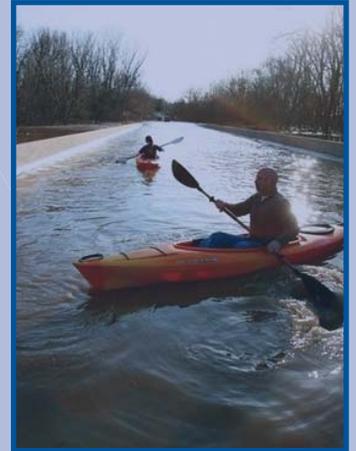
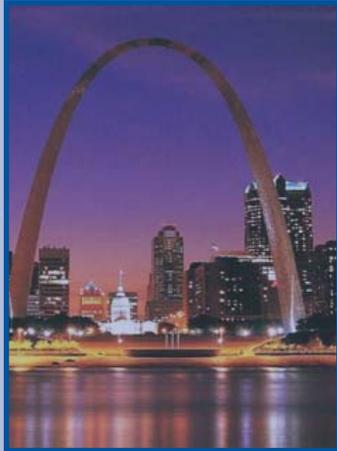




# Jefferson County



# Health Department

'09

Assessment Report



# Jefferson County

## HEALTH DEPARTMENT

### Vision

The Jefferson County Health Department will collaborate with community stakeholders to provide an environment that facilitates the promotion of well-being, health and safety for all.

### Mission

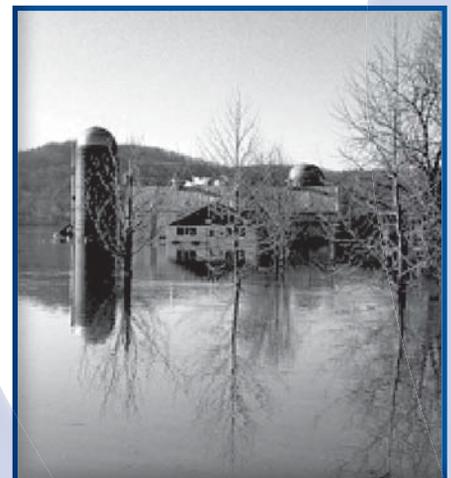
We will focus resources and attention on significant health issues facing all residents of Jefferson County. We will assess, plan and develop policies to identify, and ensure delivery of needed services.



### Values

We believe that the promotion of public health and safety is essential to the quality of life for all residents. Our values include:

- ❖ Collaboration and Partnership
- ❖ Ethical Behavior
- ❖ Work Force Development
- ❖ Disease Prevention and Health Promotion
- ❖ Cultural Diversity and Inclusivity
- ❖ Quality Standards of Customer Service
- ❖ Community Participation
- ❖ Science Based Health Practices
- ❖ An Informed and Educated Public Health Consumer



# Introduction

The Jefferson County Health Department and its governing Board of Trustees are pleased to present to you the results of this assessment of the health of Jefferson County residents.

The content of this report includes baseline and trended data that comes from a variety of sources including the Missouri Department of Health and Senior Services, the Missouri State Highway Patrol, Social Services, the Department of Elementary and Secondary Education and other state and local partners. Additionally, a priority questionnaire was developed to see what Jefferson County residents felt were the major risk factors and health issues in the county.

The information in this report will be used for future planning for the Jefferson County Health Department. It will also be shared with other agencies within the county and can be used as a resource for writing grants and programming proposals.



