



**Central Missouri Community  
Health Assessment Partnership**

# Community Health Needs Assessment

of Cole, Miller, Moniteau and Osage Counties

**Executive Report**

Aug. 1, 2012

## Message to the Community

We are proud to present you with this report of the four-county region of Central Missouri — a collection and analysis of data regarding health issues and needs in Cole, Miller, Moniteau and Osage counties.

This study was conducted to identify health issues of primary concern and to provide critical information to those in a position to make an impact on the health of our region — governments, social service agencies, businesses, healthcare providers and consumers, to name just a few. The results enable all of us to more strategically establish priorities, develop interventions and commit resources to improve the health of our communities and the region.

Health is — and must be — an issue of concern and action for all of us. We hope the information in this study will encourage collaboration involving all agencies, across county lines, between usual competitors, and among funders to address the complex health needs of our communities.

This 2012 report identifies the following priorities for improving the health of residents in the four-county region of Central Missouri and asks communities to work together to address them:

- Access to Quality Health Care
- Heart Disease and Obesity Prevention
- Cancer Screenings and Treatment
- Diabetes Prevention and Management
- Overall Health Status of Miller County

The Community Health Needs Assessment is intended to be a tool in identifying and reaching collaborative goals.

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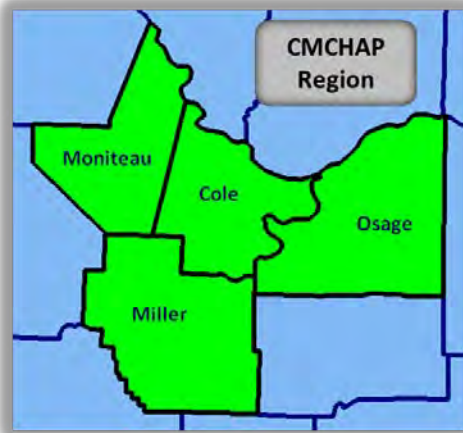
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## Introduction

The Central Missouri Community Health Assessment Partnership (CMCHAP) has embarked on a mission to improve the health of residents in the four counties of Cole, Miller, Moniteau and Osage. The partnership worked collaboratively to collect and analyze health data and gather input from community members to aid in assessing and prioritizing needs.

**Figure 1. MAP OF THE FOUR COUNTIES**



This unique partnership of health care and social services providers is sponsored by St. Mary's Health Center and Capital Region Medical Center and includes six additional partners: the Community Health Center of Central Missouri, Cole County Health Department, Jefferson City Medical Group, Missouri Primary Care Association, Samaritan Center of Jefferson City and United Way of Central Missouri.

This region surrounding Missouri's capital is rich in health care resources that match its abundance of natural resources, educational opportunity and employment diversity - all of which work together to create a livable community. It's also characterized by a strong tradition of responding to needs as they arise. It's common for individuals and organizations to step up to help others in the community. That's why this partnership, while new, reflects the culture of a community that responds to needs.

The Central Missouri Community Health Needs Assessment Partnership conducted a comprehensive community health assessment using both secondary and primary analysis, which allowed us to measure perception, health risks, health factors, health outcomes and characteristics specific to the communities in these four central counties.

Data collected by various organizations, such as the U.S. Census, Centers for Disease Control and Prevention and the Robert Wood Johnson Foundation, were vital to this assessment. Valuable input from community members added depth and quality to the data.

This is the first comprehensive regional health assessment completed in this collaborative fashion by the CMCHAP. The objectives of this first assessment were to identify factors influencing health status, determine and prioritize issues of greatest concern, identify unmet health needs and produce a source of reliable information that will inform the development of solutions.

A special caution: The data included in this report should not be cited or used out of the context of this report. It is not always valid to draw conclusions by linking data to show cause and effect. For example, the tendency to smoke is not caused by one's income status, even though low-income and tobacco use are

frequently correlated. Instead, the only appropriate use for this information is as evidence of how resources might be most effectively used to improve the health and well-being of our community.

## Acknowledgments

The Central Missouri Community Health Needs Assessment Partnership consisted of the following organizations and their representatives, who formed the Steering Team and contributed much time and effort to this project:

- ❖ Brian Barry, St. Mary's Health Center
- ❖ Ann Bax, United Way of Central Missouri
- ❖ Amy Berendzen, Capital Region Medical Center
- ❖ Marylyn DeFeo, Samaritan Center of Jefferson City
- ❖ Michael Felix, Facilitator/Consultant, Missouri Primary Care Association
- ❖ Cathy Lowry, Research Analyst, St. Mary's Health Center
- ❖ Marie Peoples, Cole County Health Department
- ❖ Beverly Stafford, St. Mary's Health Center
- ❖ Alan Stevens, Community Health Center of Central Missouri
- ❖ Janet Wear-Enloe, Jefferson City Medical Group
- ❖ Janet Weckenborg, Capital Region Medical Center

In addition, a special thanks is owed to individuals, organizations and community leaders who helped organize discussion groups, hosted meetings and provided their candid opinions.

# Methods

This needs assessment was conducted using two primary methods: secondary data analysis and discussions and interviews with community groups and provider clients.

## Secondary Data Analysis

Existing data previously collected for other purposes, called secondary data, was compiled from a variety of credible local, state and federal sources to provide a context for analysis and interpretation. The secondary sources are listed at the end of this report. The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute's County Health Ranking tool ([www.countyhealthrankings.org](http://www.countyhealthrankings.org)) enabled side-by-side comparison of county health status based on the following:

- Health Factors that influence the health of a county's population, including health behaviors, clinical care, physical environment and socio and economic factors.
- Health Outcomes that represent the overall health of a county, including mortality and morbidity.

## Community Discussion Groups

Community discussion groups, much like town hall meetings, were organized by the Steering Team and facilitated by Michael Felix, a community health development specialist. Throughout this process, more than 150 individuals participated in 12 discussion groups and consumer interview sessions with:

- ❖ Community Leaders & Elected Officials
- ❖ St. Mary's Medical Staff
- ❖ Cole County Health Department Clients
- ❖ United Way Agency Leaders
- ❖ Jefferson City Unmet Needs Committee
- ❖ Community Health Center of Central Missouri Clients
- ❖ United Way Advisory Group of Osage County
- ❖ United Way Advisory Group of Moniteau County
- ❖ Samaritan Center Clients
- ❖ Jefferson City Young Professionals Group

These discussions provided perspective on the health status of the community and enlightened the analysis of the secondary data relative to the most important health issues and challenges, key resources and advice on how to address the issues identified.

To stimulate discussion, the community discussion group agenda included the following questions:

- Describe your community.
- What issues and challenges face your community?
- What local resources exist for addressing these issues and challenges?
- What advice do you have?

# Findings

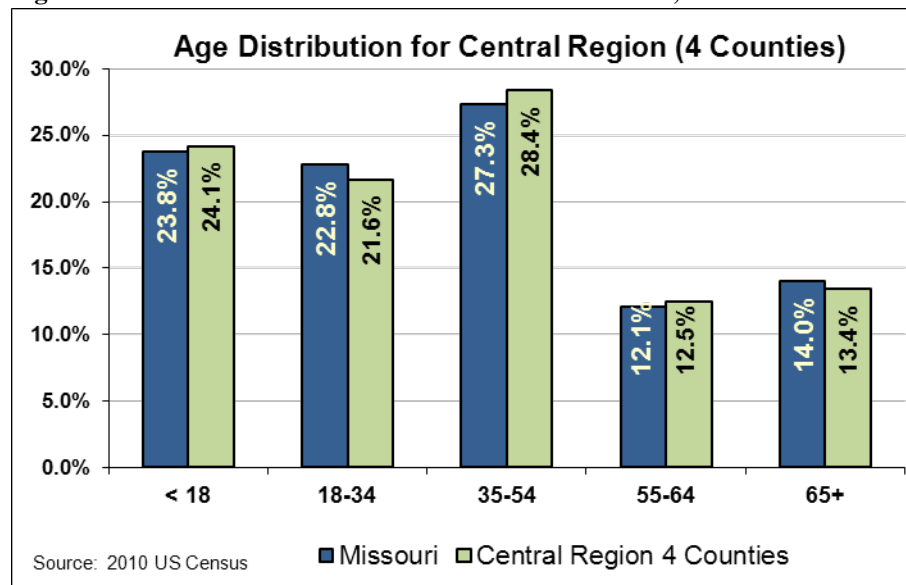
## Secondary Data Analysis

The health assessment findings for the CMCHAP region are often shown here as combined data for the four counties and are presented as “central Missouri.” For data specific to counties, please refer to the Figures & Tables section of this report.

### DEMOGRAPHICS, SOCIO & ECONOMIC FACTORS

The total population for the CMCHAP region, based on the 2010 census, was 130,223. Based on Truven (previously known as Thomson Reuters) and Claritas population projections, this region is expecting an increase of 1.8% (2,358 residents) from 2010 to 2015. Cole County, which contains the largest population in the central region, is expected to increase 2.2% by 2015. The age distribution continues to shift toward a larger population of older adults as the baby boomers age. Estimates suggest that the 65+ age cohort will see the largest growth from 2010 to 2015 with a 13.4% increase. The median age for this region is 38.4, which is slightly higher than the Missouri average of 37.9. Miller County has the highest median age of 40.2, and Cole County has the lowest median age of 37.7.

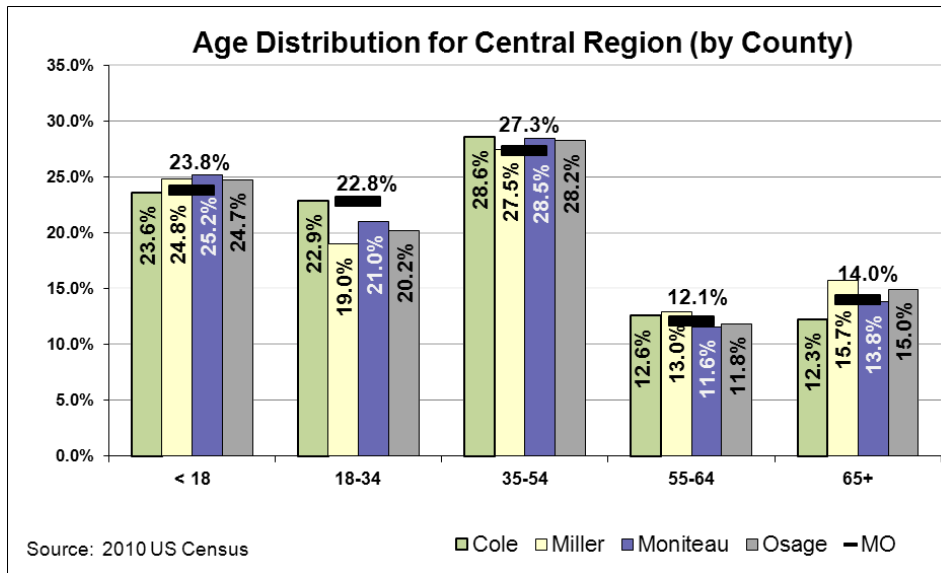
**Figure 2. AGE DISTRIBUTION OF CMCHAP REGION, MISSOURI**



Understanding that older populations generally have more chronic disease and face more barriers in accessing care, the concentration of the aging population in the rural counties where there are fewer services is of growing concern.



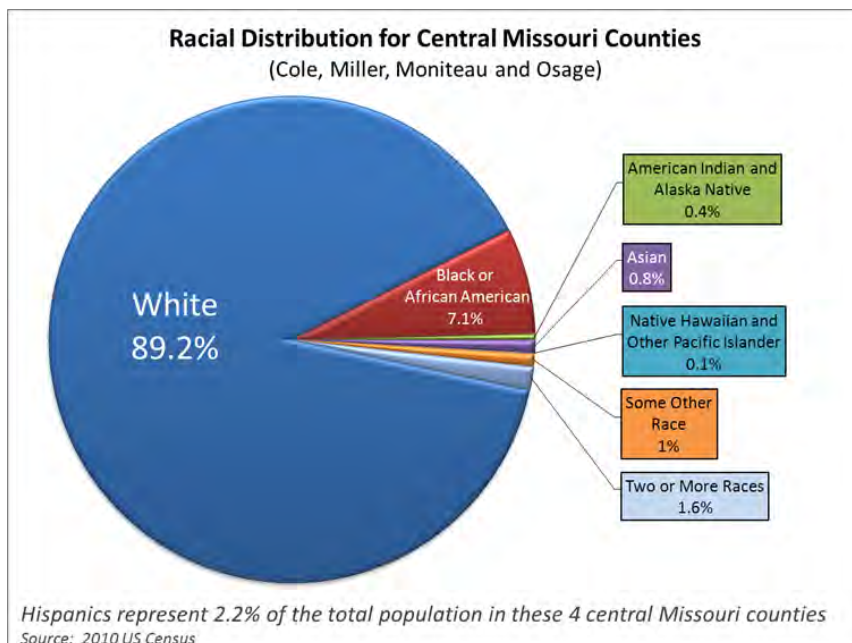
**Figure 3. AGE DISTRIBUTION OF THE CMCHAP REGION BY COUNTY**



### Race and Ethnicity

The race/ethnicity distribution based on the 2010 Census data shows a population that is predominately White/Caucasian (89.2%), with 7.1 percent Black/African American. The percent of other races was very small; thus, these categories have been combined as “All Other Races” for the purpose of this analysis. It was noted throughout the community discussion groups that minority groups are growing, specifically the Hispanic population in Moniteau County.

**Figure 4. RACIAL/ETHNIC DISTRIBUTION OF RESIDENTS**



## Marital Status

Based on the U.S. Census American Community Survey 5-year estimates, the majority of the population from the four counties in the central region reported being married (54.2%), while 25.5% indicated that they were single (never married), 13.6% separated or divorced, 6.7% widowed.

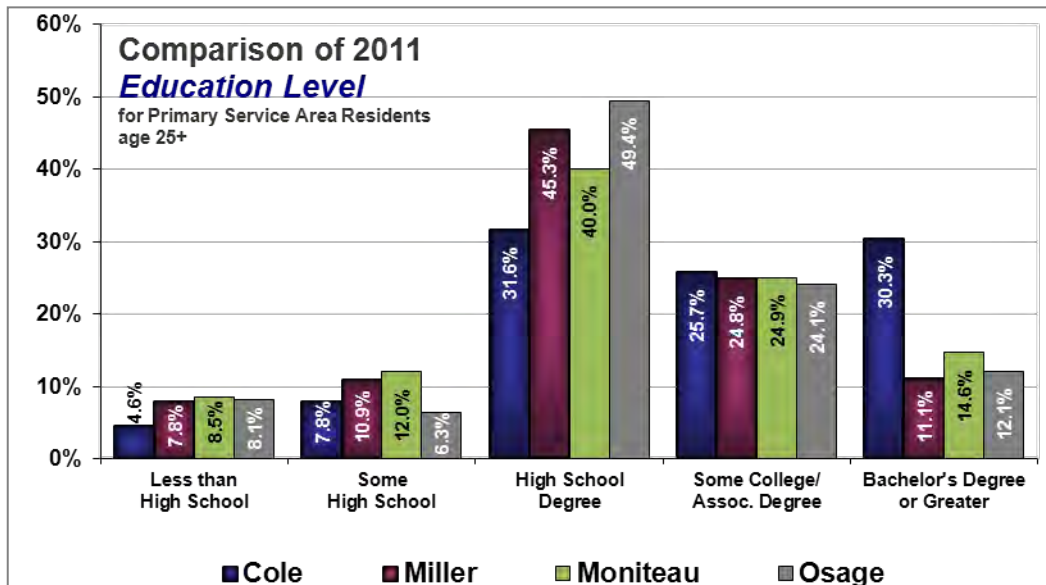
## Household Composition

The mean household size in these four counties is 2.49 persons, ranging from 2.39 in Cole County to 2.58 in Moniteau County. Regionally, 33.1% of households have children, compared to 31.8% in Missouri.

## Education

Since education is a social factor that influences health, it's important to note the education distribution of the four counties as compared to the U.S. The majority of the adult population in the region has an education level at or above the high school level (85.4%) vs. 86.2 percent for Missouri and 84.9 percent in the U.S. The proportion of residents who did not complete high school varies by county, ranging from 12.4% in Cole County to 20.4% in Moniteau County.

**Figure 5. EDUCATIONAL ATTAINMENT/GRADUATION RATES BY COUNTY**



## Employment

The four counties' unemployment rates were lower than Missouri's at 8.6% and the U.S. rate of 9.8%, with the exception of Miller County, which reports an unemployment rate of 11.3% in 2011. The top four employment sectors in the central region consist of health and social services, public administration, education and retail trade. It is estimated that one in four jobs in Cole County is in the public administration sector, due primarily to Jefferson City's status as the state capital. Missouri state employees represent such a large share of the local economy that state government expansions, cutbacks,

salary stagnation or salary raises can significantly impact the local economy. Jobs have declined in the manufacturing and construction trades, and state budget cuts in the past two years have resulted in job losses within state agencies, such as the Missouri Department of Transportation. This was noted as a major concern among several community groups.

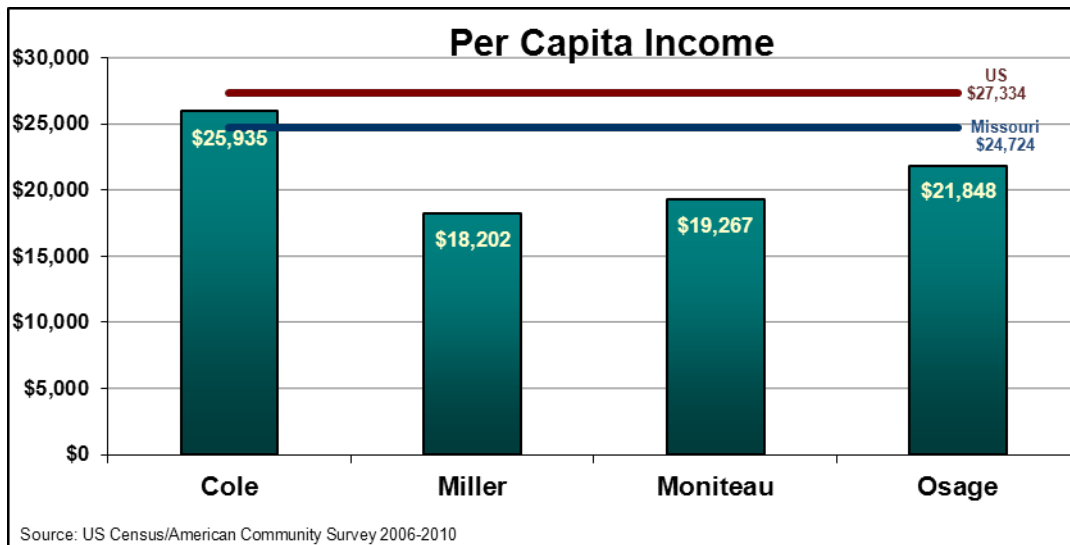
**Poverty**

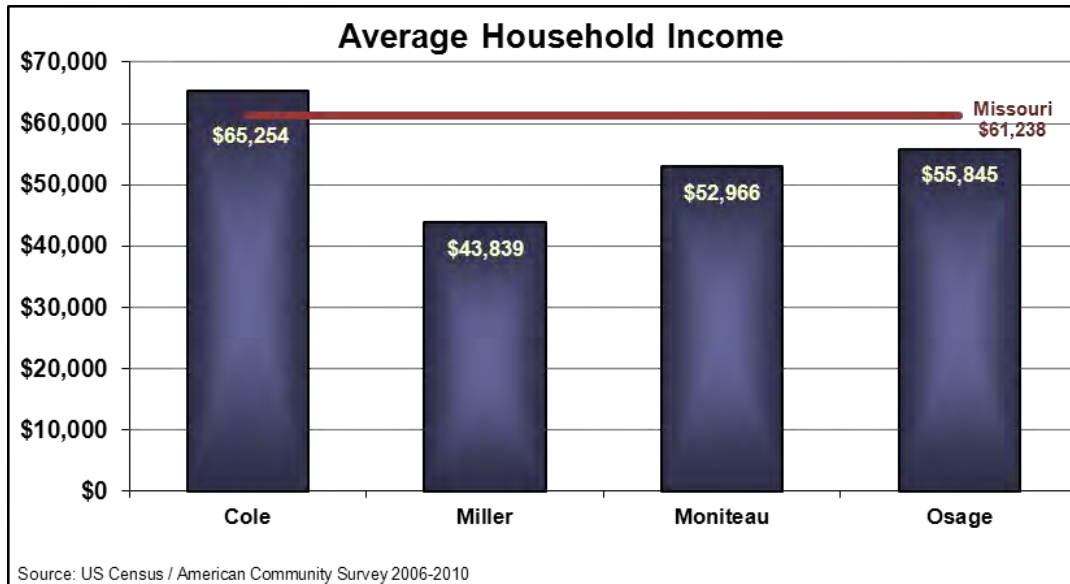
Lower than average poverty rates provide evidence of a higher level of economic well-being in three of the four counties - Cole (9.6%), Moniteau (11.3%) and Osage (10.9%) when compared to Missouri (14%). Of the four, Miller County has the highest percentage of residents below the poverty level (16.8%). Miller County also reports a higher percentage of children in poverty (31%) when compared to 21 percent in Missouri. The number of students receiving free or reduced lunches continues to rise and ranges from 30.5% in Osage County to 49% in Miller County, as compared to 43.6% in Missouri.

**Household Income**

Per capita income ranged from a low \$18,202 in Miller County to a high of \$25,935 in Cole County. The average for the four counties is lower than the per capita income in Missouri (\$24,724) and the U.S. (\$27,334). This region contains 50,499 households, with average household incomes ranging from of \$43,839 in Miller County to \$65,254 in Cole County. The overall projected growth in households in the four-county area is 2.6% from 2010-2015. Cole County’s average household income exceeds Missouri’s average of \$61,238.

**Figure 6 & 7. PER CAPITA INCOME AND AVERAGE HOUSEHOLD INCOME**





## **HEALTH FACTORS**

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute created a County Health Ranking tool to determine a county’s overall health based on numerous health factors, including health behaviors, clinical care access and quality, physical environment and socio-economic factors, as well health outcomes, such as mortality and morbidity rates. Applying the tool to the four counties in a side-by-side comparison shows a wide range in health across these counties. A lower ranking is better. A higher ranking is worse.

In the 2012 rankings, three of the counties - Cole, Osage and Moniteau - rank in the top quartile of all 115 Missouri counties in health factors and health outcomes, while Miller County ranks much lower in the third quartile. In some specific areas, such as health behaviors and socio-economic factors, Miller drops to the fourth quartile in Missouri’s county rankings. See the secondary analysis appendix for more details on the County Health Rankings.

### **Most Prevalent Health Problems**

Another tool used by the CMCHAP Steering Team was the Community Health Improvement Resources (CHIR) interactive planning system, which provides an objective method to set priorities, guide decision-making and assist with collaborative intervention planning. One of the CHIR tools is Priorities MICA, a web-based tool of the Missouri Department Health & Senior Services (DHSS) that provides a structured process to help determine the priority health needs of a community in conjunction with other information available, including secondary data and community feedback sessions.

Based on the use of this data-driven, evidenced-based tool, the following health issues were ranked by prevalence in the four counties:

**Top 5 Risk Factors**

1. Mother Overweight
2. No Exercise
3. Smoking
4. Obesity
5. No Mammography

**Top 5 Risk Diseases or Conditions**

1. Chronic Obstructive Pulmonary Disease (COPD)
2. Heart Disease
3. Diabetes
4. Motor Vehicle Accidents
5. Alcohol and Substance-Related or Colorectal Cancer

**Top 5 Causes for IP Hospitalizations (based on DX 2009)**

1. Heart & Circulation
2. Pregnancy, Childbirth or Reproduction
3. Digestive System
4. Respiratory (Throat & Lung)
5. Injury and Poisoning

**Top 5 Preventable Hospitalizations (2009)**

1. Dehydration
2. Bacterial Pneumonia
3. Congestive Heart Failure
4. COPD
5. Cellulitis/Kidney/Diabetes

**Top 5 Causes of Death (2009)**

1. Heart Disease
2. Cancer
3. Chronic Lower Respiratory Disease
4. Stroke/Other Cerebral-Vascular Disease
5. Combination of Motor Vehicle Accidents, Pneumonia/Influenza, Suicide, Alzheimer's Disease



**Top 5 Chronic Diseases – IP Hospitalization (based on DX 2009)**

1. Heart Disease
2. Cancer
3. COPD
4. Stroke/Other Cerebral-Vascular Disease
5. Arthritis

**Top 5 Chronic Diseases Utilizing ER (2009)**

1. Heart Disease
2. Arthritis Joint Disorders
3. COPD
4. Asthma
5. Combination of Epilepsy, Alcohol/Substance disorders

This data shows that heart disease is ranked first in all four counties as a leading disease and cause of death. The top risk factors for cardiovascular disease are:

1. High blood pressure
2. Diabetes
3. Smoking cigarettes
4. No physical activity
5. Poor diet
6. Overweight (25.0-29.9 BMI)
7. Obesity (30+ BMI)

Second only to cardiovascular disease is the prevalence of cancer in the four-county area. A total of 4,652 incidents of seven types of cancer were reported in 2006-2008, according to the MICA Cancer Registry. Breast cancer was the most common cancer in the four counties with 1,255 incidents reported.

