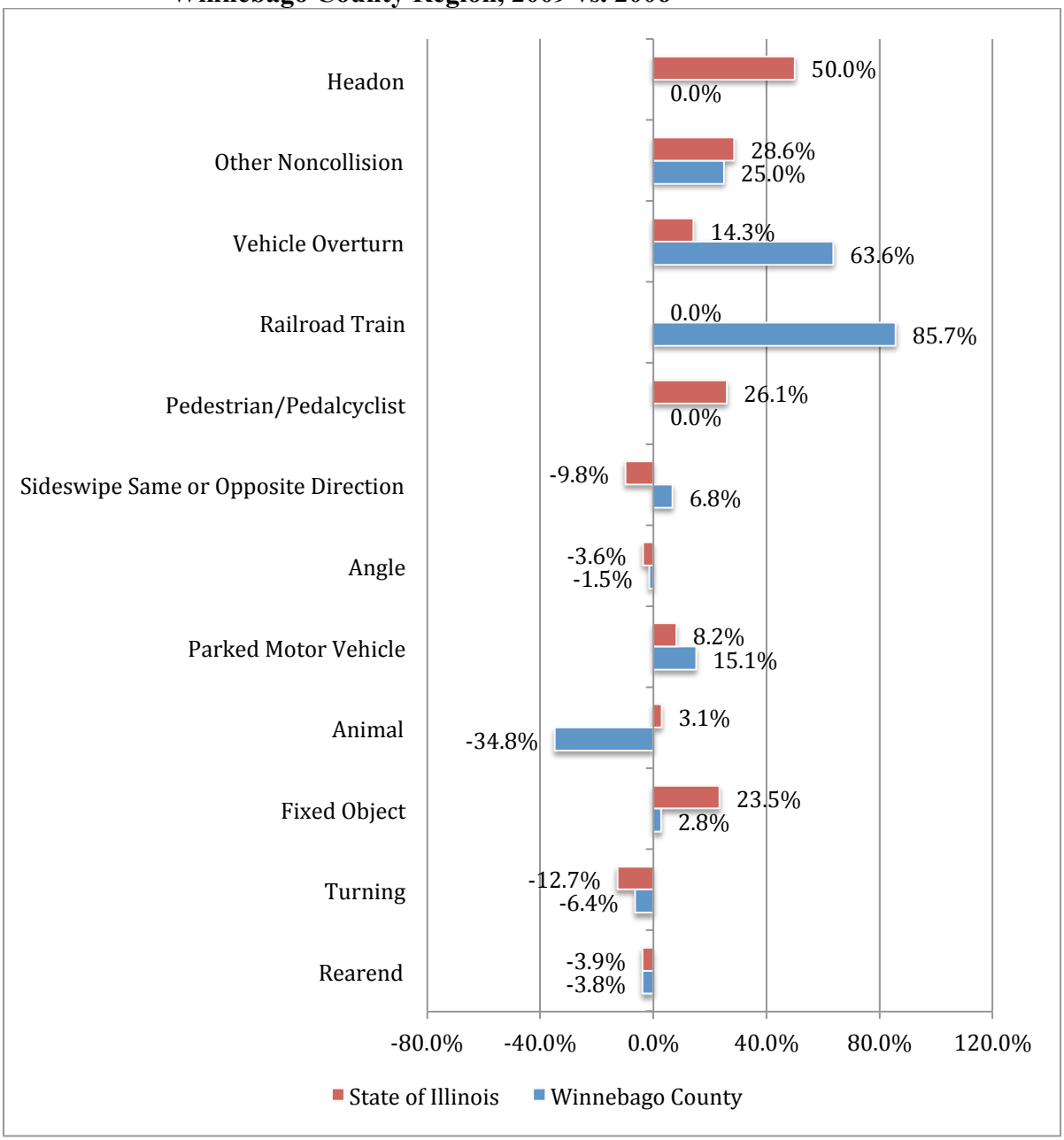


Source: Illinois Department of Public Health

4.8.2 Unintentional – motor vehicle

Research suggests that car accidents are a leading cause of unintentional injuries. In Winnebago County, the three-year growth rate between 2006 and 2009 for several types of motor vehicle collisions exceeds the State of Illinois average including vehicle overturn, railroad train, sideswipe, angle, parked motor vehicle, turning, and rearend accidents.

Table 4.8.2-1. Three-year Growth Rates for Motor Vehicle Collision Incidents within the Winnebago County Region, 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]

Data from the Rockford area hospitals paint a striking portrait regarding the leading indicators of cardiovascular disease. The number of cases of inpatient dysrhythmia and cardiac arrest at Rockford area hospitals from the Winnebago and Boone County region has increased 17% between 2009 (200 cases) and 2012 (234 cases) for individuals 45 to 64 years of age. The number of cases of inpatient heart valve disease at Rockford area hospitals from the Winnebago and Boone County region has increased 62% between 2009 (21 cases) and 2012 (34 cases) for individuals 45 to 64 years of age. Finally, the number of cases of other cardiovascular disease at Rockford area hospitals from the Winnebago and Boone County region has increased 16% between 2009 (270 cases) and 2012 (313 cases).

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 Winnebago County 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 and Winnebago County are similar as a percentage of total deaths. Cancer comprises 25% of deaths in Winnebago County and Diseases of the Heart comprise 24% of deaths in Winnebago County. Note that in Winnebago County, cancer was the leading cause of death, whereas across the State of Illinois, cancer is the second leading cause of death. Chronic Lower Respiratory Disease and accidents are slightly more prevalent in Winnebago County than across the State of Illinois.

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

Rank	Winnebago County	State of Illinois
1	Malignant Neoplasm (25%)	Diseases of Heart (25%)
2	Diseases of Heart (24%)	Malignant Neoplasm (24%)
3	Chronic Lower Respiratory Disease (6%)	Chronic Lower Respiratory Disease (5%)
4	Accidents (5%)	Cerebrovascular Disease (5%)
5	Cerebrovascular Disease (5%)	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

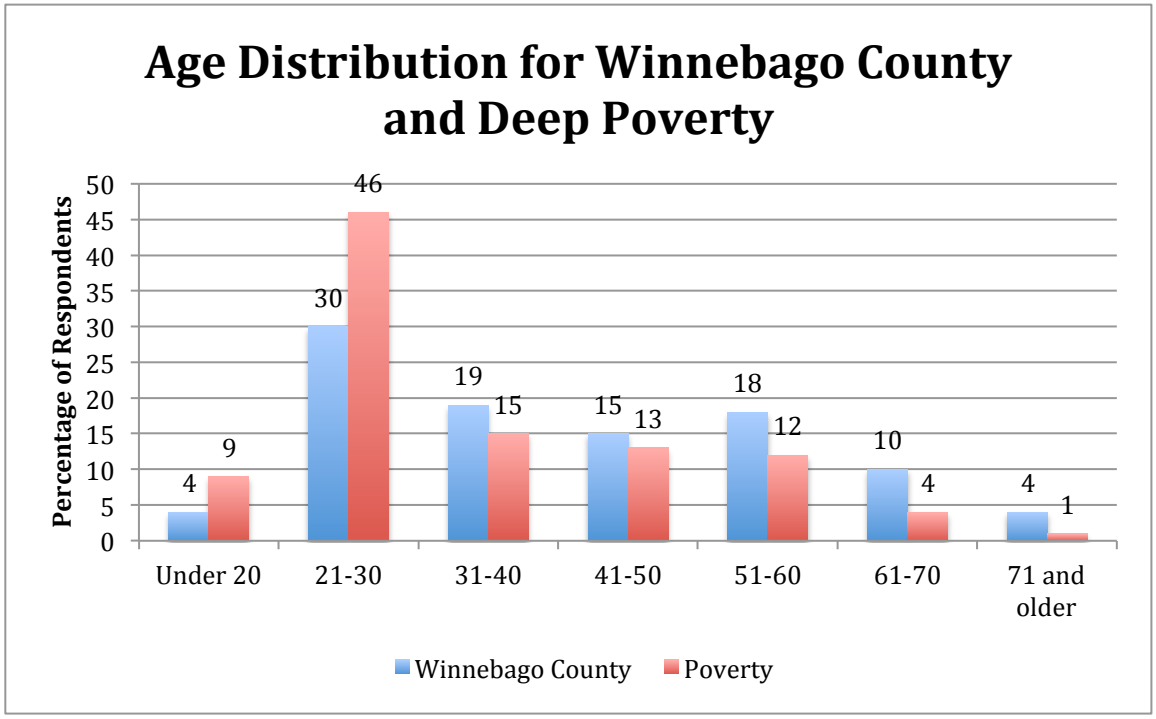
As mentioned in the Methods section of this study, data were collected via on-line surveys and paper surveys. In this chapter, the characteristics of the sample are presented. A total of 851 surveys were completed. All data includes the entire sample, except where specifically noted.

Note that for most characteristics in this chapter, data are analyzed for: (1) the overall sample and (2) 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. Note that 526 respondents were in this income category.

6.1 Age

The average age of respondents was 42.1 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 38.2 years old. This occurred because survey respondents were all adults, age 18 and above.

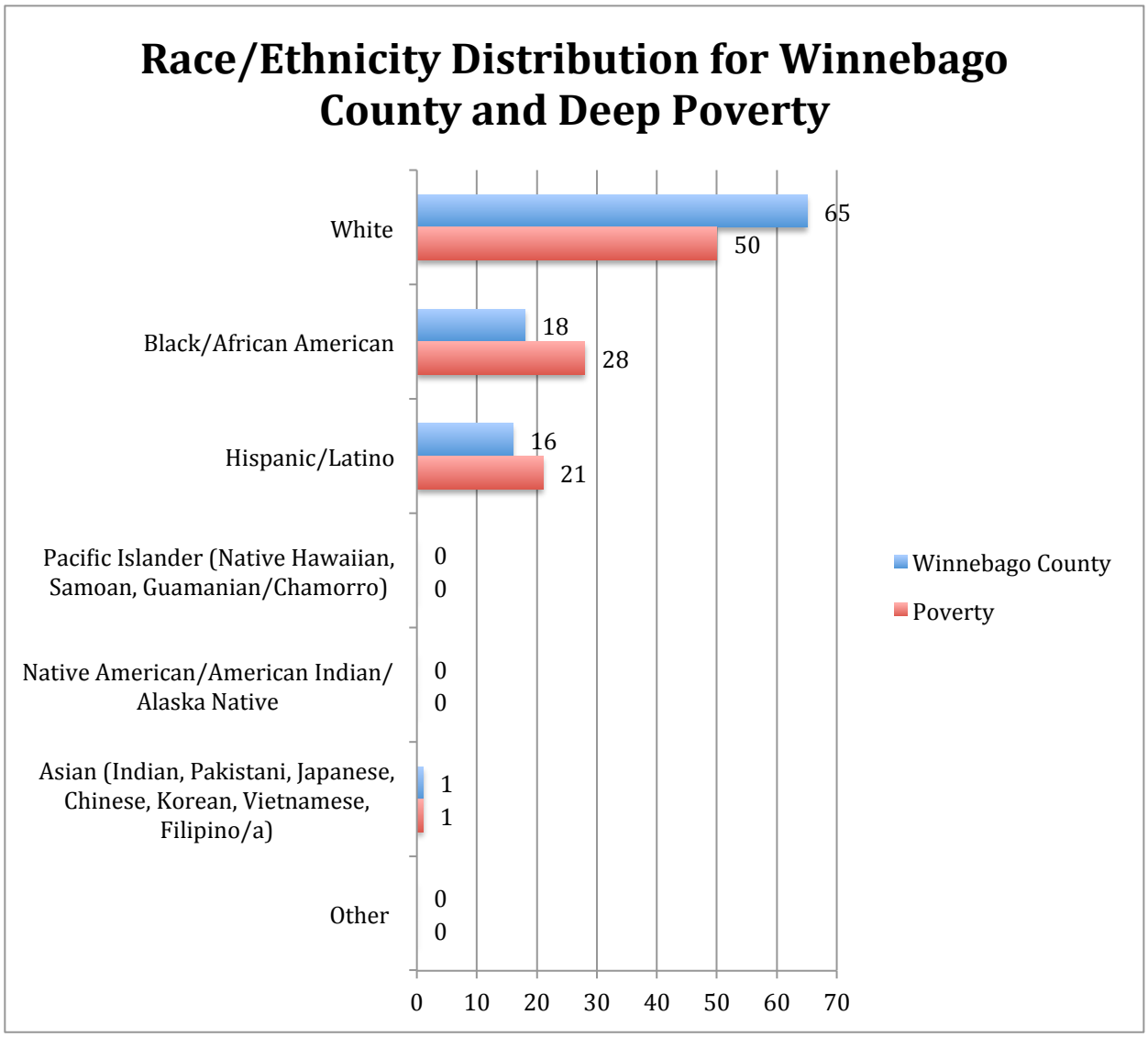
Table 6.1 Age Distribution for Winnebago County and Deep Poverty



6.2 Race and Ethnicity

Overall demographics for race/ethnicity mirrored the secondary data assessed in Phase I. Comparing Census data and the survey respondents, higher percentages of individuals identifying as Black/African American and Hispanic/Latino ethnicity, and lower percentages of individuals identifying with Asian ethnicity were included in the study.

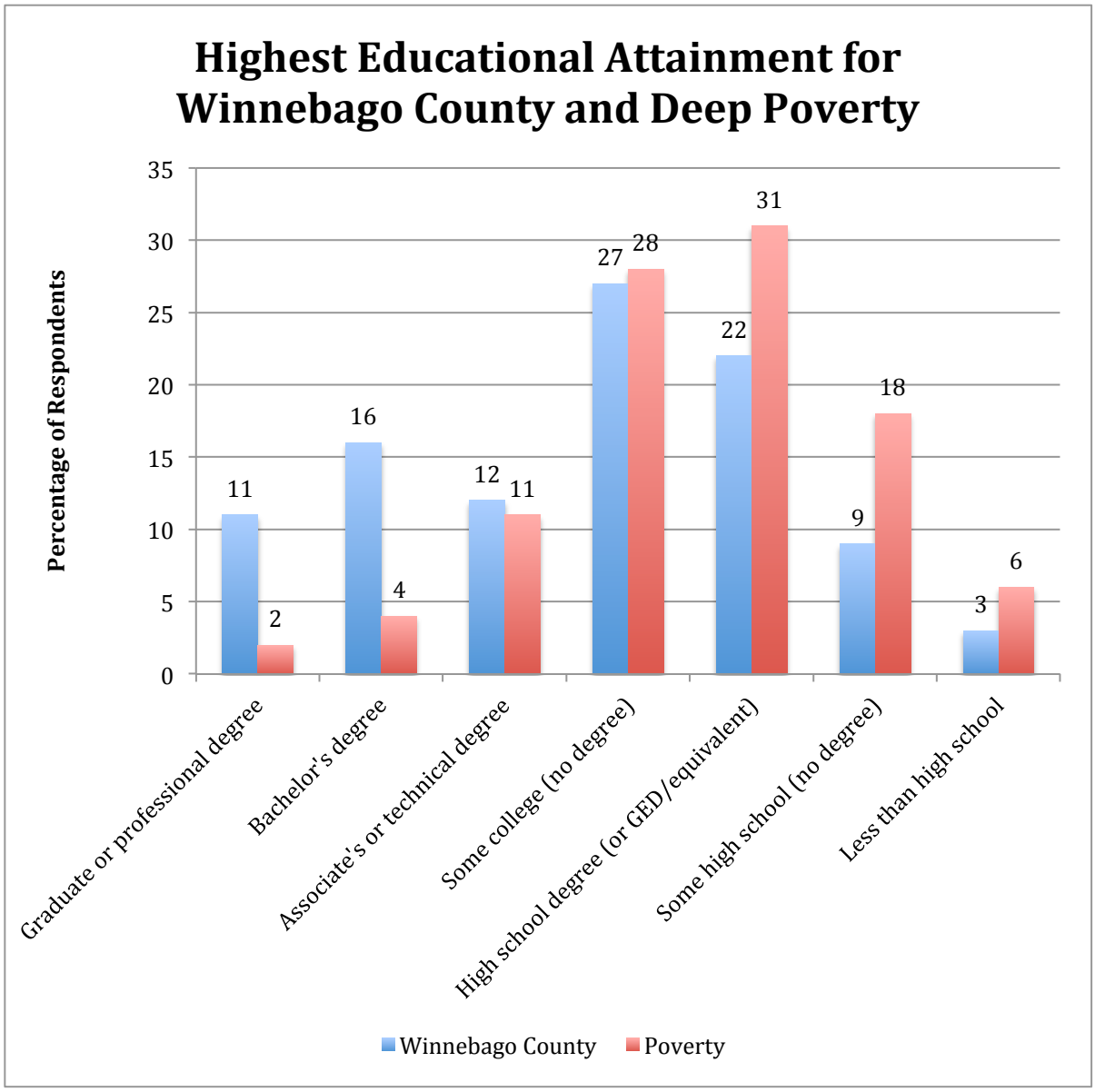
Table 6.2 Race/Ethnicity Distribution for Winnebago County and Deep Poverty



6.3 Educational Attainment

Level of education for survey respondents was similar to Census data; however, note that 24% of those living in poverty have not completed high school.

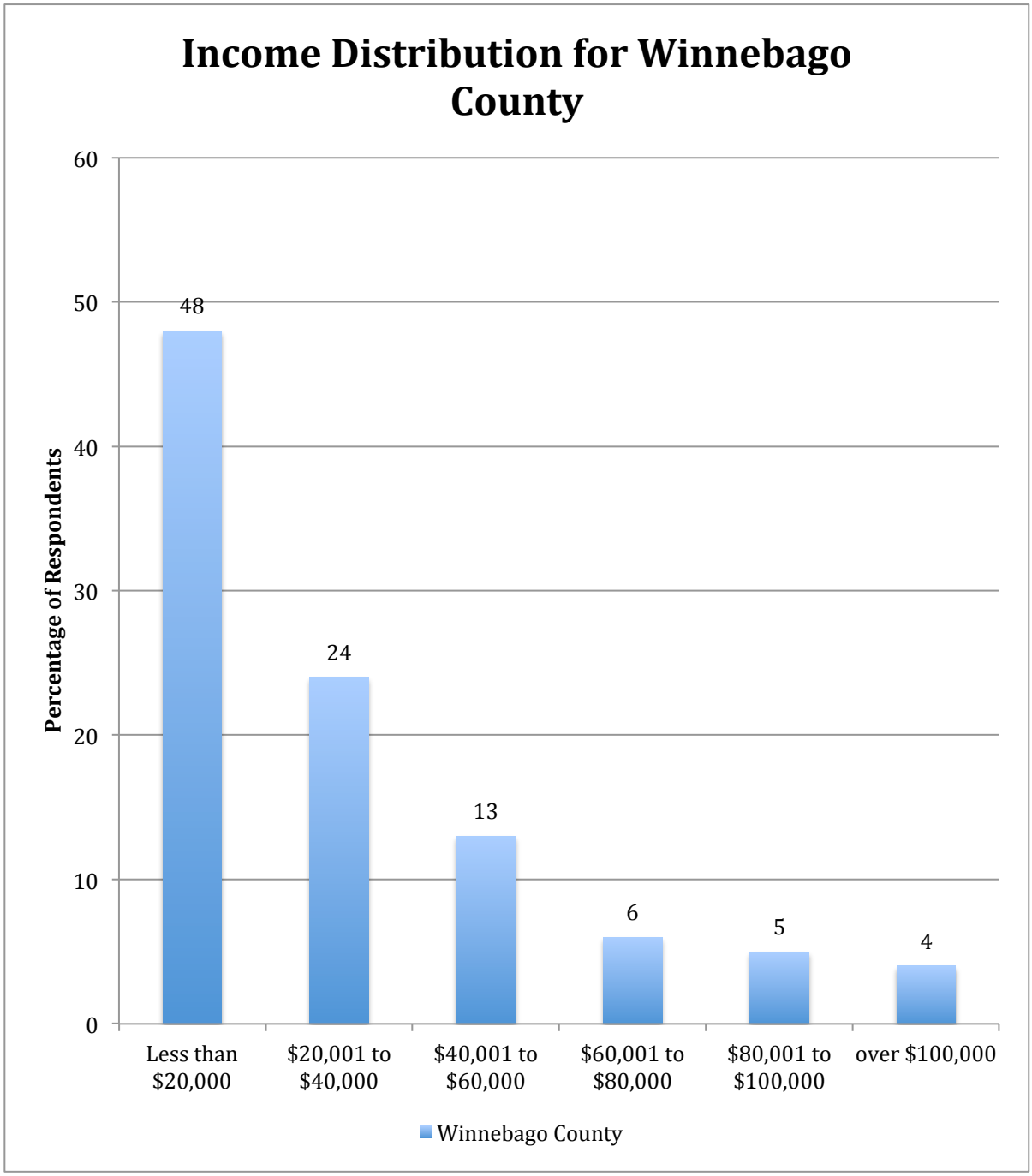
Table 6.3 Highest Educational Attainment for Winnebago County and Deep Poverty



6.4 Income Distribution

Note that income distribution for survey respondents is skewed low, as 48% 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.