*Dennis M. Diehl*

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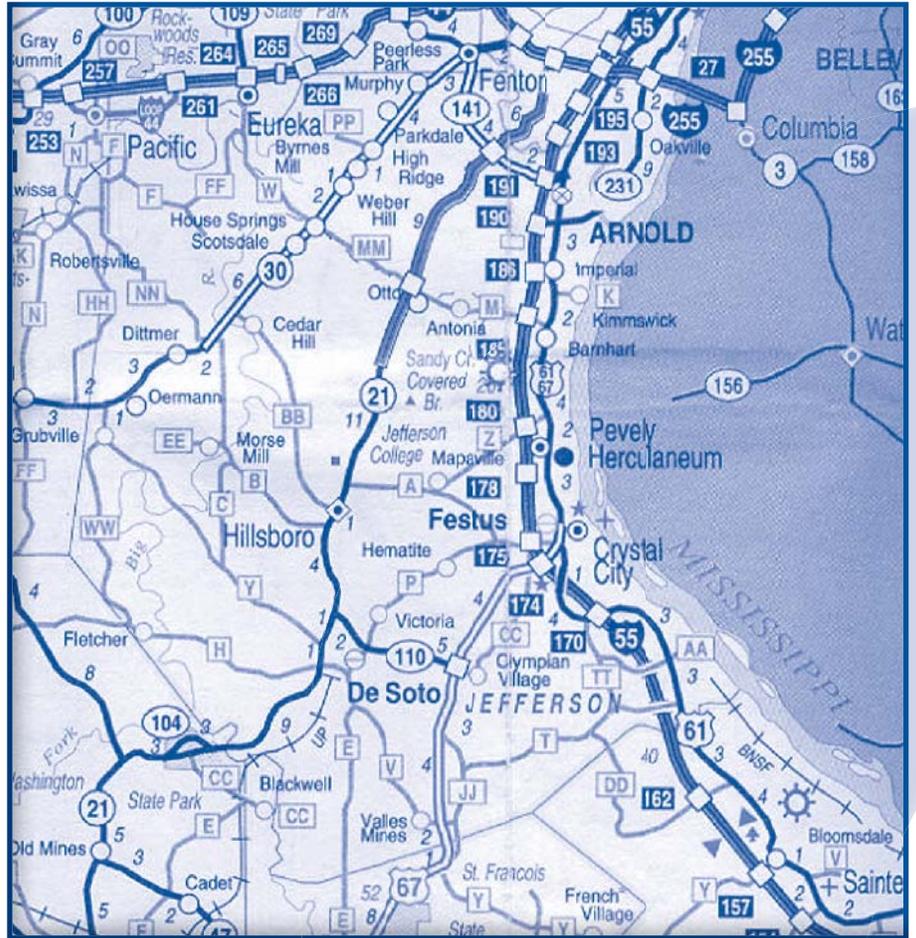
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# Process & PRIORITIES



Over the winter and spring of 2009, the Jefferson County Health Department designed a county-wide assessment format to assist with the process of revising the strategic planning process over the next few years.

An initial listing of health issues in the community was developed using the Missouri Department of Health and Senior Services' MICA Prioritization tool. From this initial set, the partners worked with other community organizations to arrive at a set of ten (10) key areas of concern. Community members and partners then completed individual prioritization surveys to arrive at the final set of priorities, as listed in the box:



- ◆ ALCOHOL, TOBACCO, AND SUBSTANCE ABUSE
- ◆ HEART DISEASE, STROKE, AND CEREBROVASCULAR DISEASES
- ◆ CANCER
- ◆ ABUSE AND NEGLECT
- ◆ INFANT AND CHILD HEALTH
- ◆ DIABETES, OBESITY, AND PHYSICAL ACTIVITY
- ◆ ENVIRONMENT
- ◆ DENTAL HEALTH
- ◆ MENTAL HEALTH
- ◆ UNINTENTIONAL INJURIES/ MOTOR VEHICLE ACCIDENTS