Figure 8. **CANCER INCIDENCE BY SITE**

<b>Cancer Registry Incidence 2006-2008</b>					
All Stages by Site and # of incidence	Cole	Miller	Moniteau	Osage	Missouri
Breast	807	209	117	122	58,861
Cervix	24	12	8	2	3,238
Colon, rectum and rectosigmoid	469	200	107	92	42,901
Lung and bronchus	596	302	96	92	58,520
Prostate	547	154	81	102	44,709
Urinary bladder	181	71	37	32	14,825
Corpus and Uterus NOS	124	34	18	16	9,935
<b>Total for Selection</b>	<b>2,748</b>	<b>982</b>	<b>464</b>	<b>458</b>	<b>232,989</b>

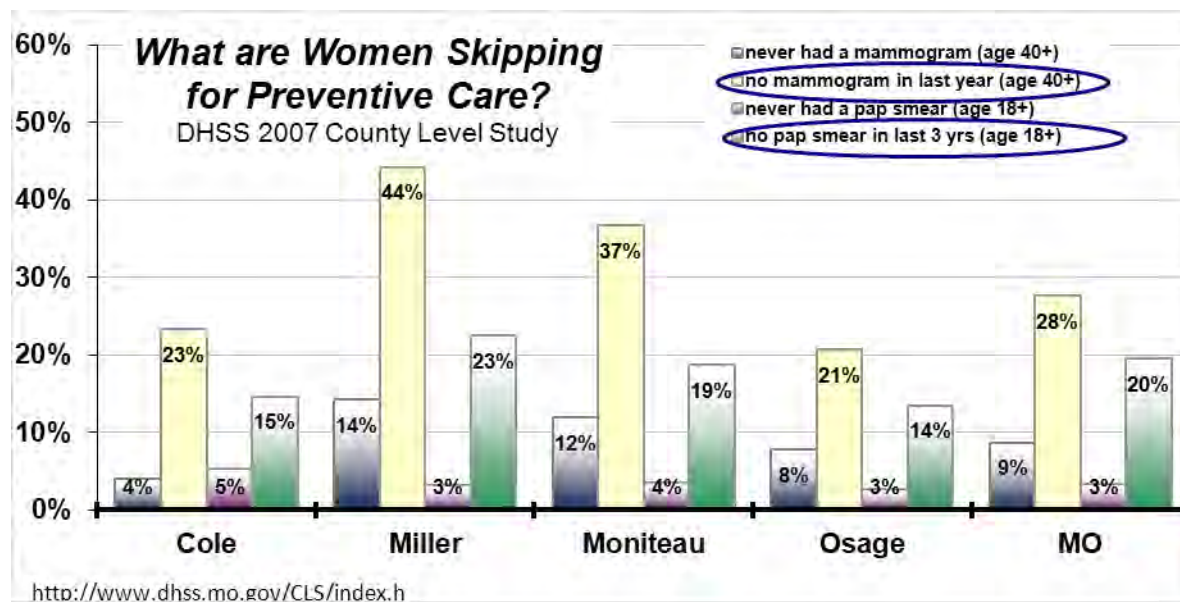
## Age-Appropriate Preventive Care

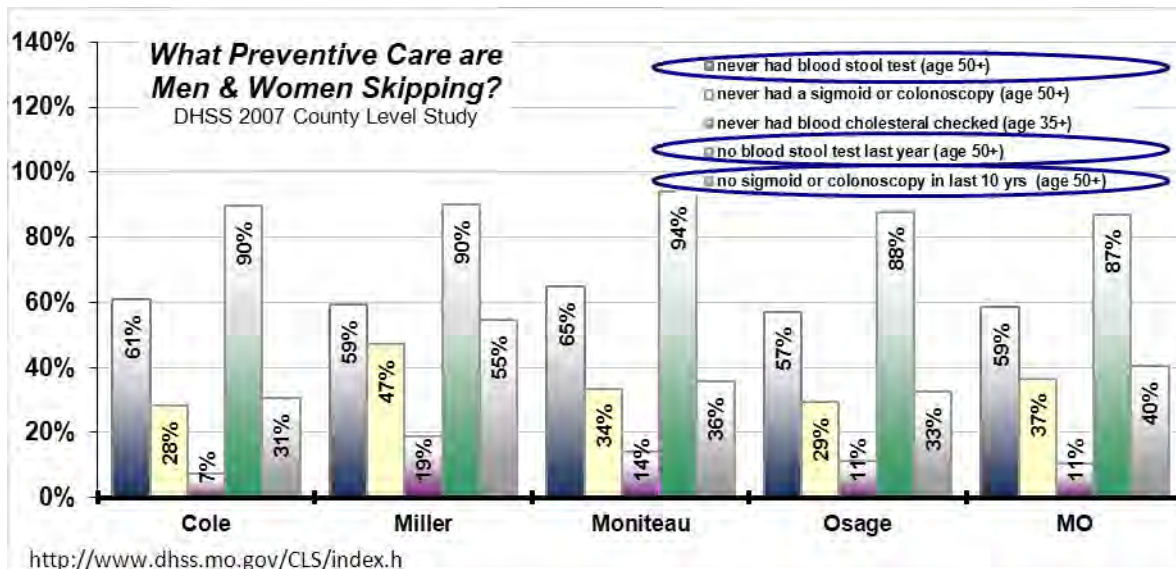
The assessment also included data on use of preventive screenings to detect and prevent onset of certain diseases or conditions, such as heart disease, cancer and diabetes. Screenings can catch conditions early and limit long-term impact. Screening for cancer among women is a significant opportunity to reduce morbidity and mortality. Clinical guidelines suggest that women who obtain mammograms every one to two years can detect cancer early and save lives. The Missouri DHSS 2007 County Level Study polled residents on receiving age-appropriate preventive care, such as:

1. Mammograms (women age 40+)
2. Pap Smears (women age 18+)
3. Blood Stool Tests (age 50+)
4. Sigmoid/Colonoscopy (age 50+)
5. Cholesterol checks (age 35+)

The poll showed that women in this region are not keeping up with their regular preventive care once they get their first mammogram or pap smear. For both genders, a large percentage of this population reported never having had a blood stool test. Results also show a lack of proper follow-up testing after an initial blood stool test and sigmoid colonoscopy.

Figure 9 and 10. PREVENTIVE CARE





## Risk Factors & Health Behaviors

Behaviors and risk factors that individuals can potentially control or manage in order to prevent or minimize health problems were studied.

**Obesity:** Being overweight or obese increases an individual's risk for developing many chronic diseases, such as heart disease and cancer, and can lead to other conditions, such as depression and chronic pain. Proper nutrition and physical activity are important to achieve and maintain a healthy weight for good overall health. About three in four Missourians lack a proper diet and one in four report no physical activity, rates that are generally mirrored in the four-county area.

**High Blood Pressure:** High blood pressure is the top risk factor for heart disease, and county data shows the rates for high blood pressure hovering near 20% in the four counties.

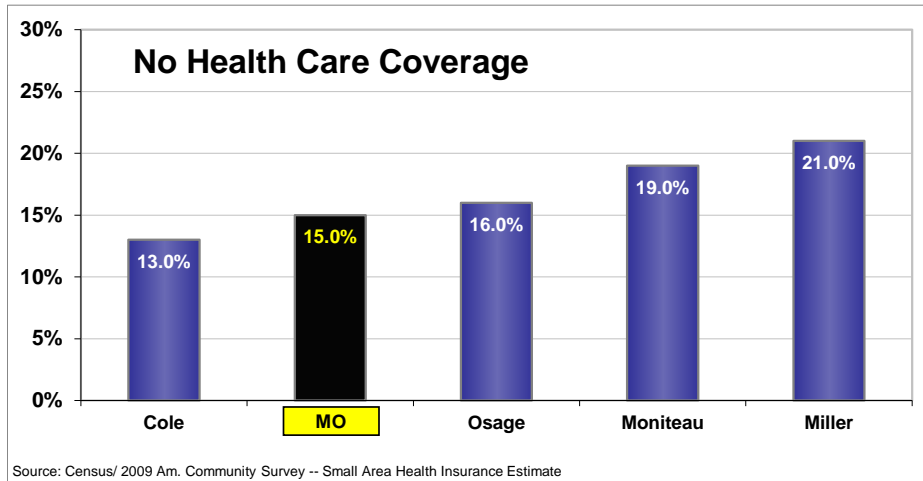
**Diabetes:** Diabetes is the second risk factor for heart disease and can lead to other serious health complications if not managed. It ranks as the fourth most prevalent disease in four of the five counties.

**Tobacco use:** Tobacco use has been shown to contribute to many health problems, most notably heart disease and cancer. Missouri's rate of current cigarette smokers among adults (23.2%) is exceeded in Miller County (31.9%). The three other counties have lower rates of smoking. For smokeless tobacco, all four counties are above Missouri's rate of 3.9%, with Miller County having the highest (10.3%). All four counties exceed the estimated averages in the U.S. (10%) and Missouri (16.8%) for women smoking during pregnancy, ranging from 20.3 percent in Osage County to 27.9% in Miller County. Significant risks to the mother and baby can be attributed to smoking during pregnancy.

## Access to Care

The availability of health resources is a critical factor influencing health status. Three of the central four counties have an uninsured population that is higher than the Missouri rate of 15.0%.

**Figure 11. PERCENTAGE OF POPULATION WITHOUT HEALTH INSURANCE**



The overall health of the four-county region is closely tied to resources available in Jefferson City, which is a 30-60 minutes drive for some residents in rural counties. In the past several years, more local health resources have been developed throughout the region, including primary care, dental care, prenatal care and mental health by growing physician practices and expanding the federally qualified health center. With the exception of Cole County for primary care, each county is designated by the federal Health Resources and Services Administration (HRSA) as a Health Professional Shortage Area (HPSA) wholly or in part for primary care, dental care and mental health care.

Access to specialty care continues to be an issue for rural residents, particularly the low-income, uninsured and underinsured populations. Based on the County Health Rankings, 22.1% of Miller County residents reported they could not see a doctor in the past 12 months due to lack of money, compared to 13.9% of residents statewide. Market research indicates that more than 30 percent of local residents seek medical care and hospitalization outside the region in Columbia or elsewhere.

**Figure 12. HPSA DESIGNATION FOR THE FOUR CENTRAL COUNTIES**

Health Professional Shortage Area (HPSA)	Cole	Miller	Moniteau	Osage
Primary Care	None	Yes	Yes	Yes
Dental	Yes	Yes	Yes	Yes
Mental Health	Yes	Yes	Yes	Yes

<http://hpsafind.hrsa.gov/HPSASearch.aspx>

The availability of primary care is indicated by the ratio of physician to population. The ratio varies widely among the four counties, from 1,063 individuals for every primary care physician in Cole County

to 13,414 individuals for every primary care physician in Osage County - all exceeding the Missouri ratio (1,015:1). The disparity is much greater for mental health providers, with a high in Miller County of 24,817:1.

## Community Discussion Groups

From the discussions held with community groups and interviews with providers and consumers, several common themes emerged. Following is a summary, along with comments from some participants:

- **Community culture is strong, but economic concerns rise.**

The community is viewed as having a good, family-friendly quality of life with abundant recreational, educational, health care and faith-sharing resources. It has a strong tradition of philanthropic support to meet social needs in the area. Businesses, civic groups, social services agencies and faith-based organizations often work collaboratively to address needs as they arise.

However, concerns are growing that resources will be inadequate as the population ages, employment becomes less stable and more families struggle financially, many for the first time in their lives.

*“We are a small, quiet, close-knit community,  
and we do work well as a community.”  
- Young Attorney*

- **Health resources lack awareness.**

The community has many, quality health resources, including hospitals, medical specialties and affordable primary care options, but the extent of these services is not broadly understood. There is a common misperception that people have to go to larger cities for care, even though it is available in Jefferson City.

*“We have a lot of really great doctors in this community,  
but people think they have to go out of town for health care.”  
- Banker*

- **Some high-demand services lack capacity.**

Some local health services lack capacity to meet demand, most notably heart, cancer, mental/behavioral health and addiction treatment. Other services, including primary care and dental care, have access issues that stem from lack of capacity for uninsured and Medicaid patients due to practice limitations. Some patients are required to travel to other communities to access care, but lack of transportation is a barrier for low-income and elderly residents. They say they feel disconnected from the health care system.

*“I was an upper-income person with health benefits and access  
to local health services until I was laid off and faced divorce.  
I have lumps on my breast, and I don’t know where or how to get treatment  
without any coverage. I am scared.”  
-Client*



- **Human services are uncoordinated.**

While the community is rich with health care and human services, they are often fragmented and uncoordinated. Providers lack knowledge about other resources available that would help their clients. There seems to be no single source of information about community services. Providers should communicate among themselves routinely so they're fully informed about the spectrum of services. A one-call center with current information about resources should be reactivated and continuously promoted.

Certain populations within the community, such as Hispanics and Africans, face additional barriers to information about available resources due to cultural and language differences. Suggestions included engaging informal leaders of those populations to help inform and educate.

*“How do I simply and quickly match the patients’ needs to the services that are available?”  
- Family Physician*

- **Greater health literacy is needed.**

Health is declining in some populations due to unhealthy lifestyles and behaviors. Obesity among young people is especially troubling. Initiatives are needed to educate people about healthy diets and lifestyles and to encourage them to take advantage of community resources to improve fitness, such as Jefferson City’s Greenway. Certain chronic diseases, such as diabetes and hypertension, are prevalent and can be better managed with increased screening and patient education. Additionally, more education is needed to prevent drug and tobacco use and teenage pregnancy.

Discussions about how best to improve health literacy included suggestions for use of social media and outreach through entities such as schools, Lincoln University, Parents as Teachers, home health workers, Head Start, Family Services, WIC, First Responders, United Way agencies, and work sites. Ultimately, there needs to be greater acceptance for taking more responsibility for one’s own health.

*“We are not teaching people what to do.  
We are taking care of it for them.  
How do we bring them into a different culture of learning how to care for themselves?”  
- Service Provider*

# Prioritized Issues/Needs

## Methods

Upon reviewing the findings resulting from the secondary data analysis and the community discussion groups, the CMCHAP Steering Team identified the most serious health issues and then ranked them using a prioritization matrix. Each issue was ranked on a scale of 1 (strongly disagree) to 5 (strongly agree) according to:

- Severity: This is a serious health needs/issues in the community.
- Importance to community: Addressing this health needs/issues is very important to this community.
- Impact: Addressing this health needs/issues will improve the quality of life within this community.
- Existing community resources: There are no resources for addressing this health needs/issues within this community.

The total priority score given each issue by the Steering Team determined its ranking as a community health need.

## Priority Health Needs

Based on the prioritization exercise, the top five community health needs were determined:

### 1. Access to Care

Low-income, uninsured, underinsured and rural populations continue to face disparities in access to health care resources. Primary care and dental care providers lack capacity for uninsured and Medicaid patients. Capacity shortages exist for high-demand specialty care, including behavioral health, heart, cancer and diabetes. In some cases, access to care is limited due to a lack of knowledge about existing resources, as well as inadequate coordination among providers and human service agencies. Improving access to health care by expanding capacity, improving care coordination and increasing awareness is a top priority.

### 2. Heart Disease/Obesity Prevention

Obesity is rapidly increasing in the population, contributing to many health problems, most notably heart disease, the most prevalent disease/condition and the leading cause of death within the four-county region. A prominent health need is increased public education regarding healthy weight and risk factors for heart disease, along with greater access to screenings and follow-up care.

### 3. Cancer Screenings/Treatment

Cancer is the second leading cause of death in the four counties, with breast cancer the most common cancer. A comprehensive program is needed to expand education and screenings into more communities, along with follow-up care, to detect and treat cancer in early stages.

#### **4. Diabetes Prevention/Management**

Diabetes is the third most prevalent disease in three of the four counties and often goes undetected. If untreated, it can lead to serious health problems, but consistent self-management can keep the disease in check. A program is needed to build awareness, expand screenings and provide education and follow-up care, particularly in at-risk communities.

#### **5. Miller County Focus**

Health status indicators reveal that many of the health issues identified in the region are magnified in Miller County. Overall, it ranks in the third quartile among Missouri counties in health factors and health outcomes. Much of that is due to socio-economic factors (education, employment, income, family & social support, safety), which rank Miller County 101 out of 115 counties. The Steering Team determined that a special focus is needed to coordinate efforts with Miller County health care providers and officials to address the complex issues.

This community health needs assessment is considered a first step in a journey toward improved health and well-being in central Missouri. With reliable information as a foundation, local health care providers and other organizations can continue to work collaboratively to develop plans and resources to meet the community's needs.

## **Other Figures & Tables**

### **Local Health Resources Listing**

#### **Hospitals**

St. Mary's Health Center  
Capital Region Medical Center

#### **Primary Care/Urgent Care**

Jefferson City Medical Group  
St. Mary's Health Center  
Capital Region Medical Center

#### **Specialty Care**

Jefferson City Medical Group  
St. Mary's Health Center  
Capital Region Medical Center

#### **Behavioral Health**

St. Mary's Health Center (inpatient and outpatient)  
Family Counseling Center of Missouri  
Pathways Community Behavioral Health Care

#### **County Health Departments**

Cole County Health Department  
Miller County Health Department  
Moniteau County Health Department  
Osage County Health Department

#### **Federally Qualified Health Clinics**

Community Health Center of Central Missouri (Cole, Osage, Moniteau county locations)

#### **Free Community Clinics & Health Services**

Samaritan Center  
Dental, Eye, and Shoe Program

#### **Social Services Agencies**

United Way of Central Missouri  
American Red Cross, Heart of Missouri Chapter  
Central Missouri Agency on Aging

## Sources

American Community Survey	2006-2010
American Community Survey -- Small Area Hth Insurance Est	2009
Bureau of Labor Statistics	2010
CDC - Environmental Protection Agency (EPA)	2007
CDC - Small Area Diabetes	2009
CDC - National Ctr for Hepatitis, HIV, STD, & TB prevention	2009
Census - Small Area Income and Poverty estimates	2010
Census - County Business Patterns	2009
County Health Rankings Website	
<i>The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute</i>	2012
DHSS County level Study on prevalence BRFSS	2007
DHSS Vital Stats & MICA	2009
DHSS Assault Injury Profile	1999-2009
DHSS HIV/STD/Aids Surveillance	2011
Health Resources & Services Administration's Area Resouce File (ARF)	2009
Health Resources and Services Administration	2007
<a href="http://hpsafind.hrsa.gov/HPSASearch.aspx">http://hpsafind.hrsa.gov/HPSASearch.aspx</a>	2011
Medicare Claims / Dartmouth Atlas Institute	2009
MO Department of Economic Development (MERIC)	2011
MO Kids Count	2009
MO Department of Mental Health - County Links	2011
MO DESE	2011
MO State Highway Patrol - Meth Files	2011
MO State Hwy Patrol - Traffic Safety Compendium	2010
National BRFSS	2004-2010
Nat'l Center for Chronic Disease Prevention & Health Promotion (w/BRFSS)	2009
NCES - National Assessment of Adult Literacy	2003
PRC Consumer Image Study	2009
Thomson Reuters/Claritas	2011
U.S. Department of Agriculture	2006
Uniform Crime Reporting -- Federal Bureau of Investigation	2007-2009
University of MO Extension - OSEDA	2000





# Central Missouri Community Health Assessment Partnership

## 2012 Secondary Analysis of External Data Sources

for the CMCHAP Community Health Needs Assessment

**Summer 2012**

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Market Research Analyst

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# Population & Demographics

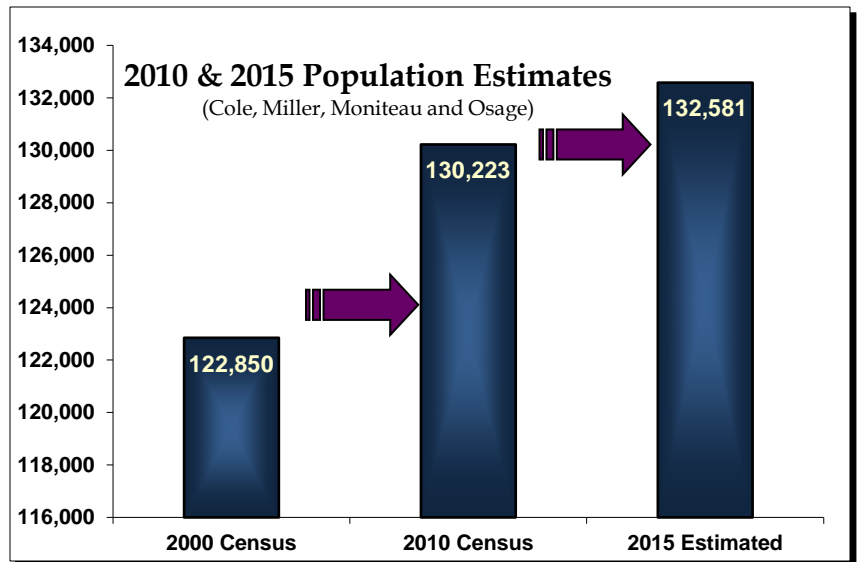


### Population Projections

Central Missouri Community Health Assessment Partnership region includes the following counties:  
Cole, Miller, Moniteau, Osage

Based on an analysis of the 2012 Thomson Reuters Market Expert Demographic database (with 2010 Census), this region is projecting a **flat growth rate of 1.8%** (or 2,358 residents) from 2010 to 2015.

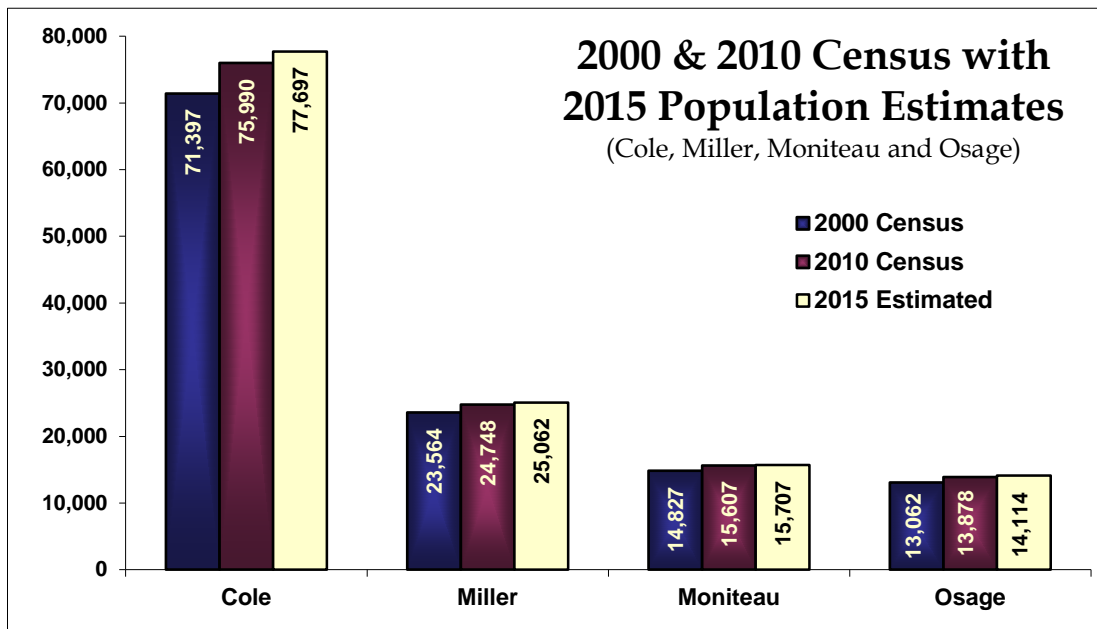
This growth rate is comparable to Missouri's projected 2.8%



Source: 2000/2010 Census and 2015 Thomson Reuters/Claritas Estimates

County	2000 Census	2010 Census	2015	Change		Change	
	Population	Population	Estimated	2000 - 2009		2010 - 2015	
	Count	Count	Count	Change	%Change	Change	%Change
Cole	71,397	75,990	77,697	4,593	6.4%	1,707	2.2%
Miller	23,564	24,748	25,062	1,184	5.0%	314	1.3%
Moniteau	14,827	15,607	15,707	780	5.3%	100	0.6%
Osage	13,062	13,878	14,114	816	6.2%	236	1.7%
<b>Total Region</b>	<b>122,850</b>	<b>130,223</b>	<b>132,581</b>	<b>7,373</b>	<b>6.0%</b>	<b>2,358</b>	<b>1.8%</b>

The largest growth for a single county by 2015 is projected to be Cole County with 2.2% growth.



Source: 2000/2010 Census & Thomson Reuters 2015 Estimations

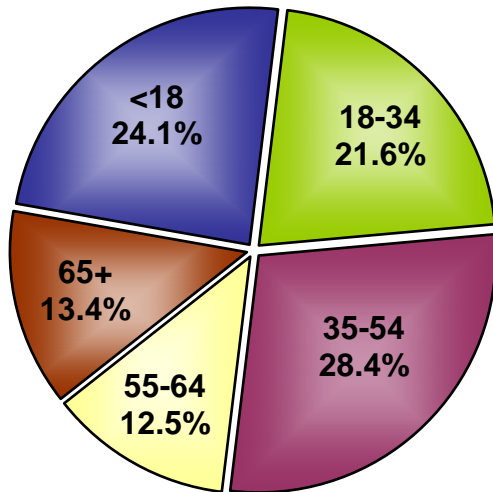
## Population Projections by Age & Gender

This population, as a whole, is slightly older, with 25.9% of the 2010 Census population age 55 or older compared to 25.0% for the U.S.

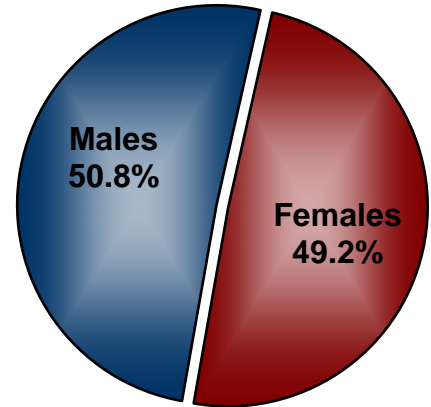
Estimates suggest that the 65+ age cohort will see the largest growth from 2010 to 2015 with a 13.4% increase.

The 2010's gender segmentation is equal, with males representing 50.8% of the population.

