

# Community Health Profile Analysis Tool

## Section I: Review of Health Status Indicators

### Community Health Indicators

#### General Statistics

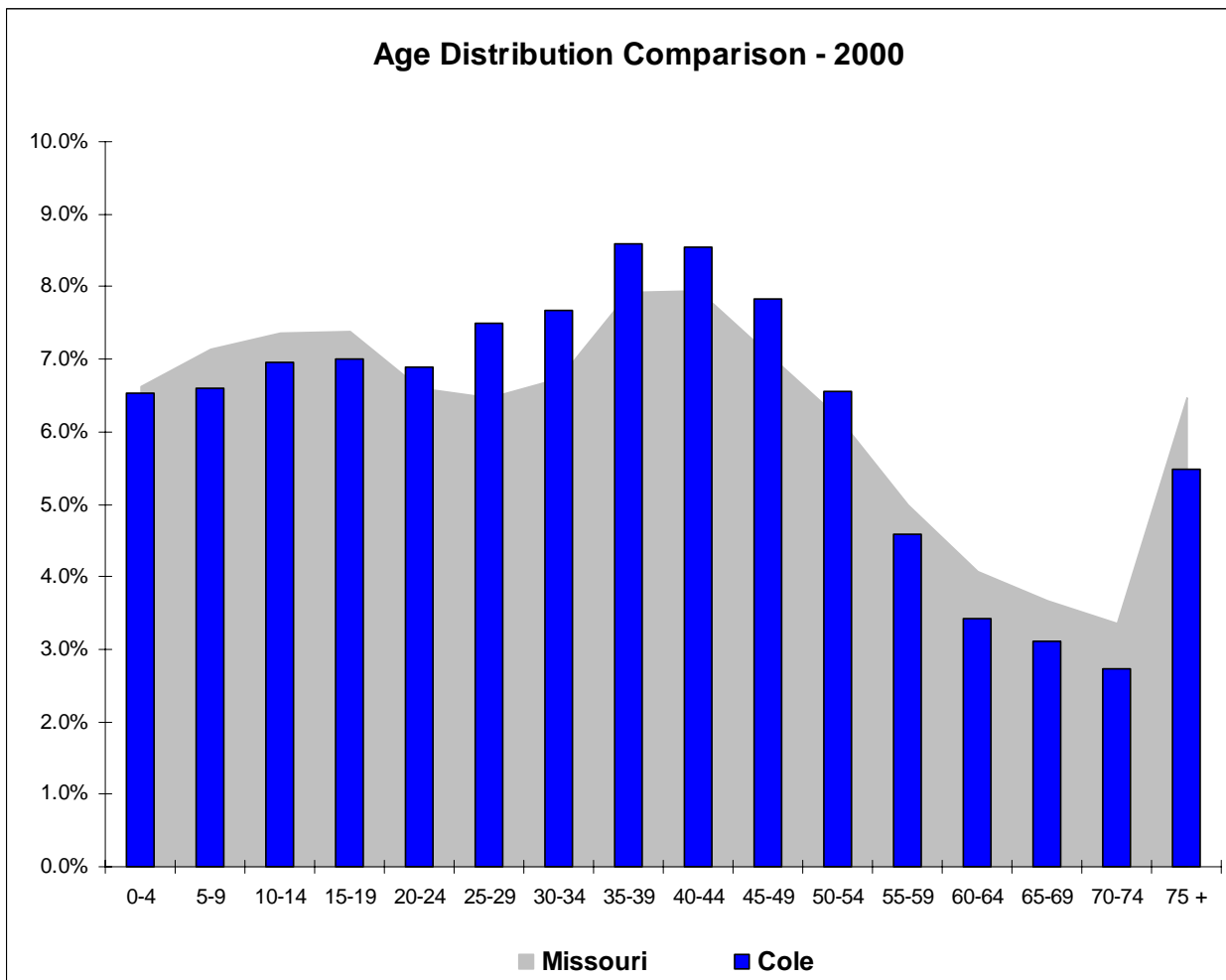
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#### Sections 1,2,3. Demographic/Education/Socioeconomic Indicators

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*Understanding a population's age distribution, race and ethnic composition, and income characteristics is essential to identifying health needs and planning health programs. The demographic and socioeconomic indicators represent important population characteristics that can have related health attributes.*

- **Age Analysis:** Compare the county and state percentage of age distribution and describe how the county age distribution is different from the state. (Note especially the females 15-44 and 65 and over age groups as well as the 0-5 age group).



As evidenced in the graph, the age distribution in Cole County varies from the Missouri age distribution in nearly all age ranges. Of particular interest are the higher percentages of individuals in the 25 to 55 year age ranges. This is atypical for most counties considered rural, however given the nature of Jefferson City as the seat of state government, it is normal to see higher numbers of people in these ranges. Additionally, and very important to note, Cole County is the location of 3 correctional facilities, all housing male inmates. This fact alone contributes significantly to the higher numbers of individuals in the 25-55 age ranges. And, finally, Cole County has fewer people over the age of 55, as these individuals often choose to retire elsewhere. Additionally, Cole County is becoming less and less of an agricultural county, again contributing to the fewer numbers of persons over the age of 55.

The most significant growth between 1990 and 2000 occurred in the following age groups: 45-54 year olds - increase of 67.4%; 55-59 year old - increase of 29%. The median age of Cole county residents in 2000 was 35.5, compared to the median age of all Missourians of 36.1.

Gender distribution for 2000 was: Female - 48.6%; Male - 51.4%. It is important to note that the institutionalized population (primarily prisoners) is included in the census figures. This significantly inflates the number of males in the county. Census figures reflect that 4,962 males and 782 females are included under group populations. Of these, 4512 males and 9 females are living in correctional facilities.

The population increased from 63,579 in 1990 to 71,397 in 2000, a 12.3% increase. Wardsville experienced the largest population increase (90.3%), and Centertown experienced the most significant decrease (-27.8%). Unincorporated areas of the county, which account for 38.4% of the population, grew by 11% between 1990 and 2000.

**Population Density.** Persons per square mile: 178.9; In Missouri: 81.2.

→ **Race/Ethnicity Analysis: Compare the county and state distribution and describe how county distribution is different from the state. Special consideration should be given to migrant, immigrant, or refugee population groups and any special needs or health risks within minority populations.**

As reflected in the tables on the following page, the Hispanic or Latino population increased significantly between 1990 and 2000 104.0% (from 447 to 915), with the majority of these indicating 'Mexican' or 'Other Hispanic or Latino'. An increase of 141.3% occurred in the Asian race (from 259 to 625 persons). The county will continue to see growth in the areas seen between 1990 and 2000. Also of particular interest are those persons reporting as 'Some Other Race'. This category grew by over 172.3% between 1990 and 2000. As with the age and gender data, Cole County race and ethnicity data is skewed to some extent due to the location of 3 prisons in the county.