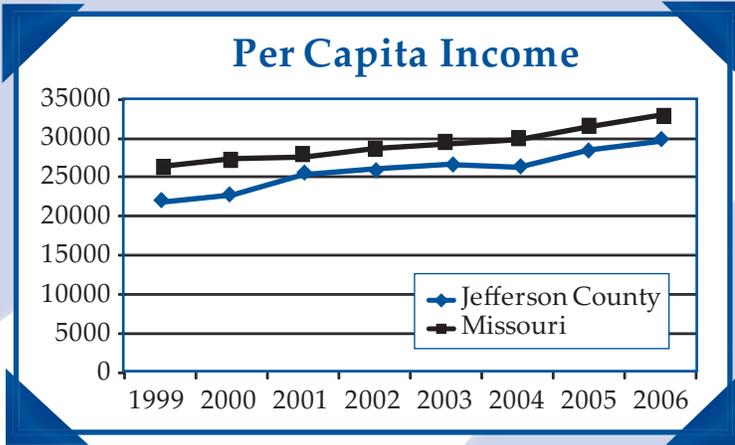
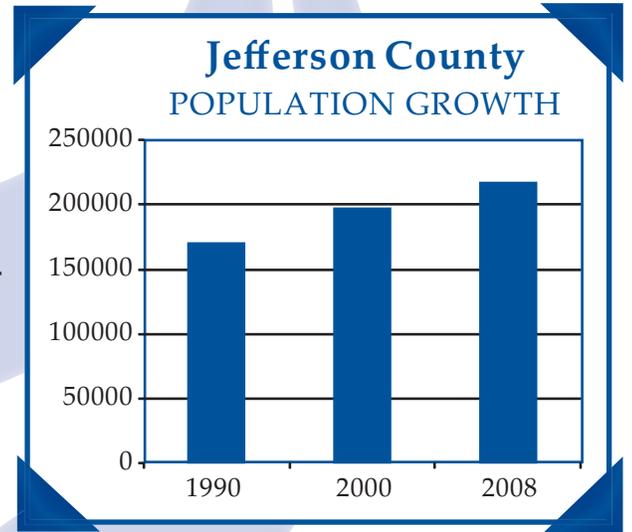
Information regarding these priority areas is included in this report, along with supporting data. The Jefferson County Health Department has existing programs to help address some of the issue areas and continues to work with the community and partners to meet the health needs of the citizens of Jefferson County.



# Socio-Economic & EDUCATIONAL PROFILE:

## Population

The population of Jefferson County has increased dramatically since the 1990 and 2000 census time periods. According to 2008 Census estimates, the current population of Jefferson County is 217,679, an increase of 19,580 persons from the 2000 census. The racial composition of Jefferson County is predominantly Caucasian (97%), followed by African Americans (1%) and smaller amounts of other ethnic groups. The age group compositions in the county are similar to the state, with adults aged 35 to 44 comprising the largest population segments.

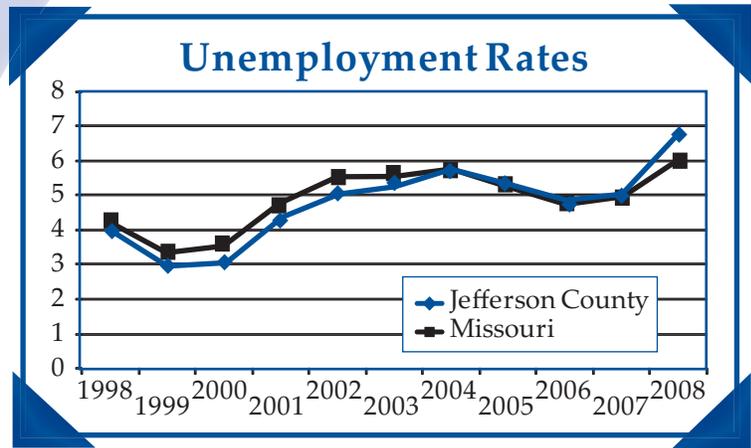


## Unemployment

Unemployment in Jefferson County remained below state trends until 2004. From 2004 through 2007, the county rates and state rates were nearly identical. The recent economic turmoil has impacted unemployment in Jefferson County, as evidenced by the increase in the 2008 rate. The increase of nearly 2% over the 2007 rate puts Jefferson County unemployment at rates higher than the state, which hasn't occurred for over ten years.