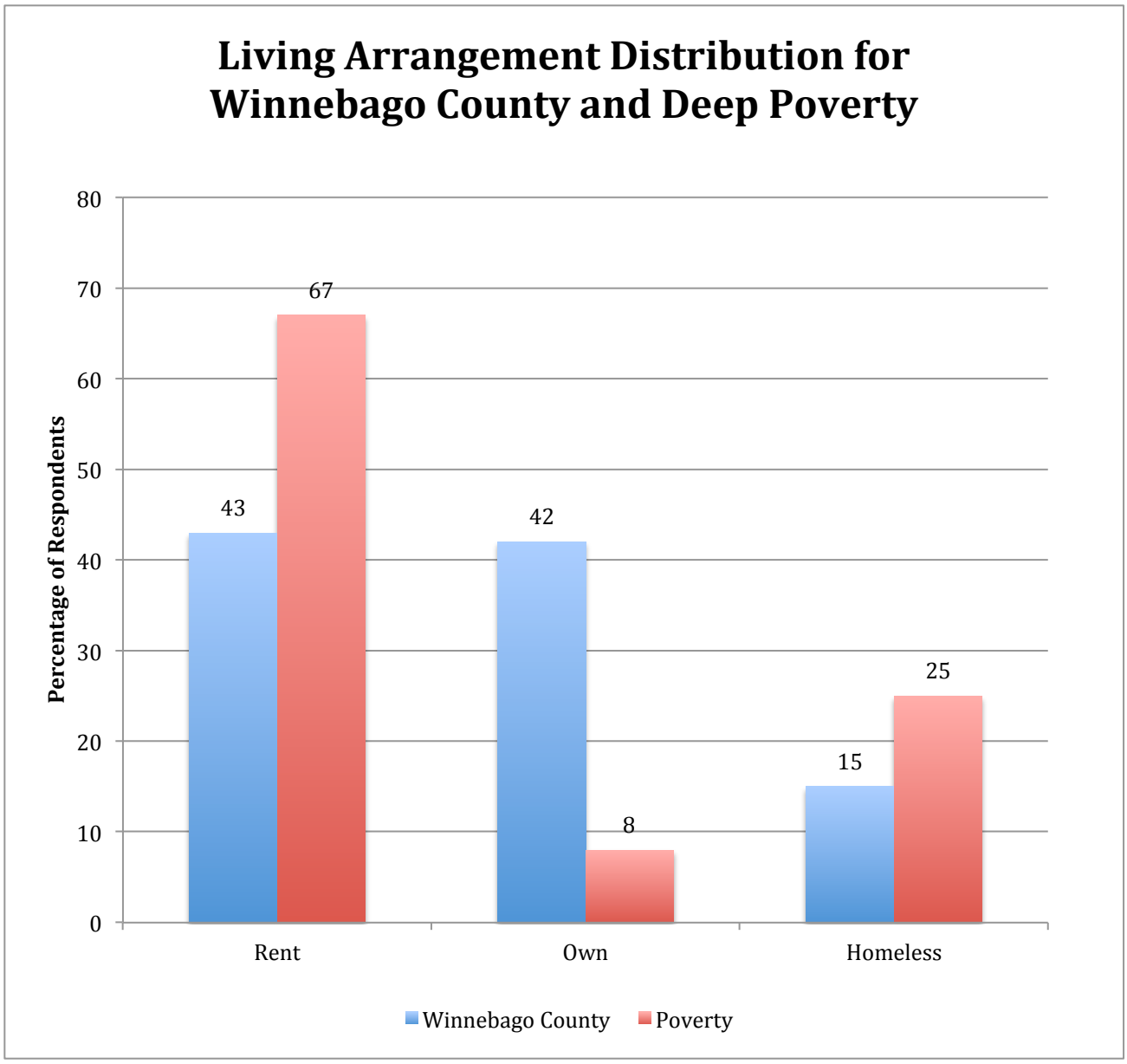
Table 6.4 Income Distribution for Winnebago County



6.5 Living Arrangements

Note that overall, an equal percentage of 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."

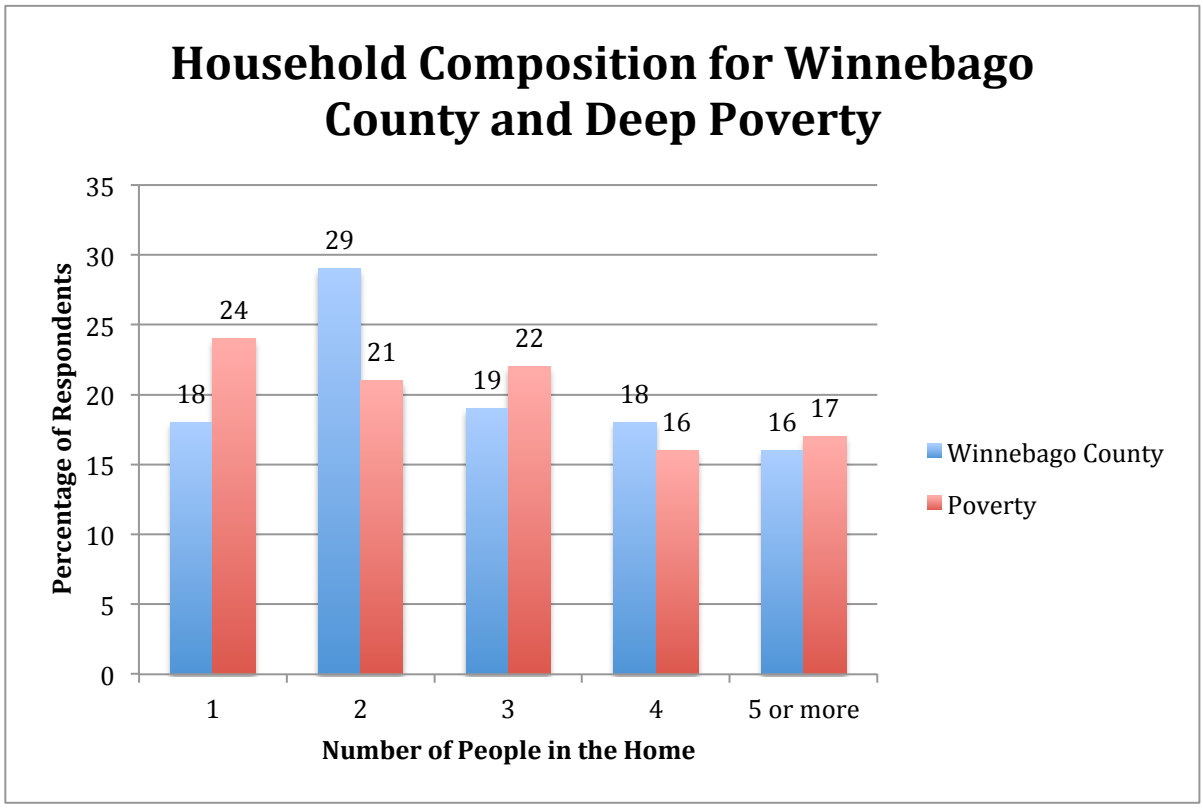
Table 6.5 Living Arrangement Distribution for Winnebago County and Deep Poverty



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, with the exception of those living in deep poverty, where the most prevalent response was one individual living in a household.

Table 6.6 Household Composition for Winnebago County and Deep Poverty



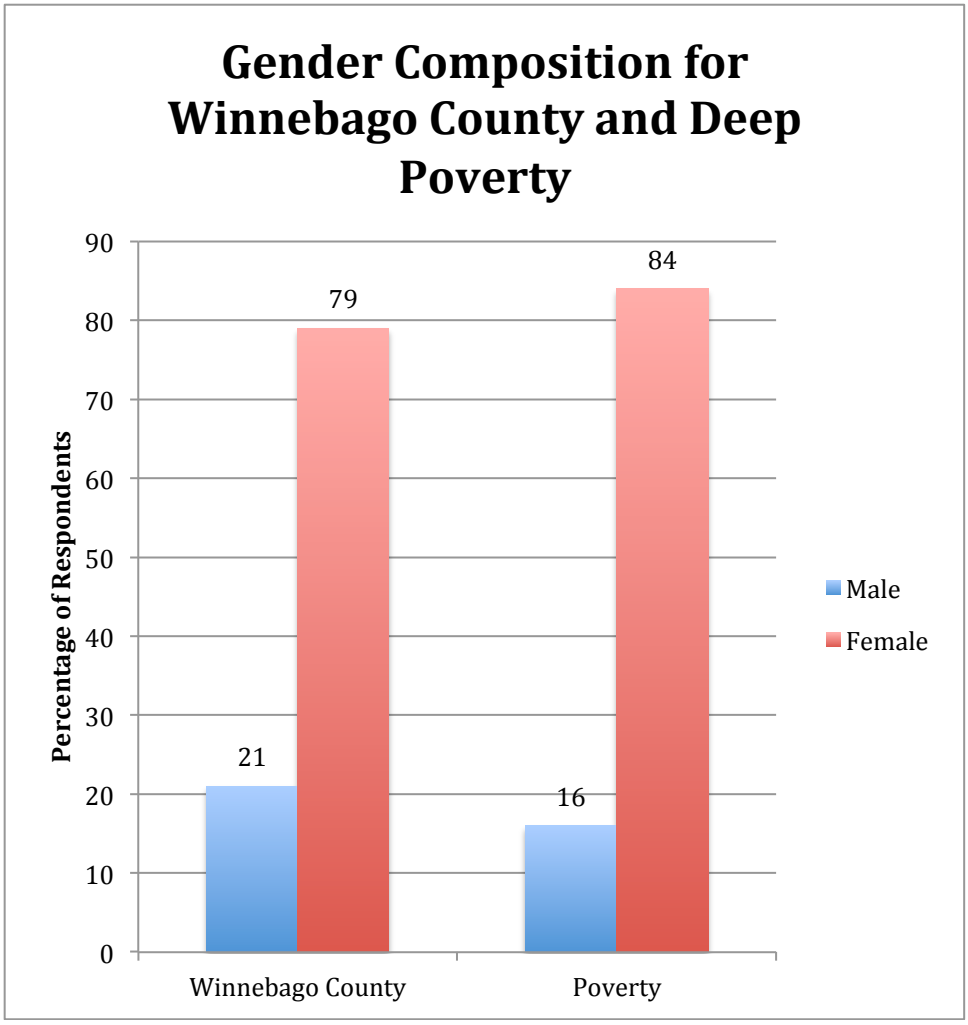
6.7 Employment Status

For employment status, overall, 41% of respondents were employed full time, 13% were employed part time, and 12% 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 79% of respondents were women and 21% of respondents were men. According to Census data, men and women are evenly divided in Winnebago County. 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 Winnebago 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. Next, 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 Winnebago County community, 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 633 responses.

7.1 Health Problems in the Community

7.1.1 Aggregated Results

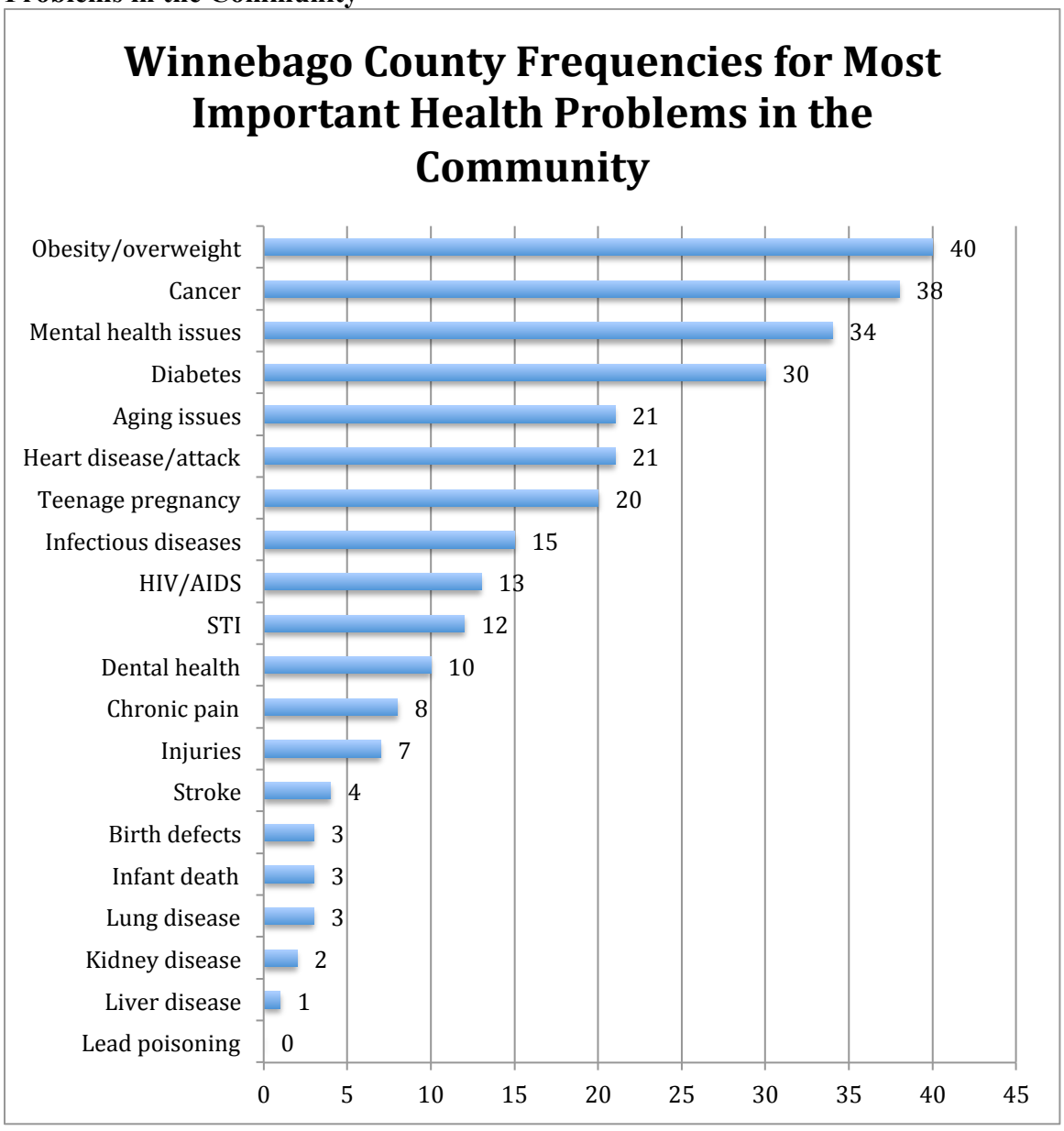
The first dimension of the survey asked respondents to rate the three most important health problems in the community. Respondents had a choice of 20 different options. The health problem that rated highest was obesity/overweight and cancer. Both health problems were significantly higher than other categories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

These were followed by mental health issues and diabetes identified 30-34% of the time. Heart disease/attack, aging issues, and teen pregnancy were identified 20-21% of the time. The next set of health problems identified was diseases. Other categories were only identified less than 15% of the time.

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

In contrast, “lung disease” and “STI” ranked much lower yet the number of cases of COPD, a contributing factor of lung disease, increased for older individuals at Rockford area hospitals between 2009 and 2012 and rates for chlamydia and gonorrhea in Winnebago County have exceeded the state average since 1990.

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

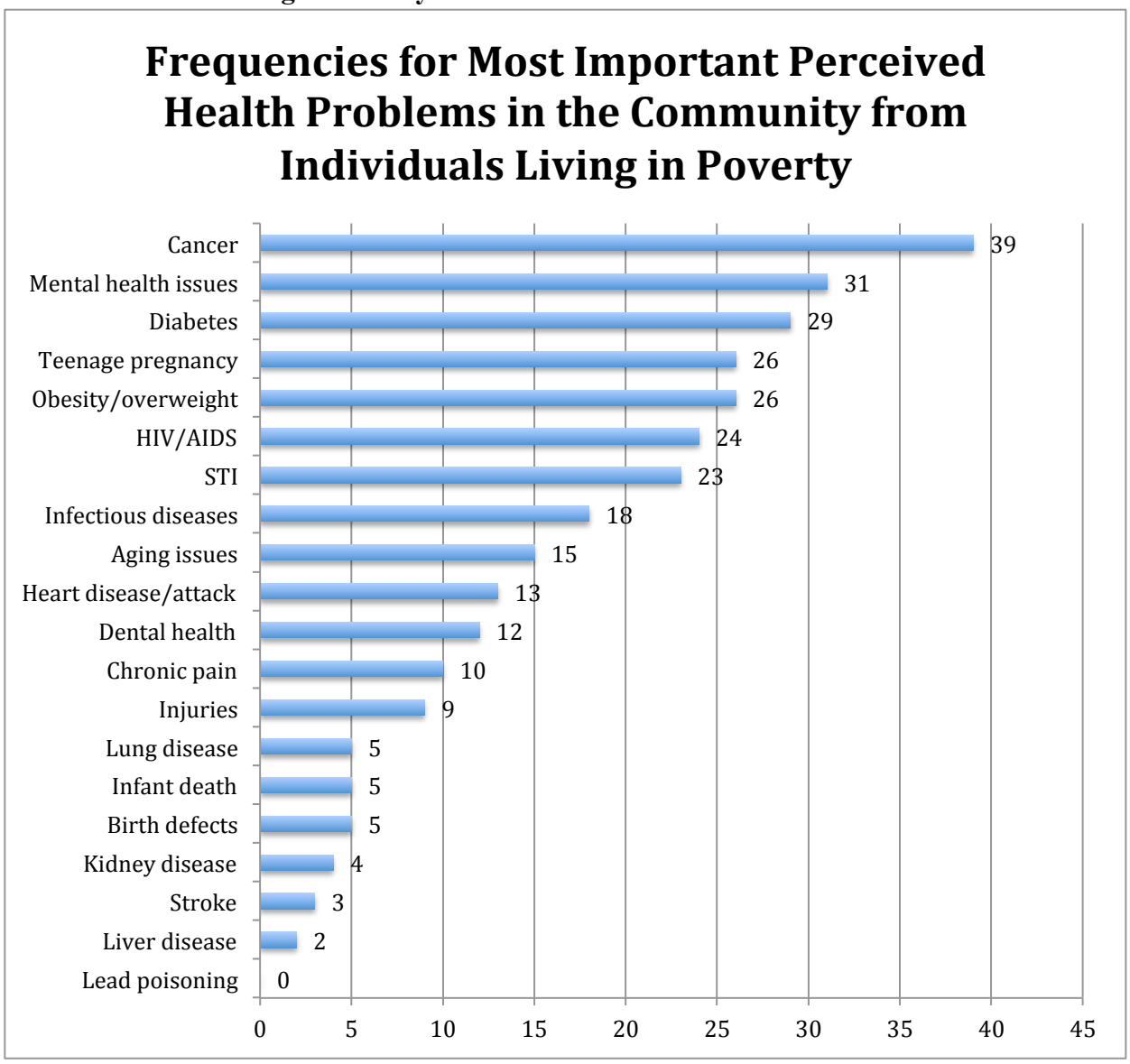


Note: n=633

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, 23% of individuals living in poverty identified STIs as a concern and 24% of individuals living in poverty identified HIV/AIDS as a concern.

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



7.1.4 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: Men, of White ethnicity, individuals with higher incomes, and individuals with more education. Aging issues tends to be rated lower by individuals identifying with Black ethnicity.

Birth Defects tend to be rated higher by individuals with lower income.

Cancer tends to be rated higher by individuals with the following characteristics: of White ethnicity.

Chronic pain tends to be rated higher by individuals with the following characteristics: Men.

Diabetes tends to be rated higher by individuals of Latino/a ethnicity.

Heart disease/attack tend to be rated higher by people with the following characteristics: Men, Older, White ethnicity, higher incomes, and more education. Heart disease tends to be rated lower by individuals identifying with Black ethnicity.

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

Infant death tends to be rated higher by Women and younger individuals.

Infectious diseases tends to be rated higher by younger individuals and individuals identifying with Latino/a ethnicity.

Injuries tends to be rated higher by people with the following characteristics: Men and younger.

Kidney disease tends to be rated higher by individuals identifying with Black ethnicity and lower education. Kidney disease tends to be rated lower by individuals identifying with White ethnicity.

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

Lung disease tends to be rated higher by individuals with less education and lower incomes.

Mental Health Issues tend to be rated higher by older individuals, individuals with more income and higher education, and individuals of White ethnicity. Mental health issues tend to be rated lower by individuals identifying with Black ethnicity.

Obesity/Overweight tends to be rated higher by people with the following characteristics: White ethnicity, higher income and more education. Individuals of Black ethnicity are more likely to rate obesity lower.

STIs tend to be rated higher by people with the following characteristics: younger and of Black ethnicity.

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

"Teenage Pregnancy" tends to be rated higher by people with the following characteristics: women, younger, lower income, and less education.

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
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 633 was used for aggregated responses in order to more accurately reflect the characteristics of the Winnebago County population.

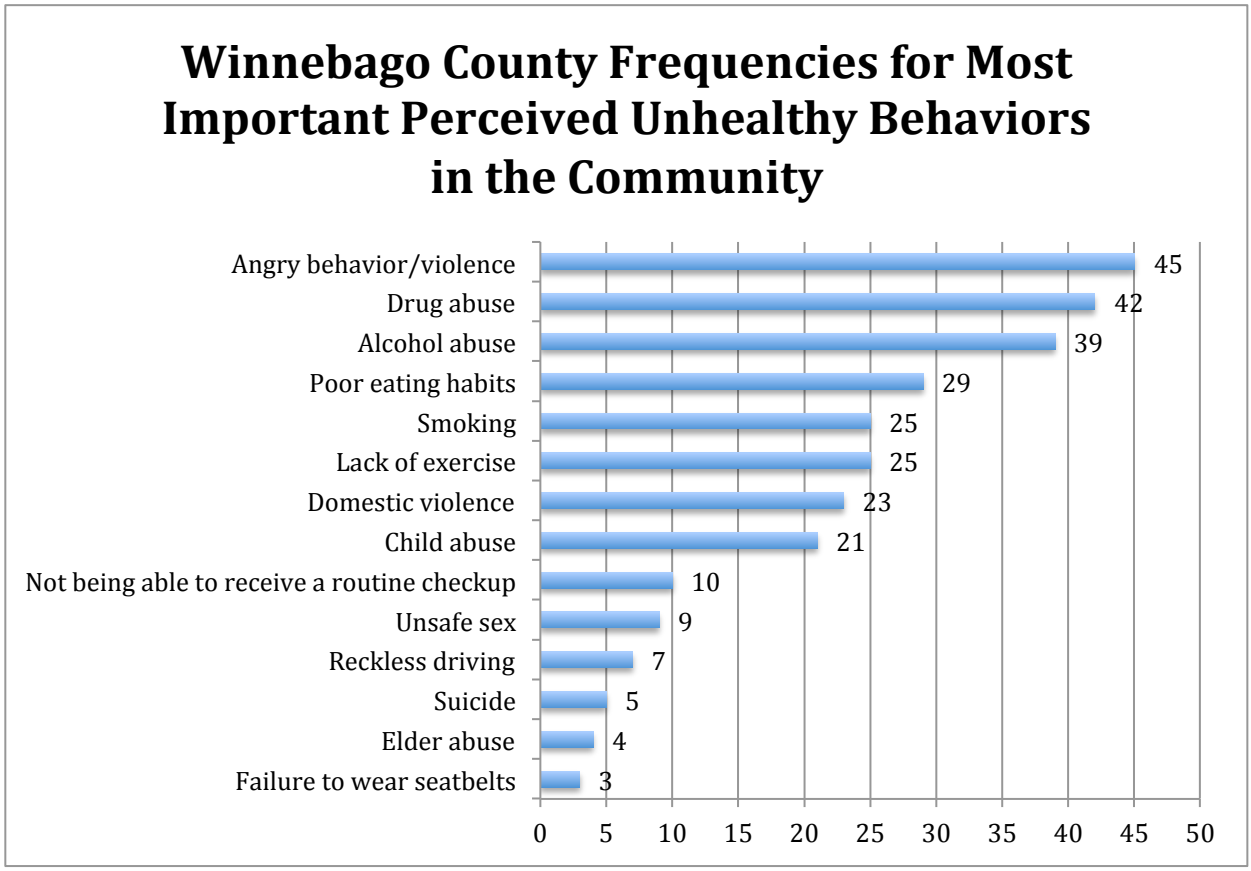
7.2.1 Aggregate Unhealthy Behaviors

The three unhealthy behaviors that rated highest were general violence, drug abuse, and alcohol abuse. All three were significantly higher than other categories based on *t-tests* between sample means and were identified between 39% and 45% of the time.