## Population by Race - Cole County

Race	2000	1990	% Change - 1990- 2000
White	62,158	58,115	7.0%
Black or African American	7,084	4,829	46.7%
American Indian & Alaska Native	239	235	1.7%
Asian *	625	259	141.3%
Native Hawaiian & Other Pacific	26	16	62.5%
Some Other Race	384	141	172.3%
Multiple Race	881	N/A	N/A
<b>Total</b>	<b>71,397</b>	<b>63,595</b>	<b>12.3%</b>
Hispanic or Latino of Any Race	915	447	104.7%

## Population by Race - Missouri

Race	2000	1990	% Change - 1990- 2000
White	4,748,083	4,486,228	5.8%
Black or African American	629,391	548,208	14.8%
American Indian & Alaska Native	25,076	19,835	26.4%
Asian *	61,595	41,277	49.2%
Native Hawaiian & Other Pacific	3,178	2,006	58.4%
Some Other Race	45,827	21,525	112.9%
Multiple Race	82,061	N/A	N/A
<b>Total</b>	<b>5,595,211</b>	<b>5,119,079</b>	<b>9.3%</b>
Hispanic or Latino of Any Race	118,592	61,702	92.2%

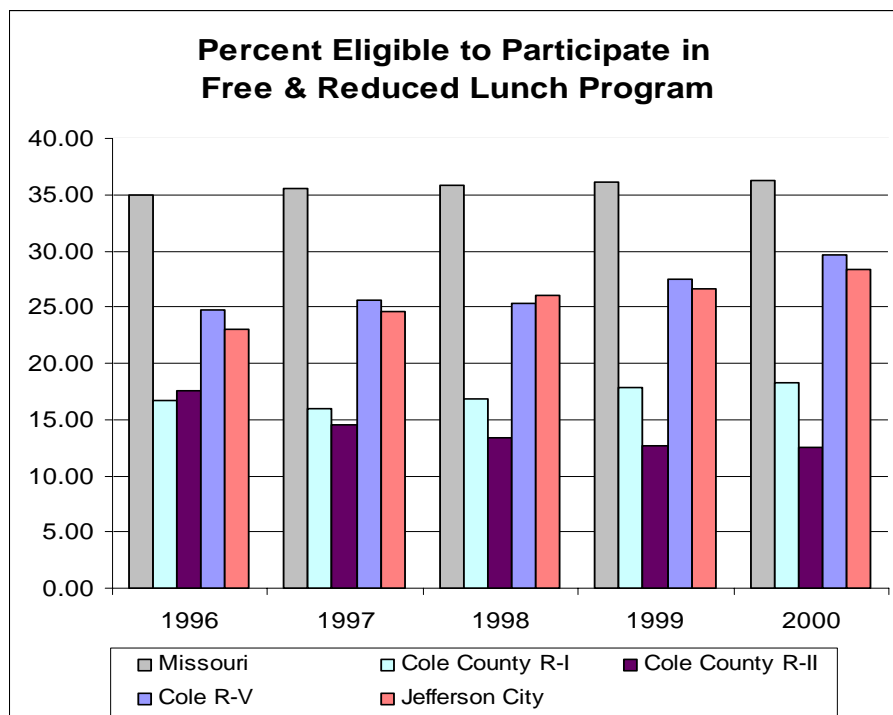
→ **Sociocultural Demographic Features: Identify any unique features of your county that may increase risks of a health problem for members of your community. (Examples: educational levels, family size and structure, poverty, literacy).**

In 2000, 53.0% of Cole County households were married couple families (14,333 of 27,040 households).

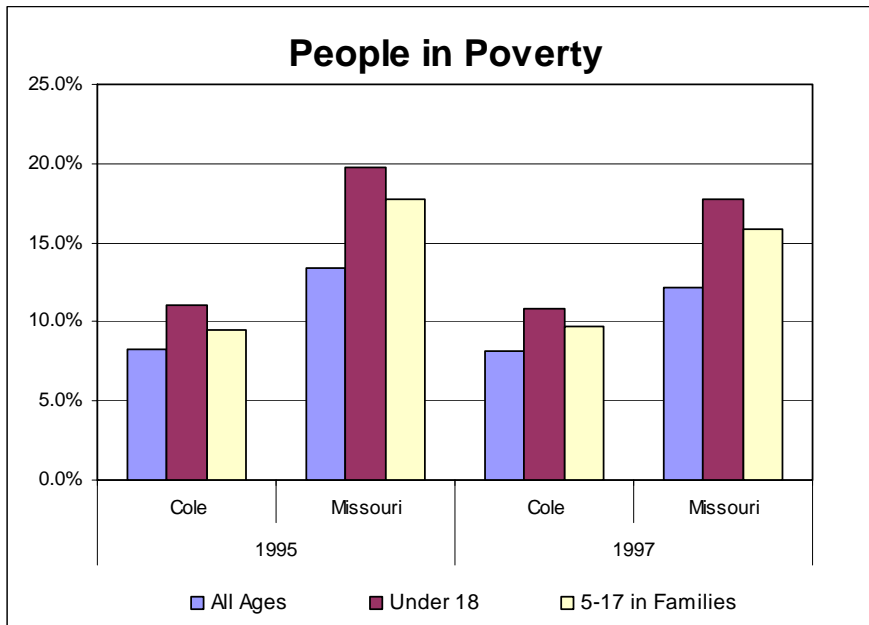
In 1999, 53.8% of divorces in Cole County involved children under the age of 18. Compared to the Missouri rate of 50.3%, Cole County ranks in the 2nd quintile of all Missouri counties. Divorce has been shown to have a profound impact on children. The ability of a child to become a productive adult is rooted in a secure and stable childhood. Effort must be made to assure that children and families experiencing divorce have access to support services.

The 2000 census indicates there were 2705 households reported as 'Female householder, no husband present' - representing 10.0% of total households in Cole County. Compared to the Missouri rate of 11.6% percent of households, Cole County has a slightly smaller percentage of single mother households.

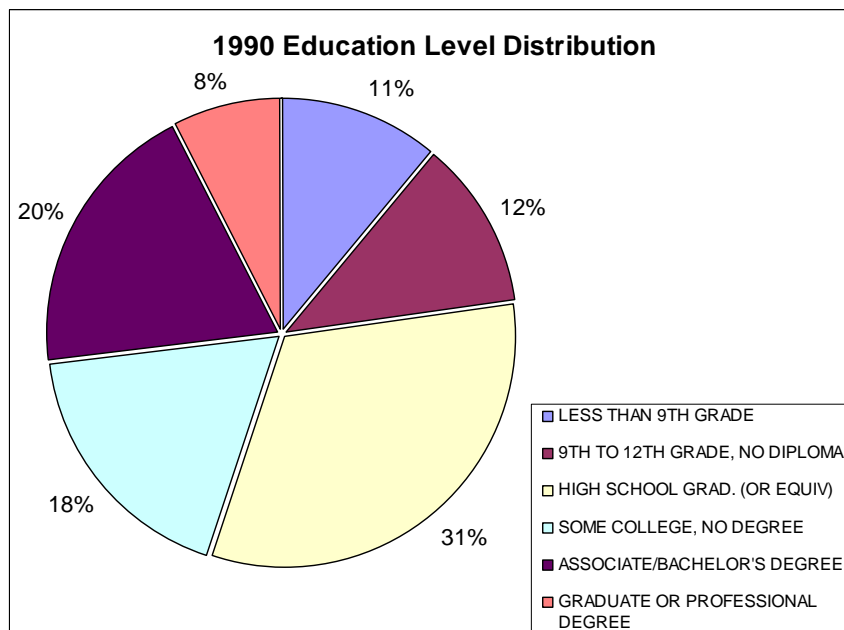
**Eligibility for Free and Reduced Lunch Program.** Data for 5 school years (1996 - 2000) reviewed for trends. Data is presented by school district. The eligibility rate in each of the 4 main school districts in the county has not changed significantly over the 5 year period. The county average (the average of the 4 districts for 2000) was 22.2%, compared to the Missouri eligibility rate of 36.3%. It should be noted that, with the exception of Cole R-II, the eligibility rates for all of the County's school districts have increased over the past 5 years.



**Poverty.** In 1997, an estimated 8.2% of all persons were in poverty in Cole County, while 10.8% of those under 18 were in poverty. Missouri figures: Total persons: 12.2%; Children: 17.7%. Significantly fewer persons in Cole County live in poverty as compared to the Missouri rate. This data is consistent with income, education and unemployment data.