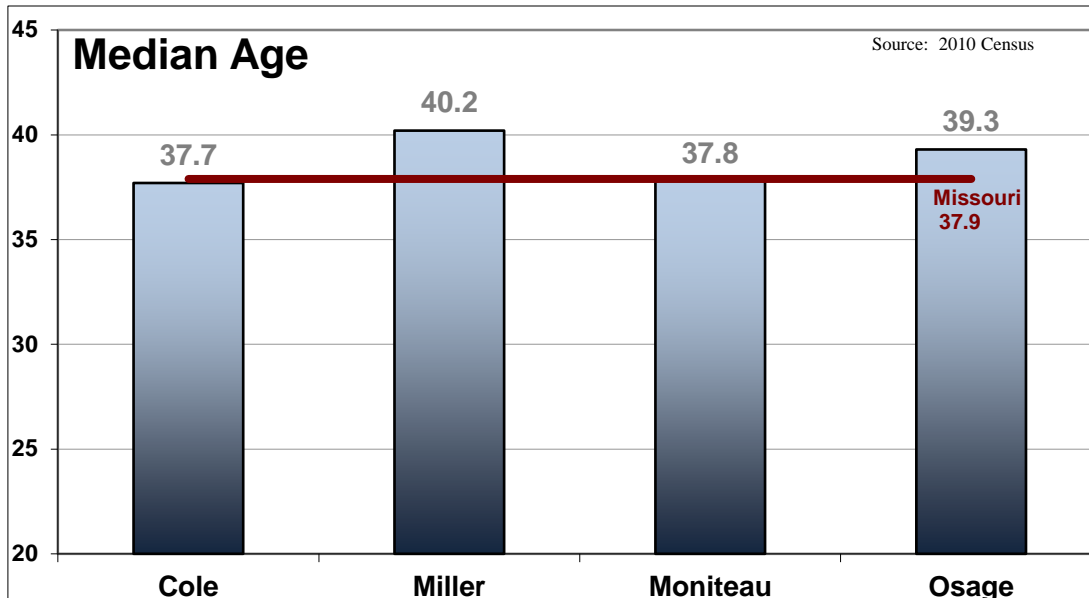
**2010 Population Segmented by Age Cohort**  
Source: 2010 Census



**2010 Population Segmented by Gender**  
Source: 2010 Census



	<18	18-34	35-54	55-64	65+
2010	31,440	28,189	36,920	16,222	17,452
2015	32,166	28,444	34,719	17,453	19,799
% Change	2.3%	0.9%	-6.0%	7.6%	13.4%



The median age for this region is 38.4. This is higher than Missouri's average of 37.9.

## Population Projections for Pediatrics

Cole County is expecting the most significant pediatric population growth of 3.3% by 2015.

Counties	Age 0-17				2010's % of Total Pop	2010's USA % of Total Pop
	2010	2015	Change %			
Cole	17,937	18,529	592	3.3%	23.6%	25.0%
Miller	6,144	6,178	34	0.6%	24.8%	25.0%
Moniteau	3,926	3,993	67	1.7%	25.2%	25.0%
Osage	3,433	3,466	33	1.0%	24.7%	25.0%
<b>Total Region</b>	<b>31,440</b>	<b>32,166</b>	<b>726</b>	<b>2.3%</b>	<b>24.1%</b>	<b>25.0%</b>

Source: 2010 Census & Thomson Reuters 2015 Estimations

## Population Projections for Females Childbearing Age

Overall, from 2010 to 2015, the female population who are in their childbearing years (age 15-44) is expected to remain flat with a decline of only -183 women (-0.8%).

Counties	2010	2015	Change & %Change	
Cole	14,426	14,311	-115	-0.8%
Miller	4,368	4,346	-22	-0.5%
Moniteau	2,631	2,597	-34	-1.3%
Osage	2,362	2,350	-12	-0.5%
<b>Total Region</b>	<b>23,787</b>	<b>23,604</b>	<b>-183</b>	<b>-0.8%</b>

Source: 2010 Census & Thomson Reuters 2015 Estimations

## Population Projections for Seniors

2010-2015 projections show a healthy growth rate of 13.4% for the senior population (age 65+).

Counties	65+			
	2010	2015	Change %	
Cole	9,325	10,878	1,553	16.7%
Miller	3,897	4,263	366	9.4%
Moniteau	2,153	2,376	223	10.4%
Osage	2,077	2,282	205	9.9%
<b>Total Region</b>	<b>17,452</b>	<b>19,799</b>	<b>2,347</b>	<b>13.4%</b>

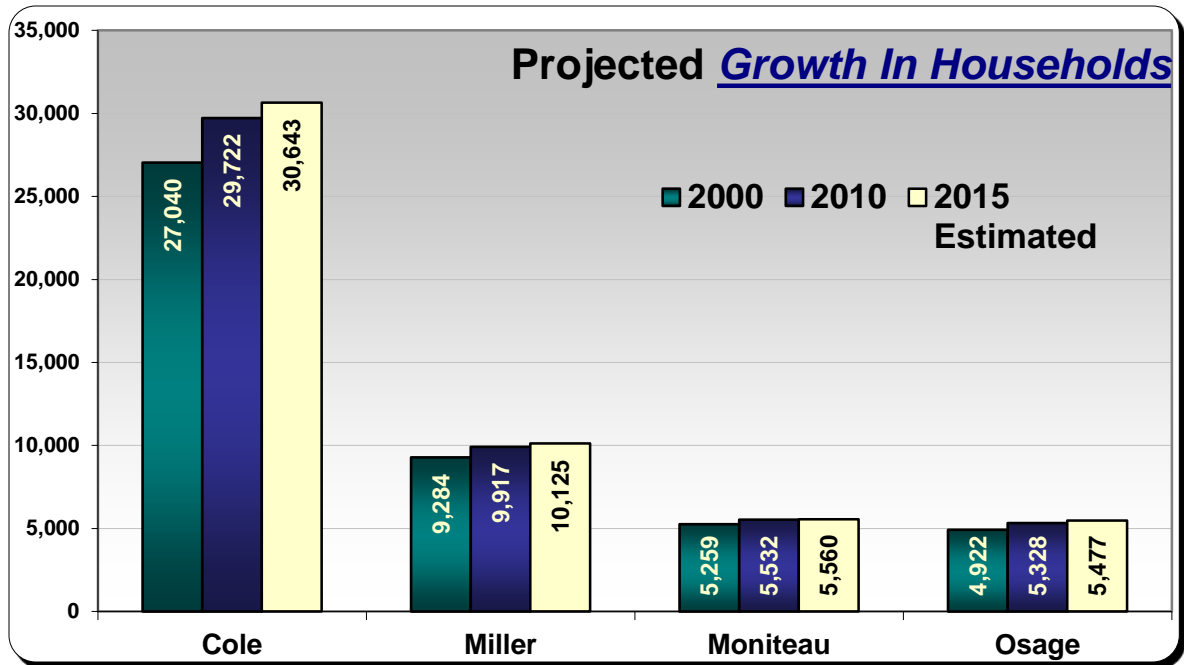
Source: 2010 Census & Thomson Reuters 2015 Estimations

## Population Projections for Households

Household growth for these four counties is projecting a 2.6% increase from 2010 to 2015.

County	2000-2010		2010-2015	
	Change	Change %	Change	Change %
Cole	2,682	9.9%	921	3.1%
Miller	633	6.8%	208	2.1%
Moniteau	273	5.2%	28	0.5%
Osage	406	8.2%	149	2.8%
<b>Total Region</b>	<b>3,994</b>	<b>8.6%</b>	<b>1,306</b>	<b>2.6%</b>

Source: 2000/2010 Census & Thomson Reuters 2015 Estimations



## Ethnicity

The distribution of race/ethnicity shows a population that is predominately White. This segment represents 89.2% of the total population, significantly higher than Missouri's 82.8 % and the US average of 72.4%

Ethnicity	Cole	Miller	Moniteau	Osage	Total Region	MO	US
White	84.4%	96.7%	92.4%	98.8%	89.2%	82.8%	72.4%
Black	11.2%	0.4%	3.7%	0.2%	7.1%	11.6%	12.6%
American Indian/Alaska Native	0.3%	0.5%	0.3%	0.2%	0.3%	0.5%	0.9%
Asian	1.3%	0.3%	0.4%	0.1%	0.9%	1.6%	4.8%
Hawaiian/Other Pacific Islander	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.2%
Other	0.9%	0.5%	1.9%	0.1%	0.9%	1.3%	6.2%
2 or more races	1.9%	1.5%	1.2%	0.5%	1.6%	2.1%	2.9%

Source: 2010 Census



# County Health Rankings

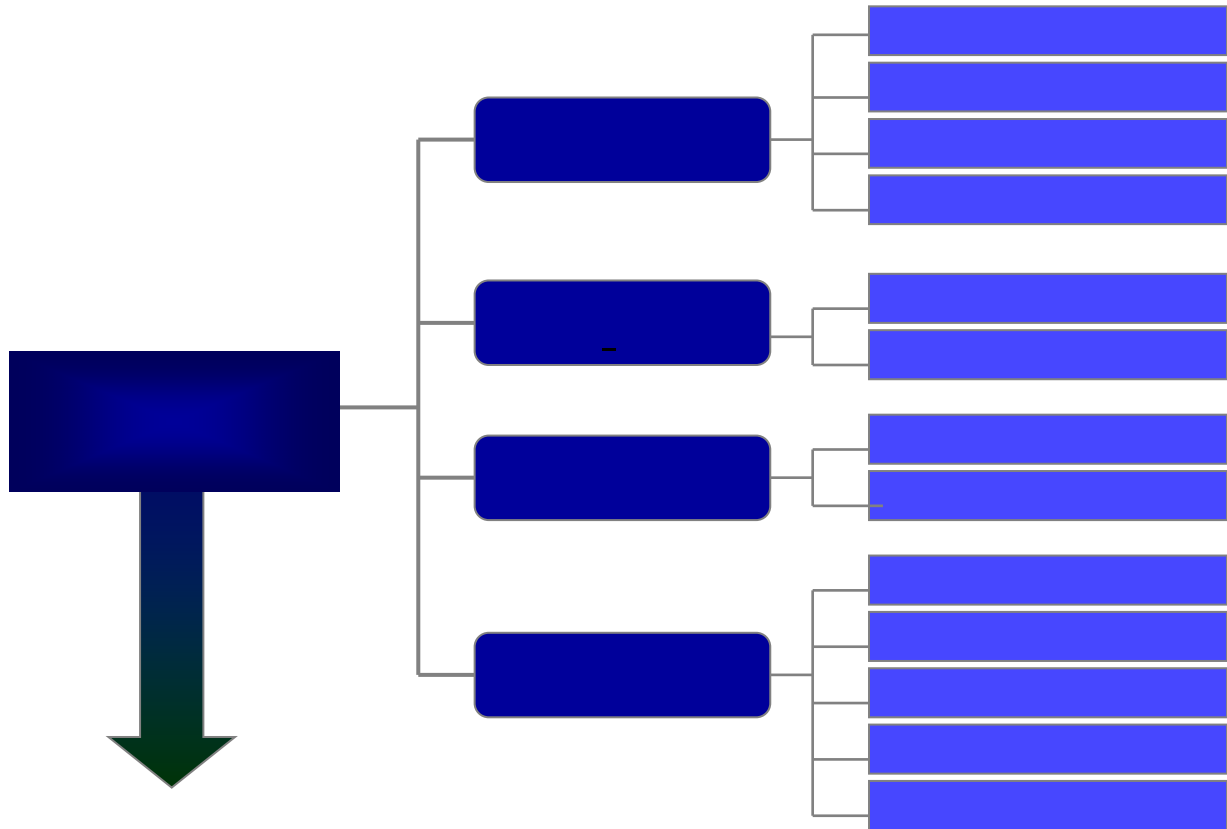


The health of a community depends on many different factors, including quality of health care, individual behavior, education and jobs, and the environment and there is a big difference in health across these communities.

The Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute created a County Health Ranking tool which enables a side by side comparison of each county's health status based on the following:

- Health Factors: Health factors in the County Health Rankings represent what influences the health of a county.
- Health Outcomes: Health outcomes in the County Health Rankings represent how healthy a county is.

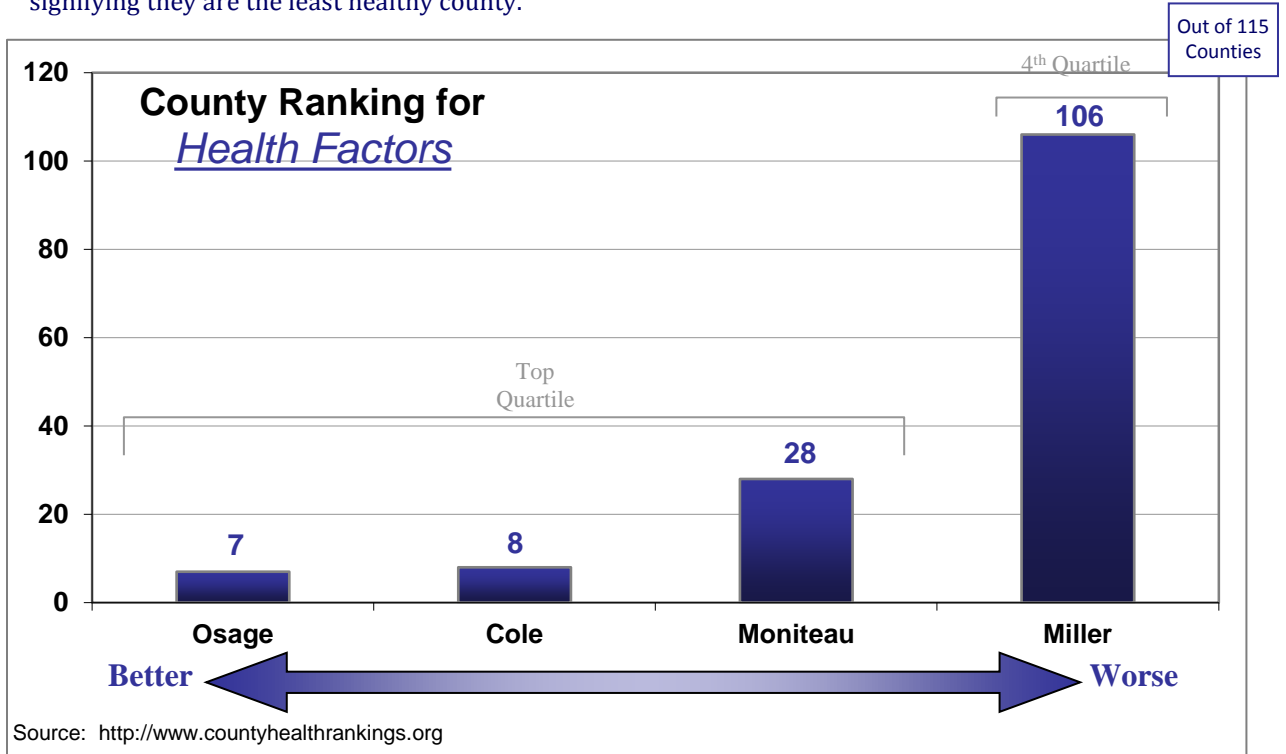
Source: [www.countyhealthrankings.org](http://www.countyhealthrankings.org)



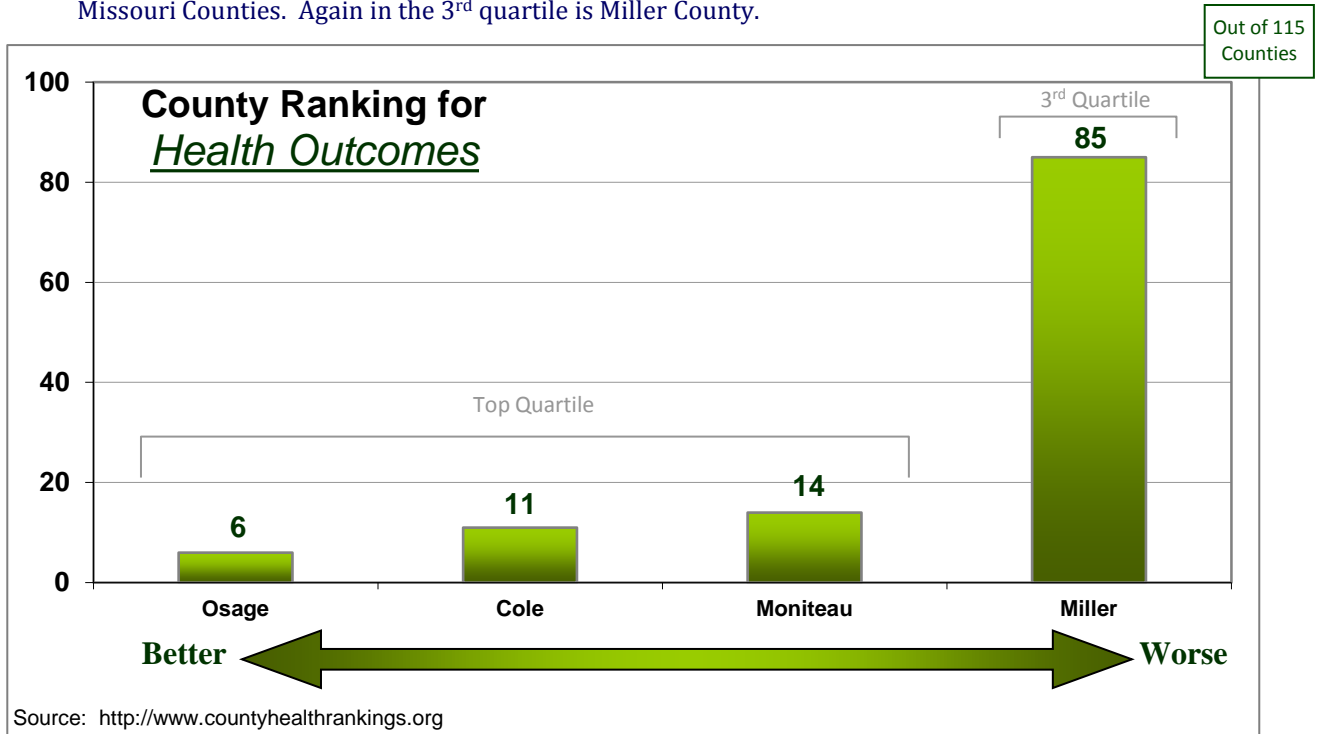
## Healthy Community Initiatives

## 2012 Rankings

For Health Factors, Cole, Osage and Moniteau Counties are ranked the in the top quartile of all 115 Missouri Counties, signifying they are the most healthy. Miller is ranked in the 3<sup>rd</sup> quartile signifying they are the least healthy county.



For Health Outcomes, the same three counties are ranked the in the top quartile of all 115 Missouri Counties. Again in the 3<sup>rd</sup> quartile is Miller County.



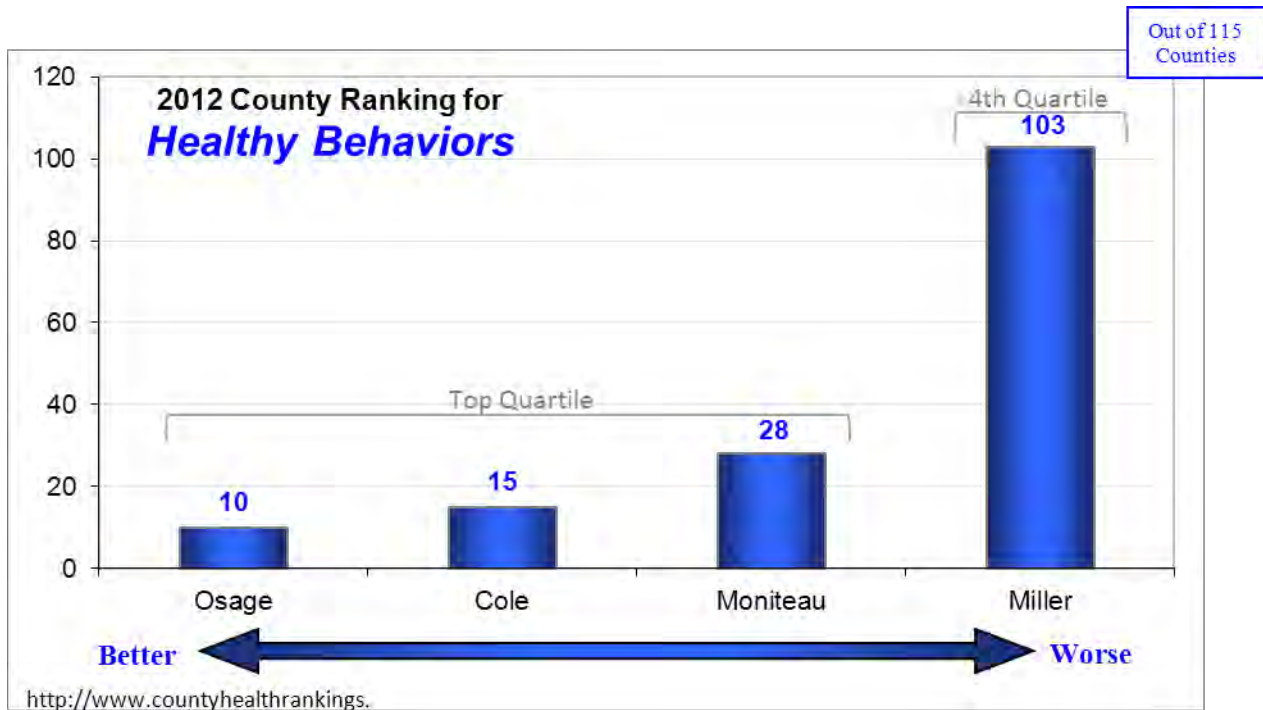


# Health Factors

## 2012 Rankings



For Healthy Behaviors, Osage, Cole and Moniteau are ranked in the top quartile of all Missouri Counties. Miller County is ranked in the bottom quartile.



## Tobacco Use Adults

In 2007, Missouri DHSS conducted a county level study to produce county-level prevalence of behavioral risk factors, chronic diseases and conditions, and preventive practices among adults age 18 and older in Missouri.

These results show Miller County is above Missouri's smoking rate of 23.2%. Cole County is the lowest with 16.9% of the adult population currently smoking. For smokeless tobacco, all four counties are above Missouri's rate of 3.9% with Miller County having the highest (10.8%).

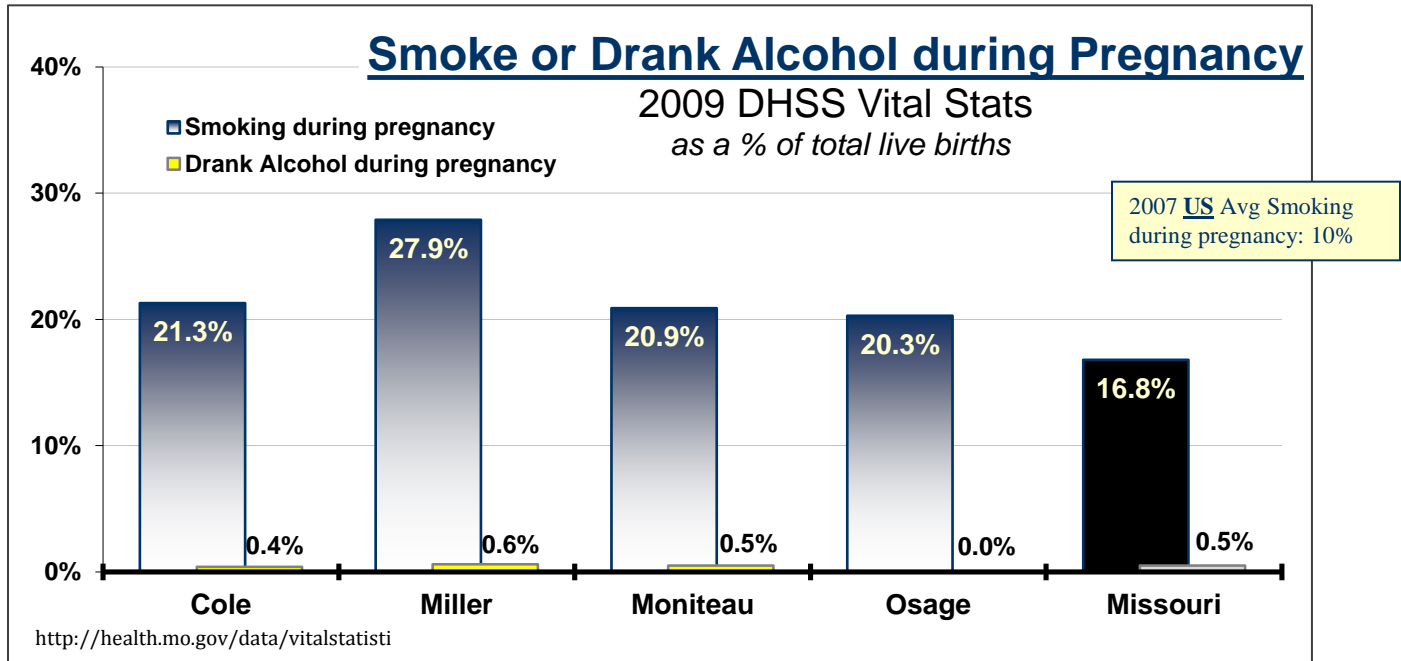
### 2007 DHSS Missouri County Level Study of BRFSS

Weighted %	Cole	Miller	Moniteau	Osage	Missouri
Current cigarette smoking	16.9%	31.9%	21.1%	18.1%	23.2%
Former cigarette smoking	25.6%	22.0%	22.4%	25.3%	25.1%
Current smokeless tobacco use	4.2%	8.1%	10.3%	9.1%	3.9%
Current use of other tobacco products	4.6%	6.2%	3.1%	1.9%	6.1%

<http://www.dhss.mo.gov>

## Tobacco & Alcohol Use *During Pregnancy*

The 2007 estimated US rate of women who smoked during pregnancy was 10%<sup>1</sup>, lower than Missouri's 2009 average of 16.8%. All four counties exceed the estimated national average and the Missouri average.



Significant risks to the mother and baby can be attributed to smoking during pregnancy<sup>2</sup>:

Women who smoke during pregnancy—

- Are twice as likely to experience a delay in conception and have approximately 30% higher odds of being infertile.
- Are twice as likely to experience premature rupture of membranes, placental abruption, and placenta previa during pregnancy.