The top three were followed by poor eating habits, smoking, and lack of exercise. Statistically, these three choices were rated similarly. The next unhealthy behaviors were domestic violence, and child abuse. Other categories were only identified 10% of the time or less.

Note that perceptions of the community were accurate in some cases, but inaccurate in others.

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

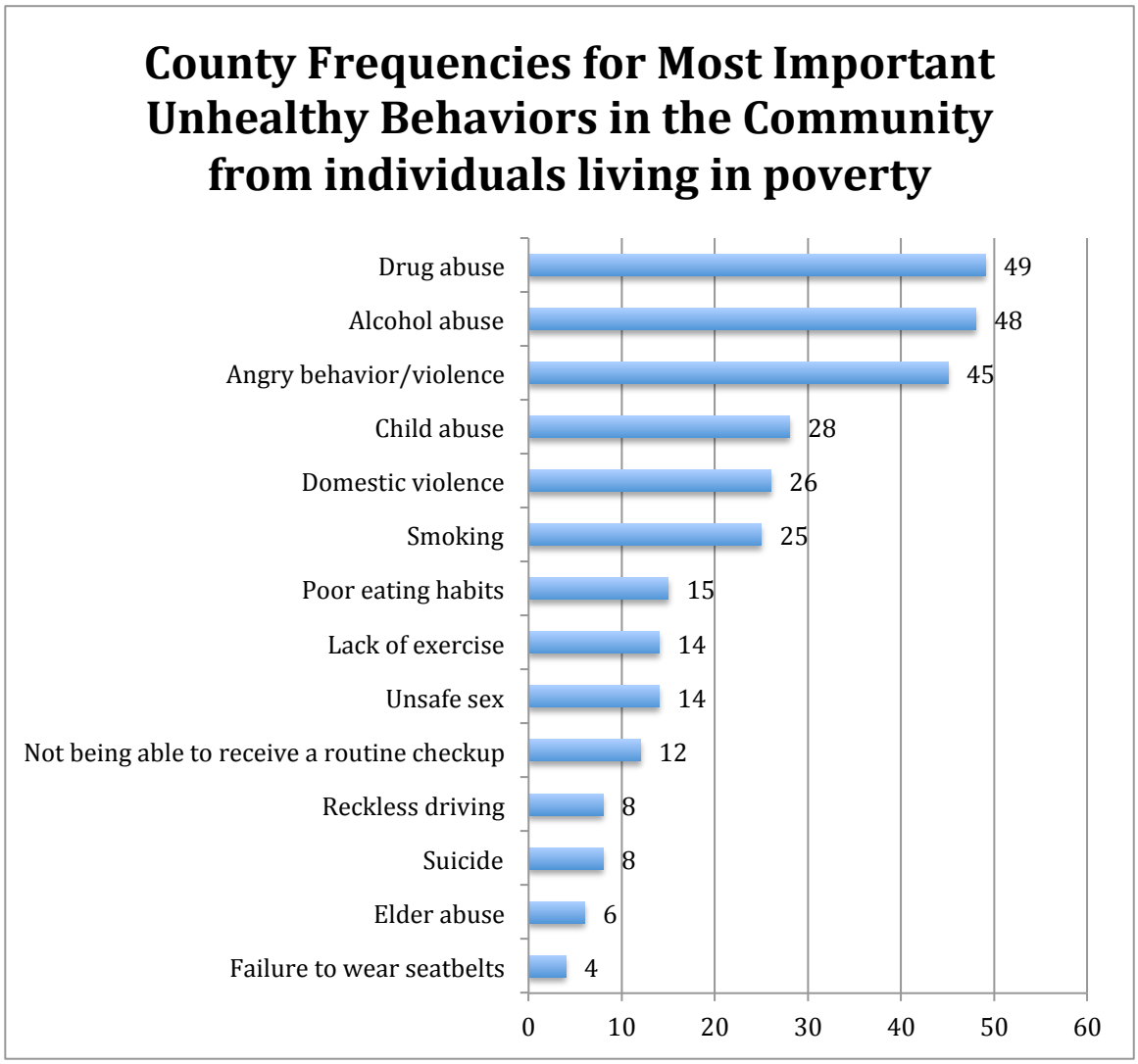


Note: n=633

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 more important, indicating that individuals in poverty perceive more problems with substance abuse. Conversely, 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: Older individuals.

Alcohol abuse tends to be rated higher by individuals with the following characteristics: Individuals identifying with Latino/a ethnicity, less educated, and lower income.

Child abuse tends to be rated higher by individuals with the following characteristics: Women and younger.

Domestic violence tends to be rated higher by individuals with the following characteristic: Women.

Failure to wear a seatbelt tends to be rated lower by individuals with the following characteristics: Women and individuals identifying with Black ethnicity.

Drug abuse tends to be rated higher by individuals with less education and lower income.

Elder abuse tends to be rated higher by older individuals.

Lack of exercise tends to be rated higher by people with the following characteristics: of White ethnicity, older, individuals with higer incomes and more education, and lower by individuals of Latino/a ethnicity.

Not being able to receive a routine checkup tends to be rated lower by individuals with the following characteristic: individuals identifying with Black ethnicity

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

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

Unsafe sex tends to be rated lower by individuals with the following characteristics: Younger and individuals identifying with Black 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
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

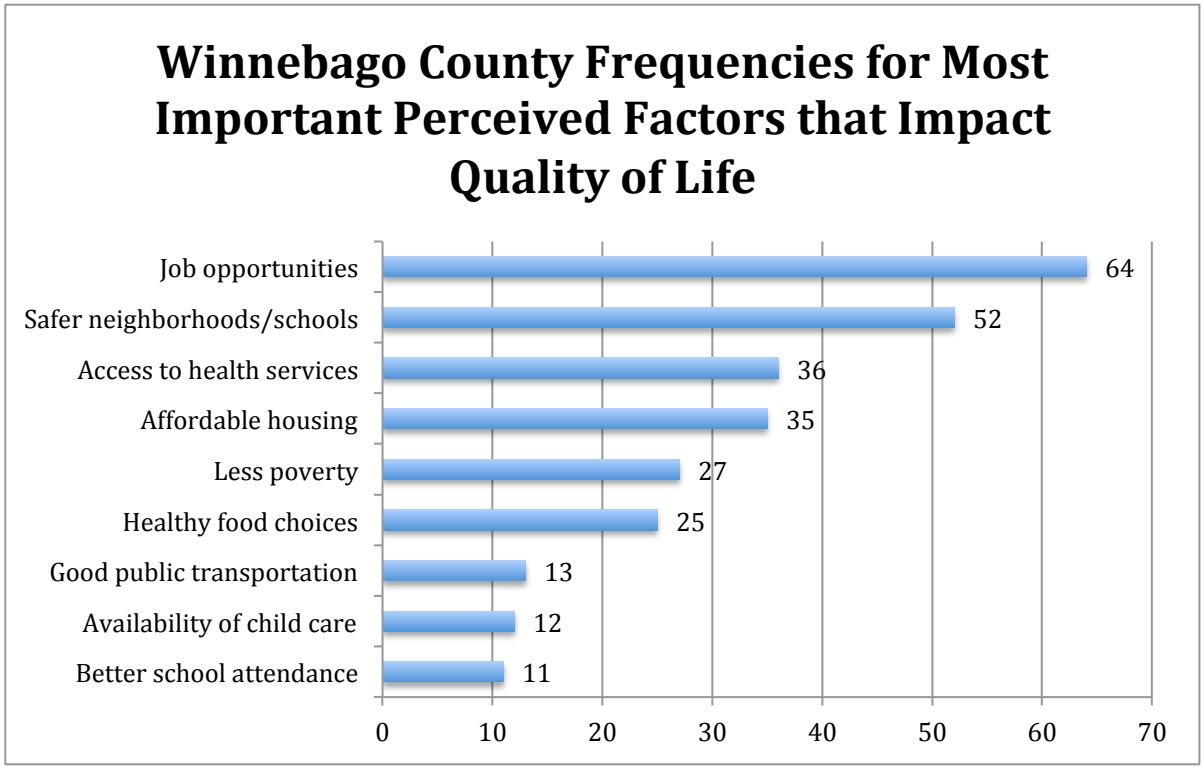
Respondents were asked to select the three most important issues impacting quality of life in the community out of a total of 9 choices based on importance. Again note that the modified sample of 633 was used for aggregated responses in order to more accurately reflect the characteristics of Winnebago County.

7.3.1 Aggregate issues impacting quality of life

The issues impacting quality of life that rated highest were job opportunities and safer neighborhoods/schools. Both factors were significantly higher than other categories based on *t-tests* between sample means. It is not surprising that job opportunities was rated high given the recent recession.

The top two were followed by access to health services, affordable housing, less poverty, and healthy food choices. Statistically, these four choices were rated similarly.

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

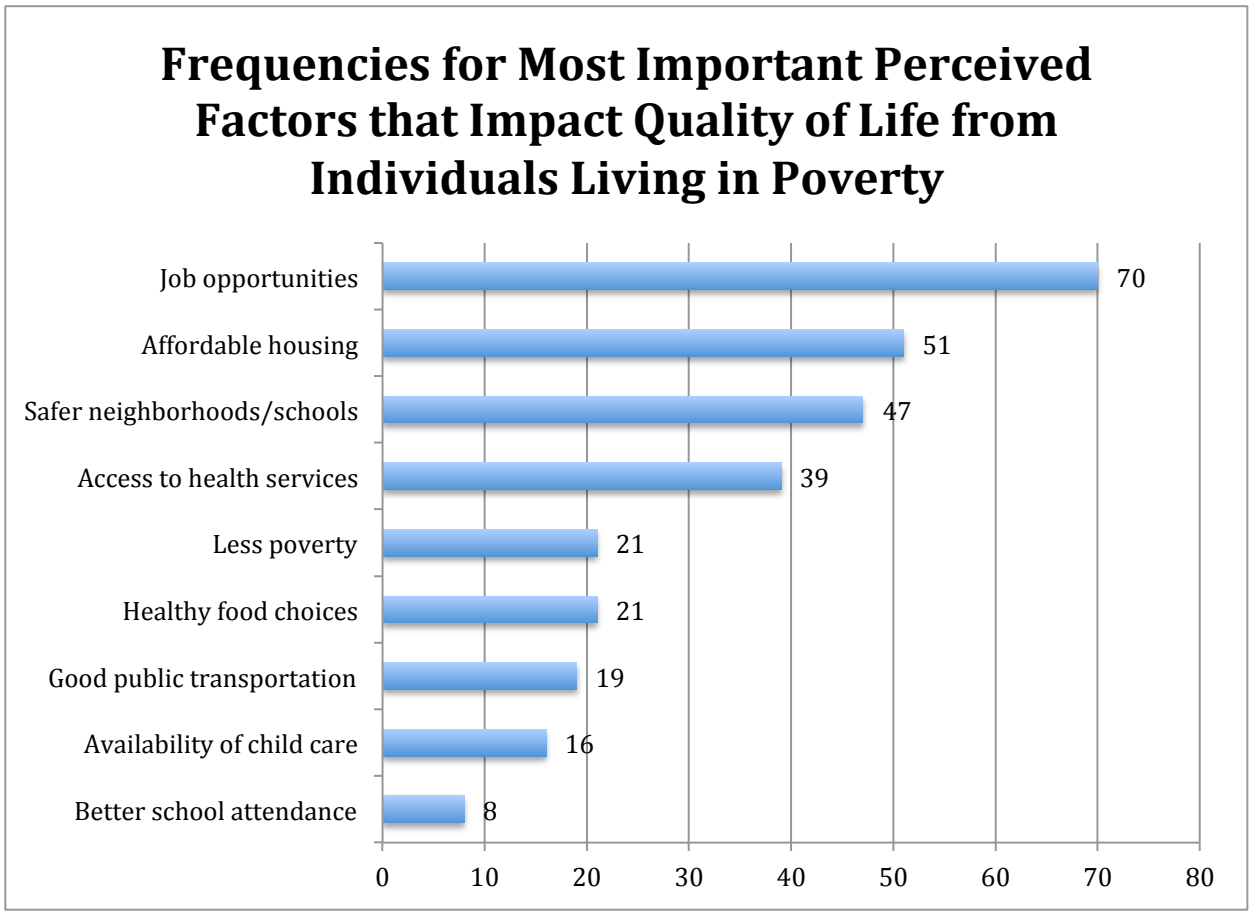


Note: n=633

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, good public transportation, and availability of child care 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 tend to be rated higher by individuals with the following characteristics: Older individuals.

Affordable housing tend to be rated higher by people with the following characteristics: Younger, of Black ethnicity, less educated, and lower income.

Availability of child care tends to be rated higher by women, younger people, individuals identifying with Latino/a ethnicity, less educated, and lower income.

Better school attendance tends to be rated higher by men.

Job opportunities tend to be rated higher by individuals identifying with Black ethnicity, younger individuals, and women.

Public transportation tends to be rated higher by individuals of Black ethnicity, men, and individuals of lower income and those who possess less education.

Healthy food choices tends to be rated higher by individuals identifying with White ethnicity and higher incomes.

Less poverty tends to be rated higher by men, individuals identifying with White ethnicity, and individuals with higher incomes and more education. Individuals identifying with Black ethnicity tend to rate it lower.

Safer neighborhoods tends to be rated higher by individuals identifying with White ethnicity, more education, and higher incomes. Individuals identifying with Black ethnicity tend to rate it lower.

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
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

Lung disease appears to be perceived relatively low compared to actual rates of COPD and asthma in Winnebago County. Individuals with more education and higher incomes appear to have the largest misperceptions regarding the importance of understanding lung disease in the community.

Similarly, STIs seem to be perceived relatively low compared to actual rates of chlamydia and gonorrhea in Winnebago County. Older individuals and individuals identifying with White ethnicity appear to have the largest misperceptions regarding the importance of understanding STI in the community.

Finally, general violence appears to be significant problem in Winnebago County. Specifically, respondents who are younger appear to have the largest misperceptions regarding the importance of understanding violence and crime in the community.

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 Winnebago 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.

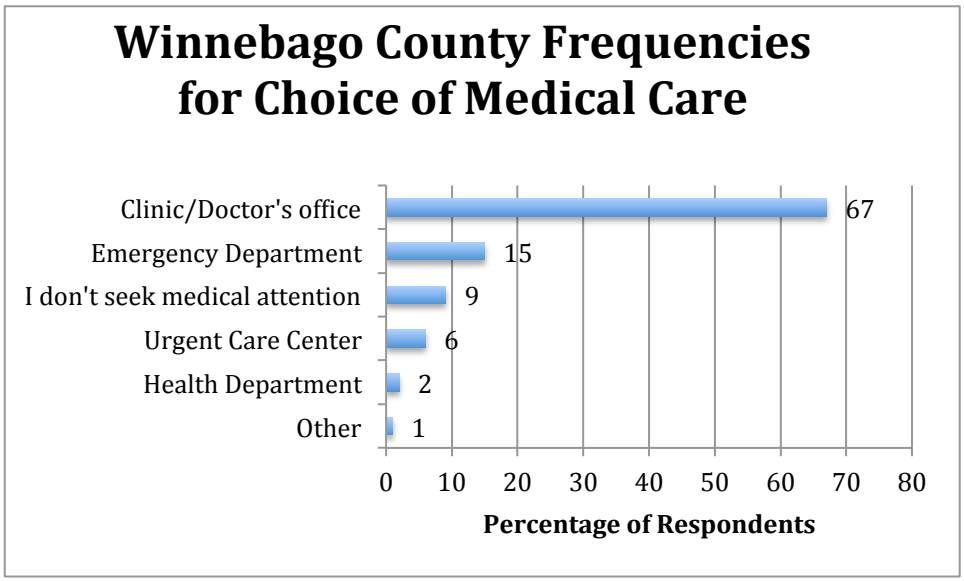
8.1 Choice of Medical Care

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 633 was used for aggregated responses in order to more accurately reflect the demographic characteristics for Winnebago County.

8.1.1 Aggregate Reponses

The most common response was clinic/doctor's office, where 67% of survey respondents chose this as their primary choice for medical care. This was followed by the emergency department at a hospital (15%), not seeking medical attention (9%), the urgent care (6%), other (1%), and the health department (2%). 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 Winnebago County Frequencies for Choice of Medical Care

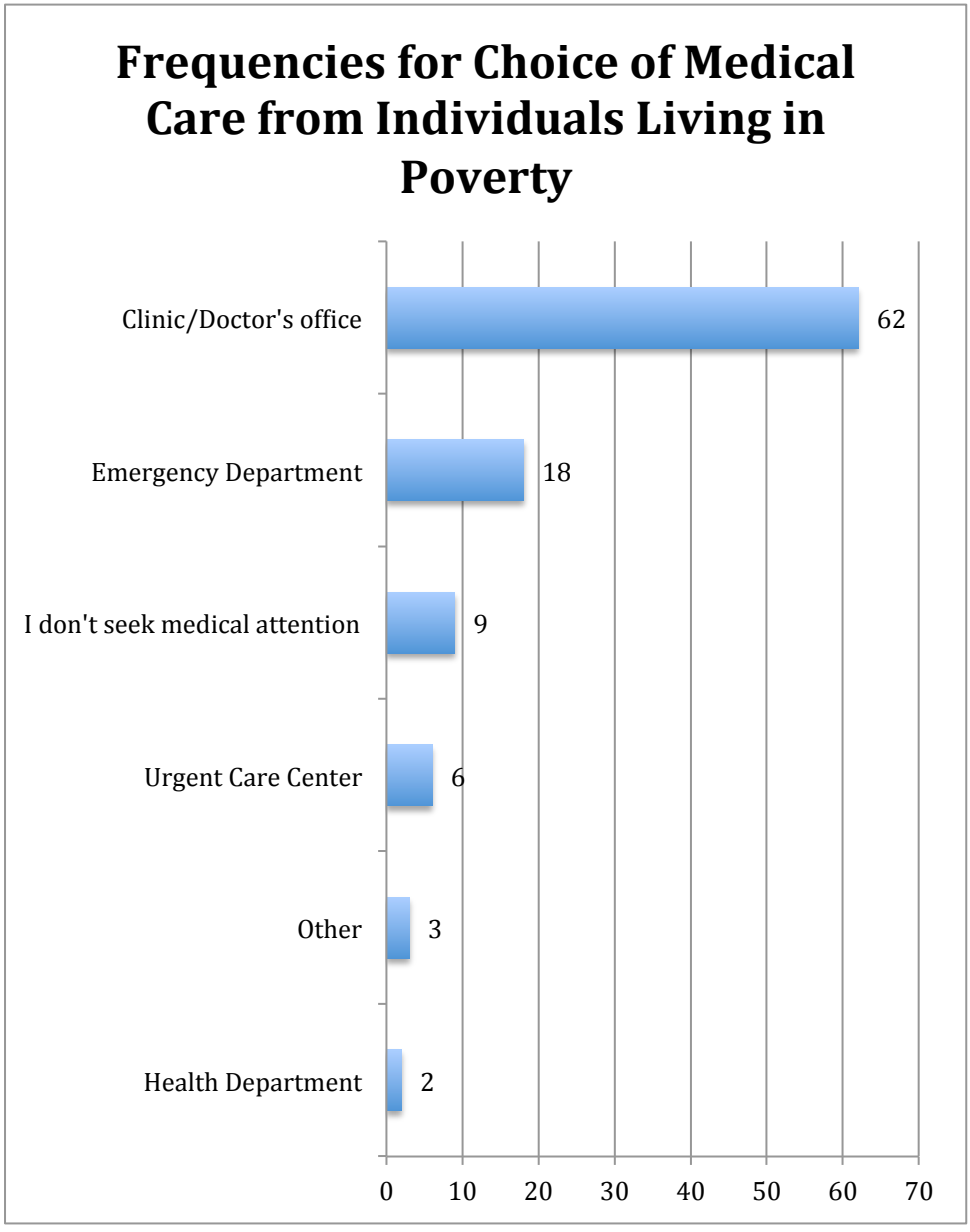


n=633

8.1.2. Perceptions of individuals living in poverty

Note that for individuals living in poverty, 62% choose a clinic/doctor's office as their first choice for medical care and 9% of individuals living in poverty do not seek medical attention. 18% utilize the emergency department when sick.

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: less educated.

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

Urgent Care Center tends to be higher by individuals identifying with White ethnicity and more education. Individuals of Black ethnicity tend to rate it lower.