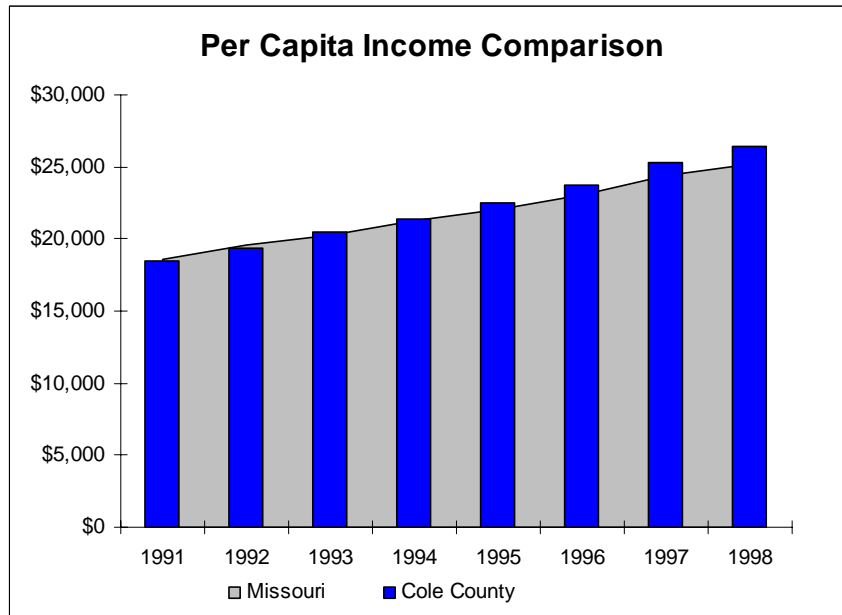


**Education Levels.** According to the 1990 U.S. Census, 54% of the Cole County population over the age of 25 had, at most, a high school diploma (Refer to Graph Below). The 2000 Census data will not be available until mid 2002, therefore a comparison to the current cannot be made. With the increasing prison population, and the overall stability of the economy in the area, we estimate the 1990 figures will not change dramatically with the release of the 2000 census data.

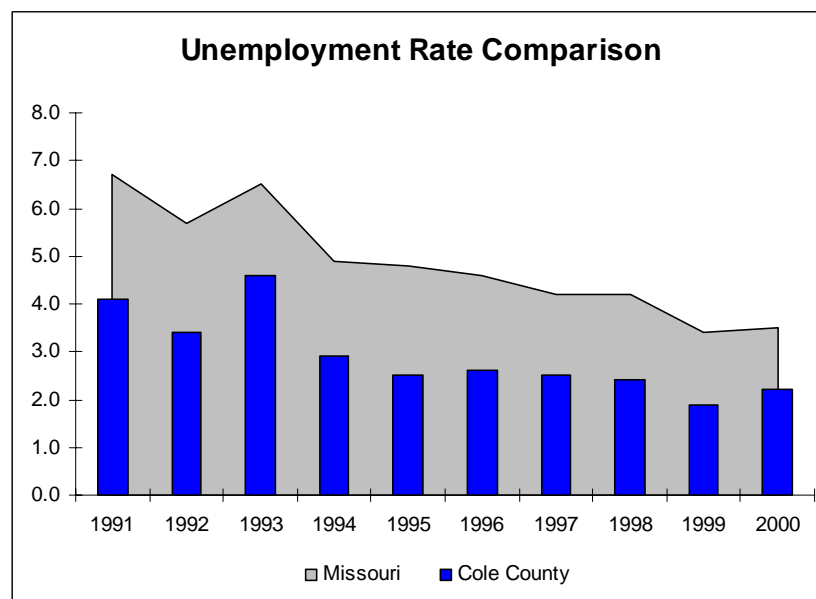


→ **Economic Indicators: Identify features related to household income, employment opportunity, and economic stability of the community.**

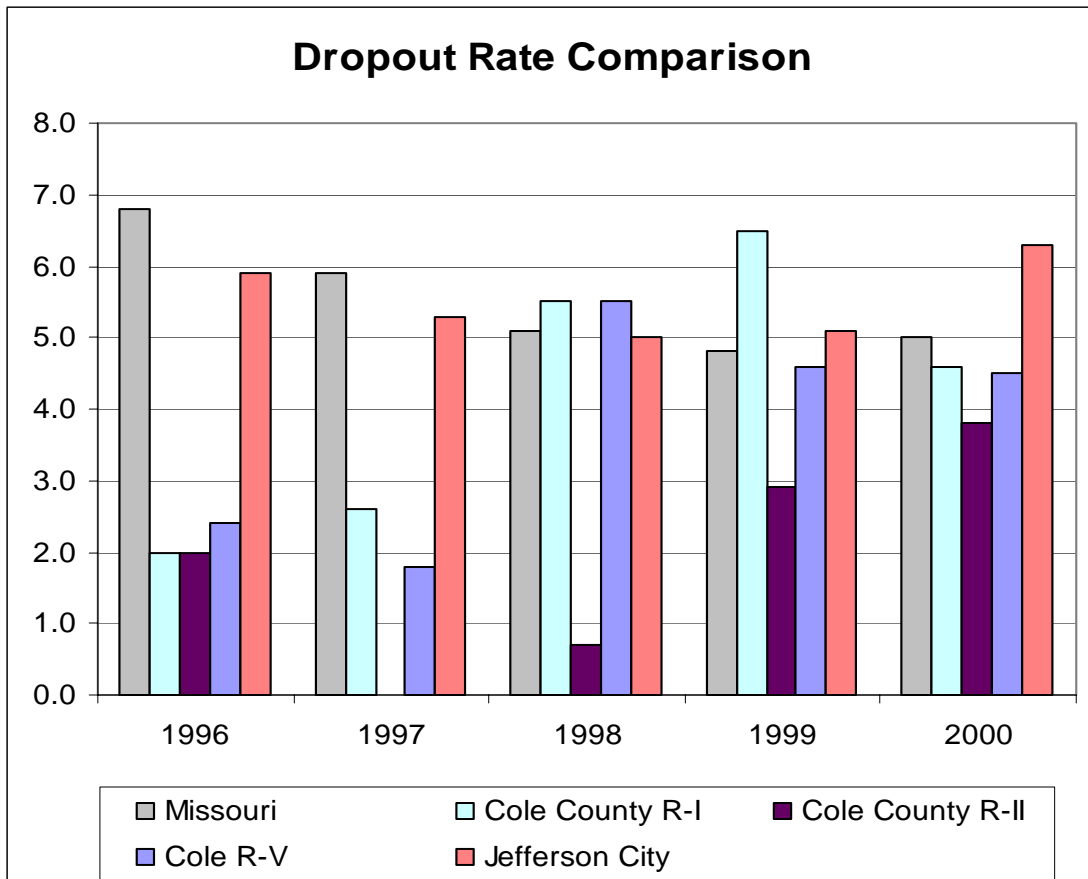
**Per Capita Income.** Cole County is nearly identical to the state per capita income figures over the past 8 years, with Cole County surpassing the state average since 1995.



**Unemployment** data are consistently lower than the state rates. These low rates are indicative of a steady economy and job market. Low unemployment rates may, however, be a contributing factor toward an increasing high school dropout rate, as young people may be enticed into working due to higher starting hourly rates. Should this occur, you could reasonably expect to see lower education levels, higher poverty rates, and an impact on a number of other indicators as well.



**High School Dropout Rate.** While somewhat lower, Cole county school district data do not differ significantly from the state rate. The 2000 dropout rates were: Cole county R-I - 4.62; Cole county R-II - 3.8; Cole county R-V - 4.5; Jefferson City - 6.3. The graduation rate for Missouri in 2000 was 5.0. Data for the 2000-01 and 2001-02 school years will be reviewed to ascertain the trend for Jefferson City and Cole R-I, as both districts have been consistently higher than the state rate. Additionally, Jefferson City has been experiencing a growing dropout rate since 1998. As mentioned previously, this increase in the dropout rate may be linked to the lower unemployment rates for the county. Both trends will continue to be monitored closely.