## Per Capita Income

Jefferson County per capita income rates are slightly below the state rates, but generally follow state trends. The 2006 per capita income for the county was \$29,384 according to the Missouri Department of Economic Development, \$3,405 lower than the state average of \$32,789.

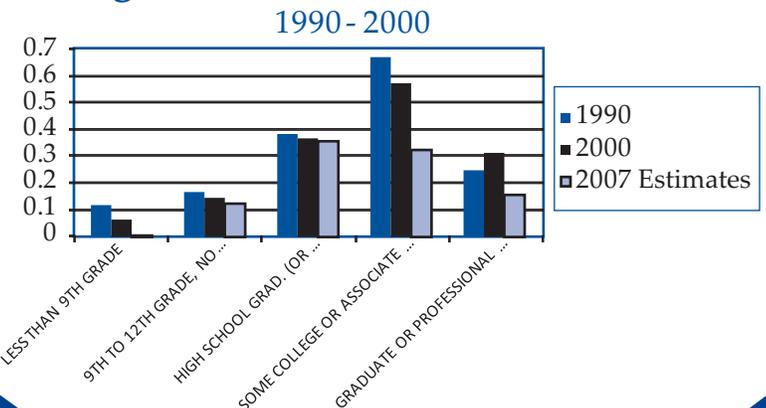


## Education

The education rates of people over age 25 shifted slightly from the 1990 census to the 2000 census. Data indicates decreases in all education levels, with the trend continuing according to 2007 estimates. In contrast, Jefferson County high school graduation rates are higher, on average, than state rates and drop-out rates are lower than state rates.



## Changes in Educational Attainment



# Heart Disease, Stroke & CEREBROVASCULAR DISEASE

Heart disease and stroke are the first and third leading causes of death in the United States, accounting for nearly 35% of all deaths.

Centers for Disease Control (<http://www.cdc.gov/nccdphp/publications/factsheets/Prevention/dhdsp.htm>)

## Heart Disease

Jefferson County ranks in the first quintile among all Missouri counties for heart disease related deaths, hospitalizations, and emergency room visits. From 1997 – 2007, there were 5,046 deaths due to heart disease according to Missouri Department of Health and Senior Services data. The mortality rate for heart disease has been decreasing overall for the state of Missouri. However, residents in Jefferson County remain at risk. The mortality rate for the county has remained higher than state rates since 1991. The death rate for the county during the above given time period was 307.1 as compared to the state rate of 262.7.

Jefferson County residents also tend to be more at risk for hospitalizations due to heart disease than other Missouri residents. During the 1996 – 2006 time period, there were 17,897 hospitalizations for a county rate of 192.4 as compared to the state rate of 174. There were also 8,872 heart disease related emergency room visits.



## Heart Disease RISK FACTORS

Some conditions as well as some lifestyle factors can put people at a higher risk for developing heart disease. In principle, all persons can take steps to lower their risk of heart disease and heart attack by addressing these risk factors. Control of risk factors is especially need by people who already have heart disease.