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

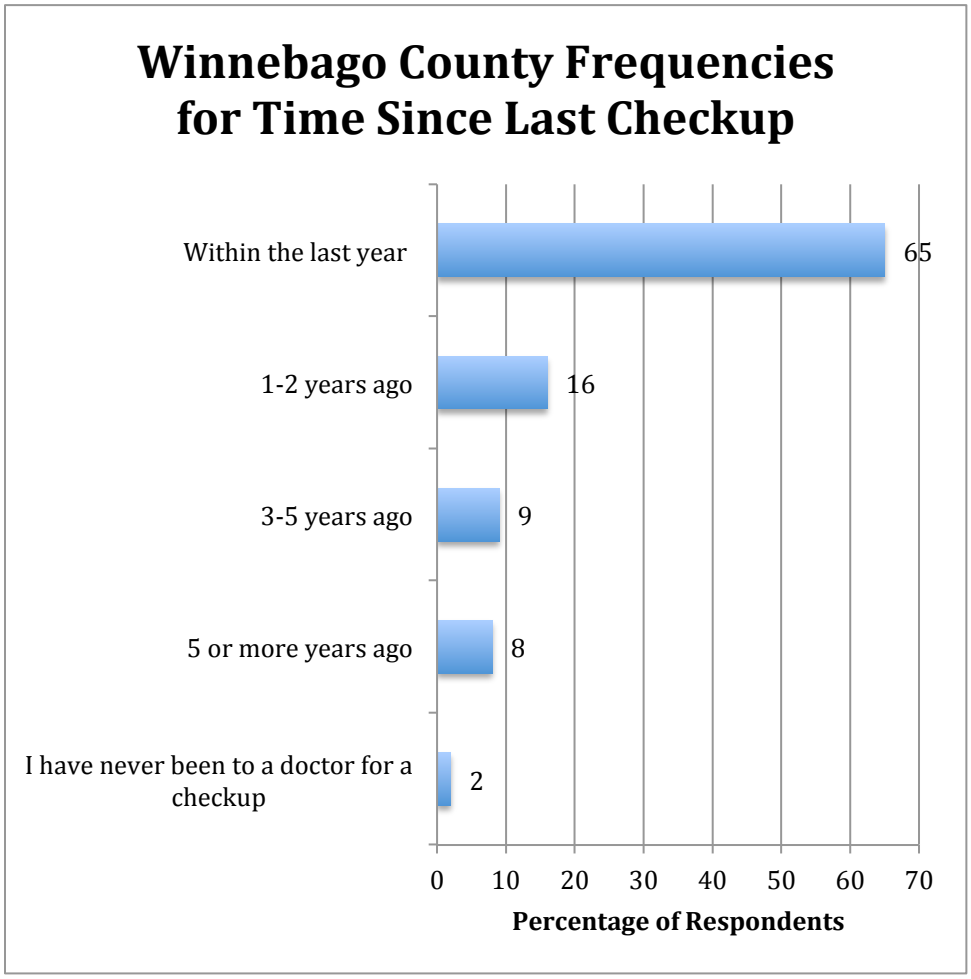
	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income
Health Department						-	
Emergency Department		-	-	+		-	-
Clinic/Doctor's office		+	+			+	+
I don't seek medical attention							
Urgent Care Center			+	-		+	

8.2 Frequency of Checkups

8.2.1 Aggregated responses

Respondents were asked how often they had a checkup. Of respondents, 65% received a checkup in the last year, 16% in the past 1-2 years, 9% in the last 3-5 years, 8% 5 years or more and 2% have never been to a doctor's office for a checkup. The modified sample of 633 was used for aggregated responses in order to more accurately reflect the demographic characteristics of Winnebago County.

Table 8.2.1 Winnebago County Frequencies for Time Since Last Checkup

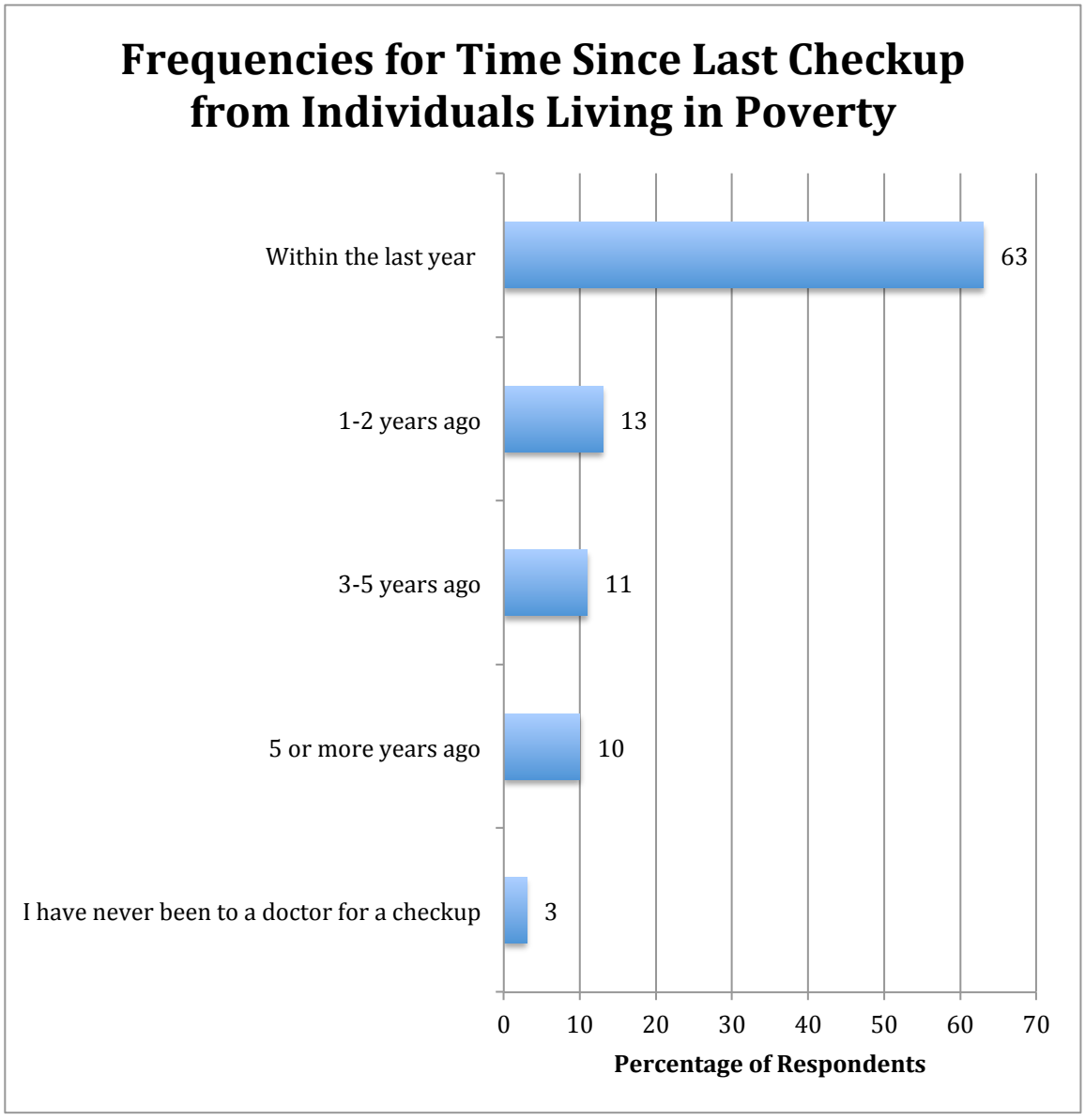


Note: n=633

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, 24% 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 individuals identifying with Black ethnicity are less likely to get a checkup at a doctor's office and individuals with more education are more likely to get a checkup at a doctor's office. Moreover, results of Ordinary-Least-Squared regression models show that Black ethnicity is the most important predictor, followed by education, based on significance levels of *beta* coefficients.

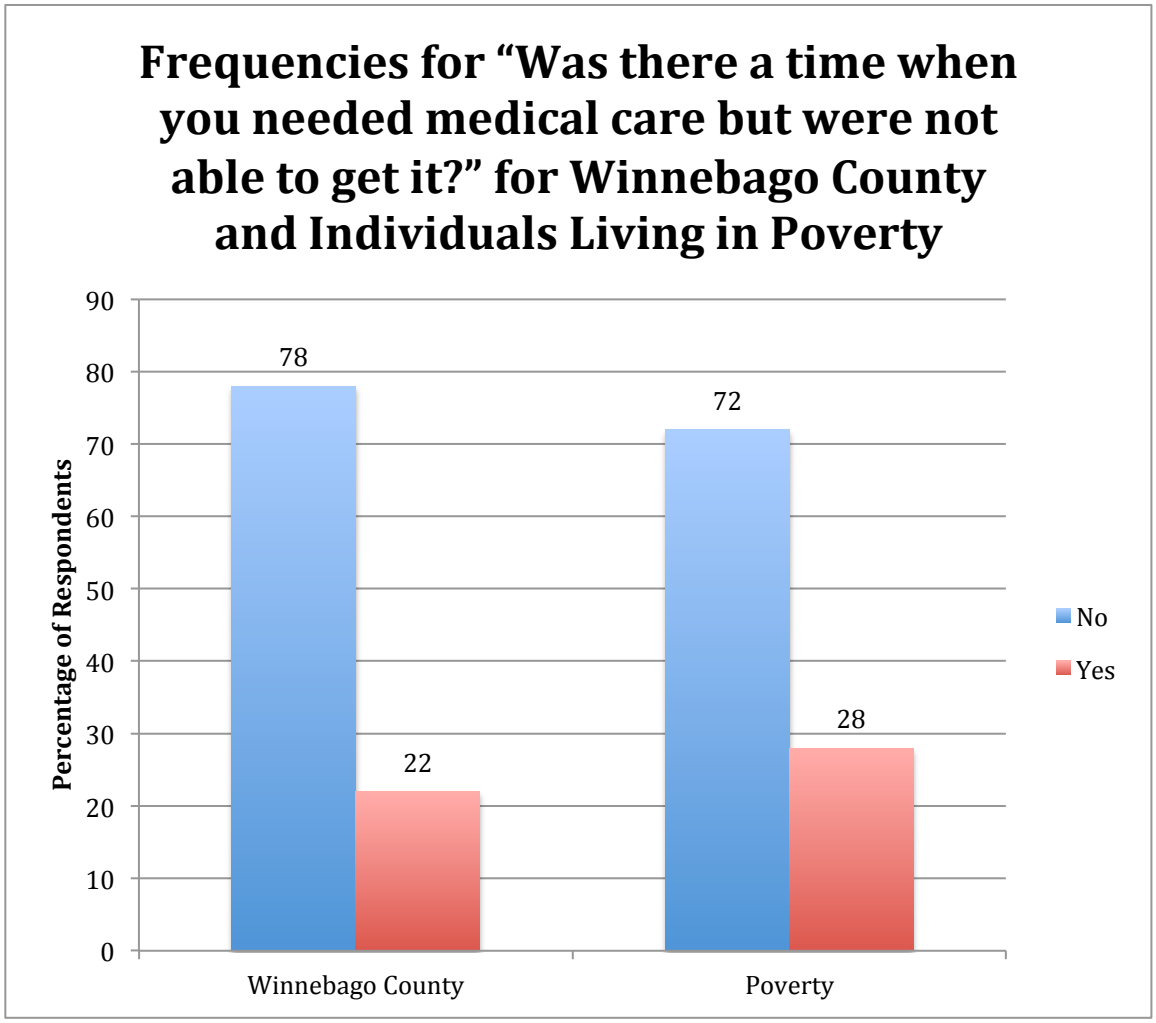
Table 8.2.3 Significant Correlations for Time Since Last Checkup

Race (Black)	-
Education	+

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?" 78% of Winnebago County residents were able to receive medical care, however compared to individuals living in deep poverty, only 72% were able to receive medical care. Put differently, 28% 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 Winnebago County and Individuals Living in Poverty



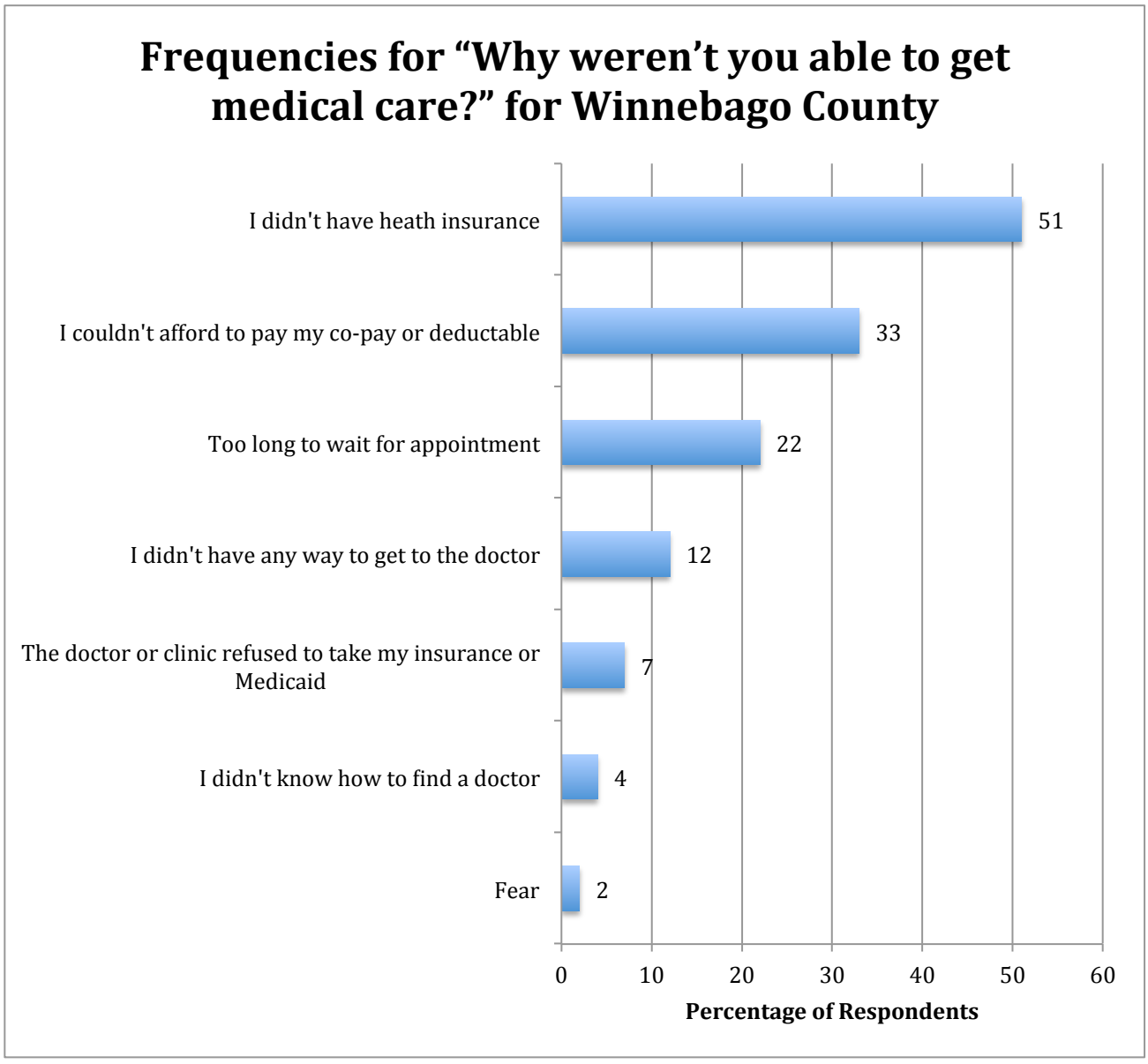
For relationships between access to medical care and demographics, note that the relationships are reverse coded. Therefore a survey respondent was more likely to answer that they did not have access to medical care if they were older or were of non-White ethnicity. Logit regression results indicate that older people and Non-White residents 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?"

Age	+
Race (White)	-
Race (Black)	+

The leading causes of why someone did not have access to medical care were no insurance (51%) and the inability to afford copayments or deductibles (33%). This was followed by too long to wait for an appointment (22%). 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?" for Winnebago County



Note: n=193

8.3.3.2 Relationships between Needing Medical Care and Demographics

No insurance tends to be rated higher by people with the following characteristic: lower income

Can't afford copay/deductible tends to be rated higher by people with the following characteristics: women and younger.

No way to get to the doctor tends to be rated higher by people with the following characteristics: individuals identifying with Black ethnicity, individuals with lower income and less education.

Refused my insurance/Medicaid tends to be rated higher by younger individuals.

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	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 Medication

Respondents were asked, "Was there a time when you needed prescription medicine but were not able to get it?" 78% of Winnebago County residents were able to receive prescription medicine, however compared to individuals living in deep poverty, only 65% were able to receive prescription drugs. Put differently, 35% of individuals living in poverty could not get access to medical care when necessary.

For relationships between access to prescription medications and demographics, logit regression results indicate that income 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 Winnebago County and Individuals Living in Poverty

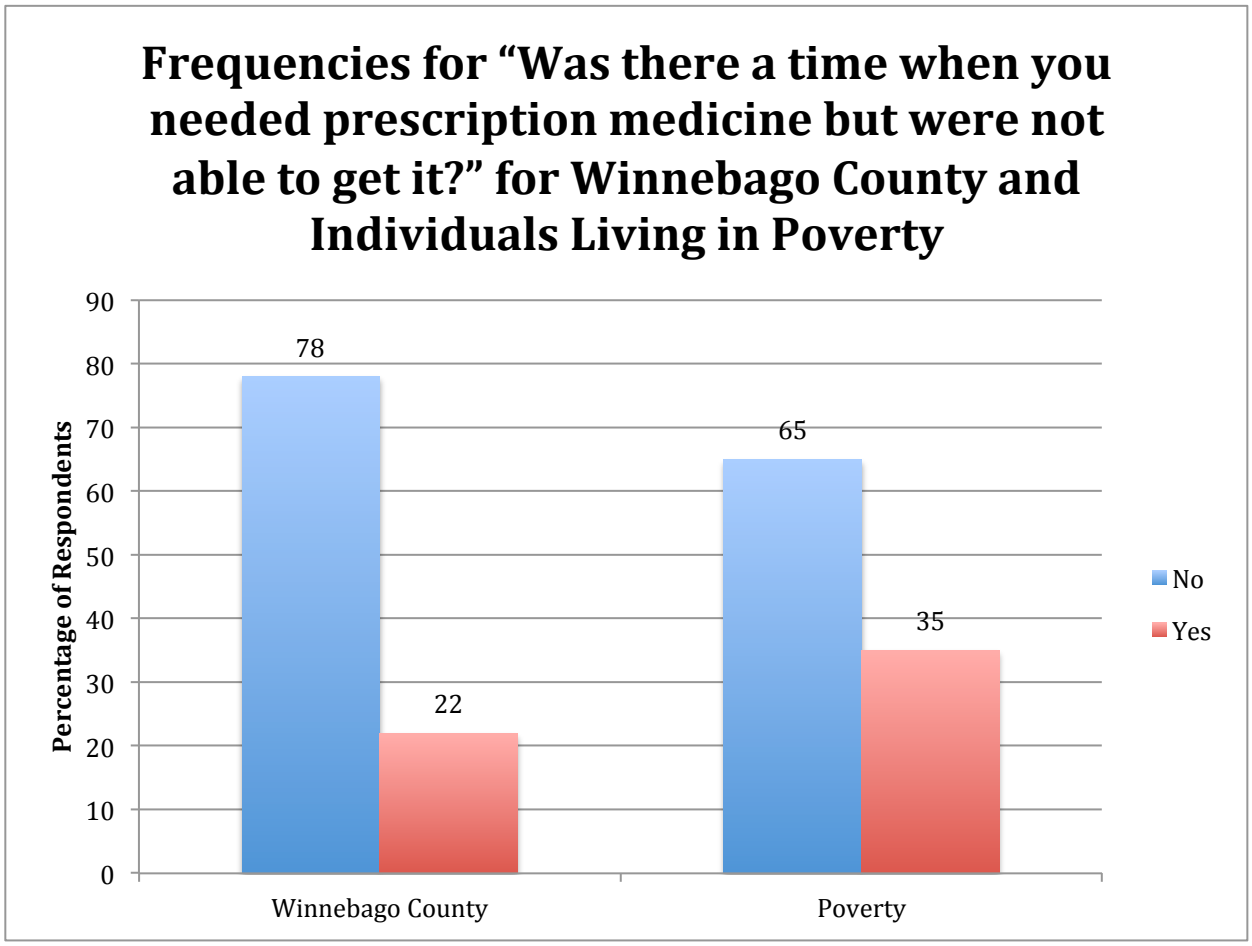


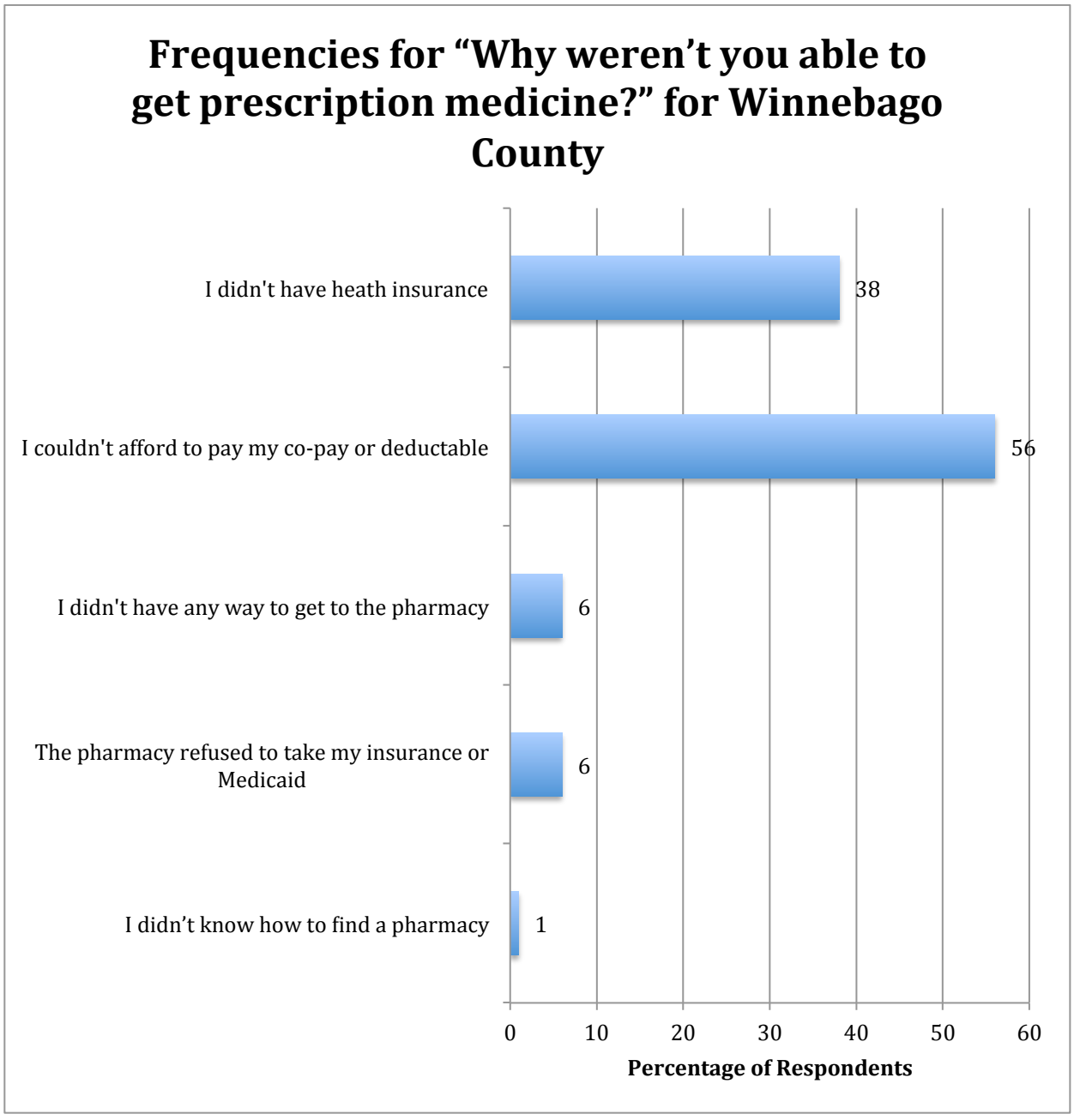
Table 8.4.2 Significant Correlations for "Was there a time in the last year when you needed prescription medication and were unable to get it?"