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**Section 4. Review of Environmental Health Risk Indicators**

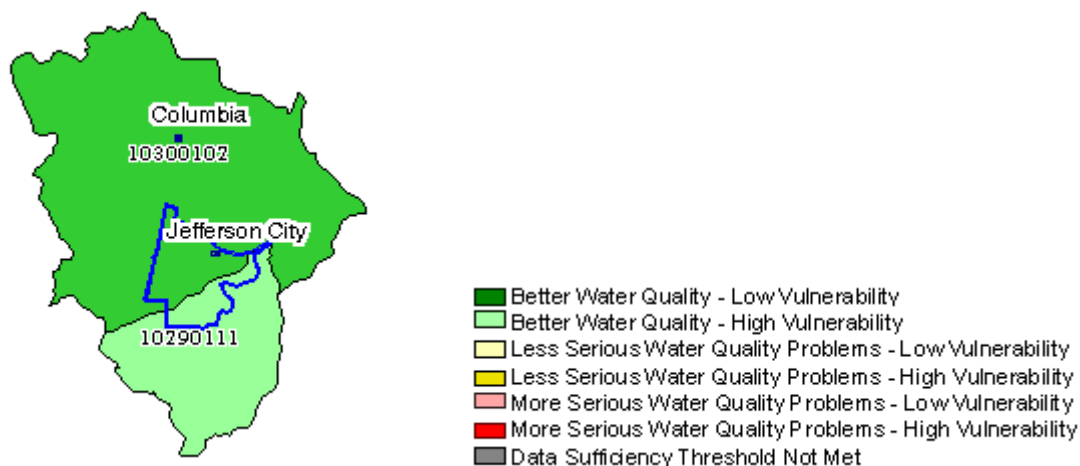
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*This section includes indicators related to health factors in areas of environmental health.*

- **Identify indicators related to the environment that may pose health risks to members of the community. Consideration should be given to potential environmental risks that may be unique to the county. (Examples, industry, hazardous waste sites, failing sewage disposal or treatment systems, private wells, indoor and outdoor air quality).**

There are 22 active water systems in Cole County. 18 are Community water systems; 3 are Non-transient water systems (system serves the same general population on a regular basis – i.e. schools); 1 is a Transient water system (system serves different people on a regular basis – i.e. restaurants). The Environmental Protection Agency provides detailed data for the violation and enforcement history for each individual system.

**Cole County Watersheds.** Cole County is impacted by 2 watersheds, the Lower Missouri-Moreau and the Lower Osage. The Lower Osage watershed is considered at risk for agricultural related incidents (pesticide and herbicide runoff, etc). More detailed condition and vulnerability tables are included with the data inventory.



**Hazardous Waste.** There is 1 site listed on the Environmental Protection Agencies CERCLIS Hazardous Waste Site system. It is the Jefferson City Landfill. This site is not on the National Priority List or Superfund Site listing. The last activity to this record was in 1988.

→ **What percentage of housing in your county was built before 1950? Describe any asbestos or lead abatement/renovation projects that have been undertaken.**

The percentage of housing in Cole County built before 1950 is between 20% and 40%. The Cole County Health Department has no knowledge of any asbestos or lead abatement projects underway in the county. Central District Environmental Public Health Specialists do conduct lead environmental checks for assessing need to abate.

→ **What percentage of children in your county are tested for lead poisoning? What is being done to increase the percentage? What percentage of those tested is found to have elevated blood levels?**

The 1999 rate for Cole County was 2.2 as compared to a state rate of 10.9 (rate is defined as the percent of children under age 6 tested for lead poisoning using 1998 population estimates). The 1999 Cole County rate is calculated on 116 screenings. This ranks Cole County in the 5th quintile of all Missouri counties. The state fiscal year 2001 rate for Cole County was 5%, with 257 children screened. It is important to note that the Jefferson City Medical Group is testing children, but neither the Lab nor the pediatric group is reporting. Once these numbers are included the Cole County rate should be considerably closer to the state rate.

The Cole County Health Department is working with private providers, providing education to day care users (parents) on lead testing and, through the WIC clinic clients will be educated on the importance of testing and testing will be offered as well.

→ **Identify contaminants affecting the environmental quality of homes, day cares, schools, and other public buildings in the county. (Examples: radon, asbestos, lead, carbon monoxide)**

There are no indications of environmental contaminants at this time. The Toxic Release Inventory (TRI) at the Environmental Protection Agency sites the release of nearly 60,000 pounds of chemicals into the air, and 250 pounds of lead to surface water in 1999. 2000 data has yet to be posted to the system. Since the drinking water in Cole County is ground source, it is important to assure the safety of this resource.

→ **Identify risks to residents and visitors related to food or water borne outbreaks, or communicable disease outbreaks. List occurrence rates and describe efforts to reduce risk.**

There were no outbreaks of food borne or communicable diseases noted by the Health Department.

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## **Section 5,6,7. Public Safety/Domestic Violence/Unintended Injuries**

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*This section examines indicators of risks to the safety of residents and visitors to the county.*

- **Analyze crime rates including homicide, juvenile crime, and violent crimes as well as domestic violence for special circumstances related to specific age groups or special populations.**

**Homicide.** The 1988-98 rate for Cole County was 1.8 (per 100,000) compared to the Missouri rate of 10.4. There were 14 actual death attributed to homicide or legal intervention, thus the rate is considered unstable.

**Overall Crime Rate.** The 1999 rate for Cole County was 1286.7 (per 100,000), with total number of crimes at 445. The rate for all rural counties was 1075.9, indicating Cole County has a higher crime rate when compared to all other rural Missouri counties.

**Violent Crime Rate.** In 1999 there were 37 crimes classified as 'violent', and 408 crimes classified as 'property'. For all rural counties there were 877 crimes classified as 'violent' and 6615 crimes classified as 'property'. Note - crimes committed within an institution (i.e. prison, jail) are not included in the Universal Crime Reporting system.

**Juvenile Crime.** DSS Reports summarize referrals to the Juvenile courts. A rate is not provided, nor is data provided to indicate age specificity for the referrals.

- **Identify the major types of work-related injuries, and the industry or specific populations primarily effected.**

Only work-related injuries resulting in death are accessible via the county profiles and MICA. There were 7 work-related injury deaths from 1988-1998.

- **Analyze circumstances related to traffic safety including use of seat belts, age of drivers, and drug or alcohol use.**

**Seat Belt Usage.** In 1996, 413 out of 511 persons under the age of 18 were reported to be restrained occupants of motor vehicles that were involved in crashes.

In 1999 there were 414 DWI (driving while intoxicated) offenses, 0 BWI (boating while intoxicated) offenses, and 424 narcotics offenses.

**Alcohol and Drug Related Traffic Accidents.** In 2000 there were a total of 2405 traffic crashes in Cole County. In 104 of these crashes the responding law enforcement officer indicated alcohol was involved (4.3%). 2 of these were fatality crashes, 43 were injury crashes and 59 were property damage crashes. In Missouri, 8417 of 193,778 crashes (approximately 4.3%) were reported as alcohol related, indicating that Cole County is nearly identical to Missouri for this indicator).

→ **Identify and analyze indicators of maltreatment or neglect of vulnerable populations including the elderly and children.**

**Child Abuse and Neglect.** There were 43 emergency room visits coded during the 1994-99 period for a rate of 11.0 compared to the Missouri rate of 25.9 (rate is calculated per 100,000 residents of the area). Cole County's rate is significantly lower than the state rate. In 1999 the Cole county rate of child probable cause child abuse/neglect per 1,000 was 4.31 compared to the Missouri rate of 6.5. There were 74 reports that were determined to be probable cause. Of those cases, the majority were neglect.

**Child Out of Home Placement.** Data for 1995-1999 was reviewed. There were not a significant number of out of home placements over the 5 year period.

**Domestic Partner Violence.** Data for 2000 was reviewed. There were 45 emergency room visits coded during the 1994-99 period for a rate of 10.3 as compared to the Missouri rate of 10.7 (rate is calculated per 100,000 residents of the area). There were 231 calls to law enforcement officers in Cole County in 2000 that were classified as domestic violence calls. The Highway Patrol has one (1) recorded deaths related to these calls.