Babies born to women who smoke during pregnancy—

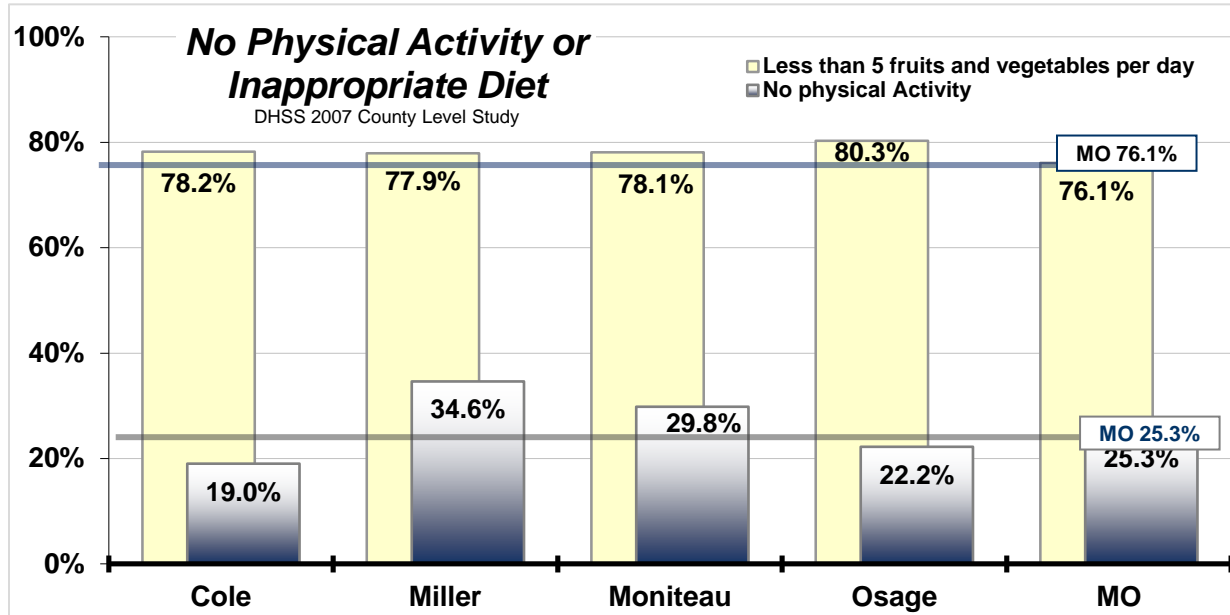
- Have about 30% higher odds of being born prematurely.
- Are more likely to be born with low birth weight (less than 2500 grams or 5.5 pounds), increasing their risk for illness or death.
- Weigh an average of 200 grams less than infants born to women who do not smoke.
- Are 1.4 to 3.0 times more likely to die of Sudden Infant Death Syndrome (SIDS).

<sup>1</sup> <http://www.medsch.wisc.edu/mep/downloads/Documents/programbriefs/PregnancyTrends2009.pdf>

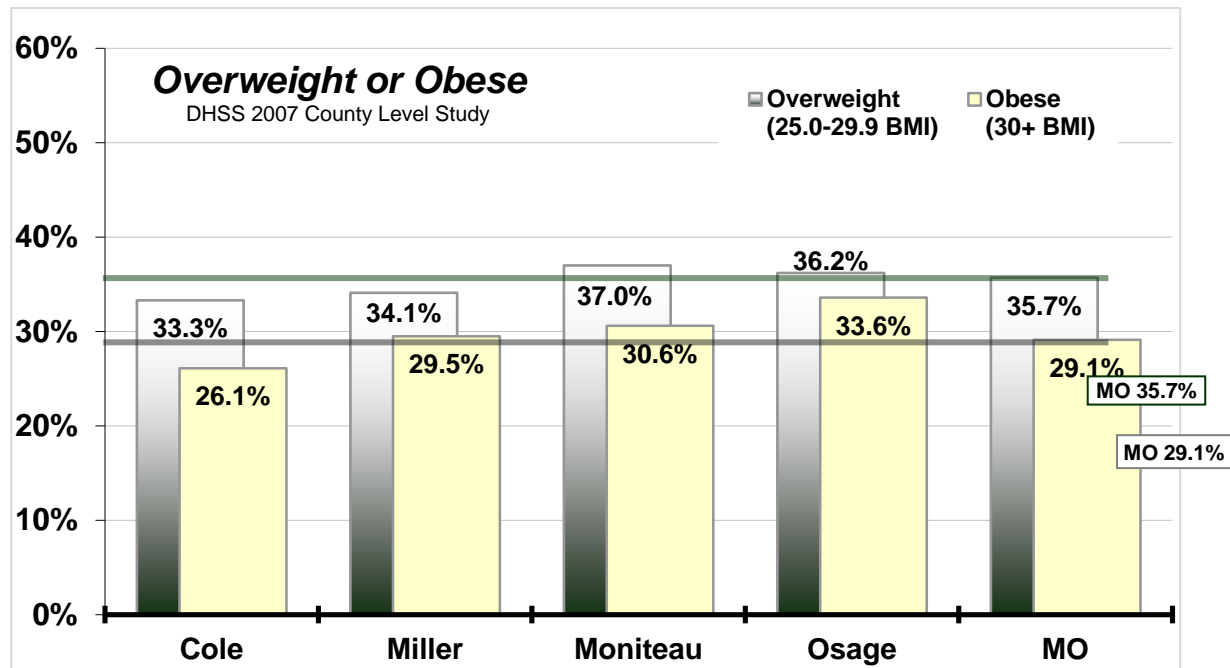
<sup>2</sup> <http://www.cdc.gov/reproductivehealth/tobaccoUsePregnancy/index.htm>

## Diet & Exercise

Based on the 2007 study, residents in these four counties are not eating the recommended 5 fruits and vegetables per day. It is estimated that 76.1% of Missouri's population has a poor diet and a majority the region's counties exceed the Missouri rate.

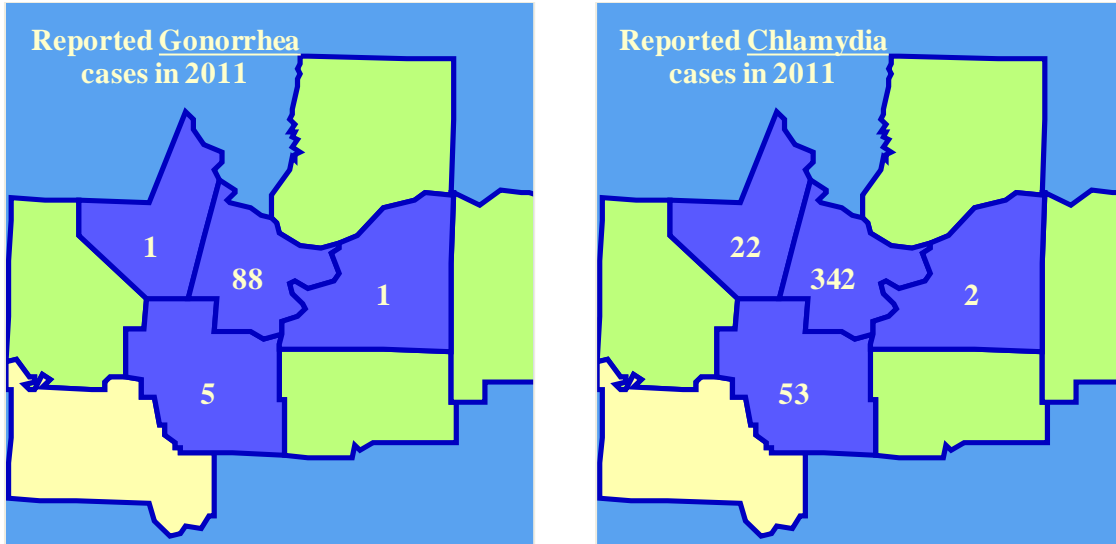


There is a high percentage of Missourians and residents from this region who are overweight and obese based on the body mass index guidelines.



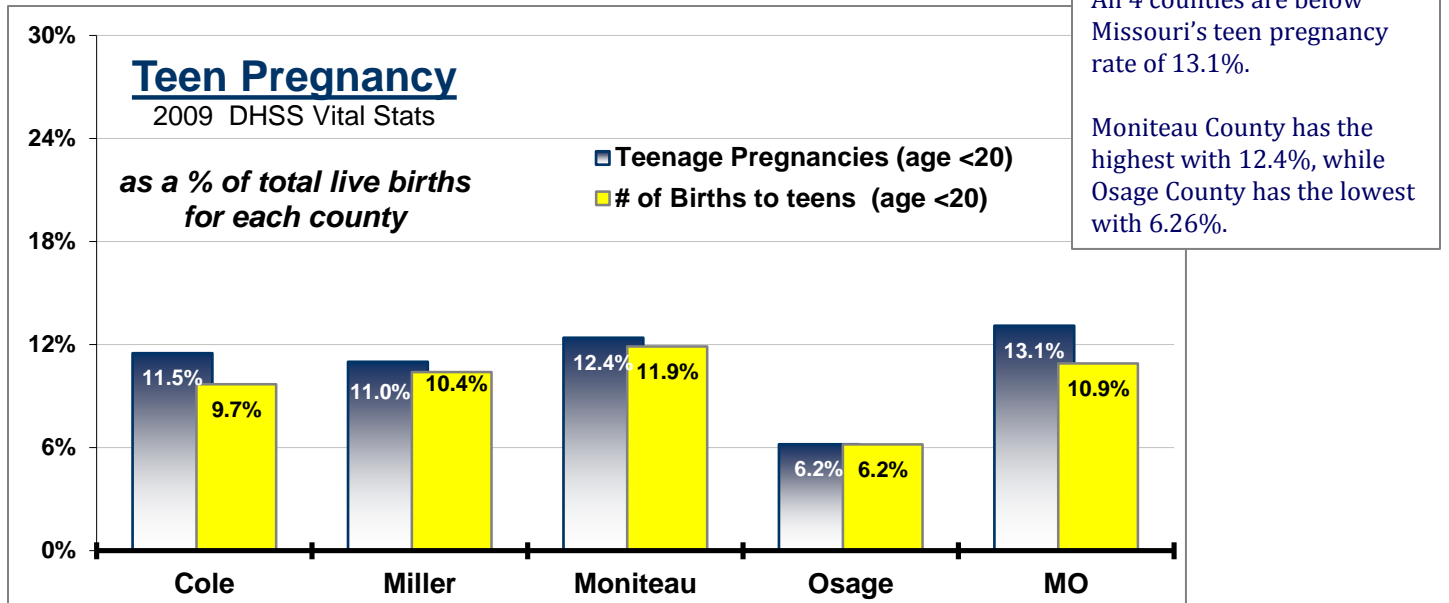


## High Risk Sexual Behavior STDs



Source: <http://www.dhss.mo.gov/STDsurveillance/11statsheet.pdf>

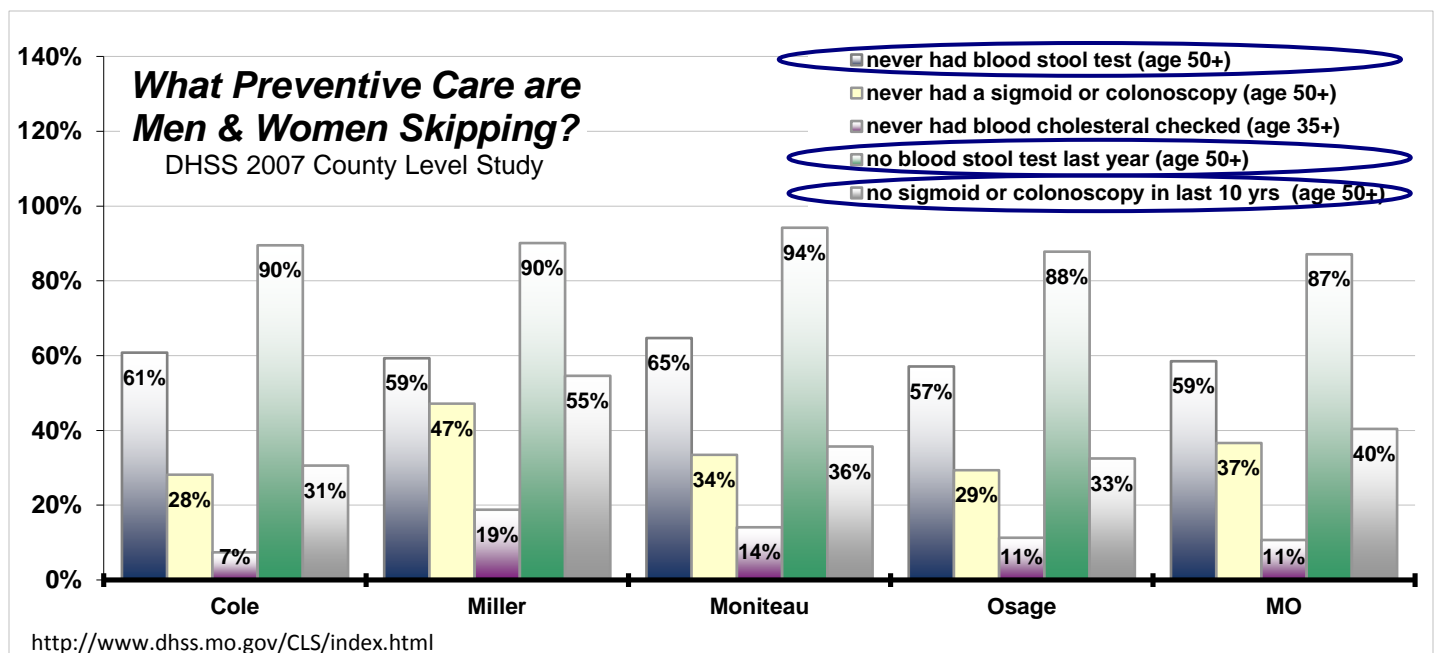
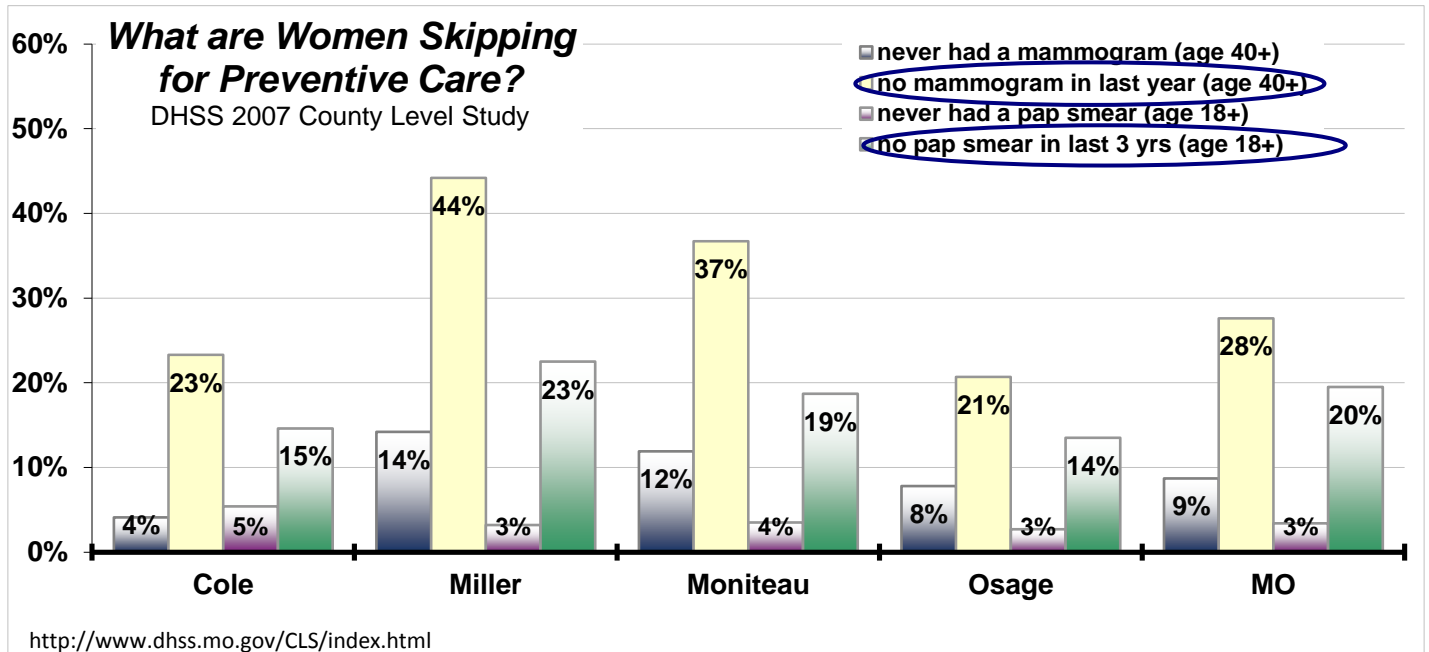
## High Risk Sexual Behavior Teen Pregnancy



## Age Appropriate Preventive Care

The Missouri DHSS 2007 County Level Study polled residents on accessing age appropriate preventive care for mammograms, pap smears, blood stool test, sigmoid/colonoscopy and cholesterol checks.

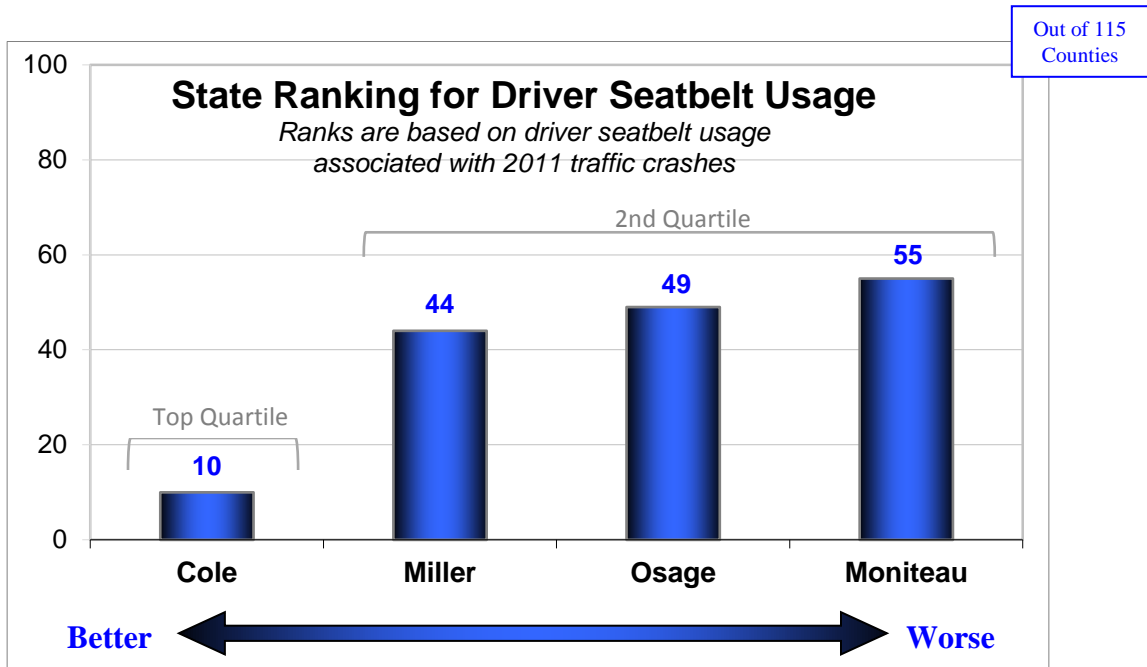
Women are not keeping up with their regular preventive care once they get their first mammogram or pap smear. For both genders, a large percentage of this population reported never having had a blood stool test. Result also show a lack of proper follow up testing after initial blood stool test and Sigmoid Colonoscopy.



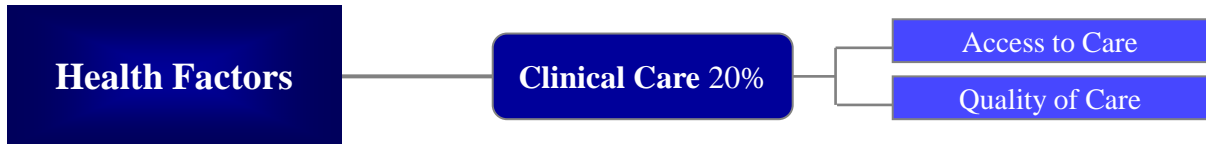


## Other Health Behaviors *Seatbelt Usage*

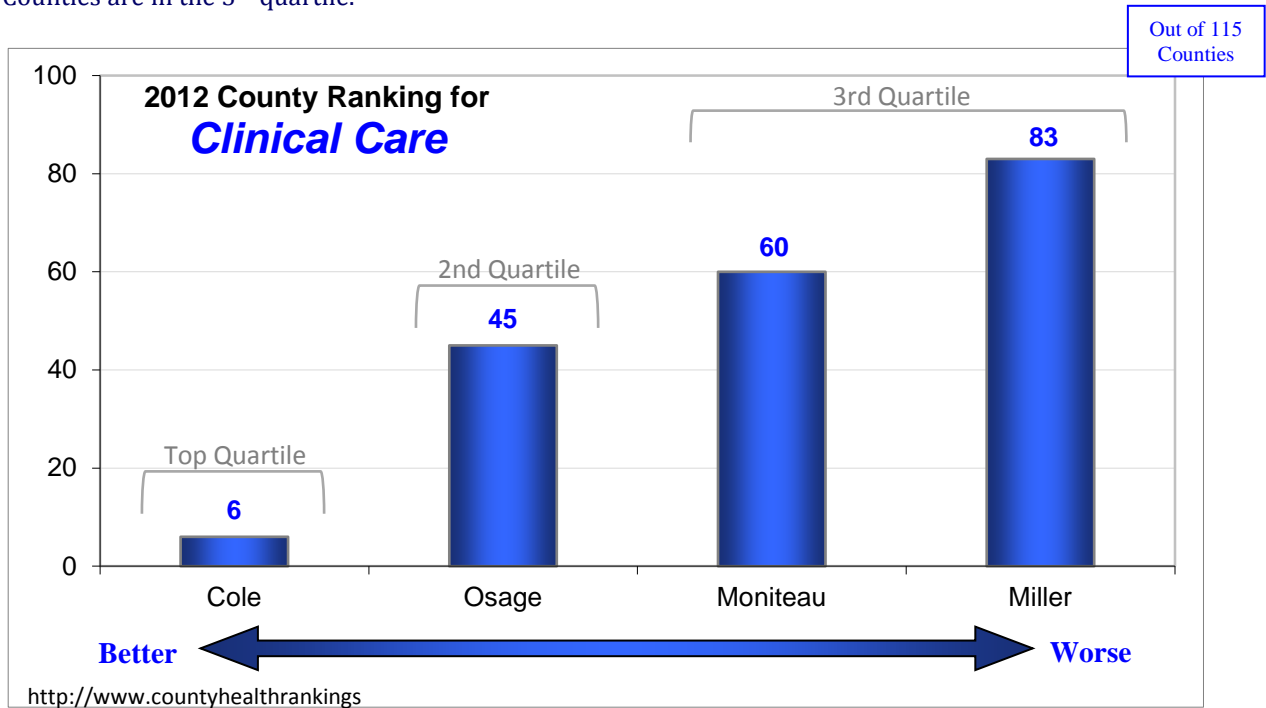
Based on the 2008 traffic crashes, Cole and Callaway County residents practice safer driving habits with higher seatbelt usage. Moniteau, Osage and Miller County residents are in the 3<sup>rd</sup> quartile for safe driving habits.



## 2012 Rankings

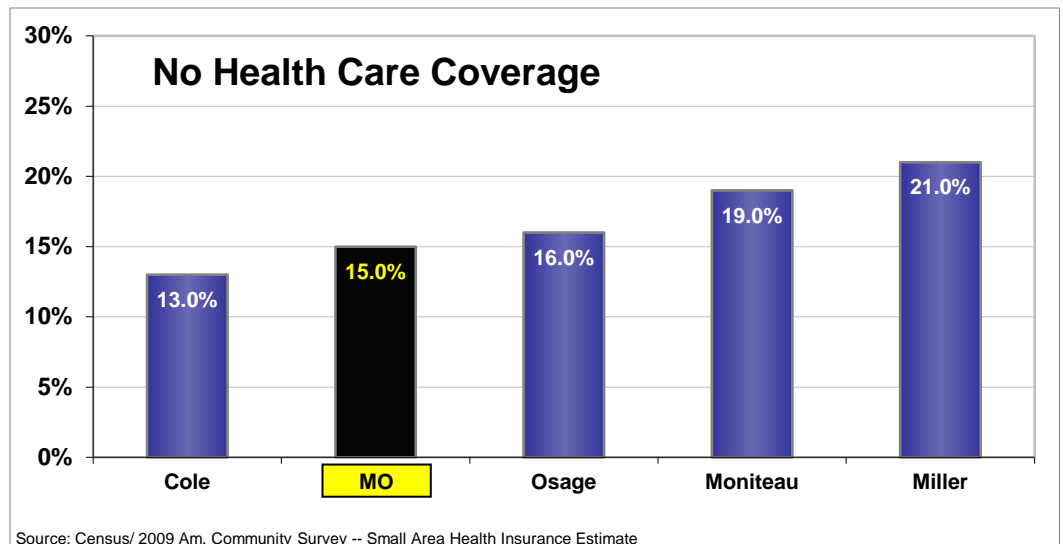


For Clinical Care, Cole County is ranked in the top quartile of all Missouri Counties. Miller and Moniteau Counties are in the 3<sup>rd</sup> quartile.