Gender	+
Race (White)	-
Race (Black)	+
Education	-
Income	-

For relationships between needing prescription drugs 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 drugs if they were female, of non-White ethnicity, possessed less education, or were of lower income.

The leading causes of why someone did not have access to prescription medicine were no insurance (38%) and the inability to afford copayments or deductibles (56%). 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?" for Winnebago County



Note: n=193

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	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: individuals identifying with Black ethnicity. "Can't afford copay" tends to be rated higher by women and younger individuals. "I don't know how to find a pharmacy" tends to be rated higher by individuals identifying with Latino/a ethnicity. Finally, "I didn't have any way to get to the pharmacy" tends to be rated higher by individuals with less education.

8.5 Access to Dental Care

Respondents were asked when was the last time that they had a dental checkup. Residents in Winnebago County indicated that 49% of residents have had a dental checkup in the last year. For those living in deep poverty, only 29% had a dental checkup in the last year.

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

Table 8.5.1 Frequencies for Time Since Last Dental Checkup for Winnebago County and Individuals Living in Poverty

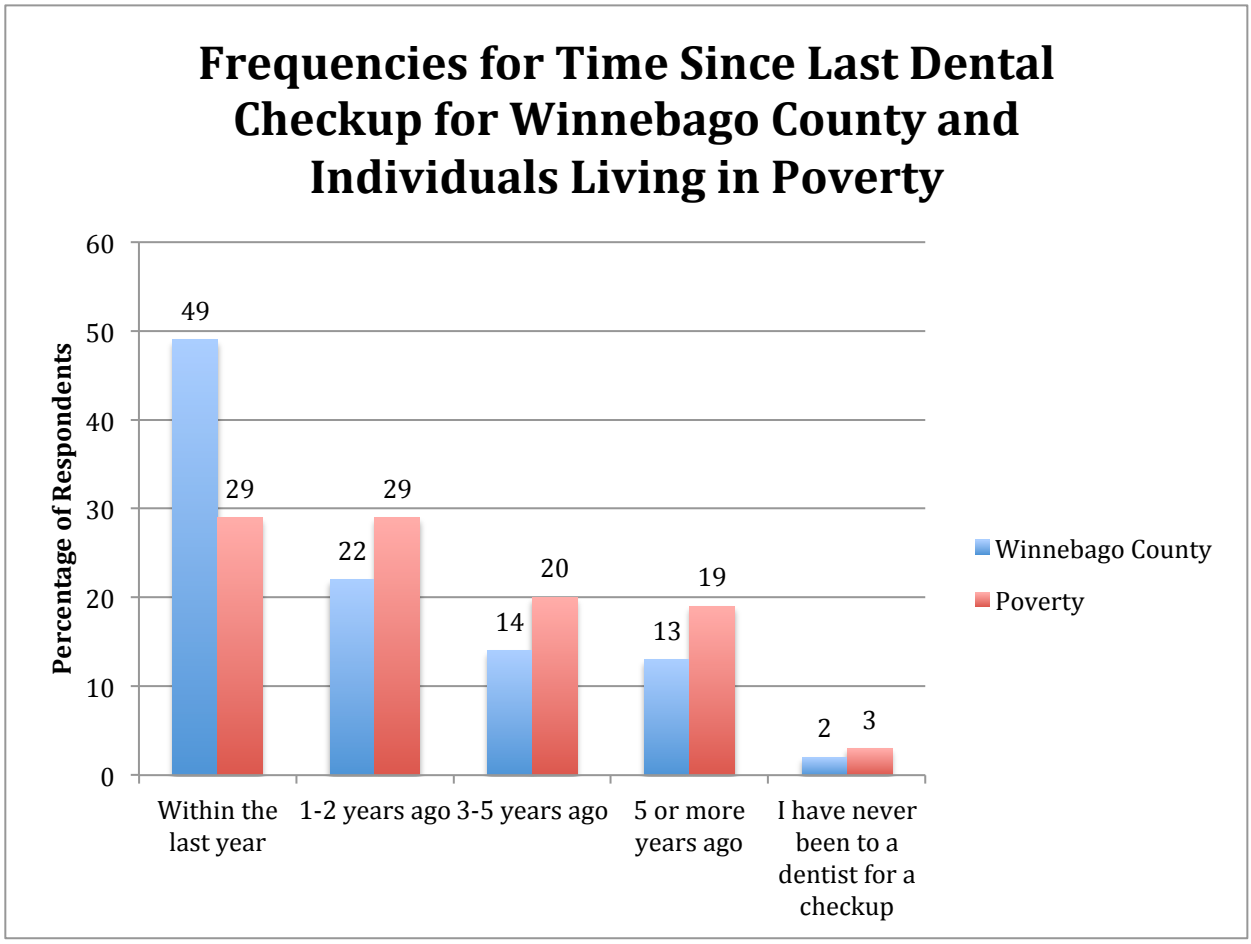


Table 8.5.2 Significant Correlations for Time Since Last Dental Checkup

Age	-
Race (White)	-
Race (Black)	+
Education	-
Income	-

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 younger, they were of non-White ethnicity, they possessed less education, or they possessed less income.

Respondents were then asked, "Was there a time when you needed dental care but were not able to get it?" Note that for Winnebago County, only 27% respondents indicated that they were unable to obtain dental care when they needed it. Compared to the figures for people living in poverty, 41% indicated that they could not get access to dental care when necessary.

Logistic regression modeling indicated that lower income, age, lower education, homelessness 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?" for Winnebago County and Individuals Living in Poverty

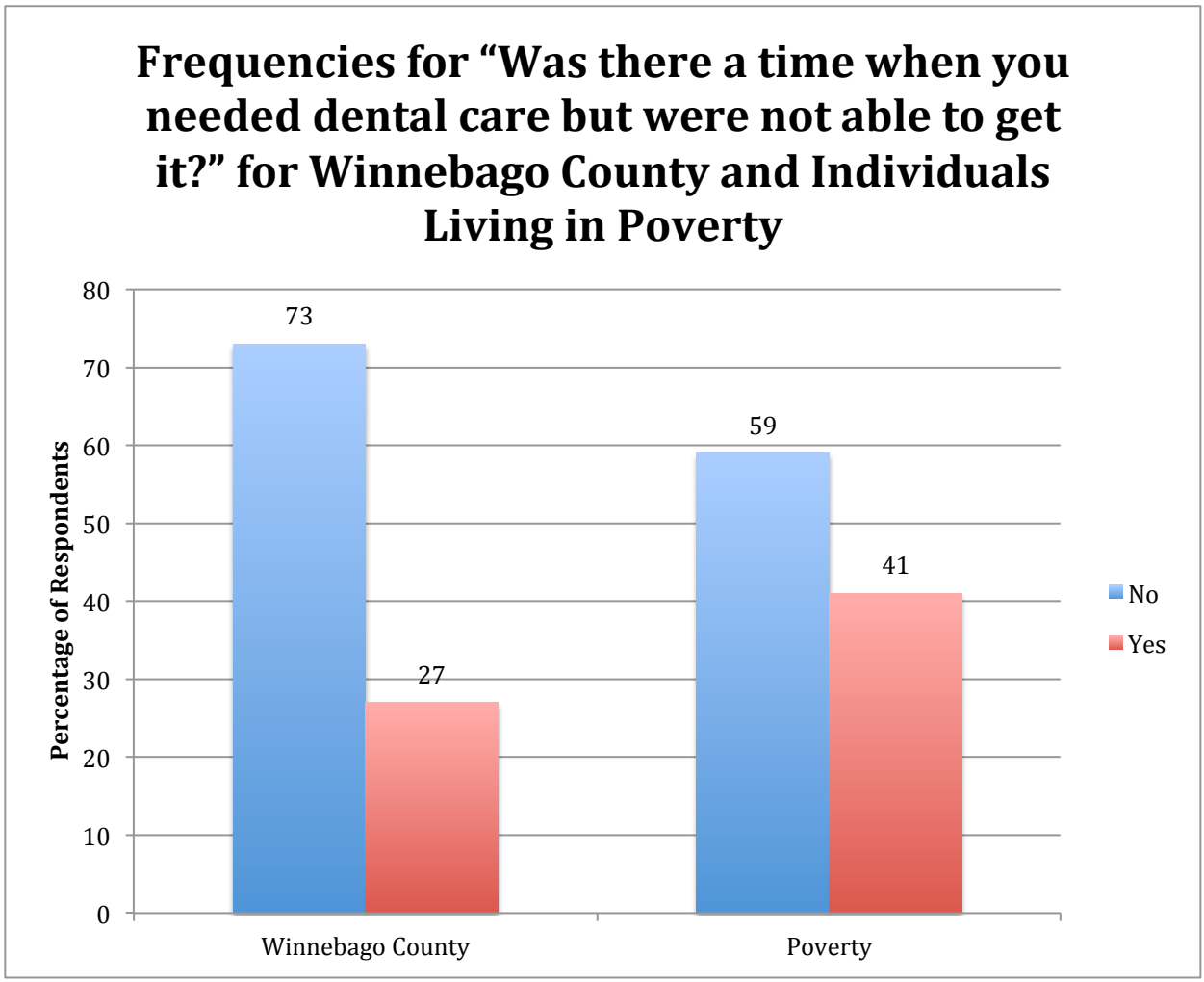


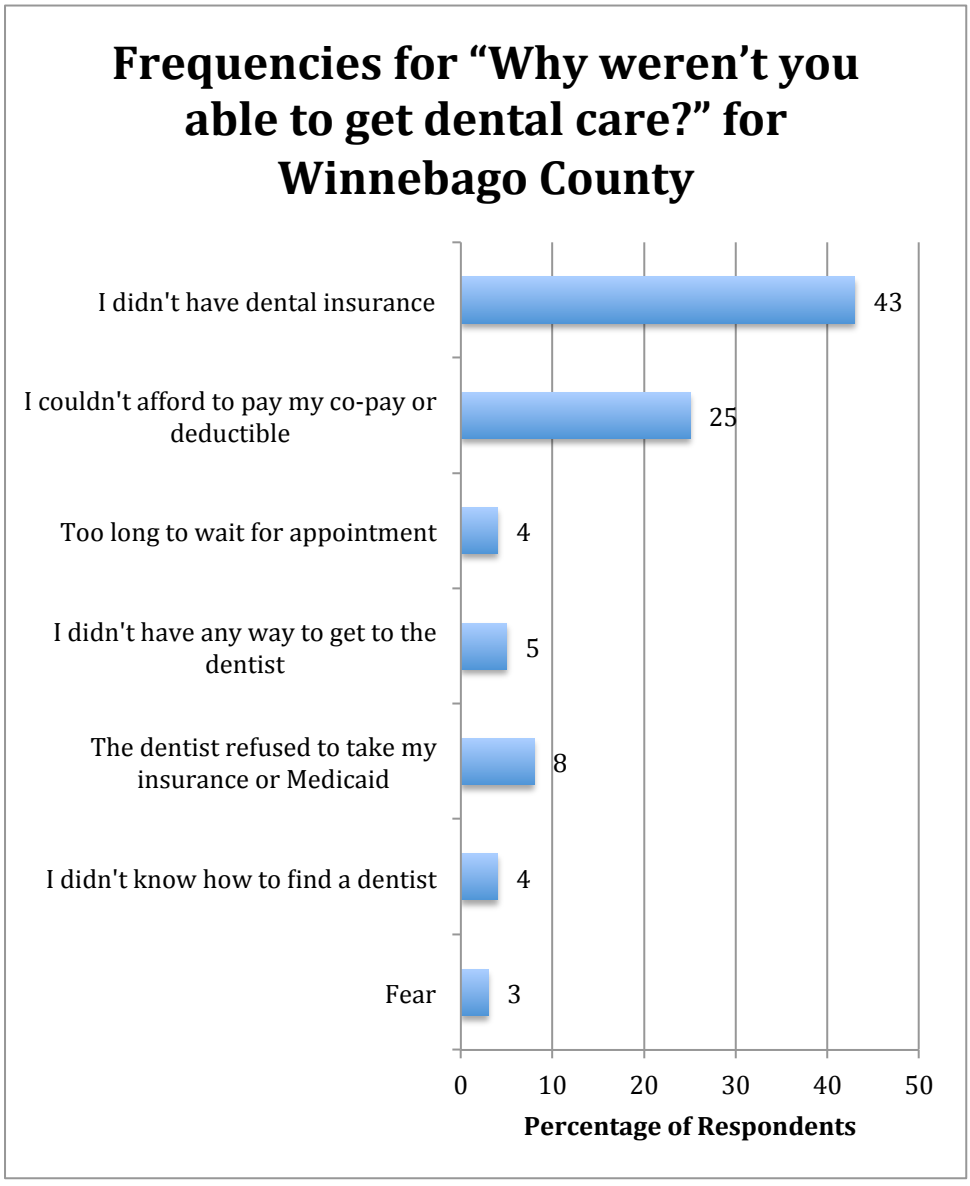
Table 8.5.4 Significant Correlations for "In the last year, was there a time when you needed dental care but could not get it?"

Gender	+
Age	-
Race (White)	-
Race (Black)	+
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 female, younger, of non-White ethnicity, of lower income, homeless and possessed less education.

The leading causes of why someone did not have access to dental care were no insurance (43%) and the inability to afford copayments or deductibles (25%). While fear was a non-issue with access to medical care, 3% 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?" for Winnebago County



Note: n=193

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	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:

Can't afford copay/deductible tends to be rated higher by individuals identifying with Black ethnicity and lower by individuals identifying with White ethnicity.

I didn't have any way to get to the dentist tends to be rated higher by individuals identifying with Black ethnicity and lower by individuals identifying with White ethnicity.

Too long to wait for an appointment tends to be rated higher by individuals with higher incomes.

8.6 Access to Counseling

Respondents were asked, "Was there a time when you needed counseling but were not able to get it?" 11% of respondents in Winnebago County agreed that when he or she needed counseling, he or she was unable to obtain it. The percentage for individuals living in poverty was five percentage points higher (16%).

Logit regression results indicated that low income 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?" for Winnebago County and Individuals Living in Poverty

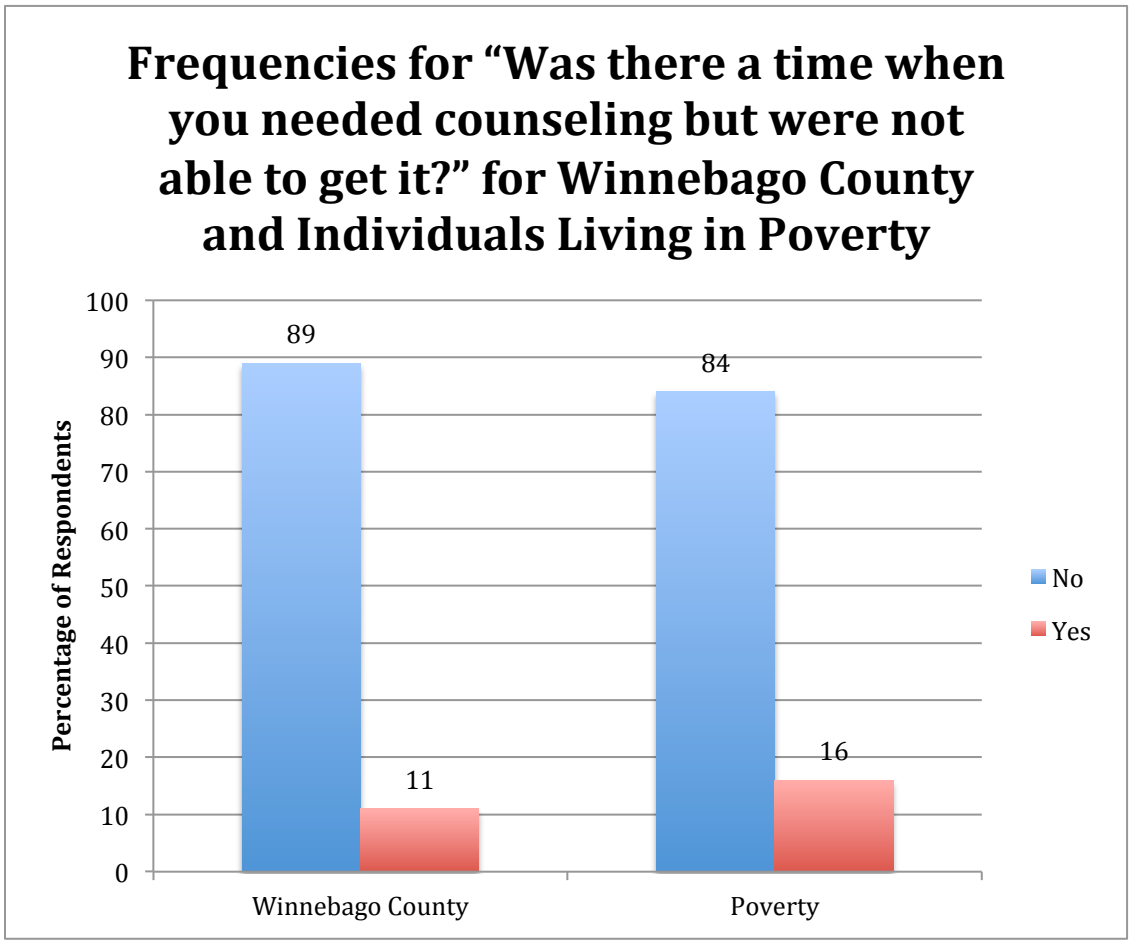


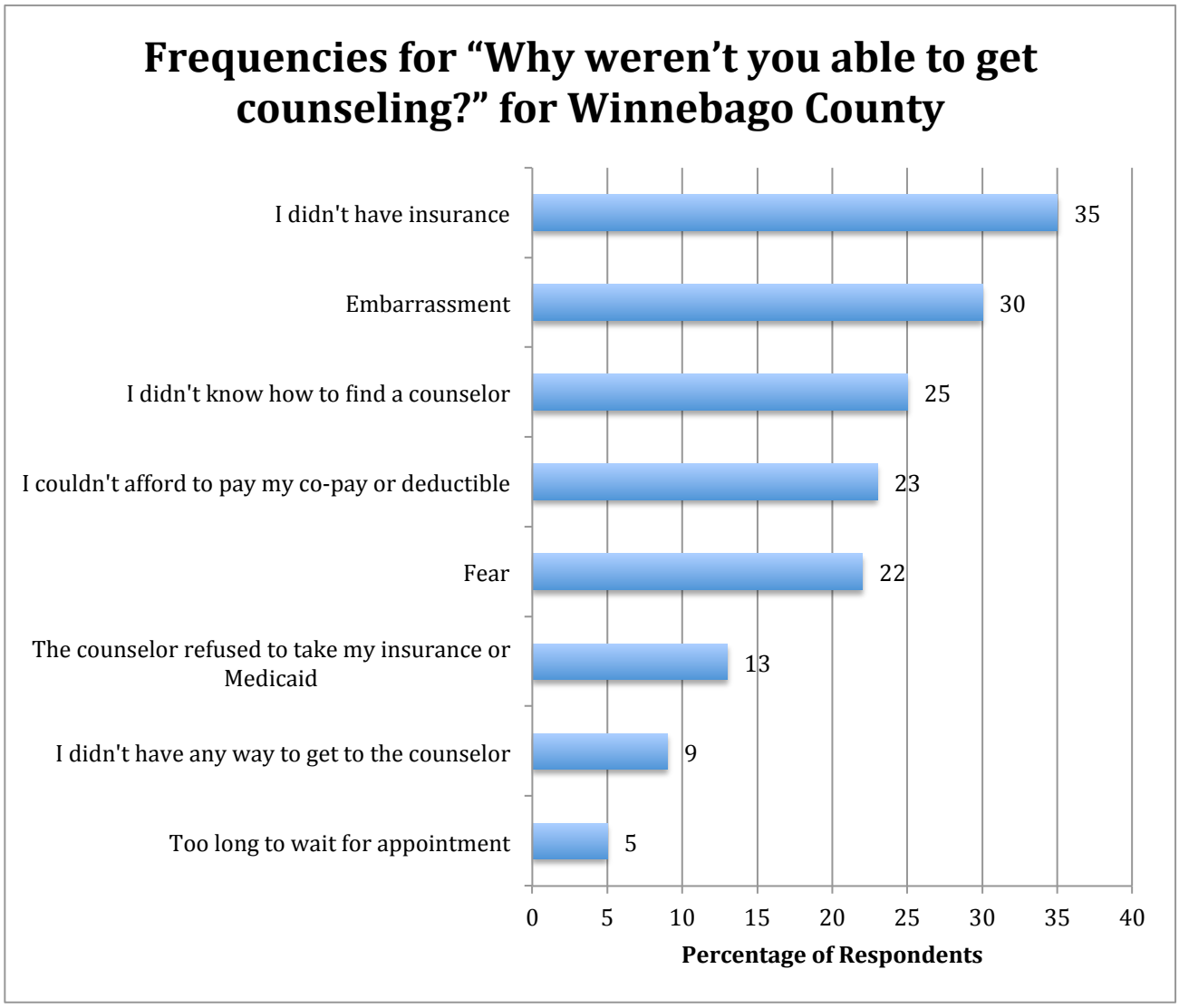
Table 8.6.2 Significant Correlations for "In the last year, was there a time when you needed counseling but could not get it?"