**Elder Abuse and Neglect.** In 2000 there were 68 reports that were classified as 'reason to believe' after investigation. There were 24 emergency room visit coded during the 1994-99 period for a Cole county rate of 5.4 as compared to the state rate of 10.4 (rate is calculated per 100,000 residents of the area). The Cole County rate is significantly lower than the state rate.

→ **Identify the major types of injuries in your county, the causes, and the population groups primarily involved. Consider information about use of child safety seats or bicycle helmets and whether other appropriate prevention strategies are being used.**

**Table provided on next page. Rates are per 100,000 residents of the county.**

**Unintentional Injuries.** Between 1988 and 1998 there were: 230 deaths for a rate of 27.8 compared to the state rate of 34.4 (5th quintile - significantly lower); 1867 inpatient hospitalizations for a rate of 407.7 compared to the state rate of 420.3 (4th quintile); and 35,681 ER visits for a rate of 11,119.8 compared to the state rate of 10,510.3 (2nd quintile - significantly higher).

**Motor Vehicle Related Injuries:** Between 1988 and 1998 there were: 132 deaths for a rate of 18.2 compared to the state rate of 20.3 (5th quintile - not significant); 407 inpatient hospitalizations for a rate of 122.6 compared to the state rate of 116.7 (4th quintile); and 3,986 ER visits for a rate of 1292.8 compared to the state rate of 1362.2 (3rd quintile - not significant).

## Leading Causes of Unintentional Injury Profile for Cole County Residents

	Data	Number	Age Adjusted	Significantly	Ranking	Age Adjusted
Indicator	Years	of Events	Rate	Different	Quintile	State Rate
<u>Total Unintentional Injuries</u>						
Deaths	1989-1999	249	33.9	L	5	39.2
Inpatient Hospitalizations	1994-1999	2,289	677.1	N/S	4	658.1
Emergency Room Patients	1994-1999	42,171	12266.9	H	3	11970.9
<u>Motor Vehicle**</u>						
Deaths	1989-1999	144	19.5	N/S	5	20
Inpatient Hospitalizations	1994-1999	481	141.7	N/S	4	135.5
Emergency Room Patients	1994-1999	4,755	1371.3	L	3	1485.6
<u>Firearm</u>						
Deaths	1989-1999	0	0.0 *	N/S		0.5
Inpatient Hospitalizations	1994-1999	8	2.2 *	L		5.1
Emergency Room Patients	1994-1999	40	11.5	L		17.3
<u>Fall</u>						
Deaths	1989-1999	37	5	N/S		6
Inpatient Hospitalizations	1994-1999	1,335	396.3	H	1	342.6
Emergency Room Patients	1994-1999	10,939	3243.7	H	2	3049.4
<u>Poisoning</u>						
Deaths	1989-1999	8	1.1 *	L		2.6
Inpatient Hospitalizations	1994-1999	57	16.7	L	3	25.7
Emergency Room Patients	1994-1999	540	158.4	L	3	176.5
<u>Fire - Burn</u>						
Deaths	1989-1999	6	0.8 *	N/S		1.9
Inpatient Hospitalizations	1994-1999	28	8.2	N/S		11
Emergency Room Patients	1994-1999	416	120.4	L	4	139.7
<u>Drowning</u>						
Deaths	1989-1999	12	1.6 *	N/S		1.7
Inpatient Hospitalizations	1994-1999	5	1.5 *	N/S		1
Emergency Room Patients	1994-1999	10	3.0 *	N/S		4.6
<u>Injuries at Work</u>						
Deaths	1989-1999	11	1.5 *	N/S		2.1

Highlighted in Yellow – Area of Concern

Highlighted in Green – Area of Success

Rate is per 100,000 residents of the area, per year

\* Rate is unstable due to small numbers

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## **Section 8. Maternal and Child Health Indicators**

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*The purpose of the Maternal and Child health Indicators is to provide an overview of the key components of maternal, infant, and child health and the risk factors that contribute to ill health and poor outcomes. In addition to the infant mortality rate, these indicators include important measures of increased risk of death and disability, such as incidence of low birth weight and receipt of prenatal care. Early childhood mortality and child abuse/neglect indicators from other sections are listed again and should be considered in analysis of this section.*

- **Discuss how your county compares with the rest of the state on maternal and child health indicators and whether rates are increasing or decreasing. Identify information unique to specific races or special populations.**

Overall, Cole County is significantly better than the Missouri rates in nearly all areas of maternal, infant and child health. The only areas of exception are the abortion rate with the mother under the age of 18, participation in WIC and Medicaid, and Birth Defects. In a county with higher than average per capita income, low unemployment and higher education levels, the occurrence of the first three indicators (abortions, WIC and Medicaid participation) as statistically significantly different from the Missouri rates may be expected. Families with higher incomes have the ability to obtain and pay for abortion services, and also do not have a need to participate in entitlement programs. The one anomaly, a higher incidence of Birth Defects, will be monitored over time to ascertain any trend that may emerge.

- **Identify any underlying problems related to low birth weight and infant mortality.**

6.6% of all live births in Cole County from 1995-99 were classified as Low Birth Weight, as compared to 7.7% of Missouri births. 2.6% of all live births in Cole County from 1995-99 were Low Birth Weight & Term compared to 3.2% of Missouri births. Cole County is in the 4th quintile of all Missouri counties in both categories, with significantly lower rates.

- **Analyze indicators related to prenatal risks such as teen pregnancy, birth spacing, late or no prenatal care to identify specific race, characteristics or underlying problems of population effected.**

**Teen Pregnancy.** The 1995-99 rate for Cole County is 25.4 as compared to a state rate of 39.6. This ranks Cole County in the 4th quintile of all Missouri counties and statistically significantly lower than the state rate. It should be noted that while the rate of births to teens is lower, the abortion rate for this age range is significantly higher than the state. Rate is per 1,000 females age 15-17.

**Birth Spacing less than 18 Months.** The 1995-99 rate for Cole County is 8.7% as compared to a state rate of 10.7%. Cole County ranks in the 5th quintile of all Missouri counties, and is statistically significantly lower than the state rate for this indicator.

**Inadequate Prenatal Care.** The 1999 rate for Cole County is 9.8% as compared to a state rate of 10.7%. This ranks Cole county in the 3rd quintile of all Missouri counties. Further breakdown of the data into race categories reveals the following county and state rates: Cole county - White - 8.0%; Black - 26.0%. Missouri - White - 8.4%; Black - 23.1%.

→ **Consider major causes of injuries, and/or deaths of children in the county, special circumstances or specific populations effected, whether injury or death was preventable, and what strategies could be put in place.**

**Childhood Emergency Room Visits.** Rates are per 10,000. The majority of Cole County child ER visits from 1993 to 1999 were: Injury and poisoning (rate of 1382.1 compared to the state rate of 1332.6), Throat and lung (rate of 797.5 compared to the state rate of 972.4), and Brain - spinal cord - eyes - ears (rate of 539.7 compared to the state rate of 573.2). Contusions & cuts made up the majority of the injury ER visits, with upper respiratory and ear infections accounting for the majority of diagnoses under the latter two categories.

**Childhood Hospitalizations.** Rates are per 10,000. The majority of child inpatient hospitalizations in Cole County from 1993 to 1999 were: Throat and lung (rate of 106.3 compared to the state rate of 110.2), and Mental disorders (rate of 52.2 compared to the state rate of 39.2). Cole County has a significantly higher rate of mental disorder hospitalizations in children. This may be indicative of a need for additional mental health services for children and adolescents.