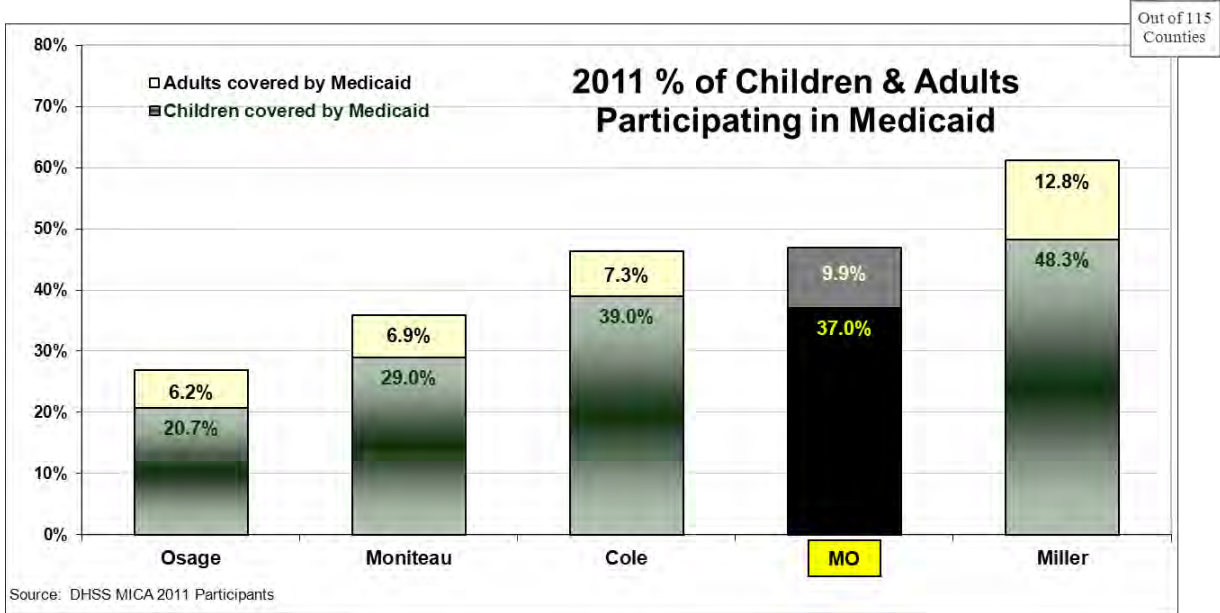
## Access to Care *Uninsured*

Three of the four counties have an uninsured population that is higher than the Missouri rate of 15.0%.



**Access to Care Medicaid Participation**

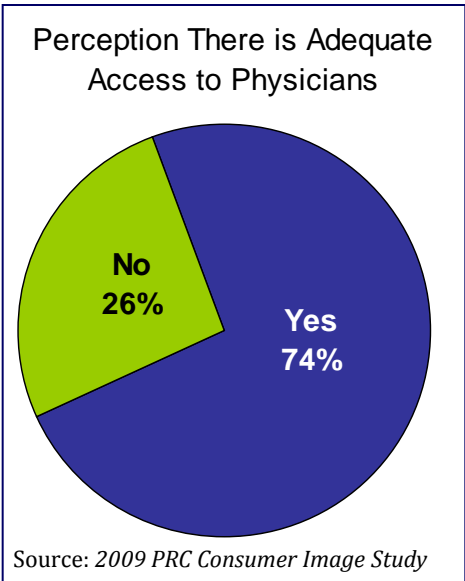
In 2011, Miller County was higher than the Missouri rate of 37.0% of children participating in Medicaid.



**Access to Care Provider Availability**

In 2009, St. Mary’s retained Professional Research Consultants, Inc. to conduct 500 in-depth telephone surveys from residents in a 9 county service area in order to gain insight as to the consumers’ perception and attitudes of health care services.

For those who recently used physicians, participants were asked if there was an adequate selection of providers in their area



## Access to Care Provider Availability

Another indicator of provider availability is if an area is federally designated as a Health Professional Shortage Area (HPSA). An HPSA is a geographic area, population group, or health care facility that has been designated by the Federal government as having a shortage of health professionals. There are two designations: Geographic HPSAs are based on the ratio of primary care physicians to the general population, while Low-Income HPSAs are based on the amount of care provided to those at or below 200 percent of the Federal Poverty Level (for Missouri this is mainly the Medicaid and uninsured population).

Health Professional Shortage Area (HPSA)	Cole	Miller	Moniteau	Osage
Primary Care	None	Yes	Yes	Yes
Dental	Yes	Yes	Yes	Yes
Mental Health	Yes	Yes	Yes	Yes

<http://hpsafind.hrsa.gov/HPSASearch.aspx>

Osage County has a very large population ratio for primary care physicians, while Miller County has the largest population ratio for Mental Health Providers.

	Cole	Miller	Moniteau	Osage	MO
Primary Care Physician Ratio	1,063:1	2,256:1	5,025:1	13,414:1	1,015:1
Mental Health Provider Ratio	14,878:1	24,817:1	15,075:0	13,414:0	9,561:1

2012 County Health Rankings

Cole County has the highest amount of Medicare A & B spending per enrollee. However, 22.1% of Miller County residents stated they were not able to afford to go the doctor in the last 12 months

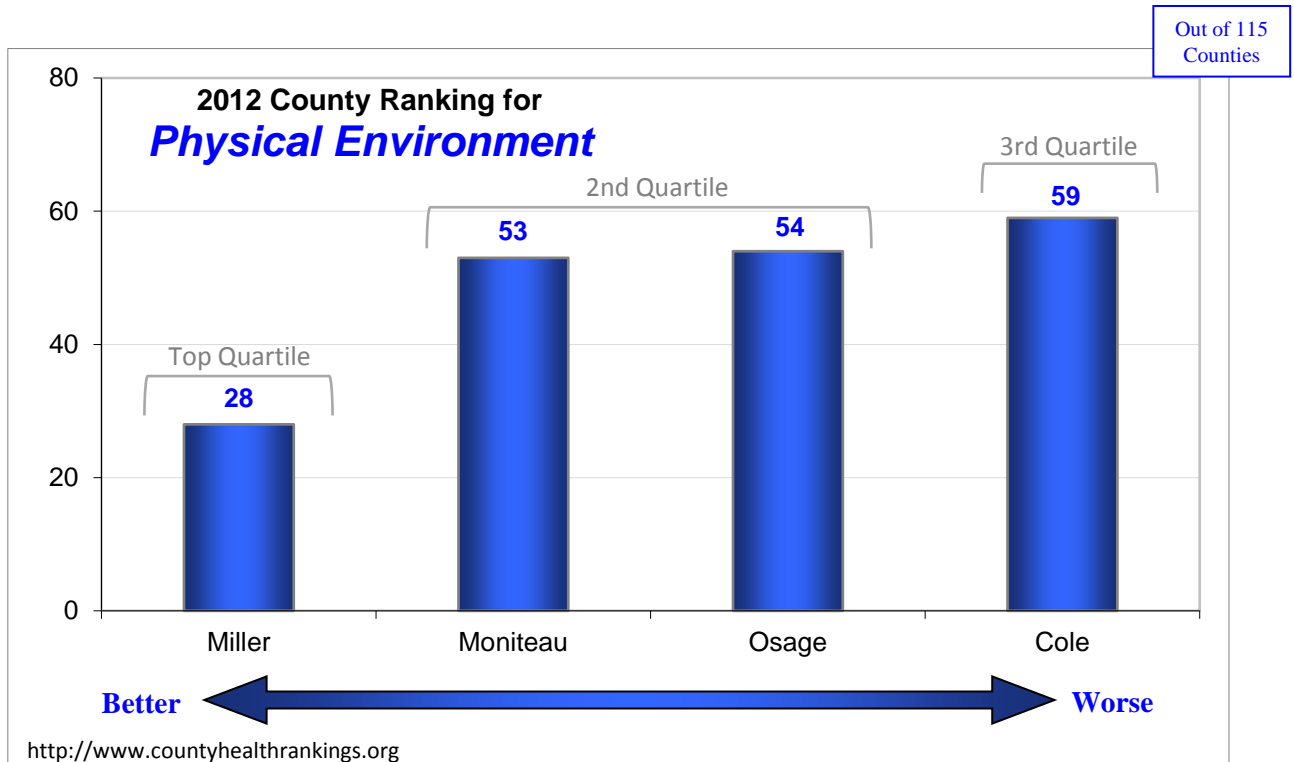
	Cole	Miller	Moniteau	Osage	MO
Health Care Cost (price-adjusted Medicare A& B spending per enrollee)	\$10,022	\$9,488	\$9,150	\$9,655	\$9,463
Couldn't see Dr. due to \$ (% who couldn't afford to see Dr. in past 12 months)	6.2%	22.1%	6.3%	4.8%	13.9%

2012 County Health Rankings

## 2012 Rankings



For Physical Environment, Miller County is ranked in the top quartile with the remaining three counties ranked in the second or third quartiles.



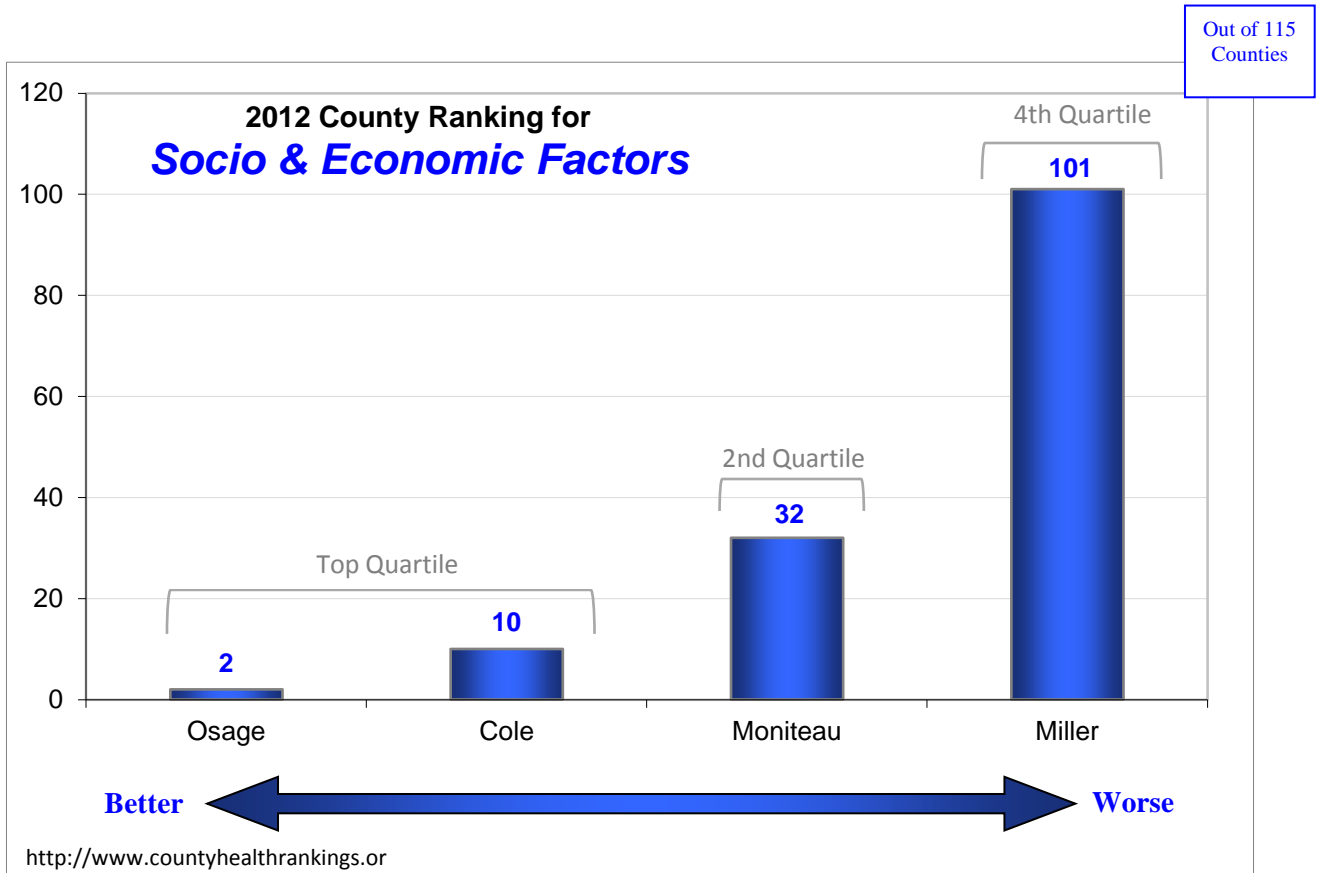
The questions that went into the ranking the Physical Environment are below. Osage County is scoring the lowest for Access to recreational facilities and limited access to healthy foods. Cole, Miller and Moniteau Counties all have a very high percentage restaurants that are fast food.

	Cole	Miller	Moniteau	Osage	MO
Access to recreational facilities (# of facilities per 100,000 population)	15	8	13	0	10
Limited access to healthy foods (% living in poverty & >10 miles from grocery store)	15%	1%	17%	23%	8%
Fast food restaurants (% of all restaurants that are fast food)	50%	40%	44%	13%	47%

## 2010 Rankings



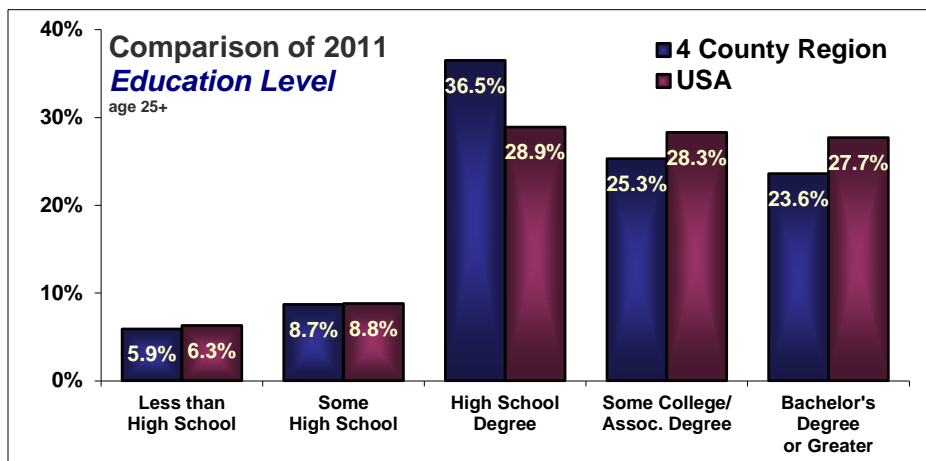
For Socio & Economic Factors, Osage and Cole county rank in the top quartile. Miller County ranked in the bottom quartile.



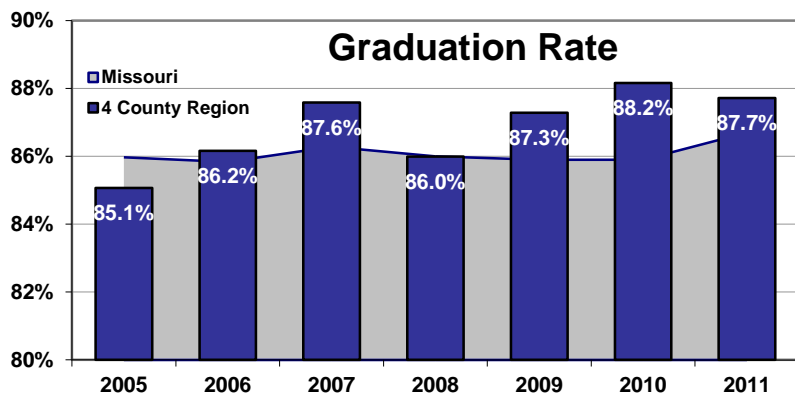


### Education

The education distribution shows that the majority of the adult population in these four counties has an education at or above the high school level, 85.4%. This is comparable to Missouri's (86.2%) and the US (84.9%)



Source: 2011 Thomson Reuters/Claritas



In 2011, school districts in this region achieved an 87.7% graduation rate, 1.0 points higher than Missouri's (86.7%).

Source: 2011 DESE

### Literacy Rate

Based on the 2003 statistics from the US Dept of Education the national estimates of adults lacking basic prose literacy skills are 14.5%. All counties are lower than the national average, but 7 out of the 9 counties are above Missouri's average.

Those lacking BPLS include those who scored Below Basic in prose and those who could not be tested due to language barriers.

% of Population 16+yrs Lacking Basic Prose Literacy Skills	
Cole County	7%
Miller County	9%
Moniteau County	10%
Osage County	9%
Missouri	7%

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, 2003 National Assessment of Adult Literacy

Children with limited English proficiency in school system		
Counties	2005	2009
Cole	231	126
Miller	2	18
Moniteau	80	113
Osage	2	4

Source: 2009 oseda.missouri.edu/kidscount/

In 2009, there were 261 children with limited English proficiency in the school system, compared to 315 in 2005.

## Family Status & Statistics

Cole County has the highest rate for marriage for this region based on 2009 data. However, Miller County's divorce rate is the highest, 5.8%. Cole County has the highest percent of single parent families with 30.0%.

2009	Marriages (as a % of total population)	Divorces (as a % of total population)	Divorces as a % of Marriages
Cole	8.3%	3.5%	42.2%
Miller	5.9%	5.8%	98.3%
Moniteau	5.5%	2.8%	50.9%
Osage	4.9%	2.9%	59.2%

MISSOURI	6.5%	3.7%	56.9%
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Source: <http://www.dhss.mo.gov/VitalStatistics/MVS09/Preface.pdf>

Counties	2006-2010
Cole	30.0%
Miller	27.0%
Moniteau	25.0%
Osage	19.0%
Missouri	32.0%

2012 County Health Rankings  
2006-2010 American Community Health Survey

Miller County scores are higher than Missouri's for Child Abuse & Neglect, as well as, child Out of Home Placements.

### 2009 Child Abuse & Neglect

Counties	% (per 1,000)
Cole	19.4%
Miller	55.5%
Moniteau	22.3%
Osage	15.0%
Missouri	29.8%

Source: 2009 Oseda.missouri.edu/kidscount/

### 2009 Child Out-of-Home Placement Entries

Counties	% (per 1,000)
Cole	2.3%
Miller	8.3%
Moniteau	3.4%
Osage	0.0%
Missouri	3.9%

Source: 2009 Oseda.missouri.edu/kidscount/

### 2011 Domestic Violence Incidents by County

Counties	Incidents	% for total population
Cole	617	0.8%
Miller	501	2.0%
Moniteau	29	0.2%
Osage	16	0.1%
Missouri	40,587	0.7%

Source:  
[http://www.mshp.dps.missouri.gov/MSHPWeb/SAC/data\\_and\\_statistics\\_ucr.html](http://www.mshp.dps.missouri.gov/MSHPWeb/SAC/data_and_statistics_ucr.html)

Cole and Miller counties have the higher incidents of domestic violence. In addition, with population taken into account, they also have higher rates of incidence than Missouri.

*Domestic violence is one of the most chronically underreported crimes.*

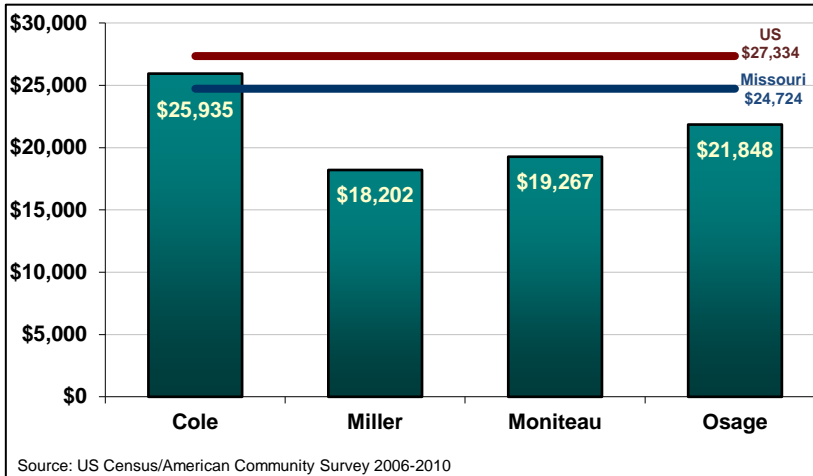
*Approximately one-quarter of all physical assaults, one-fifth of all rapes, and one-half of all stalkings perpetrated against females by intimate partners are reported to the police.*

Source: National Coalition Against Domestic Violence Fact Sheet



## Income Levels

### Per Capita Income



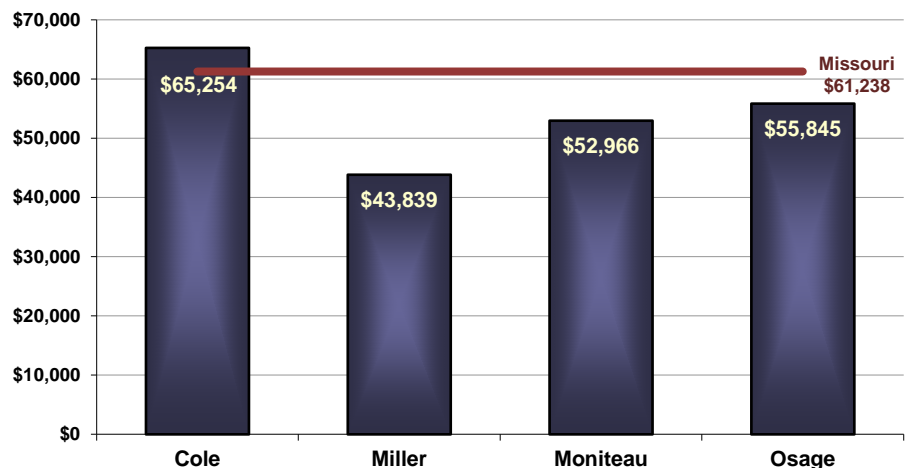
Missouri's 2010 estimated Per Capita Income average is \$24,724. Cole County is the only county above Missouri's average.

Average Wages (public and private industry)		
County	Average Hourly Wage	Average Annual Wage
Cole	\$17.45	\$36,298
Miller	\$13.28	\$27,626
Moniteau	\$12.77	\$26,554
Osage	\$12.84	\$26,700
Missouri	\$19.56	\$40,681

Cole County ranks highest for the average hourly and annual wage, but is still below the Missouri average for both.

Source: 2010 MO Department of Economic Development (MERIC)

### Average Household Income

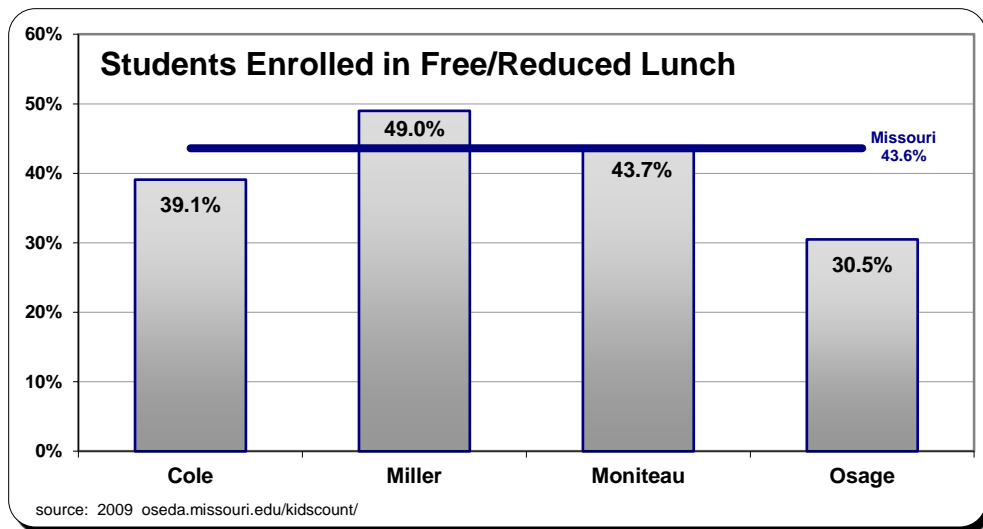


Based on the 2010 projections, the average household income for Missouri is \$61,238.

Cole County is the only county from the four county region that is above the Missouri average.

Source: US Census / American Community Survey 2006-2010

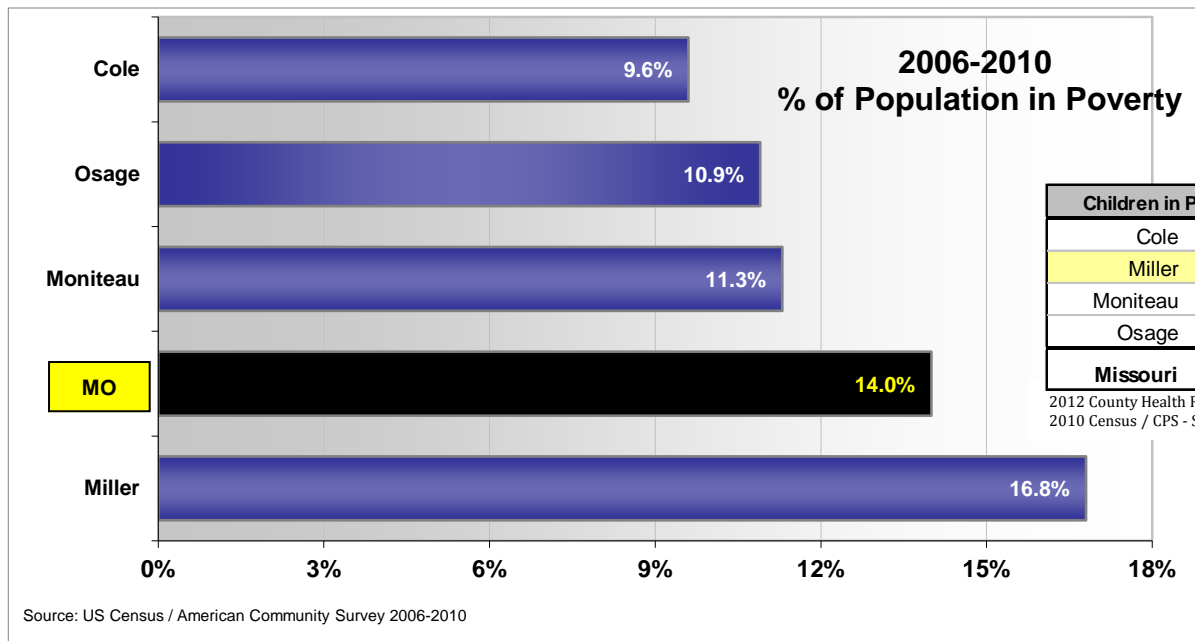
## Income Levels



Missouri averaged 43.6% of students receiving free or reduced lunches in 2009. 49.0% of Miller County's students enrolled in this program, which is above Missouri's rate.

## Poverty Levels

Based on the most recent county statistics from the US Census 2006-2010 American Community Survey, Only Miller County exceeds Missouri's poverty rate of 14.0.