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, or possessed lower income.

The leading causes of why someone did not have access to counseling were no insurance (35%) and embarrassment (30%). 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?" for Winnebago County



Note: n=193

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	Homeless
No Insurance								
Can't afford copay/deductible								
I didn't have any way to get to the counselor		-						
Refused my insurance/Medicaid								
Too long to wait for appointment								
Fear								
Embarassment								

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

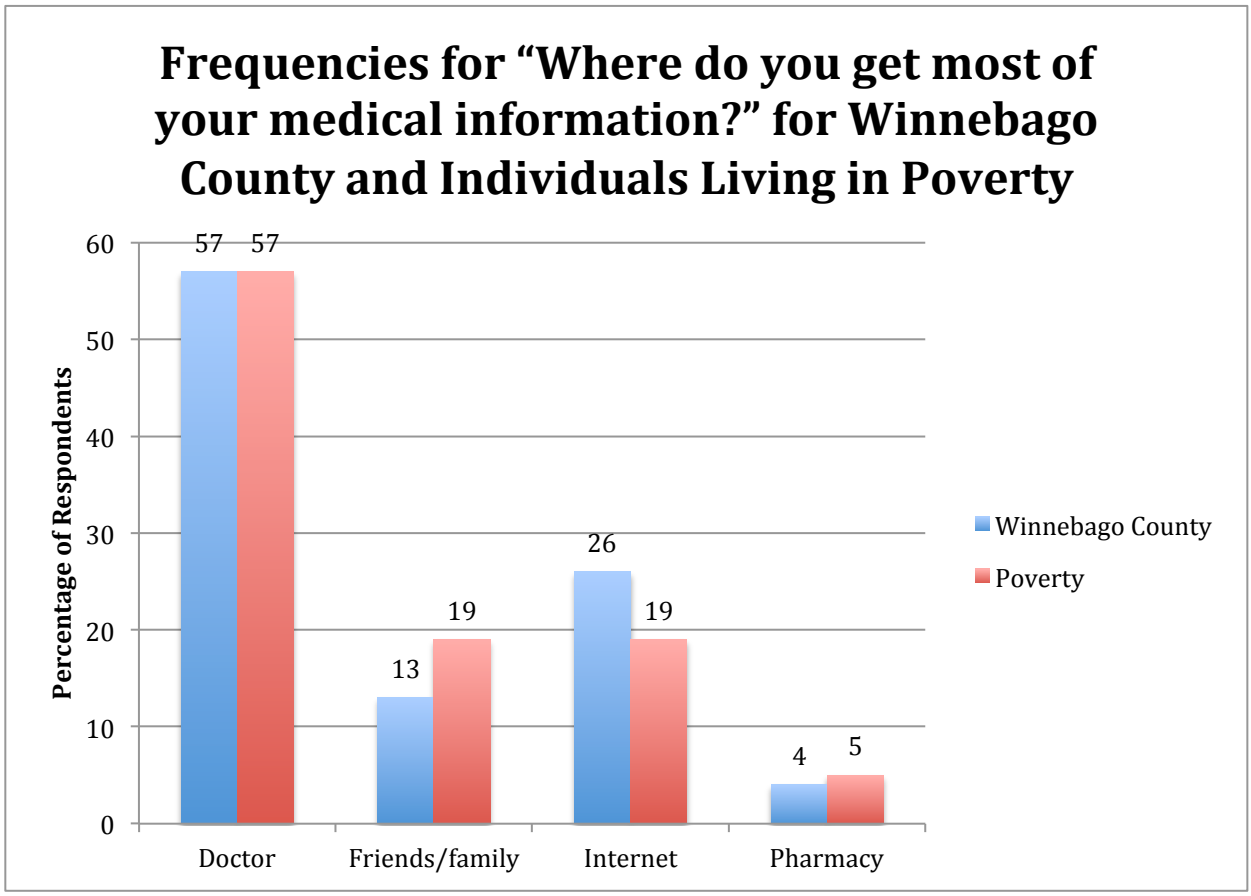
I didn't have any way to get to the counselor tends to be rated higher by younger individuals.

8.7 Access to Information

Respondents were asked, "Where do you get most of your medical information." The vast majority of respondents (57%) 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 as important as 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?" for Winnebago County and Individuals Living in Poverty

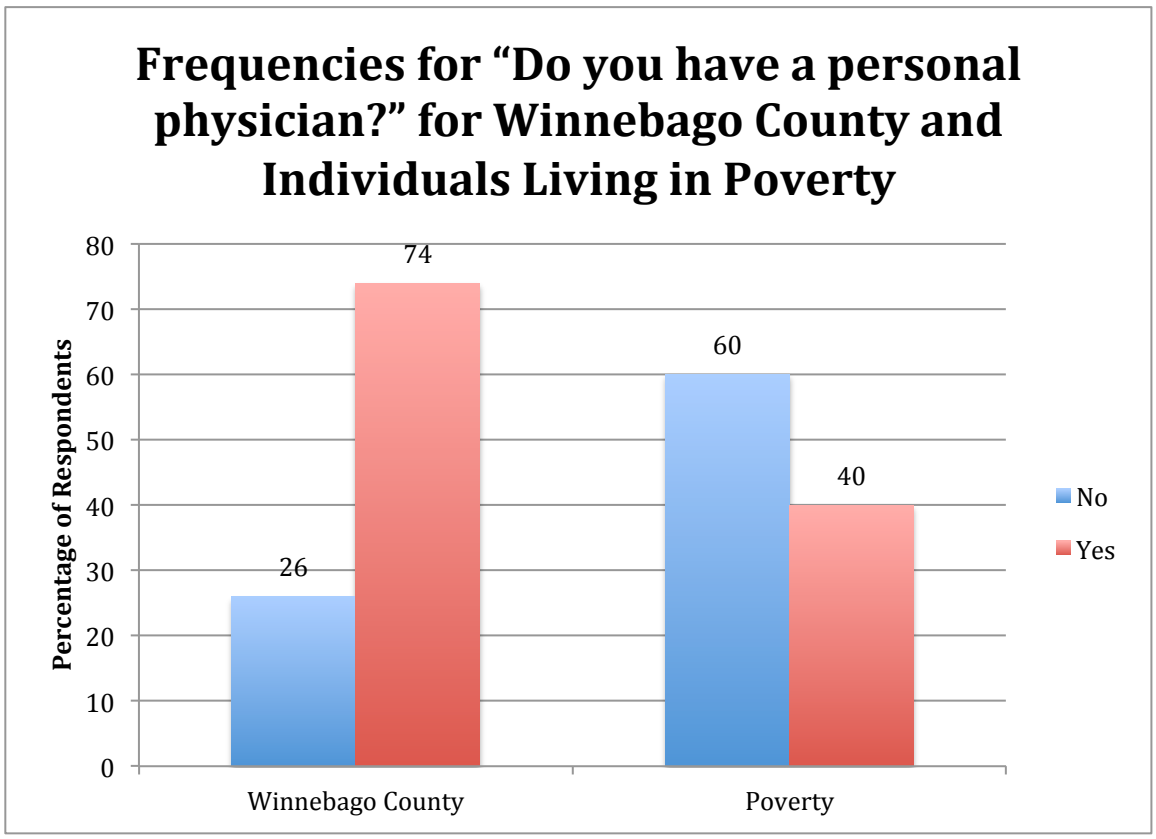


8.8 Personal physician

Respondents were asked if they had a personal physician. For Winnebago County, 74% of respondents indicated that they had a personal physician.

Logit regression analyses reveal that people with higher incomes White ethnicity 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?" for Winnebago County and Individuals Living in Poverty



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 homeless, of Black ethnicity, or of Latino/a ethnicity, and was more likely to answer that he or she did have a personal physician if he or she was older, more educated, of White ethnicity, and earned more income.

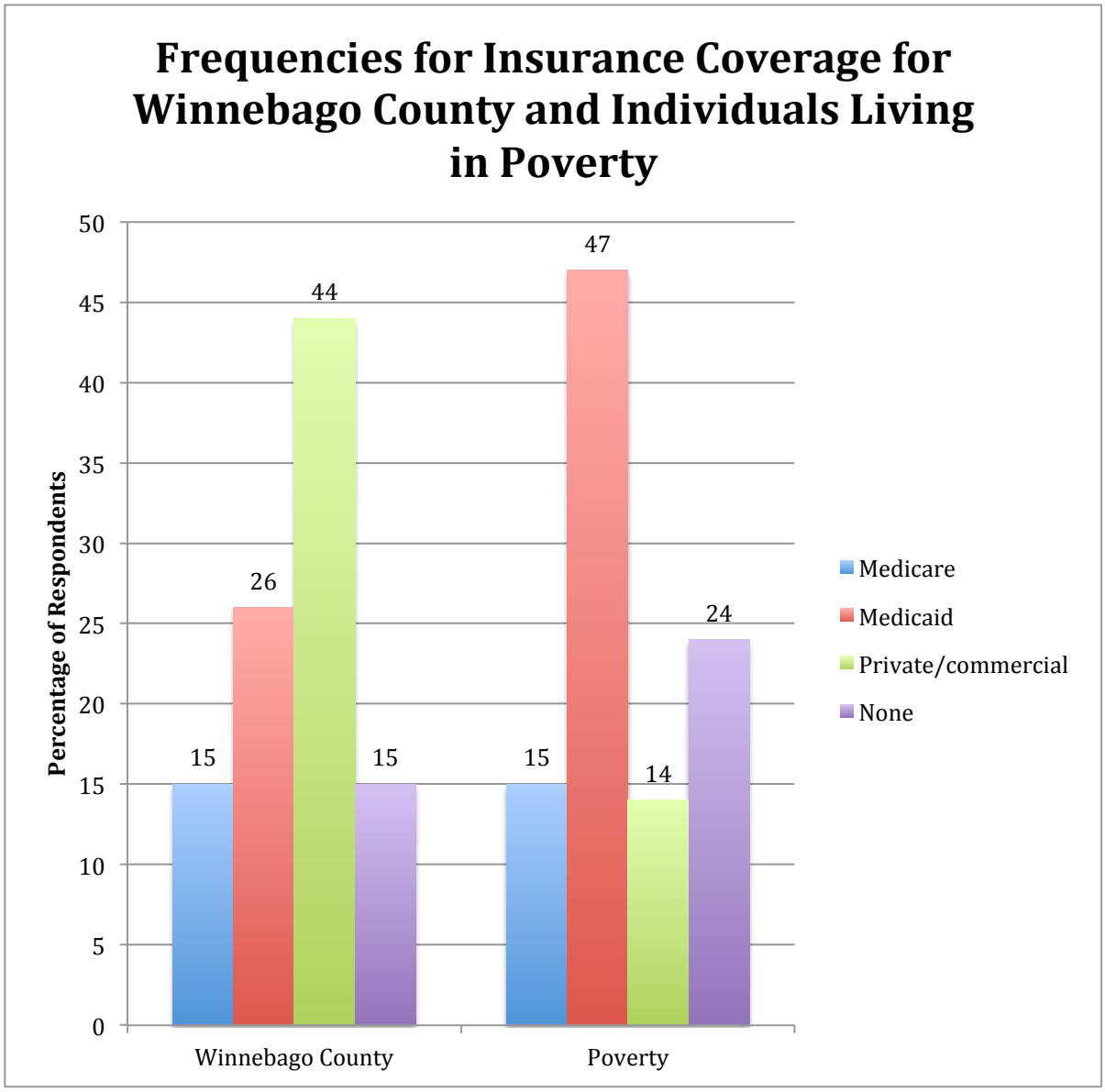
Table 8.8.2 Significant Correlations among Access to a Personal Physician and Demographic Variables

	Gender	Age	Race (White)	Race (Black)	Latino/a	Education	Income	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 Winnebago County, 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 for Winnebago County and Individuals Living in Poverty



Access to Health Care: Strategic Implications

Approximately 62% of people living in deep poverty seek medical services at a clinic or doctor's office. For this segment of the population, while 18% seek medical services from an emergency department, approximately 12% will not seek any medical services at all or "other" non-traditional sources of care. Those most likely to utilize the emergency department are individuals who are younger, who identify with Black ethnicity, who are less education, and who earn lower income.

28% 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 older or were of non-White ethnicity. 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 females, individuals of non-White ethnicity, and individuals who possessed less education, or were of lower income were more likely to answer that they did not have access to prescription drugs. 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, 49% of Winnebago County residents had a checkup in the last year. Specifically, individuals who were younger, were of non-White ethnicity, possessed less education, or possessed less income were less likely to visit a dentist. Moreover, note that almost half of people living in poverty (41%) 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 16% 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 individuals with less education and lower income, and homelessness. While affordability and insurance were leading reasons, embarrassment was the second cited barrier to mental health services.

Across categories, residents of Winnebago County 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, 24% 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.

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.

Table 9.1.1 Frequencies for "In the last week, how many times did you exercise?" for Winnebago County and Individuals Living in Poverty

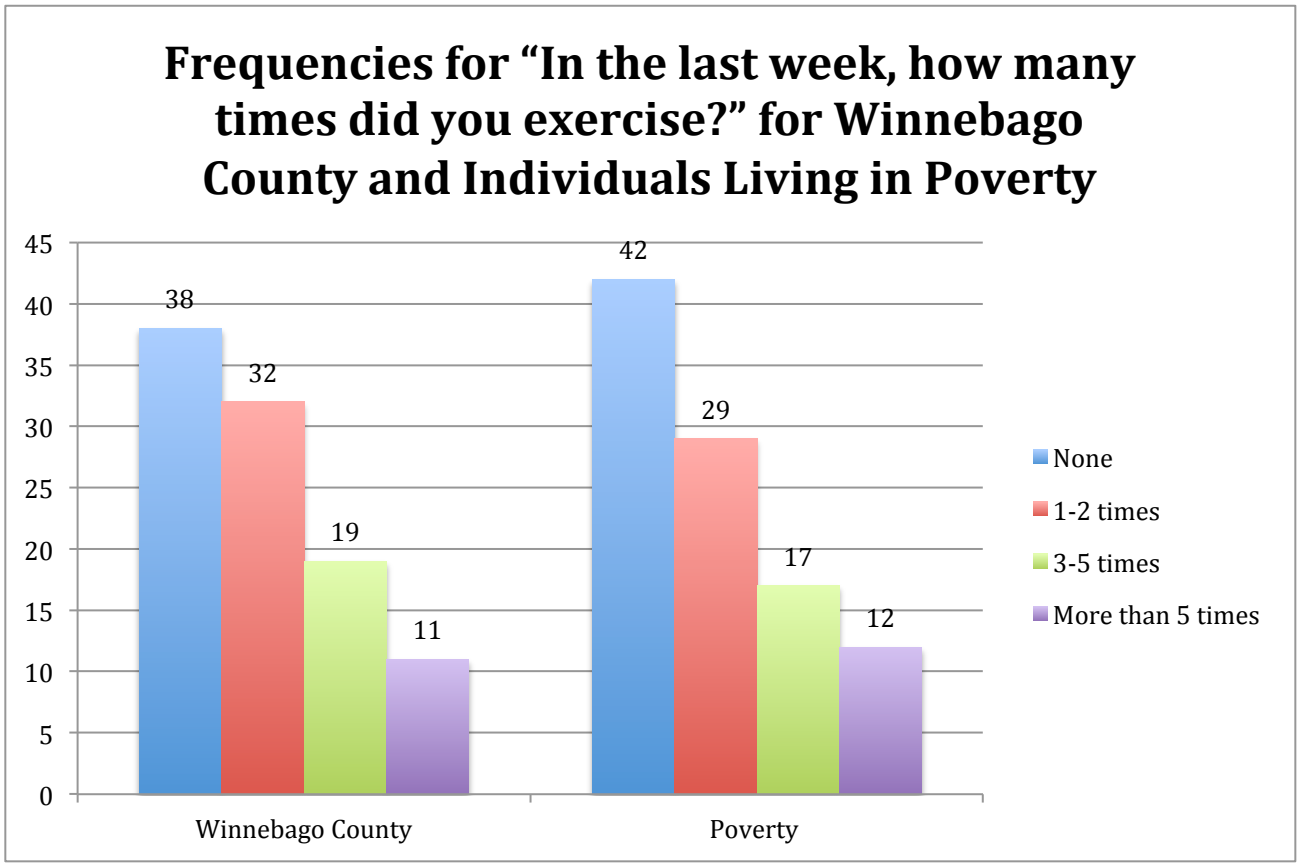


Table 9.1.2 Significant Correlations among "In the last week, how many times did you exercise?" and Demographic Variables

Gender	-

9.2 Healthy Eating

For healthy eating habits, about 30% of the population consumes at least three servings of fruits/vegetables in a day. Moreover, only about 4% 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 16% of Winnebago 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?" for Winnebago County and Individuals Living in Poverty

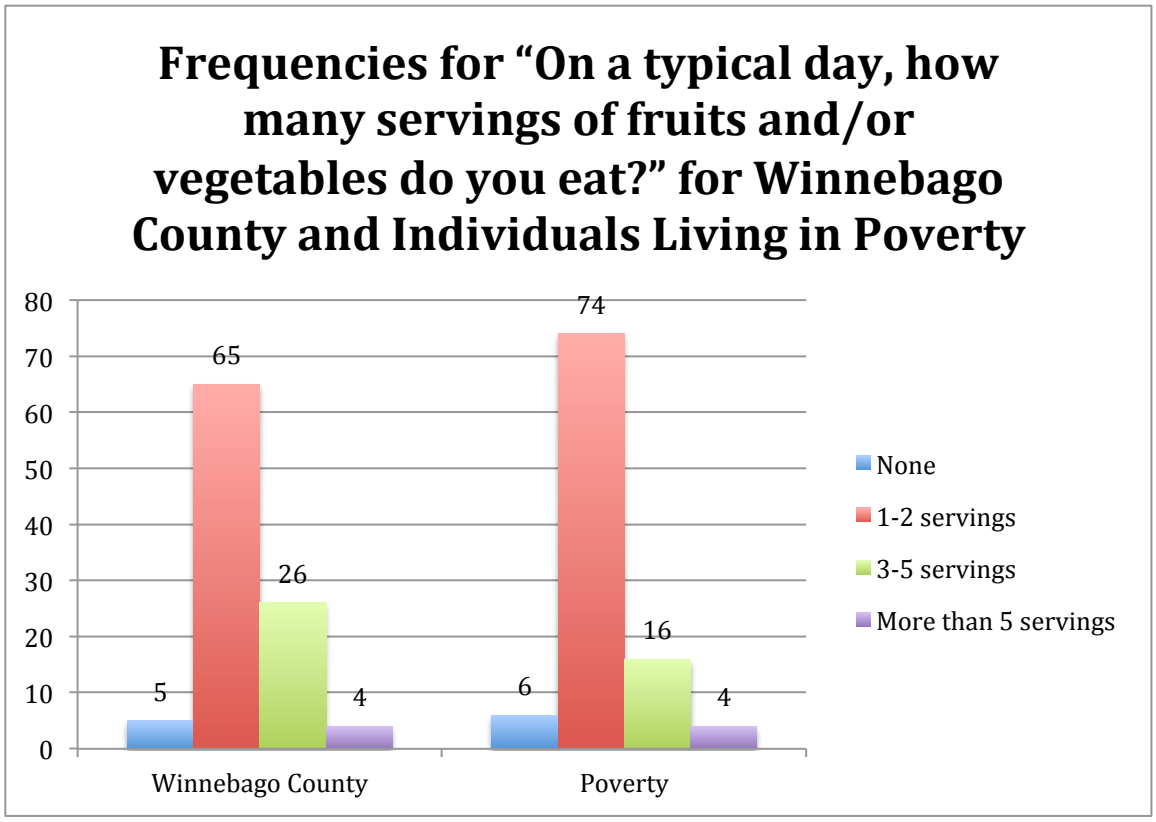


Table 9.2.2 Significant Correlations among Number of Servings of Fruits and Vegetables Consumed Daily and Demographic Variables

Age	+
Education	+
Income	+
Homeless	-

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, or were older. Homeless individuals were less likely to consume more fruits and vegetables.