**Children Age 1 – 14: Table on the following page.**

Compared to the Missouri rates, Cole County varies in only a few areas. In most instances with a significant difference, the Cole County rates are better than the state rates. For instance, there are fewer injury and asthma hospitalizations. Areas where Cole County is lagging behind the state rates include WIC Participation and Lead Testing. The leading cause of death for the 1-14 year old age group is unintentional injuries. There were 13 deaths in the 10 year period included in the data.

	Data	Number		Significantly	Ranking	State
General/Poverty and Utilization	Years	of Events	Rate	Different	Quintile	Rate
<b>Ages 1-14 Population Estimates</b>						
<a href="#">Ages 1 - 4</a>	1997	3,548	5.2			5.4
<a href="#">Ages 5 - 14</a>	1997	9,879	14.4			14.6
<a href="#">Uninsured Outpatients</a>	1998	366	9	L	4	11
<a href="#">Uninsured Inpatients</a>	1998	9	3.2*	N/S	5	5.6
<a href="#">Injury Hospitalizations</a>	1994-1997	5,867	110.1	L	3	118
<a href="#">Asthma Hospitalizations</a>	1994-1997	62	1.2	L		2.3
<a href="#">WIC Participation Ages 1 - 4</a>	1997	805	22.7	L	5	30.5
<a href="#">Children with 2 Plus Shots in MOHSAIC</a>	2000	611	61.1	N/S	5	58.6
<a href="#">Children with 4-3-1 Series Completed</a>	2000					62.7
<a href="#">WIC Children with 2 Plus Shots in MOHSAIC</a>	2000	299	74	N/S	5	77.2
<a href="#">Lead Testing Ages 0-6</a>	1999	116	2.2	L	5	10.6
<a href="#">Blood Lead Elevations &gt;9mg/dL Ages 0-6</a>	1999	4	3.4*	L	3	10.9
<a href="#">Total Deaths</a>	1987-1997	36	26.2	N/S		31.8
<a href="#">Motor Vehicle Deaths</a>	1987-1997	8	5.8*	N/S		6.3
<b>Five Leading Causes of Death</b>						
<a href="#">1) Total Unintentional Injuries</a>	1987-1997	13	9.5*	N/S		13.7
<a href="#">2) All Cancers (Malignant Neoplasms)</a>	1987-1997	7	5.1*	N/S		3.1
<a href="#">3) Birth Defects</a>	1987-1997	5	3.6*	N/S		2.7
<a href="#">4) Homicides and Legal Intervention</a>	1987-1997	1	0.7*	N/S		2.3
<a href="#">5) Heart Disease</a>	1987-1997	0	0	N/S		1.2

Highlighted in Yellow – Area of Concern

Highlighted in Green – Area of Success

**Children Age 5-19:** Compared to the Missouri rates, Cole County differs significantly in only a few areas. There was a lower incidence of gonorrhea and a lower rate of homicide and legal intervention. Areas of concern include injury hospitalizations and suicide – although the suicide rate is unstable due to the low number of events. The leading cause of death among 15-19 year olds between 1987 and 1997 was unintentional injuries. There were 21 deaths for a rate of 45.4. This rate is lower than the Missouri rate.

	Data	Number		Significantly	Ranking	State	
	Years	of Events	Rate	Different	Quintile	Rate	
<b>Ages 15-19 Population Estimates</b>							
	<a href="#">Ages 15 - 17</a>	1997	3,028	4.4		4.6	
	<a href="#">Ages 18 - 19</a>	1997	1,764	2.6		2.8	
	<a href="#">Uninsured Outpatients</a>	1998	372	20.7	N/S	3	22.1
	<a href="#">Uninsured Inpatients</a>	1998	17	6.9*	N/S	3	7.1
	<a href="#">Injury Hospitalizations</a>	1994-1997	3,454	190	H	2	169.1
	<a href="#">Asthma Hospitalizations</a>	1994-1997	6	0.3*	N/S		0.7
STDs							
	<a href="#">Chlamydia</a>	1995-1997	183	1303	N/S	1	1421.1
	<a href="#">Gonorrhea</a>	1995-1997	45	320.3	L		749.5
	<a href="#">Syphilis</a>	1995-1997	0	0	N/S		16.9
	<a href="#">Total Deaths</a>	1987-1997	39	84.3	N/S		103.2
	<a href="#">Motor Vehicle Deaths</a>	1987-1997	16	34.6*	N/S		43.1
Five Leading Causes of Death							
	<a href="#">1) Total Unintentional Injuries</a>	1987-1997	21	45.4	N/S		53.1
	<a href="#">2) Homicide and Legal Intervention</a>	1987-1997	1	2.2*	L		18.9
	<a href="#">3) Suicide</a>	1987-1997	11	23.8*	H		13
	<a href="#">4) All Cancers (Malignant Neoplasms)</a>	1987-1997	1	2.2*	N/S		3.7
	<a href="#">5) Heart Disease</a>	1987-1997	0	0	N/S		2.6

Highlighted in Yellow – Area of Concern

Highlighted in Green – Area of Success

Rate definitions are found in Appendix C.

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### ***Sections 9,11,12. Prevalence of Disease Indicators***

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*This section provides an overview of infectious and chronic disease rates and leading causes of mortality in the community. The chronic disease indicators also illustrate the prevalence of risk factors controllable by individuals that can play an important role in the prevention and management of disease.*

- **Discuss how your county compares with the rest of the state on infectious disease indicators. Identify and include information unique to races or special populations.**

As indicated in the chart of 1998, there are no areas of significant concern for Cole County. However, in 2000 and 2001 there were additional cases of Tuberculosis infection and disease. The Cole County Health Department is maintaining active surveillance in this area.

**Table follows on the next page.**

## Infectious Disease Profile for Cole County Residents

Indicator	Years	Number of Events	Rate	Significantly Different	Ranking Quintile	State Rate	Median
<u>AIDS</u>							
Cases	1998	4	5.8*			8.2	2
Hospitalizations	1998	1	1.4*	L		13.7	3
Deaths	1998	0	0.0*	N/S		2.7	0
<u>Campylobacter</u>							
Cases	1998	9	13.0*			10.4	7
<u>Chlamydia</u>							
Cases	1998	172	248.2			232.7	178
<u>E. coli O157:H7</u>							
Cases	1998	2	2.9*			1.1	0
Hospitalizations+	1998	0	0.0*	N/S		0.3	1
<u>Gonorrhea</u>							
Cases	1998	94	135.6			174	69
<u>Hepatitis A</u>							
Cases	1998	0	0.0*			12.5	3
<u>HIV Infection</u>							
Cases	1998	5	7.2*			8.1	2
<u>Influenza/Pneumonia</u>							
Cases	1998	**	**	**	**	**	**
Hospitalizations	1998	345	497.8	L	5	631.1	354
Deaths	1998	29	41.8	N/S		44.8	20
<u>Pertussis (Whooping Cough)</u>							
Cases	1998	1	1.4*			1.1	1
Hospitalizations	1998	0	0.0*	N/S		1	1
<u>Salmonella</u>							
Cases	1998	17	24.5*			12.7	15
Syphilis							
<u>---Early</u>							
Cases	1998	1	1.4*			2.0	1
<u>---Congenital</u>							
Cases	1998	0	0.0*			26.6	0
Hospitalizations	1998	0	0.0*	N/S		0.1	0
Tuberculosis							
<u>---Active Disease</u>							
Cases	1998	2	2.9*			3.4	1
Hospitalizations	1998	1	1.4*	N/S		3.5	3
Deaths	1998	0	0.0*	N/S		0.3	0
<u>---Infections</u>							
Cases	1998	64	***			***	52

→ **Discuss circumstances surrounding vaccine preventable disease cases including influenza and pneumonia. Note county immunization rates and outreach efforts.**

There have been no outbreaks connected to vaccine preventable diseases. Outreach is conducted to educate the community about the importance of influenza vaccinations, especially for vulnerable populations. This will become increasingly important as the population continues to age.