Children in Poverty	
Cole	15.0%
Miller	31.0%
Moniteau	20.0%
Osage	14.0%
Missouri	21.0%

2012 County Health Rankings based on: 2010 Census / CPS - Small Area Income and Poverty Estimates

## Labor Force & Unemployment

Employment Statistics				
County	Labor Force	Employed	Unemployment	Unemployment Rate (%)
Cole	40,532	37,926	2,606	6.4%
Miller	11,609	10,294	1,315	11.3%
Moniteau	7,584	7,006	578	7.6%
Osage	7,409	6,939	470	6.3%

Missouri's 2011 unemployment rate was 8.6% compared to the US rate of 9.8%. Only Miller County exceeds both Missouri and US unemployment rates.

Source: 2011 Missouri Dept of Economic (MERIC)

Pulls by County

## Major Employers

### Cole County

State of Missouri	17,931
Scholastic, Inc..	1,800
Capital Region Medical Center	1,432
St. Mary's Health Center	1,200
Jefferson City Public Schools	1,106
Central Bank	738
City of Jefferson	624
RR Donnelley	585
Jefferson City Medical Group	559
Wal-Mart Super Center	515
Lincoln University	435
Hawthorn Bank	400
Hy-Vee Food Stores, Inc..	383
Unilever	300
Missouri Farm Bureau	279
Embarq	275
County of Cole	268
Gerbes Family Shopping Center	235
Modine Manufacturing	204
Capitol Plaza Hotel & Convention Center	200
Command Web Missouri	200
Mike Kehoe Auto Group	163
Lowe's Home Improvement Warehouse, Inc..	116
Jefferson Bank of Missouri	113

### Miller County

Eldon School District	315
H K'S Restaurant	300
Keiper Llc	225
Jeremiah's Night Club	149
Country Club Boutique Jewelry	125
Opies Transport Inc.	120
Iberia Schools Superintendent	110
Iberia RV School District	106
Wal-Mart	100
Eldon South Elementary	95
Eldon Health Care	75
Fasco Motors Group	40

### Moniteau County

Mid-Missouri Mini-Barns	500
Tipton Correctional Ctr	379
Burger's Smokehouse	250
Tipton County R Vi Schools	90
Tipton Oak Manor	80
California Manufacturing Co	80
Arkansas Valley Feathers Inc.	71
California Elementary School	60
California Care Ctr	55
Moniteau Care Ctr	55

### Osage County

Quaker Window Products Co	400
Linn State Technical College	160
Fatima High School	98
Westphalia Retirement Ctr	80

<http://missouricore.com/explore-the-core/largest-employers-by-county/>



## Commuting to Work

A majority of the counties in this 4 county region have a significant amount traveling outside of the county of residence for work.

### Workers Commuting Outside

<i>2000 Census</i>	Total Workers 16 and older	# of workers commuting	% Commuting
<b>Cole</b>	35,879	3,409	9.5%
<b>Miller</b>	10,727	4,572	42.6%
<b>Moniteau</b>	6,669	3,100	46.5%
<b>Osage</b>	6,525	3,831	58.7%

<b>Missouri</b>	2,629,296	877,655	33.4%
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[http://www.oseda.missouri.edu/tables/employment/mocosf3trans\\_1990\\_2000\\_co.html](http://www.oseda.missouri.edu/tables/employment/mocosf3trans_1990_2000_co.html)

## Crime Rates

Moniteau and Osage Counties have the lowest crime with 1%, with Cole County having the highest at 3.4%.

2011	Crime Rate (as a % of Total Population)	Violent Crimes	Property Crimes	Criminal Homicide	Total Crime Offenses	Violent Crime (as a % of Total Crime)
Cole	3.4%	306	2,168	2	2,411	12.7%
Miller	2.5%	95	513	0	608	15.6%
Moniteau	1.0%	14	129	2	142	9.9%
Osage	1.1%	42	110	0	152	27.6%
<b>Total Region</b>	<b>2.7%</b>	<b>457</b>	<b>2,920</b>	<b>4</b>	<b>3,313</b>	<b>13.8%</b>
Missouri	3.9%	26,863	206,130	336	226,728	11.8%

<http://www.mshp.dps.missouri.gov>

## Crime Rates *Juvenile*

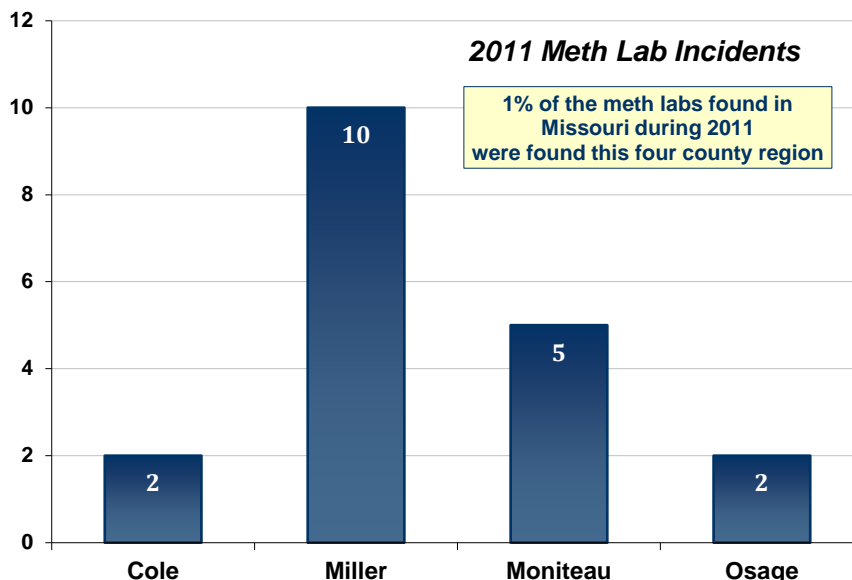
2009	Juvenile Crime Rate (as a % of 00-17 Population)	Total Offenses	Violent Offenses	Alcohol Offenses	Drug Offenses	Violent Crime (as a % of total juvenile crime)
Cole	4.1%	741	235	31	68	31.7%
Miller	2.2%	133	50	16	21	37.6%
Moniteau	0.9%	36	10	5	3	27.8%
Osage	0.5%	17	6	2	4	35.3%
<b>Total Region</b>	<b>2.9%</b>	<b>927</b>	<b>301</b>	<b>54</b>	<b>96</b>	<b>32.5%</b>
Missouri	2.3%	32,192	9,356	13,661	2,523	29.1%

For juveniles, Cole County has the highest crime rate for the 0-17 age population.

<http://dmh.mo.gov/ada/countylinks/index.htm>

## Crime Rates *Meth Lab Incidents*

In 2011, there were 2,096 meth lab incidents in Missouri. 1% of those occurred in this four county region, with highest numbers coming from Miller County.



Missouri accounted for 20.5% of the 2011 Meth Labs in the US

Source: <http://www.mshp.dps.missouri.gov>

## Firearm Assaults

1999-2009	% of Total Assaults involving Firearms		
	Death	Hospitalization	ER Visits
Cole	64.5%	11.5%	1.1%
Miller	25.0%	11.6%	0.4%
Moniteau	100.0%	0.0%	0.2%
Osage	0.0%	23.1%	1.2%
<b>Total Region</b>	<b>56.3%</b>	<b>11.4%</b>	<b>0.9%</b>
Missouri	68.0%	24.2%	2.3%

Missouri Department of Health and Senior Services maintains an Assault Injury Profile which tracks injuries due to being assaulted by another person resulting in death, hospitalization and ER visits.

This region's ratio of firearm assaults resulting in death was 56.3% for the 10 year period.

<http://health.mo.gov/data/CommunityDataProfiles/index.html>

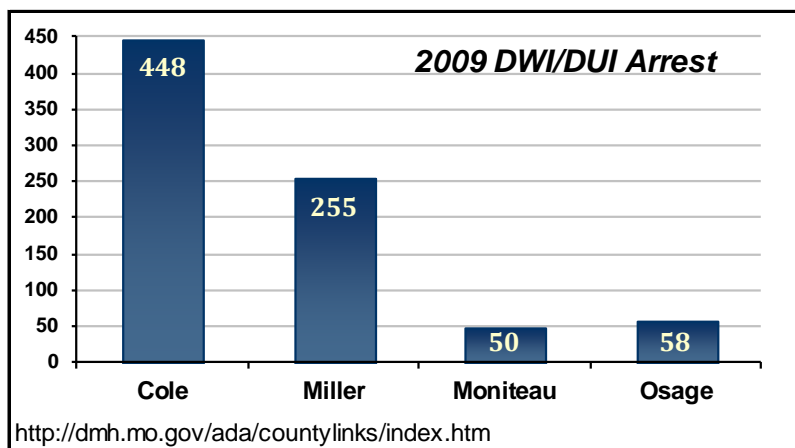
## Traffic Safety

In 2009, there were 3,003 accidents in this region with 23.5% of those accidents involving speed or drinking. When drinking was involved, 4.5% of the accidents resulted with a fatality compared to 1.4% fatalities when speed was involved.

2009	Total Traffic Accidents			Speed Involved			Drinking Involved		
	Total	Fatal	Injury	Total	Fatal	Injury	Total	Fatal	Injury
Cole	1,920	9	502	256	2	70	67	2	25
Miller	553	3	150	138	2	46	60	2	29
Moniteau	278	3	69	81	2	27	11	1	4
Osage	252	4	62	79	2	32	15	2	6
<b>Total Region</b>	<b>3,003</b>	<b>19</b>	<b>783</b>	<b>554</b>	<b>8</b>	<b>175</b>	<b>153</b>	<b>7</b>	<b>64</b>

[http://www.mshp.dps.missouri.gov/MSHPWeb/SAC/publications\\_traffic.html](http://www.mshp.dps.missouri.gov/MSHPWeb/SAC/publications_traffic.html)

Missouri	151,353	778	37,613	26,857	302	8,342	6,285	208	2,642
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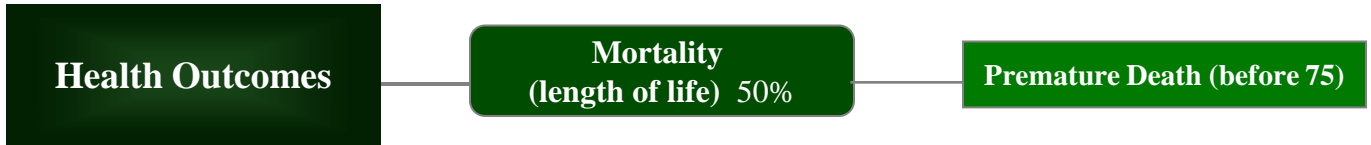
In 2009, 811 motorist were arrested for DWI or DUI from these four counties. The majority of arrest occurred in Cole and Miller Counties, 86.7%.

<http://dmh.mo.gov/ada/countylinks/index.htm>

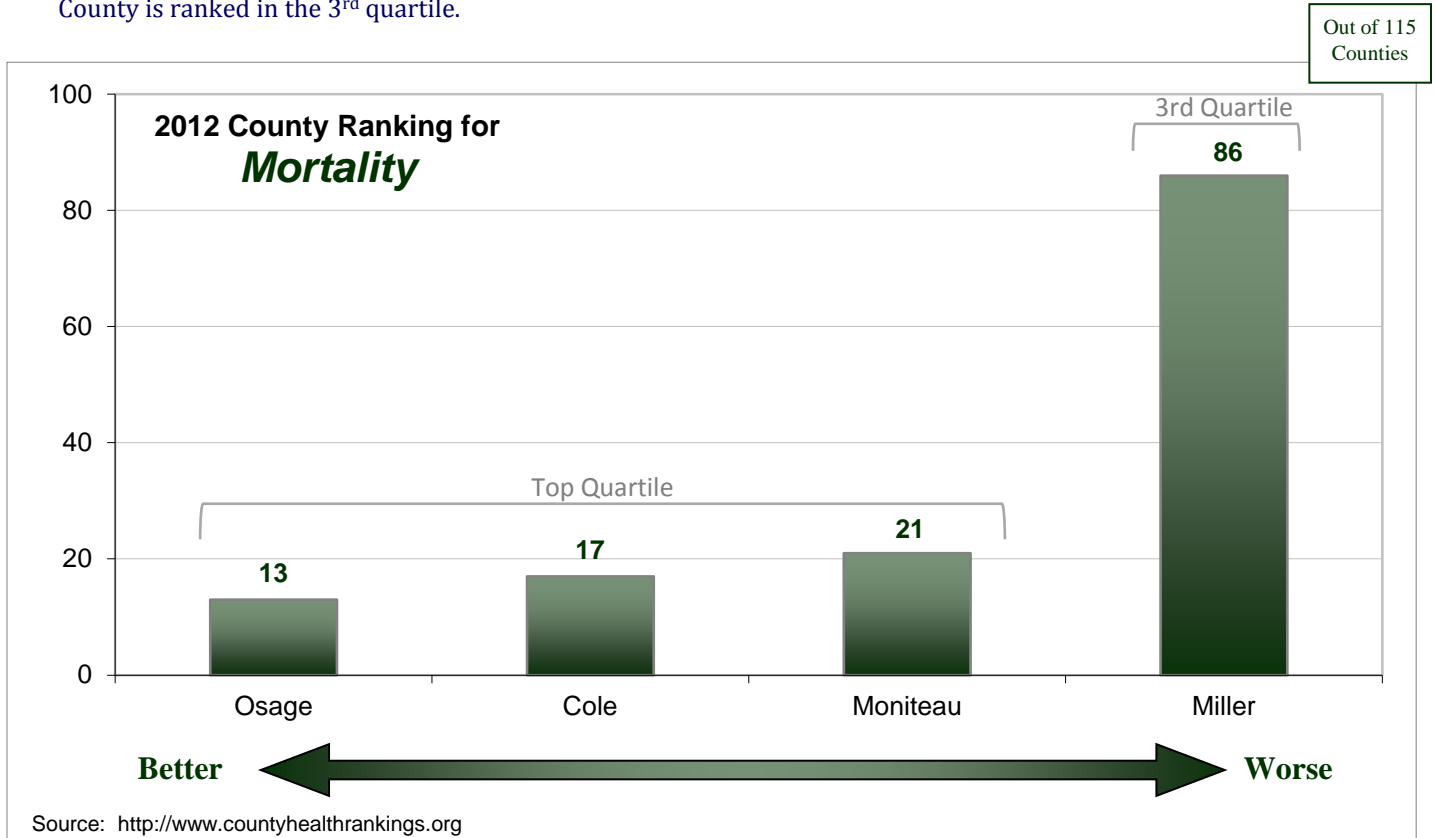


# Health Outcomes

## 2012 Rankings



For Mortality, Osage, Cole and Moniteau Counties are ranked in the top quartile of all Missouri Counties. Miller County is ranked in the 3<sup>rd</sup> quartile.



## Length of Life

County Health Ranking data measures mortality by premature death. Premature death is represented by the years of potential life lost before age 75 (YPLL-75). Every death occurring before the age of 75 contributes to the total number of years of potential life lost. For example, a person dying at age 25 contributes 50 years of life lost, whereas a person who dies at age 65 contributes 10 years of life lost to a county's YPLL. The YPLL measure is presented as a rate per 100,000 population and is age-adjusted to the 2000 U.S. population.

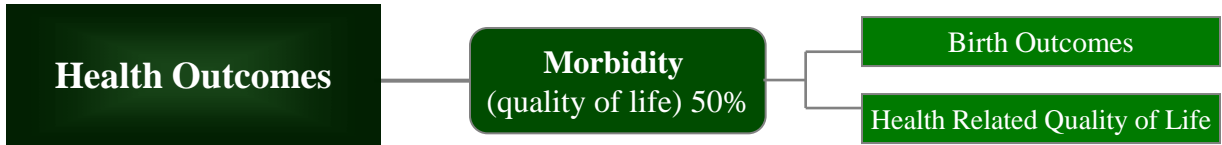
Below, Miller County has the highest premature death rate out of the four counties and is higher than Missouri's rate.

	Cole	Miller	Moniteau	Osage	MO
Premature death rate	6,770	9,888	7,158	6,613	7,981

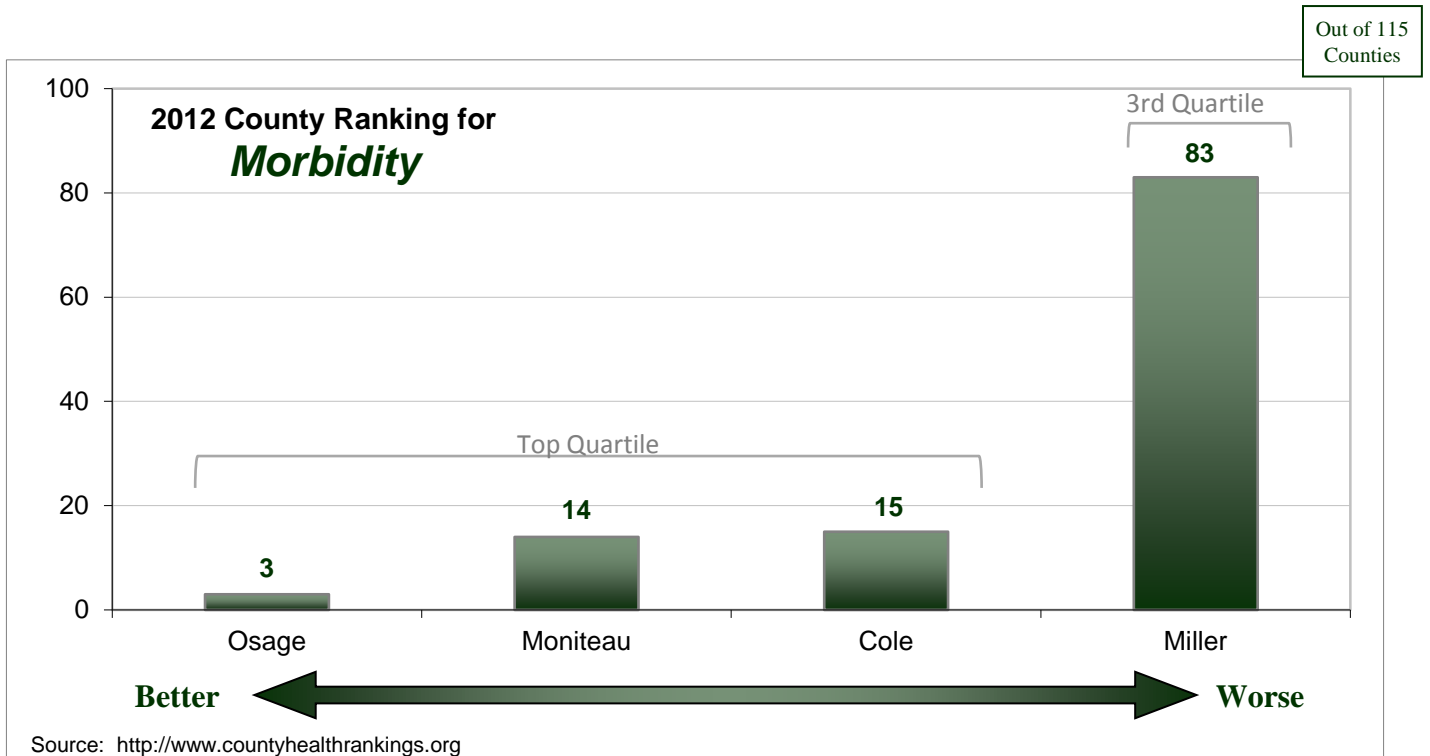
2012 County Health Rankings



## 2012 Rankings



For morbidity, Osage, Moniteau, and Cole Counties are ranked in the top quartile of all Missouri Counties. Miller County is ranked in the 2<sup>nd</sup> quartile.



## Quality of Life

Morbidity is the term that refers to how healthy people feel while alive. The County Rankings website looks at health-related quality of life (*self-perceived health*) and birth outcomes (*low birth weight*).

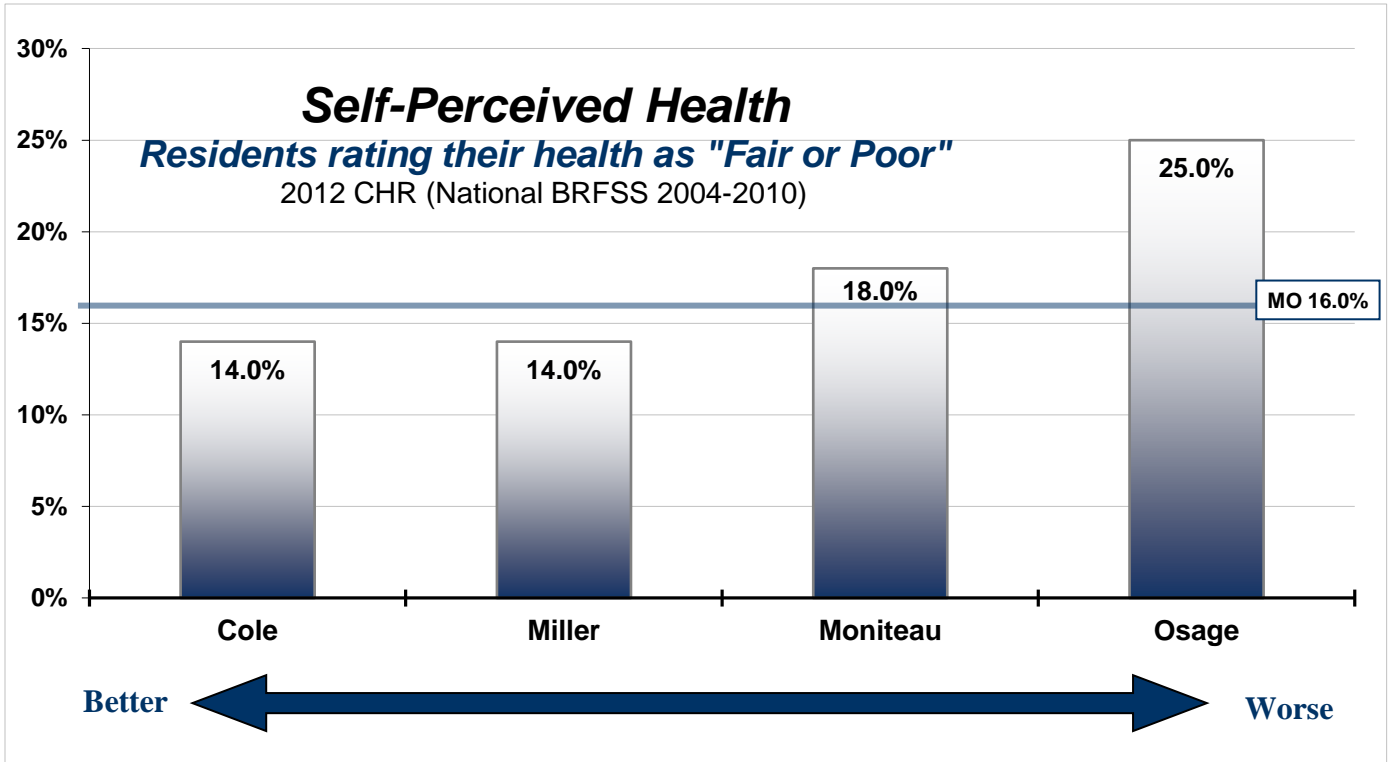
Based on the findings from the County Health Rankings and National BRFSS (2004-2010), Miller County has the highest self-perceived poor physical and mental health days per month.

	Cole	Miller	Moniteau	Osage	MO
Poor physical health days (avg # in past 30 days)	3	5	3	3	4
Poor mental health days (avg # in past 30 days)	2	4	3	3	4

2012 County Health Rankings

## Self-Perceived Health

When Missouri residents were asked to rate their health, 16.0% rated perceived their health to be fair or poor. Two of the four counties rate their health worse than the state rate.

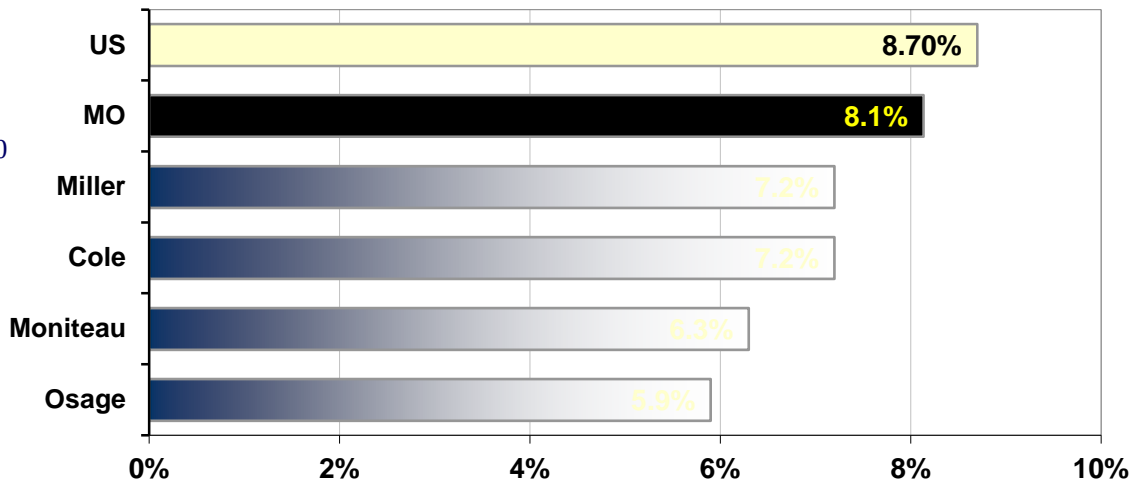


## Low Birth Weight

### *Babies born weighing less than 5.51lbs*

2012 CHR website  
(2002-2008 Vital Stats; National Ctr for Health Statistics)

Low birth weight is tracked for babies born weighing less than 2500 grams.





# Health Status in Communities

## Priorities for this Region

Community Health Improvement Resources or **CHIR** is an interactive planning system designed for use by public health practitioners and community stakeholders to improve the health of a community.

**CHIR** uses a data driven, evidence-based public health process to guide decision-making, priority setting and intervention planning. The process acknowledges that communities have different needs and may be in different places in addressing health issues. Some communities may need to start with creating or strengthening partnerships, while others may be ready to plan an intervention to address a priority health issue. Communities can use this tool to conduct a thorough needs assessment to identify priority health issues to address.