9.3 Smoking

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?" for Winnebago County and Individuals Living in Poverty

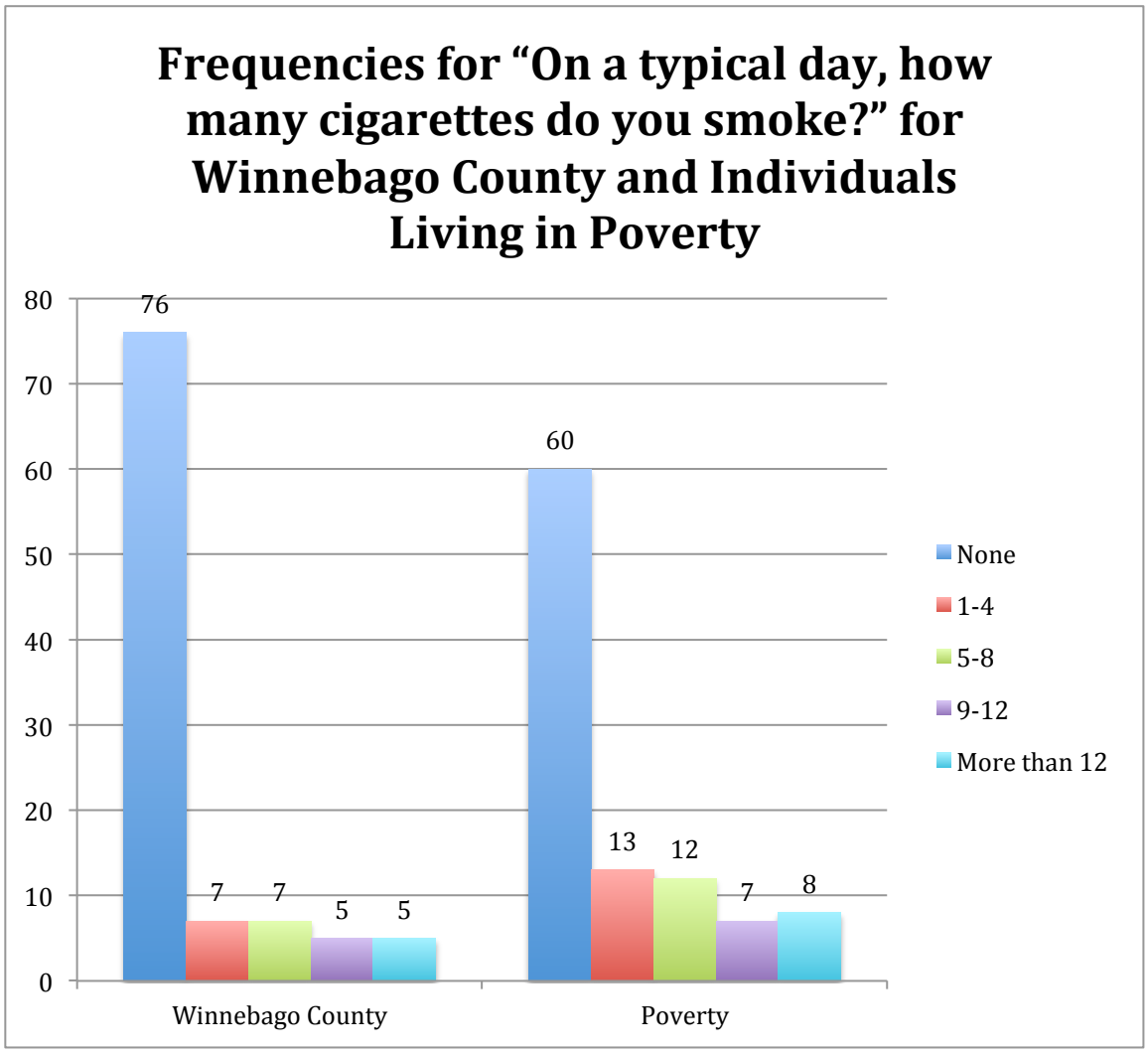


Table 9.3.2 Significant Correlations among Number of Cigarettes Smoked Daily, and Demographic Variables

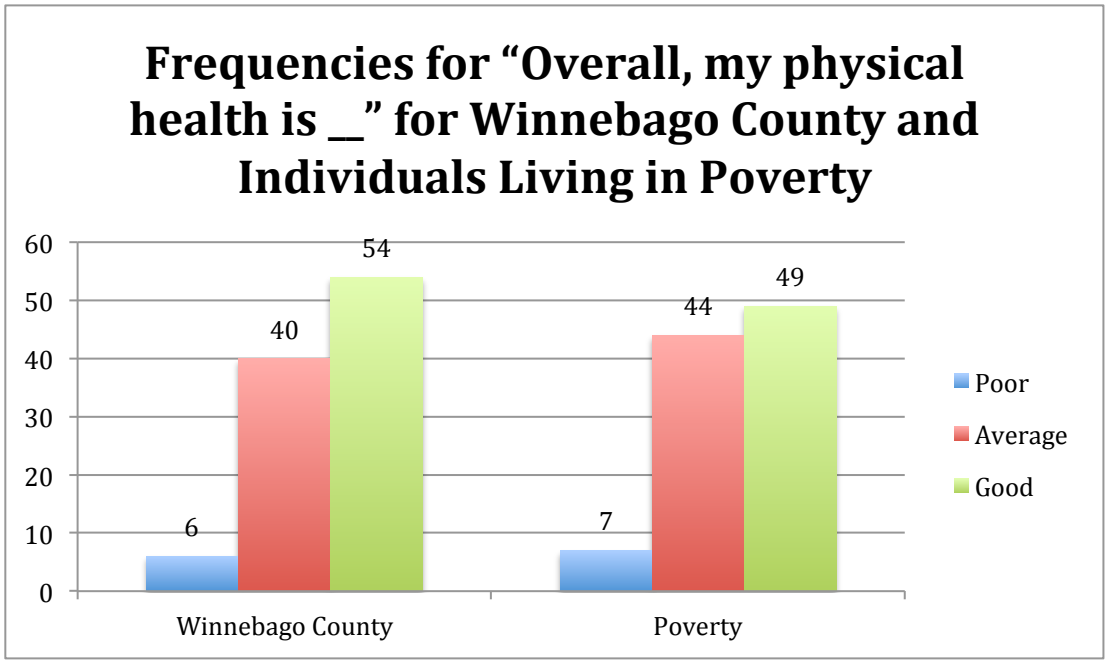
Age	-
Race (Black)	+
Latino/a	-
Education	-
Income	-
Homeless	+

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 male, were homeless, were less educated, earned less income, or identified with Black ethnicity. Individuals of Latino/a ethnicity were less likely to smoke.

9.4 Overall Health

In terms of self-perceptions of physical and mental health, 94% 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 __" for Winnebago County and Individuals Living in Poverty

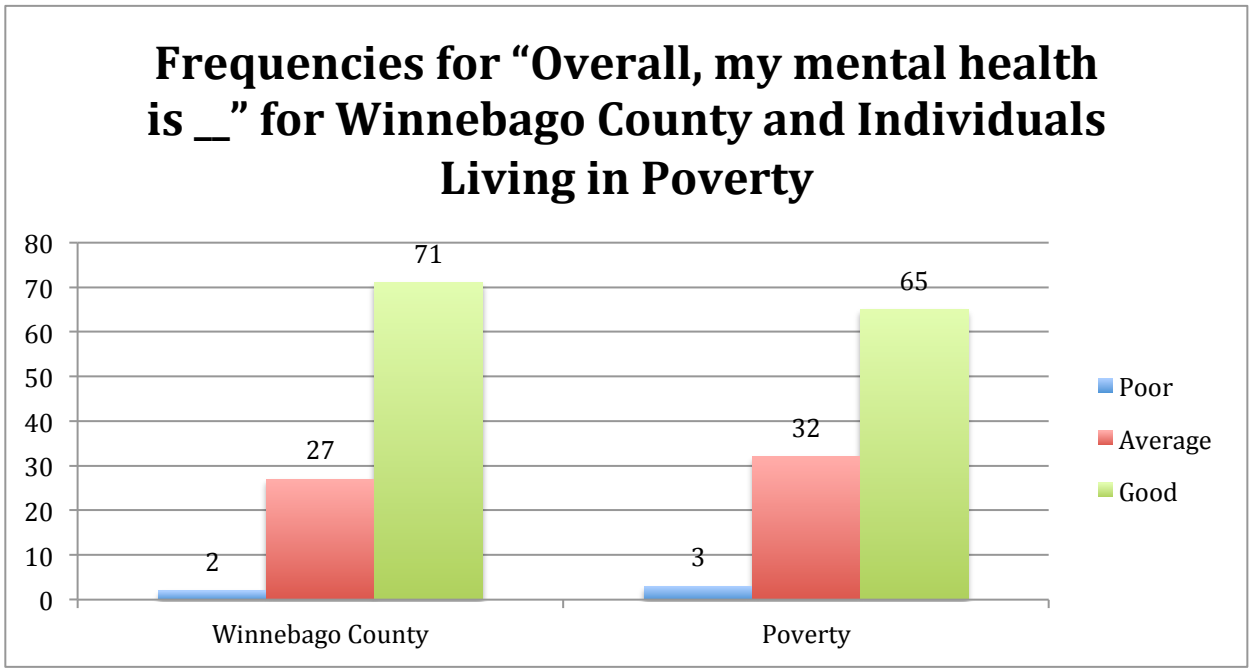


Numerous significant relationships exist between overall physical health and demographic variables. Specifically, a survey respondent was more likely to answer that he or she possessed better physical health if they were of earned a higher income and had attained higher levels of education. Conversely,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

Table 9.4.2 Significant Correlations among Overall Physical Health, Demographic Variables

Race (Black)	-
Education	+
Income	+
Homeless	-

Table 9.4.3 Frequencies for "Overall, my mental health is __" for Winnebago County and Individuals Living in Poverty



Two 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 earned a higher income or had attained higher levels of education.

Table 9.4.4 Significant Correlations among Overall Mental Health and Demographic Variables

Education	+
Income	+

Healthy Behaviors: Strategic Implications

For healthy behaviors, men in Winnebago County are more likely to engage in physical exercise, although 30% of the population engages in exercise at least 3 times a week. Similarly for healthy eating habits, 30% of the population consumes at least three servings of fruits/vegetables in a day. Those that are more likely to have healthy eating habits include older individuals, people with higher educations and more income, and individuals who are not homeless. 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 Winnebago County community can be mitigated, to some extent, by healthy lifestyle.

Data suggests smoking is a concern in Winnebago County, with individuals who were younger, who identify with Black ethnicity, who were homeless, were less educated, and who earn less income as being more likely to smoke.

In terms of self-perceptions of physical and mental health, 94% 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 Winnebago County 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.

Insurance (Chapter 2) – Lack of insurance contributes to decreased accessibility to health care, including both medical and dental insurance.

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

Diseases/Morbidity (Chapter 4) – By evaluating magnitude of morbidities and growth rates of morbidities, several specific issues were identified. These included asthma, COPD, cardiovascular disease, diabetes (specifically Type II diabetes), hypertension and women's health and men's health.

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

Characteristics of Survey Respondents (Chapter 6) – Not applicable for this analysis.

Community Misperceptions (Chapter 7) – Based on results from the survey, respondents to the survey incorrectly perceived "sexually transmitted disease" "lung disease" "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

Identification of Health-Related Community Issues.

In order to provide parsimony, before the prioritization of key community health-related issues was performed, results were aggregated into 13 key categories. Based on similarities and duplication, the 13 areas are:

- **Obesity**
- **Risky Behaviors-Substance Abuse**
- **Mental Health**
- **Healthy Behavior/Nutrition**
- **Access to Health Services**
- **Respiratory Issues**
- **Heart Disease**
- **Cancer**
- **Diabetes**
- **Community Health Misperceptions**
- **Dental**
- **Women's Health**
- **Sexual 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 13 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 (8)

Booker Washington Community Center
Obesity
The Booker Washington Community Center is home to the Willie Ashford YMCA.

Boys and Girls Club of Rockford
Obesity
Children have the opportunity to participate in sports, fitness, or recreational activities at the Boys & Girls Club of Rockford. Programs develop fitness, positive use of leisure time, skills for stress management, appreciation for the environment and social skills.

Harlem Community Center
Obesity
The Harlem Community Center offers a variety of summer sports and recreation programs.

Ken-Rock Community Center
Obesity
The Ken-Rock Community Center offers a variety of summer sports and recreation programs.

Northwest Community Center
Healthy Behaviors/Nutrition, Obesity
The Northwest Community Center offers a summer camp for at-risk youth while their parents are at work or in school. Nourishing lunches and snacks are provided daily during camp.

Rockford Park District
Obesity
The Rockford Park District offers recreational opportunities including 180 neighborhood parks, affordable golf courses, ice-skating, recreation paths, softball and soccer fields.

YMCA of Rock River Valley
Access to Health Services, Community Health Misperceptions, Obesity
The YMCA of Rock River Valley is a community based service organization dedicated to building the mind, body and spirit for members of the Winnebago County community. 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 the Rock River Valley.

YWCA of Rockford
Access to Health Services, Community Health Misperceptions, Obesity
The YWCA of Rockford provides a full range of aquatics and other fitness, child care, adult literacy, health and leisure, and community service programs.

10.2.2 Health Departments (1)

Winnebago County Health Departement
Access to Health Services, Community Health Misperceptions, Healthy Behavior, Sexual Health, Women's Health
The goal of the Winnebago County Health Department is to protect and promote health and prevent disease, illness and injury. Public health interventions range from preventing diseases to

promoting healthy lifestyles and from providing sanitary conditions to ensuring safe food and water.

10.2.3 Community Agencies/Private Practices (60)

Access Services of Northern Illinois (ASNI)
Access to Services, Community Health Misperceptions
Access Services of Northern Illinois (ASNI) is a not-for-profit charitable organization that serves the thirteen counties of northwest Illinois. Its mission is to empower and assist individuals with developmental disabilities to participate as full citizens in their community by coordinating and advocating for community services and supports of their choice.

Alzheimer's Association - Greater Illinois Chapter
Access to Services, Community Health Misperceptions
The Alzheimer's Association, Greater Illinois Chapter serves 68 counties in Illinois with offices in Bloomington, Carbondale, Chicago, Joliet, Rockford and Springfield. Since 1980, the Chapter has provided reliable information and care consultation; created supportive services for families; increased funding for dementia research; and influenced public policy changes. Today, the Greater Illinois Chapter serves the more than a half million Illinois residents affected by Alzheimer's disease throughout our chapter area, including 210,000 people with the disease.

American Cancer Society
Cancer
The American Cancer Society is dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and diminishing suffering from cancer, through research, education, advocacy, and service.

ARC of Winnebago, Boone and Ogle Counties
Access to Services, Community Health Misperceptions, Mental Health
The Arc of Winnebago, Boone and Ogle Counties serves over 200 adults and children with intellectual and developmental disabilities and their families each month through a wide variety of programs, services and activities.

Barbara Olson Center of Hope
Mental Health
The Barbara Olson Center of Hope helps individuals with developmental disabilities reach personal goals through individualized skill development, vocational opportunities and community service.

Black Health Care Initiative Coalition
Access to Health Services, Community Health Misperceptions
The Black Health Care Initiative Coalition seeks to improve the access of African Americans to the medical system.

Camelot Community Care
Mental Health
Camelot Community Care's mission is to develop and provide services which enable children and families to realize their full potential.

Carpenter's Place
Access to Services, Community Health Misperceptions, Mental Health
The Carpenter's Place (CP) has become recognized and respected as an innovative and aggressive leader in development of efficient and effective methods for reaching and addressing the core life issues of the chronically homeless. CP sponsors the Homeless Mental Health Access Project.

Catholic Charities, Diocese of Rockford
Access to Services, Community Health Misperceptions, Mental Health, Substance Abuse
Catholic Charities offers counseling, emergency assistance, and adolescent outreach in addition to a variety of other services.

Center for Community Re-Entry
Access to Services, Community Health Misperceptions, Mental Health, Substance Abuse
The Center for Community Re-entry provides parolees (assigned) job readiness; job training; education; drug treatment; mental health services; housing assistance; ID; family re-unification; cognitive behavior therapy.

Child and Family Connections #16
Access to Health Services, Community Health Misperceptions, Healthy Behavior/Nutrition, Mental Health
Child *&* Family Connections (CFC) makes referrals to early intervention services for children with special needs, birth to age three.

Children's Advocacy Center (CAC)
Mental Health, Sexual Health
The Children's Advocacy Center (CAC) is a non-profit organization that provides training, prevention, and treatment services to fight child abuse and neglect.

Children's Home + Aid MotherHouse Crisis Nursery
Access to Health Services, Community Health Misperceptions, Sexual Health, Women's Health
The Children's Home + Aid MotherHouse Crisis Nursery can lend support to families when they are faced with a crisis such as homelessness, domestic violence, medical emergencies, joblessness or drug addiction

Circles of Learning
Healthy Behaviors, Mental Health, Obesity
Circles of Learning offers pre-school educational services, infant/toddler care, before and after-school child care, school-age summer and holiday care, nutritional services, and a comprehensive family support system.

City of Rockford Human Services Department
Access to Health Services, Community Health Misperceptions, Healthy Behavior, Women's Health
As a Community Action Agency, the Human Services Department provides services to individuals, families and neighborhoods in Rockford as well as in greater Winnebago and Boone Counties. This is accomplished by addressing systemic, community and individual factors. Key strategies include provision of direct services, partnering, collaborations and advocacy. Services are administered under two Divisions with input from a Community Action Board and the Head Start Policy Council.

Comprehensive Community Solutions, Inc. (YouthBuild Rockford)
Mental Health
YouthBuild is a unique program serving out of school youth ages 16-24 who are from low-income communities, have dropped out of school and are unemployed. It provides academic education, vocational skills training, personal counseling, positive peer support, leadership development, job placement and follow-up support.

Cornucopia Food Pantry
Diabetes, Healthy Behaviors, Obesity
Cornucopia provides a food pantry on Tuesdays, Thursdays, and the 3rd Saturdays from 9-11am.

Department of Children and Family Services
Sexual Health, Women's Health
DCFS offers training/educational programs including "Promoting Healthy Sexual Development and Pregnancy Prevention of Youth in Foster Care".

Easter Seals Metropolitan Chicago
Mental Health, Dental
Easter Seals Metropolitan Chicago maximizes independence and creates opportunities for people with disabilities and other special needs to live, learn, work and play in their communities by providing a lifespan of premier services. Specific services include dental screenings and follow-up services to people with developmental disabilities.

Family Counseling Services of Northern Illinois
Mental Health
Family Counseling Services provides professional counseling for a broad spectrum of challenges and concerns.

Family Matters – PACT
Mental Health
Family Matters – PACT provides a continuum of quality social, educational and mental health services to strengthen individuals, families and communities.

God's Glory Food Pantry
Diabetes, Healthy Behaviors, Obesity
God's Glory provides a food pantry on the 3rd Saturday of each month from noon-3pm.

Grounds for Life Soup Kitchen
Diabetes, Healthy Behaviors, Obesity
Grounds for Life provides a food pantry Monday-Sunday with doors opening at 6am for meal service 7:30-8:30am.

Group Hope - Depression and Bipolar Support
Access to Health Services, Mental Health
Group Hope welcomes those who need a place to feel safe in discussing their feelings of sadness, hopelessness, confusion, and grief. Meetings, which are completely free of charge, are held in Rockford, Belvidere, DeKalb, Dixon, Oregon, and Rochelle, Illinois.

Haven Network
Women's Health
The Haven Network, Northern Illinois' perinatal hospice and bereavement center, provides companionship on the grief journey to families who are facing a terminal diagnosis of their pre-born or newborn baby. The Haven Network also supports those families who have lost a baby through miscarriage, stillbirth, ectopic pregnancy, SIDS and early infant death.

Healing Pathways Cancer Resource Center
Cancer, Healthy Behaviors, Mental Health, Obesity
Healing Pathways-Cancer Resource Center is an independent organization offering free supportive services to cancer patients, survivors and their loved ones. Our programs, classes and educational resources help ease the emotional and physical side effects of cancer and its treatment. In addition, they offer guidance in choosing healthy lifestyles that promote optimal health into survivorship. Core programs focusing on Optimal Nutrition, Stress Management, Gentle Exercise, and Connection with Others are all complementary to medical treatment.

Illinois Crisis Prevention Network
Mental Health
The Illinois Crisis Prevention Network consists of highly trained professionals with extensive experience in the social service community. These professionals originate from two of the largest and most respected agencies in the state of Illinois serving the intellectually disabled population. The teams are made up of skilled clinicians who work with individuals with severe behaviors and are struggling to maintain in their current home or placement. These behaviors can be difficult for families or staff to work with, disrupt their environment and can take an emotional toll on everyone living or working there. Team members can provide strategies to reduce or eliminate these behaviors, training for staff or caregivers to cope and work effectively with the clients and help locate resources in the community.

La Voz Latina
Access to Services, Community Health Misperceptions
La Voz Latina maintains a strong focus on education through English and citizenship classes, programs for youth, health and family education, and community awareness.

Lifescapes Community Services
Access to Services, Community Health Misperceptions, Healthy Behavior/Nutrition, Obesity
Lifescapes promotes independent living and enhances the quality of life for individuals by providing affordable nutrition and other services, with an emphasis on the aging population.

Love INC
Access to Services, Community Health Misperceptions, Healthy Behavior/Nutrition, Obesity
Love INC brings Christian churches together to help the poor by meeting immediate needs such as food and clothing, to longer-term responses through relational ministries such as life skills training and transitional housing.

Lutheran Social Services of Illinois
Mental Health, Substance Abuse
Lutheran Social Services provides behavioral health services (counseling, substance abuse, mental health and developmental disabilities), children's community services (adoption, foster care, pregnancy counseling, residential services and Head Start), nursing and community services (long-term care and rehabilitation, home care services, adult day services, respite services for caregivers and retirement communities), prisoner and family ministry (support for children of incarcerated parents and their caregivers, re-entry programs, on-site prison programs, and justice education), and senior housing services (affordable housing for low-income seniors and people with disabilities).

Lydia Home Association
Mental Health
LYDIA is a national, Christ-honoring organization whose mission is to strengthen families to care for children and care for children when families cannot.

MERIT (Medical Evaluation Response Initiative Team) - University of Illinois College of Medicine at Rockford
Access to Health Services, Sexual Health
The Medical Evaluation Response Initiative Team (MERIT) is a new, innovative program developed by the healthcare providers in collaboration with the University of Illinois College of Medicine at Rockford, the Department of Child and Family Services (DCFS) and the Carrie Lynn Children's Center. The mission of MERIT is to provide all children suspected of physical abuse, sexual abuse or neglect with timely expert medical evaluations and treatment, as well as serving the community as a resource for prevention, research and education.

Milestone, Inc.
Access to Health Services, Community Health Misperceptions, Dental
Milestone has grown to become Winnebago and Boone Counties' largest provider of residential, developmental, vocational, and social support services for adults and children with mental retardation, autism, epilepsy, and cerebral palsy.