Immunization rates. KidsCount indicates the 95 public clinic rate was 88.9% and the 1999 public clinic rate was 81.4%. Cole County is participating in the MOHSAIC pilot sites for the Immunization Registry, so data in 2002 and beyond will be inclusive of both public and private providers. Reminder/Recall is conducted by the Cole County Health Department for children seen in the public clinic.

→ **Identify and discuss the risk factors for substance abuse and tobacco use and identify prevention and treatment resources.**

The 1998 BRFSS indicates 26.4% of Missouri adults and 24.4% of Central District adults smoke. No county level data is available, although prenatal statistics indicate a smoking during pregnancy rate of 17.4, putting Cole County in the fifth quintile of all counties for this indicator. There are numerous influencing factors for substance abuse. These include: low educational level, poverty and connection to others.

→ **Review mortality data and causes of hospitalization related to chronic disease and identify the most prevalent. Rates are per 100,000.**

**See following page for data table.**

The two leading causes of hospitalization of Cole County residents in 1998 were in the categories of 'Heart and Circulation' with 1496 hospitalizations for a rate of 183.7, and 'Throat and Lung' with 815 hospitalizations for a rate of 104.9. Areas where Cole County is noted to be statistically significantly higher than the state hospitalization rate and in the highest quintile of all Missouri counties are: Cancer and Chest Pain – non-specific. Conditions for which the rate of hospitalizations is statistically significantly lower than the state rate and in the lowest quintile of all Missouri counties are: Diabetes Mellitus with Complications and Kidneys, Bladder, Genitalia.

In nearly all conditions, Cole County is either statistically significantly higher, or lower than the state rate.

## Leading Causes of Hospitalization for Cole County Residents

Indicator	Data Years	Number of Events	Age Adjusted Rate	Significantly Different	Ranking Quintile	Age Adjusted State Rate
<b>All Causes</b>	1998	7,400	943.2	N/S	4	1005.9
Infection	1998	126	15.7	L	3	18
Septicemia (except in labor)	1998	82	9.6	L	2	10.2
<b>Cancer</b>	<b>1998</b>	<b>518</b>	<b>66.5</b>	<b>H</b>	<b>1</b>	<b>56</b>
Nutrition, Metabolic, Immunity	1998	224	27.5	L	4	32.9
Fluid and Electrolyte Disorders	1998	138	16.7	H	2	14.2
<b>Diabetes Mellitus with Complications</b>	<b>1998</b>	<b>53</b>	<b>6.2</b>	<b>L</b>	<b>5</b>	<b>12.5</b>
Blood and Blood-Forming	1998	40	5.1	L		10.3
Mental Disorders	1998	580	76.7	L	3	93
Affective Disorders	1998	272	36.7	L	3	45.4
Schizophrenia and Related	1998	99	11.6	L		11.9
Alcohol-Related Disorders	1998	43	5	L		9
Brain, Spinal Cord, Eyes, Ears	1998	169	22.7	L	3	23.4
Heart and Circulation	1998	1,496	183.7	H	3	180
Coronary Atherosclerosis	1998	338	45.1	H	2	36.3
Congestive Heart Failure, Non-Hypertensive	1998	204	22.9	L	4	27.4
Acute Myocardial Infarction (AMI)	1998	157	19.6	L	4	22.6
Acute Cerebrovascular Disease	1998	127	13.6	L	4	16.9
Cardiac Dysrhythmias	1998	146	17.5		2	14.8
<b>Chest Pain, Non-Specific</b>	<b>1998</b>	<b>170</b>	<b>21.1</b>	<b>H</b>	<b>1</b>	<b>16.1</b>
Throat and Lung	1998	815	104.9	L	4	114.4
<b>Pneumonia</b>	<b>1998</b>	<b>314</b>	<b>39.7</b>	<b>L</b>	<b>5</b>	<b>46.4</b>
Chronic Obstructive Pulmonary (Lung) Disease (COPD)	1998	160	20.4	H	3	19.6
Asthma	1998	54	8.3	L		12.7
Digestive System	1998	652	82.5	L	4	88.5
Gastrointestinal Hemorrhage	1998	92	10.4	H	2	8.7
Biliary Tract Disease	1998	82	9.7	L	L	12.2
<b>Kidneys, Bladder, Genitalia</b>	<b>1998</b>	<b>348</b>	<b>42.3</b>	<b>L</b>	<b>5</b>	<b>49</b>
Urinary Tract Infection	1998	85	9.9	L	4	12.2
Pregnancy, Childbirth, Reproduction	1998	970	129.5	L	4	152.1
Trauma to Perineum and Vulva	1998	138	19	L	4	20.8
Other Complications of Birth	1998	89	11.9	L	4	18.1
Normal Pregnancy and Delivery	1998	71	9.5	L	5	17.2
Skin	1998	75	9.5	L	4	12.4
Skin Infection	1998	52	6.8	L		9.7
Bone, Connective Tissue, Muscle	1998	376	48.1	H	3	45.4
Spondylosis, Intervertebral Disc and Other Back Problems	1998	127	16.4	H	4	16.4
Congenital Anomalies	1998	24	3.9	L		6
Perinatal Conditions	1998	41	7.8	H		6.3
Injury and Poisoning	1998	652	82.2	H	3	81.2
Complication of Device, Implant or Graft	1998	110	14.3	H	3	13.7
Fracture of Neck of Femur (Hip)	1998	96	9.1	H	2	8.4
Complications of Surgical Procedures, Medical Care	1998	84	10.5	L	3	11.4
Symptoms and Ill-Defined Conditions	1998	281	33.1	L	3	35.9
Rehab Care, Fitting or Adjusting Protheses and Devices	1998	165	18.1	L	2	18.3

Highlighted in Yellow – Area of Concern

Highlighted in Green – Area of Success

**Rate definitions may be found in Appendix C.**

→ **Discuss how the county compares with the state on chronic disease indicators. Identify and include information unique to races or special populations.**

**Breast Cancer Incidence.** Cole County rate is 162.7 compared to the state rate of 108.4. Significantly higher than the state rate. This is consistent with the higher incidence of hospitalizations for cancer seen in the table on the previous page. No data by race is available.

**Cervical Cancer Incidence.** There were 9 cases from 1996-1998 for a Cole county rate of 10.3 compared to the state rate of 9.4. No data by race is available.

**Colorectal Cancer Incidence.** The Cole county rate is 43.1 as compared to the state rate of 47.1. Not significant. No data by race is available.

**Lung Cancer Incidence.** The Cole county rate is 58.2 as compared to the state rate of 69.9. Not significant. No data by race is available.

→ **Identify circumstance of mortality data related to suicide. Identify special populations, age, education, income, ethnicity, and geography. Rates are per 100,000.**

The 1988-98 rate for Cole County is 12.3 as compared to a state rate of 12.6. This ranks Cole County in the 4th quintile of all Missouri counties. The actual number of events is 91. However, when reviewed by age, there is a significantly higher rate of suicides in young persons compared to the state. While the rate is unstable due to low numbers, it is still an area of concern.

→ Discuss other causes of mortality where rates are higher than the state.

There are no indicators for which Cole County has a statistically significantly higher death rate than Missouri. In most instances, Cole County has a statistically lower rate of deaths than the state. It is important to make the link between hospitalizations and the death rates for the same causes. While Cole County sees a much higher incidence of hospitalizations due to cancer, the death rate for Cancer is significantly lower than the state rate. This may be an indication that early intervention and treatment are saving lives.