One of the web based tools **CHIR** utilizes is “*Priority MICA*”. The purpose of the *Priority MICA* is to provide a structured process to determine the priority health needs of a community. The *Priority MICA* allows a user to prioritize from a list of diseases or risk factors available in the application. The diseases/risk factors were selected for inclusion in the application based upon the Department of Health and Senior Services (DHSS) strategic plan, Healthy People 2010 and available data.

The *Priority MICA* provides an objective method for establishing priorities. While an objective methodology provides a rational basis for priority setting one should not assume that a purely objective process is always the preferred approach. There can be situations in which other non- objective criteria are important to the priority setting process. A community should not ignore other criteria of community importance not included in the *Priority MICA*.

The *Priority MICA* is meant to be used only as a tool. It should be used along with other information that is available in a community. There may be other diseases/risk factors that are important to a community that are not part of the *Priority MICA*. The fact that a disease/risk factor is not in the *Priority MICA* does not mean a community should ignore the disease/factor.

Source: <http://www.dhss.mo.gov/PriorityMICA/>

## Top 5 Risk Factors

	Cole	Miller	Moniteau	Osage	Missouri
1	Obesity	Mom Overweight	Mom Overweight	Mom Overweight	Obesity
2	Mom Overweight	No Exercise	No Exercise	Obesity	No Exercise
3	No Exercise	Smoking	Smoking	No Exercise	Mother Overweight
4	Smoking	Obesity	Obesity	smoking	No Mammography
5	No Mammo	No Mammo	No Mammo	No Mammo	No Cervical Cancer Screen

MICA Priority 2007

Complete List of Risk Factors	
Abortions	No Mammography
Child Abuse/Neglect	Obesity
High Blood Pressure	Out-of-Wedlock Births
High Cholesterol	Prenatal Care Inadequate
Low Birth Weight	Repeated Births Under Age 18
Mother Overweight	Smoking
Mother Underweight	Smoking During Pregnancy
No Cervical Cancer Screening	Teenage Pregnancy Under Age 18
No Exercise	Very Low Birth Weight
No Health Insurance for ER Visits	VLBW Infants Not Delivered in Level III



### Top 5 Diseases/Conditions

	Cole	Miller	Moniteau	Osage	Missouri
1	COPD	Heart Disease	COPD	Heart Disease	Diabetes
2	Heart Disease	COPD	Heart Disease	Motor Vehicle Accidents	Alcohol/Substance Abuse
3	Motor Veh Accidents	Motor Veh Accidents	Motor Vehicle Accidents	COPD	Heart Disease
4	Diabetes	Alcohol/Substance Abuse	Diabetes	Diabetes	Arthritis/ Lupus
5	Infant Health Problems	Lung Cancer	Lung Cancer	PN/ Influenza	COPD

MICA Priority 2007

Complete List of Disease or Conditions			
Abuse and Neglect	Burns (Scalds/Hot Objects)	Gonorrhea	Prostate Cancer
Affective Disorders	Campylobacter	Heart Disease	Salmonella
Alcohol- and Substance-Related	Cervical Cancer	Hepatitis A	Schizophrenia and Psychosis
Alzheimer's/Dementia/Senility	Childhood-Related Mental Disorders	HIV/AIDS	Sickle Cell Anemia
Anemia (excluding Sickle Cell)	Chlamydia	Infant Health Problems	Stroke/Other Cerebrovascular Diseases
Anxiety-Related Mental Disorders	COPD	Lung Cancer	Suicide and Self-Inflicted Injury
Arthritis/Lupus	Colorectal Cancer	Medical/Surgical Complications	Syphilis
Assaults/Homicides	Dental Health Problems	Motor Vehicle Accidents	Tuberculosis
Asthma	Diabetes	Pneumonia and Influenza	Vaccine-Preventable Diseases
Breast Cancer	Elevated Lead	Poisoning	
Burns (Fire and Flames)	Falls	Pregnancy Complications	

### Top 5 Causes for IP Hospitalizations

	Cole	Miller	Moniteau	Osage	Missouri
1	Heart & Circulation	Heart & Circulation	Heart & Circulation	Heart & Circulation	Heart & Circulation
2	Pregnancy	Digestive System	Pregnancy	Digestive System	Pregnancy
3	Digestive System	Respiratory	Digestive System	Injury & Poisoning	Respiratory
4	Respiratory	Pregnancy	Respiratory	Respiratory	Digestive System
5	Injury/Poisoning	Injury/Poisoning	Injury/Poisoning	Pregnancy	Mental Disorders

2009 MICA IP Hospitalizations

### Top 5 Causes for Preventable Hospitalizations

	Cole	Miller	Moniteau	Osage	Missouri
1	Dehydration	Dehydration	Dehydration	Dehydration	Dehydration
2	Bacterial PN	COPD	Bacterial PN	Bacterial PN	Bacterial PN
3	Congestive Heart Failure	Bacterial PN	Cellulitis	Cellulitis	Cellulitis
4	Cellulitis	Congestive Heart Failure	COPD	COPD	COPD
5	COPD	Cellulitis	Kidney/Urinary Infection	Diabetes	Asthma

2009 MICA Preventable Hospitalizations

### Top 5 Causes for Death

	Cole	Miller	Moniteau	Osage	Missouri
1	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease
2	Cancer	Cancer	Cancer	Cancer	Cancer
3	Chronic lower Resp Disease	Stroke	Chronic Lower Resp Disease	Stroke	Chronic Lower Resp Disease
4	Alzheimer's Disease	Chronic lower Resp Disease	Stroke	Suicide	Stroke
5	Stroke	Pneumonia / Influenza	Motor Vehicle Accidents	Alzheimer's Disease	All other accidents/adverse

2009 MICA Deaths



## Top 5 Chronic Disease (IP Hospitalizations)

	Cole	Miller	Moniteau	Osage	Missouri
1	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease
2	Cancer	COPD	Cancer	Cancer	Cancer
3	Arthritis	Cancer	COPD	Stroke	Arthritis
4	Stroke	Stroke	Arthritis	Arthritis/Other Joint	Stroke
5	COPD	Arthritis	Stroke	COPD	COPD

2009 MICA Chronic Disease IP Hospitalization by DX

## Top 5 Chronic Disease (Utilizing ER)

	Cole	Miller	Moniteau	Osage	Missouri
1	Heart Disease	Heart Disease	Heart Disease	Heart Disease	Heart Disease
2	Arthritis	COPD	COPD	Arthritis	Arthritis
3	Asthma	Arthritis	Arthritis	COPD	COPD
4	COPD	Asthma	Epilepsy	Epilepsy	Asthma
5	Epilepsy	Epilepsy	Asthma	Alcohol/Substance	Alcohol/Substance

2009 MICA Chronic Disease - utilizing ER

### Top 5 Diagnosis utilizing ER (HIDI 2011)

1. Abdominal pain unspecified site
2. Unspecified otitis media
3. Acute upper respiratory infections
4. Headache
5. Urinary tract infection site not specified

## Top 5 Chronic Disease (Resulting in Death)

	Cole	Miller	Moniteau	Osage	Missouri
1	Heart Disease	Heart Disease	Cancer	Heart Disease	Heart Disease
2	Cancer	Cancer	Heart Disease	Cancer	Cancer
3	COPD	COPD	COPD	Stroke	COPD
4	Alzheimer's Disease	Diabetes	Stroke	Alzheimer's Disease	Stroke
5	Stroke	Chronic Liver Disease/Cirrhosis	Essential Hypertension	Chronic Liver Disease/Cirrhosis	Alzheimer's Disease

2009 MICA Chronic Disease - Deaths

## Cancer Incidence by site

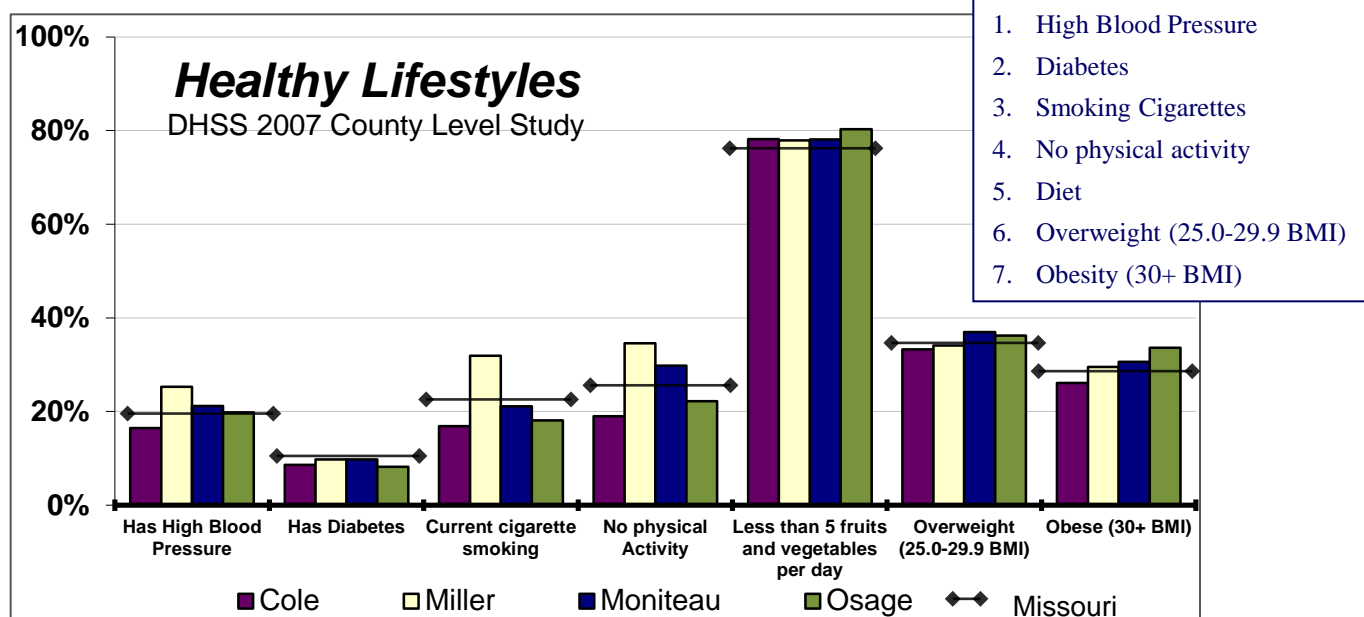
### Cancer Registry Incidence 2006-2008

All Stages by Site and # of incidence	Cole	Miller	Moniteau	Osage	Missouri
Breast	807	209	117	122	58,861
Cervix	24	12	8	2	3,238
Colon, rectum and rectosigmoid	469	200	107	92	42,901
Lung and bronchus	596	302	96	92	58,520
Prostate	547	154	81	102	44,709
Urinary bladder	181	71	37	32	14,825
Corpus and Uterus NOS	124	34	18	16	9,935
<b>Total for Selection</b>	<b>2,748</b>	<b>982</b>	<b>464</b>	<b>458</b>	<b>232,989</b>

2006-2008 MICA Cancer Registry

## Prevalence of Health Problems

Based on Death Rates and Disease Prevalence, Heart Disease is the ranked first for all counties. The top risk factors for CV are:



Source: 2007 DHSS Missouri County level Study on prevalence of Behavioral Risk Factors

## Least Healthy Populations by zip code

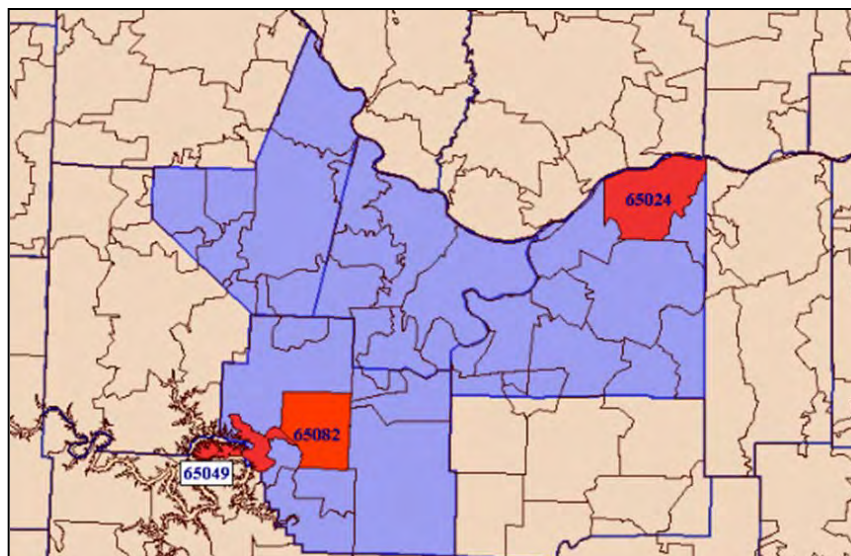
Thomson Reuters/Claritas Health Status Profiler application uses PULSE surveys to measure behavior, attitudes and health status. The Health Status profiler allows users to define Potential Least Healthy Sites based on the following categories: Self Perceived, Diet/Nutrition, Disease and Behavior.

The U.S. Health Status Mean Score was 57.5 (a rating of Good), while Missouri's score was 53.0 (Good). Overall, the four counties in the region had a Health Status Score of 53.8 (a rating of Good).

The red zip codes shown in the map below represent the least healthy population by zip code. All of these zips have a health status score of Poor.

U.S. Health Status Ranges	
1-Excellent	77-100
2-Very Good	65-76
3-Good	52-64
4-Fair	38-51
5-Poor	0-37

Zip	City	Health Status Score
65024	Chamois	34.4
65049	Lake Ozark	29.9
65082	Tuscumbia	26.4



Source: 2011 Thomson Reuters/ Claritas Health Status Profiler

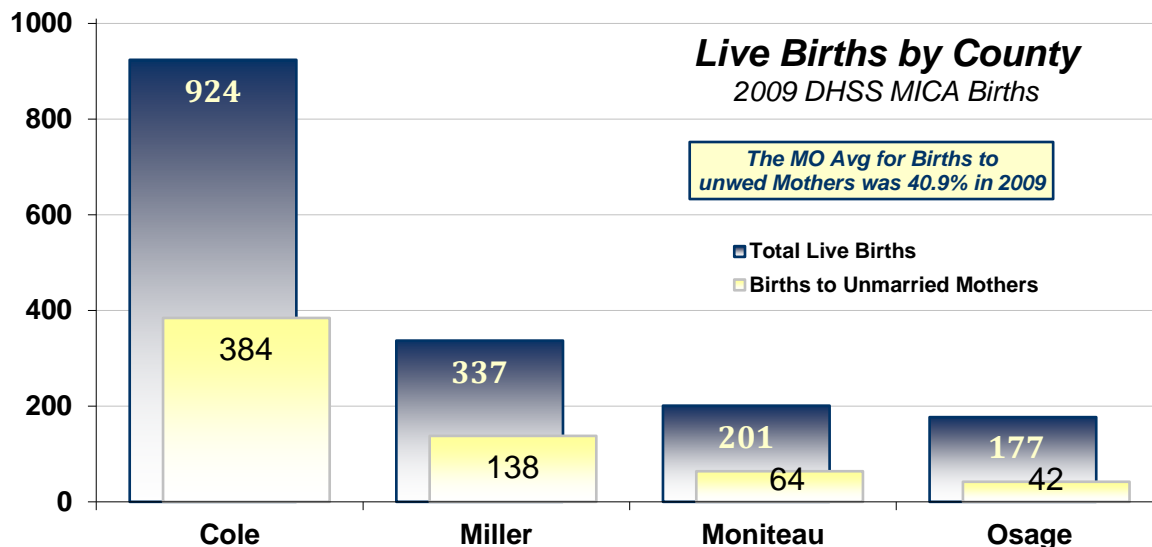


# Maternal and Child Health



## Births

Missouri statistics show 40.9% of births in 2009 were to unwed mothers. Cole County was above the Missouri rate with 41.6% of births to unwed mothers.

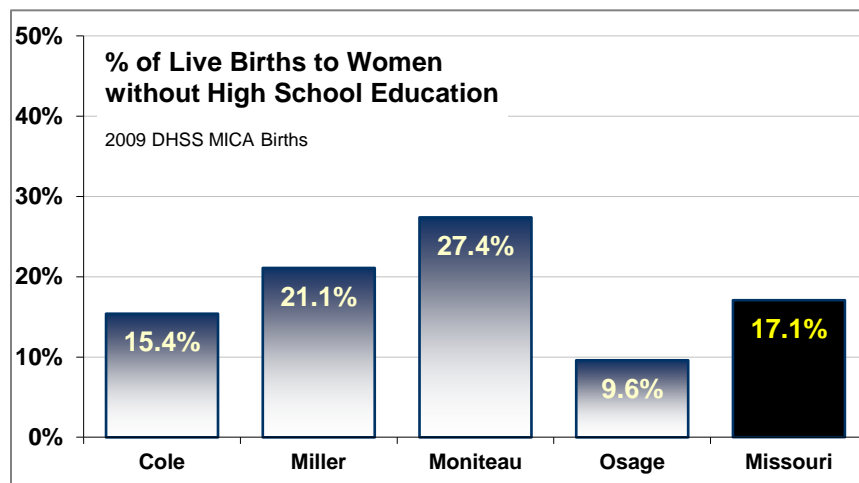


Research shows that children born to unmarried mothers are more likely to grow up in a single-parent household, experience instability in living arrangements, live in poverty, and have socio-emotional problems. As these children reach adolescence, they are more likely to have low educational attainment, engage in sex at younger ages, and have a premarital birth. As young adults, children born outside of marriage are more likely to be idle (neither in school nor employed), have lower occupational status and income, and have more troubled marriages and divorces than those born to married parents.

Women who give birth outside of marriage tend to be more disadvantaged than their married counterparts. Unmarried mothers generally have lower incomes, lower education levels, and greater dependence on welfare assistance than do married mothers. Women who give birth outside of marriage also tend to fare worse than single women; for example, they have reduced marriage prospects compared to single women without children.

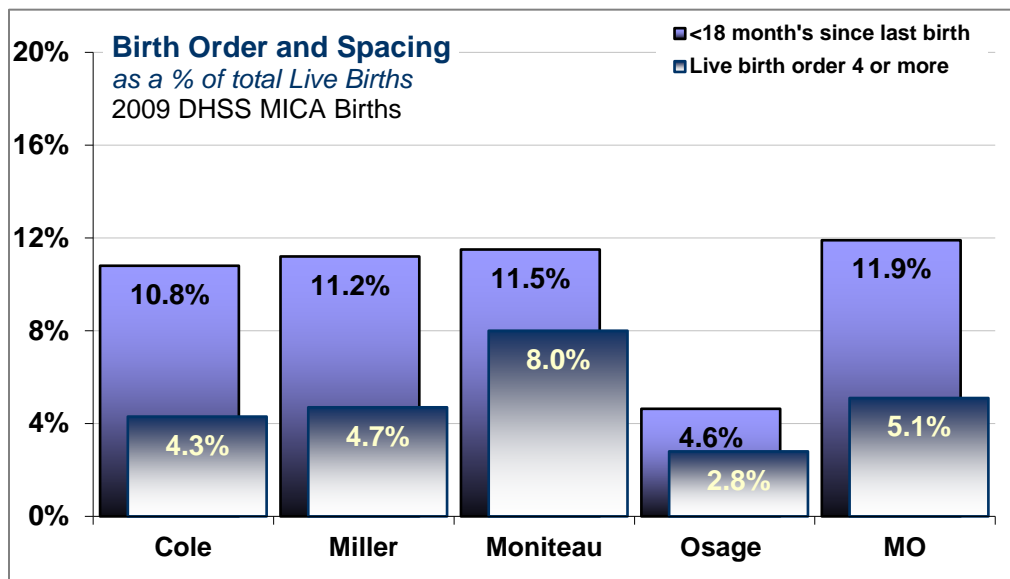
Source: <http://www.childtrendsdatbank.org/?q=node/196>

## Births to Women without High School Education



Based on 2009 data from DHSS, 17.1% of Missouri's birth were to women without a high school education. Miller and Moniteau Counties exceed Missouri's rate.

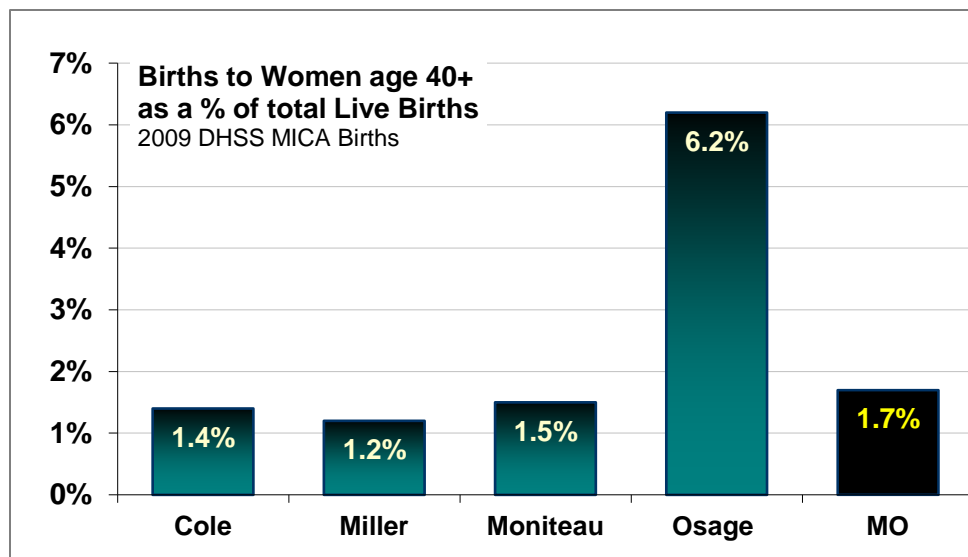
## Births Order and Spacing



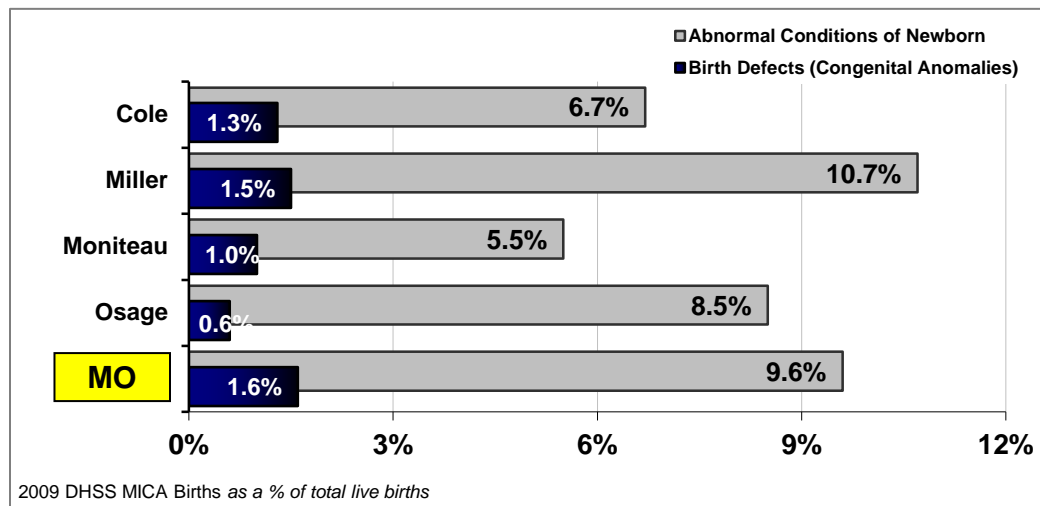
Moniteau County's "live birth order of 4 or more" of 8.0% exceeds Missouri rate of 5.1%

## Births to Women age 40+

Missouri's birth rate to women over age 40 was 1.7% in 2009. Osage County, with 6.2%, is the only one to exceed Missouri rate.



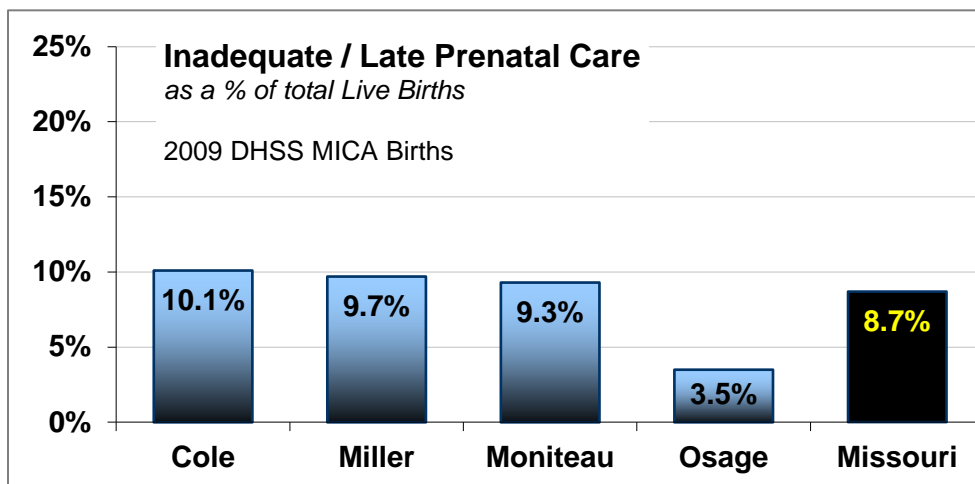
## Births Defects and Abnormalities at Birth



Miller County has the highest percent of Births with Congenital Anomalies/Conditions and exceeds Missouri's rates.

## Births Inadequate or Late Prenatal Care

Of the mothers who gave birth in 2009, 8.7% of the statewide total lacked adequate prenatal care based on the Kotelchuck Index. Cole, Miller and Moniteau Counties exceed the Missouri rate.