National Alliance on Mental Illness
Mental Health
The National Alliance on Mental Illness is the nation's largest grassroots mental health organization dedicated to building better lives for the millions of Americans affected by mental

illness. NAMI advocates for access to services, treatment, supports and research and is steadfast in its commitment to raising awareness and building a community of hope for all of those in need.

Northern Illinois Diabetes Coalition
Access to Health Services, Community Health Misperceptions, Diabetes
NIDC's mission is to improve the quality of care provided to persons with diabetes and the metabolic syndrome

Northern Illinois HIV-AIDS Network
Access to Health Services, Community Health Misperceptions, Sexual Health
The Northern Illinois HIV-AIDS Network offers services for individuals impacted by HIV and AIDS.

Northern Illinois Food Bank
Diabetes, Healthy Behaviors, Obesity
The Northern Illinois Food Bank seeks to lead the northern Illinois community in solving hunger by providing nutritious meals to those in need through innovative programs and partnerships.

Northern Illinois Hospice and Grief Center
Access to Health Services, Mental Health
Northern Illinois Hospice and Grief Center has provided grief counseling and support to thousands of individuals and families in the community. Licensed professionals teach coping skills and provide support to help create a bridge between the past and future. Grief Center services are provided on a sliding fee scale.

Northwestern Illinois Area Agency on Aging
Access to Health Services, Community Health Misperceptions
Northwestern Illinois Area Agency on Aging (NIAAA) is a non-profit organization serving older persons and caregivers in northwestern Illinois. There is no charge for NIAAA services.

Planned Parenthood
Access to Health Services, Community Health Misperceptions, Sexual Health, Women's Health
Planned Parenthood is a sexual and reproductive health care provider to improve women's health and prevent unintended pregnancies.

Optimal Care Advocates
Access to Health Services
Optimal Care Advocates are independent professionals serving seniors, individuals with disabilities and their families in Northern Illinois.

Regional Access Mobilization Project (RAMP)
Access to Health Services, Community Health Misperceptions
RAMP is a passionate partner for people with disabilities desiring to live a useful and rewarding life. RAMP empowers people with disabilities to realize there are no limits to what they can do

by assisting them to live independently, make changes in their own lives, seek peer support, obtain resources and remove barriers that threaten their dreams of independence.

Remedies Renewing Lives
Mental Health, Substance Abuse
Remedies is a health and human services agency that helps adults and their children deal with problems arising from substance abuse or domestic violence.

Rock Valley College
Dental
Rock Valley College's Dental Hygiene program solicits patients that have not received regular routine dental hygiene care (cleanings) for at least 3 years. The clinic offers low-cost dental hygiene preventative dental services. The clinic serves insured and uninsured populations, at nominal fees.

Rockford Area Pregnancy Care Centers
Access to Services, Community Health Misperceptions, Sexual Health, Women's Health
The Rockford Area Pregnancy Care Centers (RAPCC) helps women facing crisis or unplanned pregnancies. Programs and services include ultrasound services, a "baby boutique", the Maternity Home for pregnant, homeless women, and Positive Choices program to educate parents and their children about sexual risk avoidance.

Rockford Housing Authority
Access to Health Services, Dental
The Rockford Housing Authority provides a school based health center providing physicals, immunizations, prescriptions, counseling, treatment for chronic illnesses and minor injuries or illnesses for school aged children 18 and younger. In addition, three annual visits by the Ronald McDonald care-mobile for dental care services are made to the RHA for the community at large.

Rockford MELD
Access to Health Services, Sexual Health, Women's Health
MELD is a non-profit social service agency started in 1981. Through programs and services, MELD offers emergency shelter and housing, parenting information, life and job skills training, support and resources and prevention education.

Rockford Rescue Mission
Access to Health Services, Community Health Misperceptions, Mental Health, Substance Abuse, Obesity, Healthy Behaviors/Nutrition
Rockford Rescue Mission shares hope and help in Jesus' name to move people from homelessness and despair toward personal and spiritual wholeness.

Rockford Sexual Assault Counseling
Mental Health, Sexual Health, Women's Health
Rockford Sexual Assault Counseling (RSAC) provides 24-hour crisis intervention, counseling services and advocacy support for survivors of sexual assault and sexual abuse, ages 3-adult, and their significant others in Winnebago, Boone and Ogle Counties.

Rockford Township – General Assistance Office
Access to Health Services, Community Health Misperceptions
The General Assistance Office sponsors a financial aid program for individuals who are not qualified for categorical assistance (state or federally funded aid).

Rockford Vet Center
Access to Health Services, Community Health Misperceptions, Mental Health, Sexual Health, Substance Abuse, Women's Health
The Rockford Vet Center offer individual readjustment counseling, referral for benefit assistance, group readjustment counseling, marital and family counseling, substance abuse information and referral, sexual trauma counseling and community education that is free of charge to combat veterans and their families.

Rosecrance Health Network
Access to Health Services, Mental Health, Substance Abuse
Rosecrance offers comprehensive addiction services for adolescents and adults, including prevention, intervention, detoxification, inpatient and outpatient treatment, experiential therapies, dual-diagnosis care and family education. Rosecrance also offers high-quality, efficient and effective outpatient mental health services for children, adults and families through a variety of programs.

Salvation Army – Winnebago County
Access to Health Services, Mental Health
The Salvation Army provides individual and family trauma counseling and emotional support.

Shelter Care Ministries
Access to Health Services, Community Health Misperceptions, Mental Health
The mission of Shelter Care Ministries is to provide shelter, awaken hope and honor dignity in every person who seeks comfort, support or assistance. The focus if Shelter Care Ministries is on individuals with a chronic mental illness and families who are homeless in the Winnebago/Boone county area.

St. Elizabeth Catholic Community Center
Access to Health Services, Mental Health
The St. Elizabeth Catholic Community Center offers counseling and advocacy services at no cost for at-risk youth ages 9-17.

Stepping Stones of Rockford
Mental Health
Stepping Stones of Rockford, Inc. is a private, not-for-profit organization which provides housing and rehabilitation services to adults with serious mental illness in the greater Rockford-area.

TASC, Inc. – Northwest Illinois
Access to Health Services, Community Health Misperceptions, Mental Health, Substance Abuse
TASC advocates for people in courts, jails, prisons, and child welfare systems who need treatment for alcohol/drug and mental health problems.

Youth Service Bureau of Illinois Valley
Mental Health
As a community-based agency, YSB responds to the needs of children and youth through a variety of programs with the purpose of enhancing the quality of life for all children, youth and families.

Youth Services Network, Inc. (YSN)
Mental Health
Youth Services Network, Inc (YSN) offers unique services to the youth and their families in Winnebago and Boone Counties including trauma-informed, holistic, and community based services.

10.2.4 Hospitals/Clinics (8)

Center for Sight and Hearing
Access to Health Services
The Center for Sight and Hearing helps individuals with a vision and/or hearing loss enhance their quality of life and live independently.

Crusader Community Health
Access to Health Services, Cancer, Cardiovascular Disease, Community Health Misperceptions, Dental, Diabetes, Healthy Behaviors, Mental Health, Obesity, Respiratory Issues, Sexual Health, Women's Health
Crusader Community Health is a community based, non-profit community health center founded in 1972 to serve the Rock River Valley area with quality primary health care for all people in need. Crusader provides healthcare for all, regardless of their ability to pay, as they eliminate disparities in healthcare.

OSF Saint Anthony Medical Center
Access to Health Services, Cancer, Cardiovascular Disease, Diabetes, Healthy Behavior, Mental Health, Obesity, Respiratory Issues, Sexual Health, Substance Abuse, Women's Health
OSF Saint Anthony Medical Center is a 254-bed tertiary care facility located on a 100-acre campus near Interstate 90 and US Business 20 in Rockford, Illinois. OSF Saint Anthony is a regional medical center known for providing pioneering care in its Level I Trauma Center, Cardiovascular Services, Center for Cancer Care, Illinois Neurological Institute and Women's Center.

Rockford Health System
Access to Health Services, Cancer, Cardiovascular Disease, Diabetes, Healthy Behavior, Mental Health, Obesity, Respiratory Issues, Sexual Health, Substance Abuse, Women's Health

Rockford Health System, the largest health system serving northern Illinois and southern Wisconsin, has a long tradition of care, built on a commitment to clinical excellence, cutting-edge technology, and meeting the health care needs of the region. Rockford Health System includes: Rockford Memorial Hospital, a 396-bed tertiary care hospital; Rockford Health Physicians, outpatient clinics with locations throughout the region; Van Matre HealthSouth Rehabilitation Hospital, a 40-bed inpatient hospital offering a full range of rehabilitation services; and the Visiting Nurses Association, providing a variety of home health care services to people of all ages.

SwedishAmerican Health System
Access to Health Services, Cancer, Cardiovascular Disease, Diabetes, Healthy Behavior, Mental Health, Obesity, Respiratory Issues, Sexual Health, Substance Abuse, Women's Health
SwedishAmerican is a not-for-profit, locally governed healthcare system dedicated to providing excellence in healthcare and compassionate care to the Greater Rockford community. Services include a major acute care hospital, a medical center in Belvidere, a network of 30 primary care and multi-specialty clinics, the region's largest home healthcare agency, and a full spectrum of outpatient, wellness and education programs.

The Bridge Clinic
Access to Health Services
The Bridge Clinic offers free basic health care for uninsured adults over age 18 every Saturday at the Second Congregational - First Presbyterian Church.

UIC Women's and Children's Health Center
Cancer, Sexual Health, Women's Health
The Women's and Children's Health Center is designed to meet the specific and unique needs of women and children, combines the department of obstetrics and gynecology and the department of pediatrics in a state-of-the-art health center associated with the University of Illinois College of Medicine at Rockford. Services offered include complete OB/GYN care, including colposcopies and endometrial biopsies, complete pediatric and adolescent, contraception and infertility service, early detection and treatment of cancer, treatment for menstrual or hormonal difficulties, management of menopause and osteoporosis, treatment for incontinence, pregnancy and childbirth care and education, on-site lab, ultrasound and fetal monitoring.

University Psychiatric Services
Mental Health
University Psychiatric Services provides patients with confidential therapy and counseling and is associated with the University of Illinois College of Medicine at Rockford. Faculty professionals are highly skilled and caring specialists in child, adolescent, adult and geriatric counseling.

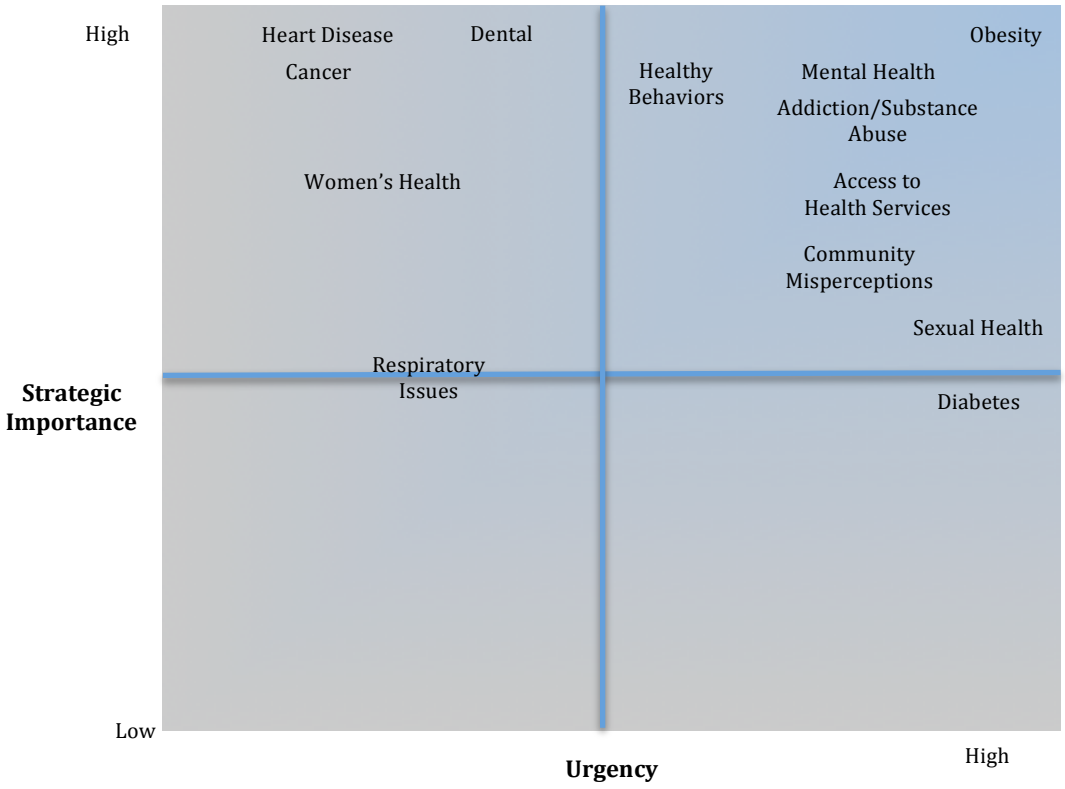
Table 10.2 Relationship between Community Resources and Community Needs

	Organization Name	Access to Services	Cancer	Cardiovascular Disease	Community Health Misperceptions	Dental	Diabetes	Healthy Behavior/ Nutrition	Mental Health	Obesity	Respiratory Issues	Sexual Health	Substance Abuse	Women's Health
Recreational Facilities (8)	Booker Washington Community Center									X				
	Boys and Girls Club of Rockford									X				
	Harlem Community Center									X				
	Ken-Rock Community Center, Inc.									X				
	Northwest Community Center							X		X				
	Rockford Park District									X				
	YMCA of Rock River Valley	X			X					X				
	YWCA of Rockford	X			X					X				
Health Departments (1)	Winnebago County Health Department	X			X			X				X		X
Community Agencies (60)	Access Services of Northern Illinois (ASNI)	X			X									
	Alzheimer's Association - Greater Illinois Chapter	X			X									
	American Cancer Society		X											
	ARC of Winnebago, Boone and Ogle Counties	X			X				X					
	Barbara Olson Center of Hope								X					
	Black Health Care Initiative Coalition	X			X									
	Camelot Community Care								X					
	Carpenter's Place	X			X				X					
	Catholic Charities, Diocese of Rockford	X			X				X				X	
	Center for Community Re-Entry	X			X				X				X	
	Child and Family Connections #16	X			X			X	X					
	Children's Advocacy Center (CAC)								X			X		
	Children's Home + Aid - MotherHouse Crisis Nursery	X			X							X		X
	Circles of Learning							X	X	X				
	City of Rockford Human Services Department	X			X			X						X
	Comprehensive Community Solutions, Inc. (YouthBuild Rockford)								X					
	Cornucopia Food Pantry						X	X		X				
	Department of Children and Family Services											X		X
	Easter Seals Metropolitan Chicago					X			X					
	Family Counseling Services of Northern Illinois								X					
	Family Matters - PACT								X					
	God's Glory Food Pantry						X	X		X				
	Grounds For Life Soup Kitchen						X	X		X				
	Group Hope - Depression and Bipolar Support	X							X					
	Haven Network													X
	Healing Pathways Cancer Resource Center		X					X	X	X				
	Illinois Crisis Prevention Network								X					
	La Voz Latina	X			X									
	Lifescape Community Services, Inc.	X			X			X		X				
	Love INC of Greater Rockford	X			X			X		X				
	Lutheran Social Services								X				X	
	Lydia Home Association								X					
	MERIT (Medical Evaluation Response Initiative Team) - University of Illinois College of Medicine at Rockford	X										X		
	Milestone, Inc.	X			X	X								
	NAMI Northern IL								X					
	Northern Illinois Diabetes Coalition	X			X		X							
	Northern Illinois HIV-AIDS Network	X			X							X		
	Northern Illinois Food Bank						X	X		X				
	Northern Illinois Hospice and Grief Center	X							X					
	Northwestern Illinois Area Agency on Aging	X			X									
	Optimal Care Advocates	X												
	Planned Parenthood of Illinois	X			X							X		X
	Regional Access Mobilization Project (RAMP)	X			X									
	Remedies Renewing Lives								X				X	
	Rock Valley College	X				X								
	Rockford Area Pregnancy Care Centers	X			X							X		X
	Rockford Housing Authority	X				X								
	Rockford MELD	X										X		X
	Rockford Rescue Mission Ministries, Inc.	X			X			X	X	X			X	
	Rockford Sexual Assault Counseling								X			X		X
	Rockford Township - General Assistance Office	X			X									
	Rockford Vet Center	X			X				X			X	X	X
	Rosecrance Health Network	X							X				X	
	Salvation Army of Winnebago County	X							X					
	Shelter Care Ministries	X			X				X					
	St. Elizabeth Catholic Community Center	X							X					
	Stepping Stones of Rockford, Inc.								X					
	TASC, Inc. Northwest Illinois	X			X				X				X	
	Youth Service Bureau of Illinois Valley - Rockford Office								X					
	Youth Services Network								X					
Hospitals/Clinics (8)	Center for Sight and Hearing	X												
	Crusader Community Health	X	X	X	X	X	X	X	X	X	X	X		X
	OSF Saint Anthony Medical Center	X	X	X			X	X	X	X	X	X	X	X
	Rockford Health System	X	X	X			X	X	X	X	X	X		X
	SwedishAmerican Health System	X	X	X			X	X	X	X	X	X	X	X
	The Bridge Clinic	X												
	UIC Women's and Children's Health Center		X									X		X
	University Psychiatric Services UICOM at Rockford								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 Winnebago County as:

OBESITY/OVERWEIGHT

Research strongly suggests that obesity is a significant problem facing youth and adults nationally, in Illinois, and within the Winnebago County region. In terms of obesity, the Winnebago County area as a whole is significantly higher than the state average and growing rapidly. Specifically, there was a 34% increase in the growth rate of Winnebago County residents reporting they were obese between 2006 (23.5%) and 2009 (31.4%). For comparison, there was a 9% increase in the growth rate of Illinois residents reporting they were obese between 2006 (24.7%) and 2009 (26.8%). Rates in Winnebago County now exceed the State of Illinois average. Considering that Illinois has the 6th highest obesity rate in the U.S., this is an important issue.

MENTAL HEALTH

There was a 20% increase in the growth rate of Winnebago County residents reporting they felt mentally unhealthy on 8 or more days per month between 2006 (13.8%) and 2009 (16.5%). For comparison, there was an 11% increase in the growth rate 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 Winnebago County (16.5%) exceed the State of Illinois average (13.8%).

RISKY BEHAVIORS-SUBSTANCE ABUSE

Youth substance usage in Winnebago County exceeds the State of Illinois averages for 12th graders (alcohol and marijuana usage). Youth substance usage in Winnebago County also exceeds the State of Illinois averages for 8th graders (alcohol and marijuana usage). The percentage of Winnebago residents who identify as smokers (20.2%) exceeds the State of Illinois average (18.8%) for 2007-2009. While overall smoking is on the decline, however, less educated people, younger people, Black residents, lower income respondents and homeless people are still more likely to smoke.

HEALTHY BEHAVIORS

Results from survey respondents indicated that there are limited efforts at proactively managing one's own health. This includes limited exercise, as 70% of Winnebago County residents indicated they exercised 2 or fewer times per week. Men are more likely to engage in physical exercise, while homeless residents are not. With regard to eating habits, 70% of Winnebago County residents consume less than 2 servings of fruits/vegetables per day. Those that are more likely to have healthy eating habits include older residents, people with higher educations and more income.

Sexual Health

Early sexual activity contributes to Teen pregnancy and Sexually Transmitted Infections (STIs). Both are significantly higher than State of Illinois averages. Teen pregnancy rates in Winnebago County (13.6%) exceed the State of Illinois rate (9.6%) for 2009. Rates for chlamydia, per 100,000 individuals, in Winnebago County have exceeded the State of Illinois average since 1990. Data from 2009 indicate rates of 550.6 cases per 100,000 individuals in Winnebago County compared to rates of 487.5 cases per 100,000 individuals across the State of Illinois. Simialry, rates for gonorrhea, per 100,000 individuals, in Winnebago County have exceeded the State of Illinois average since 1990. Data from 2009 indicate rates of 250.7 cases per 100,000 individuals in Winnebago County compared to rates of 160.7 cases per 100,000 individuals across the State of Illinois.

Community Misperceptions

Based on results from the survey, respondents incorrectly perceived "sexually transmitted infections", "lung disease", "teen pregnancy," and "dental" as being relatively less important health concerns to the community. These results conflict with existing data. As previously mentioned, rates for chlamydia and gonorrhea in Winnebago County have exceeded the state average since 1990; the number of cases of COPD, a contributing factor of lung disease, increased for older individuals at Rockford area hospitals between 2009 and 2012; teen pregnancy rates in Winnebago County (13.6%) exceed the State of Illinois rate (9.6%) for 2009; and dental data suggests nearly 20% of Winnebago County residents have not seen a dentist in two or more years.

Access to Health Services

Results from survey respondents living in poverty indicated that access to health services is limited. This includes medical, dental and mental healthcare. Poverty is a key factor, as 18% of people living in poverty in the Winnebago County Region consider the Emergency Department their primary source of health care. Furthermore, 28% of people in poverty were unable to obtain medical care when they needed it. Results also suggest a strong correlation between ethnicity, socioeconomic status and one's ability to obtain medical care. Survey data suggest individuals who identify as Black, younger individuals, individuals possessing less education, and of lower income are more likely to use the emergency department. With regard to prescription drugs, 35% of individuals living in poverty in Winnebago County were unable to fill a prescription because they lacked health care coverage. With regard to dental care, 41% of individuals living in poverty in Winnebago County needed dental care and were unable to obtain it and 16% of individuals living in poverty in Winnebago County needed counseling and were unable to obtain it. "Affordability" was cited as the leading impediment to various types of health care.

Note that while other factors, such as diabetes, heart disease, dental issues, women's health, respiratory issues and cancer are all important attributes, in terms of importance and urgency, the collaborative team rated the other seven 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?
☐ Boone ☐ DeKalb ☐ Ogle ☐ Winnebago ☐ Other

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

What is your gender? ☐ Male ☐ Female

Saint Anthony Medical Center Community Health-Needs Assessment

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?
☐ Boone ☐ Winnebago ☐ 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.