### Leading Causes of Death for Cole County Residents

			Age			Age
	Data	Number	Adjusted	Significantly	Ranking	Adjusted
Indicator	Years	of Events	Rate	Different	Quintile	State
						Rate
All Causes	88-98	5,928	454.8	L	5	523.2
Heart Disease	88-98	2,016	129.2	L	5	153.3
All Cancers (Malignant Neoplasms)	88-98	1,359	127.3	L	4	136.6
Lung Cancer	88-98	358	36.5	L	4	44.2
Breast Cancer (Female)	88-98	120	21.3	N/S	3	21.4
Stroke (Cerebrovascular Disease)	88-98	489	28.1	N/S	3	27.7
Chronic Obstructive Pulmonary (Lung) Disease (COPD)	88-98	253	19.2	L	4	22.7
Total Unintentional Injuries	88-98	239	28.7	L	5	35
Motor Vehicle	88-98	135	18.5	N/S	5	20.7
Pneumonia and Influenza	88-98	216	11.8	L	4	13.9
Diabetes Mellitus	88-98	130	9.6	L	4	12
Suicide	88-98	91	12.3	N/S	4	12.6
Kidney Disease (Nephritis and Nephrosis)	88-98	44	2.5	L	5	4.7
Homicide and Legal Intervention	88-98	14	1.8*	L		10.4
Septicemia	88-98	44	3.5	N/S		4
Liver Disease and Cirrhosis	88-98	63	7.2	N/S		5.9
Alzheimer's Disease	88-98	43	1.9	N/S		2.3
AIDS	88-98	12	1.5*	L		6.3
Smoking-Attributable (Estimated)	88-98	1,144	94	L	5	109
Alcohol and Substance Abuse	88-98	67	8	N/S		9
All Injuries and Poisonings	88-98	351	43.6	L	5	59.4
Firearm	88-98	62	8.5	L	5	16.5
Injuries at Work	89-98	9	1.3*	N/S		2.4

Highlighted in Yellow – Area of Concern

Highlighted in Green – Area of Success

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## **Section 10. Nutritional Status Indicators**

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*Poor eating habits and obesity are predictors of future decline in health status. This section examines some indicators of nutritional health.*

- **Review information related to participation in the WIC program, other food assistance programs and in nutrition sites to determine whether utilization patterns are consistent with eligibility estimates. Identify whether any program underutilized by specific race or population groups.**

Actual participation in WIC for state fiscal years 2000 - 2,696, and 2001 – 2,929.

- **Review outcome indicators for participants in the WIC program such as proper weight gain during pregnancy, child growth and development, and rates of iron deficiency anemia to identify areas where improvement is needed.**

**WIC participants achieving proper weight gain.** The 1999 Pregnancy Nutrition Surveillance report indicates a county prevalence of 46.7% achieved ideal weight gain. Compared to the Missouri prevalence of 47% and the national prevalence of 39.6%, Cole County realized better outcomes for this indicator.

**Iron Deficiency Anemia in the WIC population.** The 1999 Pregnancy Nutrition Surveillance report indicates 15.2% of Cole County WIC prenatal participants had low HCT/HGB, compared to the state prevalence rate of 15.2% and the national prevalence of 14.5%. Cole County is consistent with the state on this indicator.

- **Analyze indicators of obesity and inadequate diet by particular age groups, race, or special populations. Identify any resources within the community to support improved eating habits.**

- The only data available is Central District Behavior Risk Factor Survey (BRFSS).
- The 1988 BRFSS indicates 35.6% of Missouri adults and 34.1% of Central District adults are overweight.
- The 1998 BRFSS indicates 20.0% of Missouri adults and 21.7% of Central District adults ate five servings of fruit and vegetables daily.

- **What is the rate of breast-feeding for the county? What methods are used to promote the potential benefits?**

The 1999 Pregnancy Nutrition Surveillance report indicates 21.3% of WIC participants exclusively breastfed and 22.4% combine breastfeeding with other milk. Compared to the state rates of 17.8% and 12.5% respectively, Cole County is significantly higher in terms of mothers exclusively breastfeeding. A comprehensive breast-feeding program is in place with the Cole County Health Department's WIC program. The WIC Coordinator is a breast feeding consultant and is also available as a community resource. A peer breast feeding program is utilized. Other health department programs, including the prenatal program emphasize breast feeding.

## Section II: Review of Community Health Improvement Capacity

### *Community Health Improvement Capacity Indicators*

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#### ***Section 13. Health Care System Indicators***

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*Indicators in this section attempt to quantify the availability and use of basic health services and barriers to health care access.*

→ **Are there any special problems your community faces that restrict access to care?**

Cole County is one of only 3 counties in the state that does not qualify for any of the HPSA designations. There are those in need of Medicaid services, and those who go without proper preventive care. Additionally it is likely there are an increased percentage of illegal aliens not likely counted in the 2000 Census. The Jefferson City Free Medical and Dental Clinic, as well as the Samaritan Center, provide medical and dental services to individuals without insurance or Medicaid. Additionally, Capitol Region Medical Center offers a Resident Clinic.

→ **What percentage of your population lacks health insurance coverage? Is there any special population group without health insurance?**

Referral in Resource Guide is to the Child Health Profile. This provides information on uninsured hospitalizations for the 0-19 age population (refer to the tables on pages 15 and 16 for uninsured hospitalizations in children). There is no data on the number of estimated uninsured adults.

Although the per capita income in Cole County is slightly higher than the Missouri figures, there are many working people without health insurance coverage. There are a significant number of factory and retail jobs that do not provide coverage.

→ **What specialty services are needed but not available in your community? (Example: dental health, mental health services).**

As with most communities, there is a need for additional dental services, especially for the Medicaid population. With the higher rate of hospitalizations of young people with mental conditions, there may be a need for pediatric and adolescent psychiatric services as well.

→ **Is there a choice of primary care providers in your community?**

With two hospitals, there are many primary care providers in the county, but waiting times between the request for appointment and the actual appointment still vary a great deal. It is difficult for many individuals to access their primary care provider when they are ill. A significant number of people still utilize the emergency room for conditions that would typically warrant a visit to a primary care provider.

Additionally efforts are being made to assure individuals with limited English proficiency are able to access services. This is becoming a growing issue, specifically in Jefferson City. Both hospitals have a reference list of interpreters who are available or they contract with a language line. The Cole County Health Department utilizes the volunteer services of the Sisters of El Puente.

→ **Are resources available to provide transportation for health care access?**

Throughout the county people have access to OATS and non-emergency medical transportation (primarily for MC+). In addition, Jefferson City has bus and taxi service.

Emergency transportation is provided by Capital Region Medical Center EMS. First Responders, Fire Departments, Police Department in the city, and the Sheriff's Department in the county all respond to 911 calls. Jefferson City and Cole County utilize an enhanced 911 system.

→ **Do resources accommodate those needing sight and hearing impaired services or other assisting technology?**

**Cole County SB40 Board** (Cole County Residential Services) provides residential and other related services to individuals with mental retardation or developmental disabilities.

**The Bureau for the Blind** - Assists those with sight impairment. Services include counseling services; parent education; consultation for children and families working cooperatively with schools and other agencies; living skills; referral and resource information for schools and families; and in home services.

**Vocational Rehabilitation** - Services include: diagnosis and evaluation; physical restoration; instruction in daily living skills; vocation training including college; provision of tools and equipment; adaptive technology; job development; placement assistance/follow-up; and rehabilitation facility services.

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## ***Section 14. Community Health Resource Indicators***

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*This section outlines resources available in the community to address problems and needs identified in previous sections.*

**Use this section to review and update your County Resource Guide and to identify any resource gaps that exist in your community.**

**Recreational Opportunities.** YMCA, walking/biking trails, and several parks. There are numerous sites available throughout the county. Other resources include: Golf courses, bowling allies, swimming pools, roller and ice skating rinks. Three movie theaters serve the area with a total of 16 screens. Civic groups provide concerts, plays and art shows.

**Health Education.** Capital Region offers a number of programs through their Corporate Programs and Services, including Employee Assistance Programs, Screenings, Fitness, Physicals, Speakers and Vaccinations. The Cole County Health Department offers regular education as part of their services to clients. Additionally the Cole County Health Department is also available for health education on numerous topics on request.

**See the following pages for details regarding services and resources available to Cole County residents.**