## Births Weight Prior to Pregnancy and Weight Gain During Pregnancy

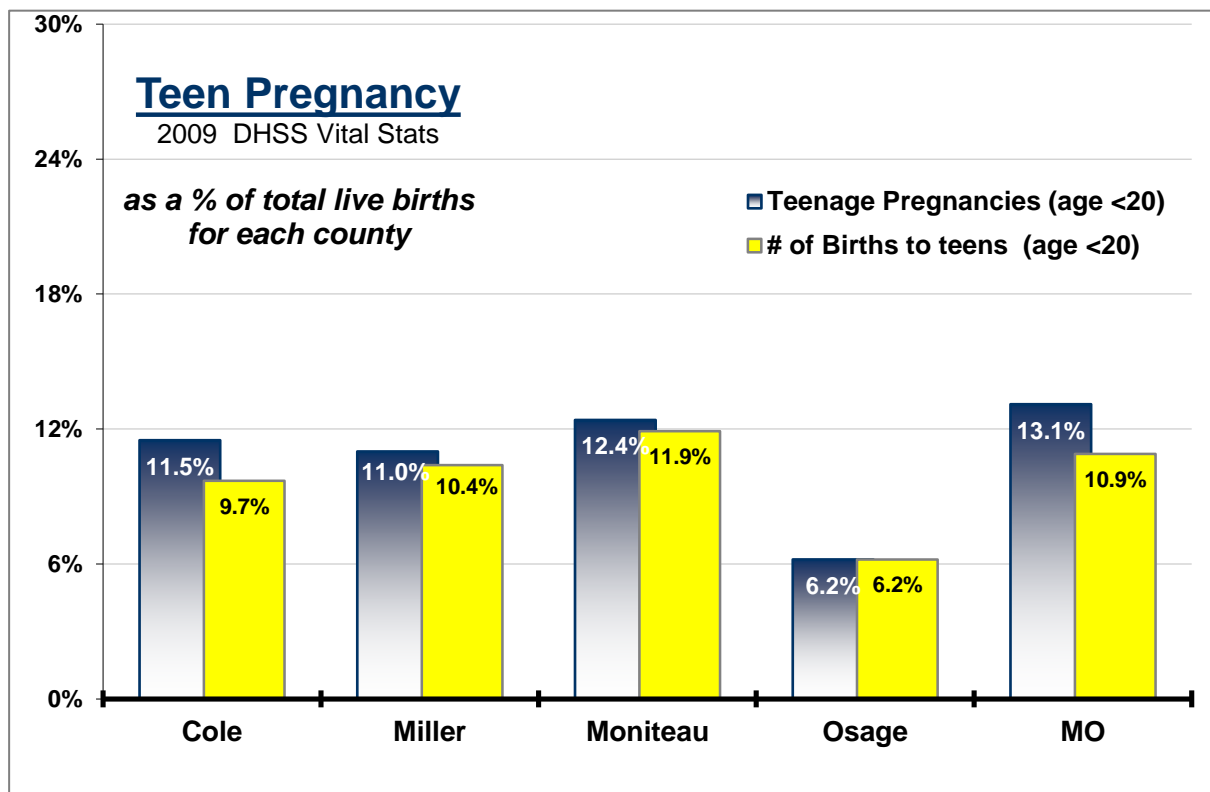
2009	Weight Prior to Pregnancy			Weight Change	
	Underweight more than 15%	BMI between 25.0-29.9	BMI 30+ (Obese)	Gained <15 pounds	gained >44 pounds
Cole	5.1%	23.5%	24.4%	9.8%	19.4%
Miller	3.9%	29.1%	30.0%	11.4%	20.0%
Moniteau	6.3%	24.6%	24.1%	8.4%	15.6%
Osage	2.3%	23.8%	23.3%	9.6%	19.9%
Missouri	5.1%	23.9%	23.9%	9.0%	19.0%

Miller County has the highest percent of women who were obese prior to pregnancy, 30%, which is higher than Missouri's rate of 23.9%.

2009 DHSS MICA Birth

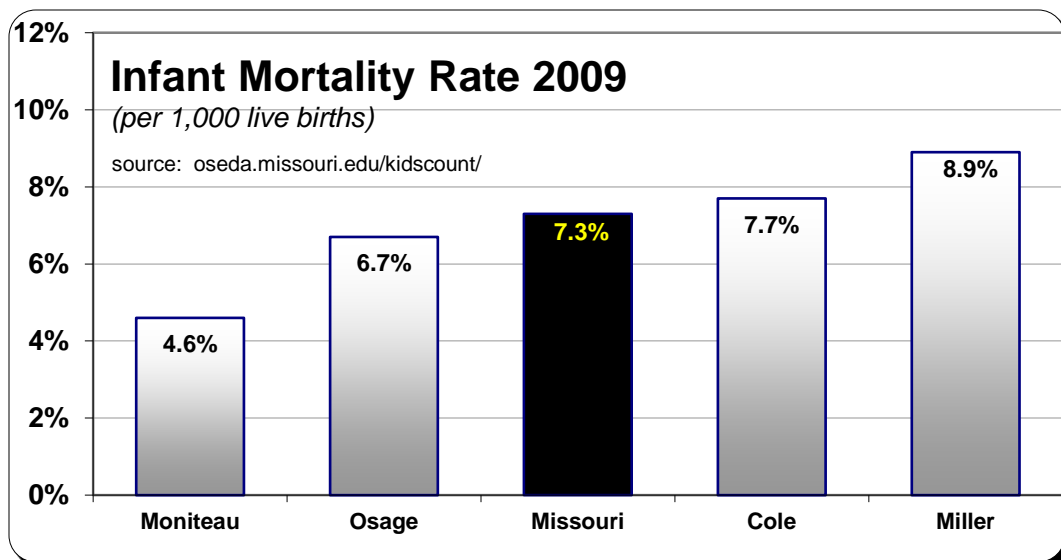
## Teen Pregnancy

Missouri's 2009 percentage of live births to teenagers was 13.1%. All of the four counties are below Missouri's pregnancy rate. However, Moniteau County exceed the state rate for Births to teenagers.



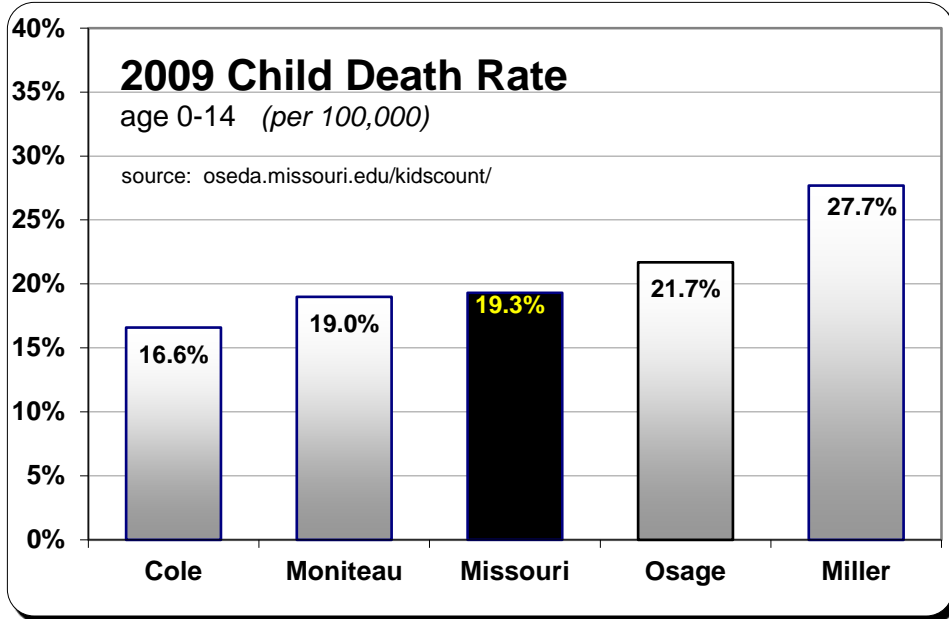
## Infant Mortality Rate

Cole and Miller Counties Infant Mortality Rates of 7.7% and 8.9% respectively exceed Missouri's 7.3%.





## Child Death Rate *age 0-14*



Two of the four counties in this region have a Child Death Rate higher than Missouri's, Osage and Miller County.



# Sources

All sources in black text are from the County Health Rankings (CHR) website. Additional source notes are documented to show where CHR obtained their information.

Sources noted in blue text are additional source data from state or local databases that pertain to the specific topics.

			County Health Rankings	Additional Source Site	Year
<b>Health Outcomes</b>			2012 CHR		
<b>Mortality (50%)</b>			2012 CHR		2012
Length of Life	50%	Premature death rate (YPLL Yrs of Potential Life Lost before age 75 per 100,000 population)	2012 CHR	Vital Stats; National Center for Health Statistics	2006-2008
<b>Morbidity (50%)</b>			2012 CHR		2012
Quality of Life	10%	Poor or fair health	2012 CHR	National BRFSS	2004-2010
	10%	Poor physical health days (avg # in past 30 days)	2012 CHR	National BRFSS	2004-2010
	10%	Poor mental health days (avg # in past 30 days)	2012 CHR	National BRFSS	2004-2010
	20%	Low birthweight (% of live births <2,500 grams)	2012 CHR	Vital Stats; National Center for Health Statistics	2002-2008

<b>Health Factors</b>			2012 CHR		
<b>Healthy Behaviors (30%)</b>			2012 CHR		
Tobacco Use	10%	<b>Rank</b>	2012 CHR		
	10%	Adult smoking (% smoking >100 cigs in lifetime & currently smoking)	2012 CHR	National BRFSS	2004-2010
		Current cigarette smoker		MO DHSS County Level Study	2007
		Former cigarette smoker		MO DHSS County Level Study	2007
		Current smokeless tobacco use		MO DHSS County Level Study	2007
		Current use of other tobacco products		MO DHSS County Level Study	2007
		Tobacco Use During Pregnancy		Birth MICA	2009
Diet & Exercise	10%	<b>Rank</b>	2012 CHR		
	7.5%	Adult obesity (Percent of adults that report a BMI >= 30)	2012 CHR	Nat'l Ctr for Chronic Disease Prev & Health Promotion (w/BRFSS)	2009
	3%	Physical inactivity (% of aged 20+ reporting no leisure time phys.)	2012 CHR	Nat'l Ctr for Chronic Disease Prev & Health Promotion (w/BRFSS)	2009
		Overweight (BMI 25.0 - 29.9)		MO DHSS County Level Study	2007
		Obese (BMI 30.0+)		MO DHSS County Level Study	2007
		Less than 5 fruits and vegetables per day		MO DHSS County Level Study	2007
Alcohol Use	5%	<b>Rank</b>	2012 CHR		
	2.5%	Excessive drinking (Binge plus Heavy Drinking)	2012 CHR	National BRFSS	2004-2010
	2.5%	Motor vehicle crash death rate (per 100,000 population)	2012 CHR	Vital Stats: National Center for Health Statistics	2002-2008
		Alcohol Use During Pregnancy		MO DHSS Vital Stats - Table 10B	2009
Sexual Activity	5%	<b>Rank</b>	2012 CHR		
	2.5%	Sexually transmitted infections (chlamydia rate per 100,000 population)	2012 CHR	CDC; National Ctr for Hepatitis, HIV, STD, & TB prevention	2009
	2.5%	Teen Birth Rate (teen birth rate per 1,000 female population,	2012 CHR	Vital Stats; National Center for Health Statistics	2002-2008
		HIV Prevalence Rate (per 100,000 population)	2012 CHR	CDC; National Ctr for Hepatitis, HIV, STD, & TB prevention	2008
		High Risk STDs - # of Chlamydia incidence		MO DHSS HIV/STD/Aids Surveillance	2011
		High Risk STDs - # of Gonorrhea incidence		MO DHSS HIV/STD/Aids Surveillance	2011
		Teenage Pregnancy <20 yrs of age (as a % of all live births)		MO DHSS Vital Stats - Table 11	2009



		County Health Rankings	Additional Source Site	Year
Other Health Behaviors		Never had Mammogram (age 40+)	MO DHHS County Level Study	2007
		No Mammogram in last yr (age 40+)	MO DHHS County Level Study	2007
		Never had Pap Smear (age 18+)	MO DHHS County Level Study	2007
		No Pap Smear in last 3 yrs (age 18+)	MO DHHS County Level Study	2007
		Never had blood stool test (age 50+)	MO DHHS County Level Study	2007
		Never had a sigmoid or colonoscopy (age 50+)	MO DHHS County Level Study	2007
		Never had blood cholesterol checked (age 35+)	MO DHHS County Level Study	2007
		No blood stool test last year (age 50+)	MO DHHS County Level Study	2007
		No sigmoid or colonoscopy in last 10 yrs (age 50+)	MO DHHS County Level Study	2007
		Seat Belt Usage (as a % of drivers involved in crashes)	Mo State Hwy Patrol - Traffic Safety Compendium	2010
		Seat Belt Usage Rank	Mo State Hwy Patrol - Traffic Safety Compendium	2010
	PRIZM Clusters SEE FILES	Thomson Reuters / Claritas	2011-2012	

Clinical Care (20%)		2012 CHR		
Access to Care	10%	Rank	2012 CHR	
	5%	Uninsured	2012 CHR	Census/Am. Community Survey -- Small Area 2009
	5%	Primary care physicians Ratio	2012 CHR	Health Resources & Services Administration's 2009
		Mental Health Provider Ratio	2012 CHR	Health Resources and Services Administration 2007
		Health Care Cost	2012 CHR	Health Resources and Services Administration 2007
		Couldn't see Dr. due to \$	2012 CHR	National BRFSS 2004-2010
		Consumer Image Study - Perception there is		PRC Consumer Image Study 2009
		% of Children Medicaid Participant		MO DHSS MICA 2011
		% of Adults Medicaid Participant		MO DHSS MICA 2011
		Health Professional Shortage Area - Primary		<a href="http://hpsafind.hrsa.gov/HPSASearch.aspx">http://hpsafind.hrsa.gov/HPSASearch.aspx</a>
		Health Professional Shortage Area - Dental		<a href="http://hpsafind.hrsa.gov/HPSASearch.aspx">http://hpsafind.hrsa.gov/HPSASearch.aspx</a>
	Health Professional Shortage Area - Mental		<a href="http://hpsafind.hrsa.gov/HPSASearch.aspx">http://hpsafind.hrsa.gov/HPSASearch.aspx</a>	
Quality of Care	10%	Rank	2012 CHR	
	3.3%	Preventable hospital stays	2012 CHR	Medicare Claims / Dartmouth Atlas Institute 2009
	3.3%	Diabetic screening	2012 CHR	Medicare Claims / Dartmouth Atlas Institute 2009
	3.3%	Mammography screening	2012 CHR	Medicare Claims / Dartmouth Atlas Institute 2009
		% Diabetic	2012 CHR	CDC, Small Area Diabetes 2009

Social & Economic Factors (40%)		2012 CHR		2012
Education	10%	Rank	2012 CHR	
	5%	High school graduation	2012 CHR	State Specific Sources 2008-2010
	5%	Some college (% aged 25-44 years w/ some post-secondary)	2012 CHR	American Community Survey 2006-2010
		Children with limited English proficiency		Missouri Kids Count 2009
		DESE High School Graduation Rate		MO DESE 2011
		Literacy Rate		NCES - National Assessment of Adult Literacy 2003
Employment	10%	Rank	2012 CHR	
	5%	Unemployment Rate	2012 CHR	Bureau of Labor Statistics 2010
		Labor Force		Mo Dept of Econ Dev (MERIC) 2011
		Employed		Mo Dept of Econ Dev (MERIC) 2011
		Unemployed		Mo Dept of Econ Dev (MERIC) 2011
		Unemployment Rate		Mo Dept of Econ Dev (MERIC) 2011
		% of Labor Force Commuting to work (age 16+)		Univ of MO Extension - OSEDA 2000





		County Health Rankings	Additional Source Site	Year
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		No Mammogram in last yr (age 40+)	MO DHHS County Level Study	2007
		Never had Pap Smear (age 18+)	MO DHHS County Level Study	2007
		No Pap Smear in last 3 yrs (age 18+)	MO DHHS County Level Study	2007
		Never had blood stool test (age 50+)	MO DHHS County Level Study	2007
		Never had a sigmoid or colonoscopy (age 50+)	MO DHHS County Level Study	2007
		Never had blood cholesterol checked (age 35+)	MO DHHS County Level Study	2007
		No blood stool test last year (age 50+)	MO DHHS County Level Study	2007
		No sigmoid or colonoscopy in last 10 yrs (age	MO DHHS County Level Study	2007
		Seat Belt Usage (as a % of drivers involved in	Mo State Hwy Patrol - Traffic Safety Compendium	2010
		Seat Belt Usage Rank	Mo State Hwy Patrol - Traffic Safety Compendium	2010
	PRIZM Clusters SEE FILES	Thomson Reuters / Claritas	2011-2012	

Clinical Care (20%)			2012 CHR		
Access to Care	10%	<b>Rank</b>	2012 CHR		
	5%	Uninsured	2012 CHR	Census/Am. Community Survey -- Small Area	2009
	5%	Primary care physicians Ratio	2012 CHR	Health Resources & Services Administration's	2009
		Mental Health Provider Ratio	2012 CHR	Health Resources and Services Administration	2007
		Health Care Cost	2012 CHR	Health Resources and Services Administration	2007
Income	10%	<b>Rank</b>	2012 CHR		
	10%	Children in poverty	2012 CHR	Census / CPS -- Small Area Income and Poverty	2010
		Students Enrolled in Free/Reduced Lunch		Missouri Kids Count	2009
		Per Capita Income		American Community Survey	2006-2010
		Average Wages		Mo Dept of Econ Dev (MERIC)	2010
		Poverty Levels - population		American Community Survey	2006-2010
		% with Food Stamp/SNAP Benefits		American Community Survey	2006-2010
	Average Household income (mean)		American Community Survey	2006-2010	
Family & Social Support	5%	<b>Rank</b>	2012 CHR		
	2.5%	Inadequate social support	2012 CHR	National BRFSS	2004-2010
	2.5%	Children in single-parent households	2012 CHR	American Community Survey	2006-2010
		Marriage (per 1,000 population)		DHSS Vital Statistics - Table 35A	2009
		Divorces (per 1,000 population)		DHSS Vital Statistics - Table 43A	2009
		Domestic Violence Incidents		MO State Hwy Patrol - Uniformed Crime Report	2011
		Child Abuse / Neglect (per 1,000)		Missouri Kids Count	2009
		Child Out-of-Home Placement (per 1,000)		Missouri Kids Count	2009
Community Safety	5%	<b>Rank</b>	2012 CHR		
	5%	Violent crime rate	2012 CHR	Uniform Crime Reporting -- Federal Bureau of	2007-2009
		Crime Rate (as a % of Total Population)		MO State Hwy Patrol - Uniformed Crime Report	2011
		Violent Crimes			
		Property Crimes			
		Criminal Homicide			
		Total Crime Offenses			
		Violent Crimes (% of total crimes)			
		Crime Rate Juvenile (% of 00-17 population)		MO Dept of Mental Health - County Links	2011
		Total Juvenile Offenses			
		Violent Juvenile Offenses			
		Alcohol Juvenile Offenses			
		Drug Juvenile Offenses			
	Violent Juvenile Crime (% of tot. juvenile crimes)				



		County Health Rankings	Additional Source Site	Year
	Meth Labs		MO State Highway Patrol - Meth Files	2011
	Firearm assaults - Death		MO DHSS Assault Injury Profile	1999-2009
	Firearm assaults - Hospitalization		MO DHSS Assault Injury Profile	1999-2009
	Firearm assaults - ER Visits		MO DHSS Assault Injury Profile	1999-2009
	Traffic Accidents		Mo State Hwy Patrol - Traffic Safety Compendium Table 4.0.1	2010
	Fatal			
	Injury			
	Traffic Accidents - Speed Involved			
	Fatal			
	Injury			
	Traffic Accidents - Drinking Involved			
	Fatal			
	Injury			
	DWI/DUI Arrest			

Physical Environment (10%)		2012 CHR		
Environment Quality	<b>4%</b> <b>Rank</b>	2012 CHR		
	2% Air pollution-particulate matter days (avg # of unhealthy air quality days)	2012 CHR	CDC -- Environmental Protection Agency (EPA) Collaboration	2007
	2% Air pollution-ozone days (avg # of unhealthy air quality days due to ozone)	2012 CHR	CDC -- Environmental Protection Agency (EPA) Collaboration	2007
Built Environment	<b>6%</b> <b>Rank</b>	2012 CHR		
	2% Access to recreational facilities (# of facilities per 100,000 population)	2012 CHR	Census County Business Patterns	2009
	2% Limited access to healthy foods (% living in poverty & >10 miles from grocery store)	2012 CHR	U.S. Department of Agriculture	2006
	2% Fast food restaurants (% of all restaurants that are fast food)	2012 CHR	Census County Business Patterns	2009

Women & Children Health Status				
	Live Births		Birth MICA	2009
	Births to Unwed Mothers		Birth MICA	2009
	Teenage Pregnancy <20 yrs of age (% of all live births)		MO DHHS Vital Stats - Table 11	2009
	Births to Teenagers <20 yrs of age (% of all live births)		Birth MICA	2009
	Births to Women with <12 Years of Education		Birth MICA	2009
	4 or More Live Births		Birth MICA	2009
	Birth Spacing < 18 Months		Birth MICA	2009
	Live Births to Women Age 40+ (% of all live births)		Birth MICA	2009
	Congenital Anomalies (% of all live births)		MO DHHS Vital Stats - Table 10B	2009
	Abnormalities at Birth (% of all live births)		Birth MICA	2009
	Inadequate Prenatal Care: Kotelchuck Index		Birth MICA	2009
	Underweight more than 15%		Birth MICA	2009
	BMI between 25.0-29.9		Birth MICA	2009
	BMI 30+ (Obese)		Birth MICA	2009
	Gained <15 pounds		Birth MICA	2009
	Gained >44 pounds		Birth MICA	2009
	# of Children Participating in WIC		WIC Child MICA	2008
	Infant Mortality Rate (per 1,000 live births)		MO Kids Count	2009
	Child Death Rate age 1-14 (per 100,000)		MO Kids Count	2009



	County Health Rankings	Additional Source Site	Year
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Firearm assaults - Hospitalization		MO DHSS Assault Injury Profile	1999-2009
Firearm assaults - ER Visits		MO DHSS Assault Injury Profile	1999-2009
Traffic Accidents		Mo State Hwy Patrol - Traffic Safety Compendium Table 4.0.1	2010
<i>Fatal</i>			
<i>Injury</i>			
Traffic Accidents - Speed Involved			
<i>Fatal</i>			
<i>Injury</i>			
<b>Health Status in Community</b>			
<b>Disease Prevalence</b>			
Top 5 <u>Risk</u> Factors			
1		Priorities MICA	2007
2		Priorities MICA	2007
3		Priorities MICA	2007
4		Priorities MICA	2007
5		Priorities MICA	2007
Top 5 <u>Diseases/Conditions</u>			
1		Priorities MICA	2007
2		Priorities MICA	2007
3		Priorities MICA	2007
4		Priorities MICA	2007
5		Priorities MICA	2007
Top 5 <u>Causes</u> for IP Hospitalization based			
1		MICA IP Hospitalizations	2009
2		MICA IP Hospitalizations	2009
3		MICA IP Hospitalizations	2009
4		MICA IP Hospitalizations	2009
5		MICA IP Hospitalizations	2009
Top 5 <u>Preventable</u> Hospitalizations			
1		MICA Preventable Hospitalizations	2009
2		MICA Preventable Hospitalizations	2009
3		MICA Preventable Hospitalizations	2009
4		MICA Preventable Hospitalizations	2009
5		MICA Preventable Hospitalizations	2009
Top 5 <u>Causes</u> for Death			
1		MICA Deaths	2009
2		MICA Deaths	2009
3		MICA Deaths	2009
4		MICA Deaths	2009
5		MICA Deaths	2009



	County Health Rankings	Additional Source Site	Year
Top 5 <a href="#">Chronic Diseases</a> IP Hospitalizations			
1		MICA Chronic Diseases IP Hospitalizations	2009
2		MICA Chronic Diseases IP Hospitalizations	2009
3		MICA Chronic Diseases IP Hospitalizations	2009
4		MICA Chronic Diseases IP Hospitalizations	2009
5		MICA Chronic Diseases IP Hospitalizations	2009
Top 5 <a href="#">Chronic Diseases</a> Utilizing ER			
1		MICA Chronic Diseases - Utilizing ER	2009
2		MICA Chronic Diseases - Utilizing ER	2009
3		MICA Chronic Diseases - Utilizing ER	2009
4		MICA Chronic Diseases - Utilizing ER	2009
5		MICA Chronic Diseases - Utilizing ER	2009
Top 5 <a href="#">Chronic Diseases</a> Deaths			
1		MICA Chronic Diseases - Deaths	2009
2		MICA Chronic Diseases - Deaths	2009
3		MICA Chronic Diseases - Deaths	2009
4		MICA Chronic Diseases - Deaths	2009
5		MICA Chronic Diseases - Deaths	2009
Top 5 <a href="#">Cancer Sites</a> (all stages)			
1		Cancer MICA	2006-2008
2		Cancer MICA	2006-2009
3		Cancer MICA	2006-2010
4		Cancer MICA	2006-2011
5		Cancer MICA	2006-2012
Prevalence of <a href="#">Health Problems</a>			
Has High Blood Pressure		DHSS County level Study on prevalence BRFSS	2007
Has Diabetes		DHSS County level Study on prevalence BRFSS	2007
Current cigarette smoking		DHSS County level Study on prevalence BRFSS	2007
No physical Activity		DHSS County level Study on prevalence BRFSS	2007
Less than 5 fruits and vegetables per day		DHSS County level Study on prevalence BRFSS	2007
Overweight (25.0-29.9 BMI)		DHSS County level Study on prevalence BRFSS	2007
Obese (30+ BMI)		DHSS County level Study on prevalence BRFSS	2007
Least Healthy Population		Thomson Reuters - Health Status Profiler	2011

Demographics			
Population (2010)		U.S. Census	2010
Projected Population (2015)		Thomson Reuters/Claritas	2011
Median Age		U.S. Census	2010
Pediatrics (0-17)		U.S. Census	2010
Females Childbearing Age (15-44)		U.S. Census	2010
Seniors (65+)		U.S. Census	2010
Households		U.S. Census	2010
Ethnicity			
White		U.S. Census	2010
Black		U.S. Census	2010
American Indian/Alaska Native		U.S. Census	2010
Asian		U.S. Census	2010
Hawaiian/Other Pacific Islander		U.S. Census	2010
Other		U.S. Census	2010
2 or more races		U.S. Census	2010



**Central Missouri Community  
Health Assessment Partnership**