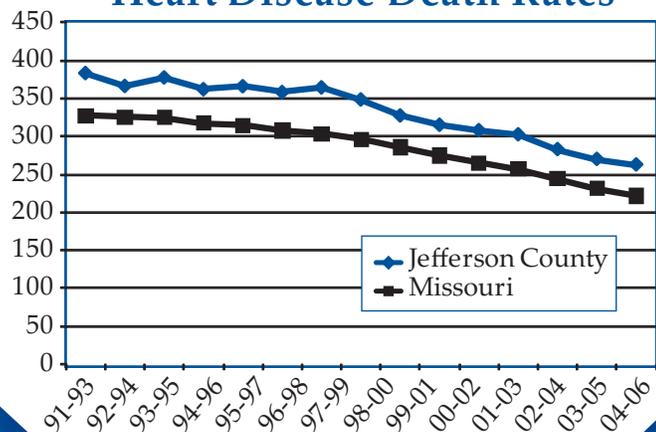
### Conditions – Risk Factors

- ❖ Blood Cholesterol Levels
- ❖ High Blood Pressure
- ❖ Diabetes Mellitus

### Behavioral – Risk Factors

- ❖ Tobacco Use
- ❖ Diet
- ❖ Physical Inactivity
- ❖ Obesity
- ❖ Alcohol

### Heart Disease Death Rates



## WHAT ARE THE COMMON SYMPTOMS OF CARDIOVASCULAR DISEASES?

- ❖ Often, there are no symptoms of the underlying disease of the blood vessels. A heart attack or stroke may be the first warning of underlying disease.
- ❖ Symptoms of a heart attack include: pain or discomfort in the centre of the chest; pain or discomfort in the arms, the left shoulder, elbows, jaw, or back. In addition the person may experience difficulty in breathing or shortness of breath; feeling sick or vomiting; feeling light-headed or faint; breaking into a cold sweat; and becoming pale.
- ❖ Women are more likely to have shortness of breath, nausea, vomiting, and back or jaw pain.
- ❖ The most common symptom of a stroke is sudden weakness of the face, arm, or leg, most often on one side of the body. Other symptoms include sudden onset of: numbness of the face, arm, or leg, especially on one side of the body; confusion, difficulty speaking or understanding speech; difficulty seeing with one or both eyes; difficulty walking, dizziness, loss of balance or coordination; severe headache with no known cause; and fainting or unconsciousness.
- ❖ People experiencing these symptoms should seek medical care immediately.

Source: [http://www.who.int/cardiovascular\\_diseases/en/](http://www.who.int/cardiovascular_diseases/en/)

## Stroke & Cerebrovascular Disease

Prevention of disease is the core mission of public health, and preventing chronic disease presents unique and difficult challenges. Jefferson County Health Department has assembled a highly qualified team of health education specialists to respond to the needs of county residents. The members of the Health Education Team provided services to over 50,000 individuals in 2008. The health educators promote health and provide information to help prevent disease, disability, and premature death through behavior and lifestyle changes. Educational programs are presented at schools, worksites, and community organizations. The Health Education Team also facilitates worksite wellness programs, provides health screenings, assists with policy development, conducts community assessments, and coordinates community coalitions.

Stroke is a type of cardiovascular disease. It affects the arteries leading to and within the brain. A stroke occurs when a blood vessel that carries oxygen and nutrients to the brain is either blocked by a clot or bursts. When that happens, part of the brain cannot get the blood (and oxygen) it needs, so it starts to die. Stroke is the third leading cause of death and

the leading cause of disability for all Americans. The financial burden is staggering - Americans will pay about \$68.9 billion in 2009 for stroke-related medical costs and disability.

(American Stroke Association, <http://www.strokeassociation.org>)

Missouri Department of Health and Senior Services data shows there were 3,036 stroke related hospitalizations from 2002 – 2006 in Jefferson County. Statistically, Jefferson County stroke related incidents are in line with statewide rates for deaths, hospitalizations and emergency room visits. Risk factors for strokes include obesity, smoking, high cholesterol, diabetes, and unhealthy eating. For Jefferson county residents, 34.1% were at risk due to being overweight, and 23.5% were at risk due to high cholesterol levels.

According to recent estimates, about one in three U.S. adults has high blood pressure, but because there are no symptoms, nearly one-third of these people don't know they have it. Uncontrolled high blood pressure can lead to stroke, heart attack, heart failure or kidney failure. This is why high blood pressure is often called the "silent killer." The only way to tell if you have high blood pressure is to have your blood pressure checked.

(American Heart Association, <http://www.americanheart.org>)



# Cancer

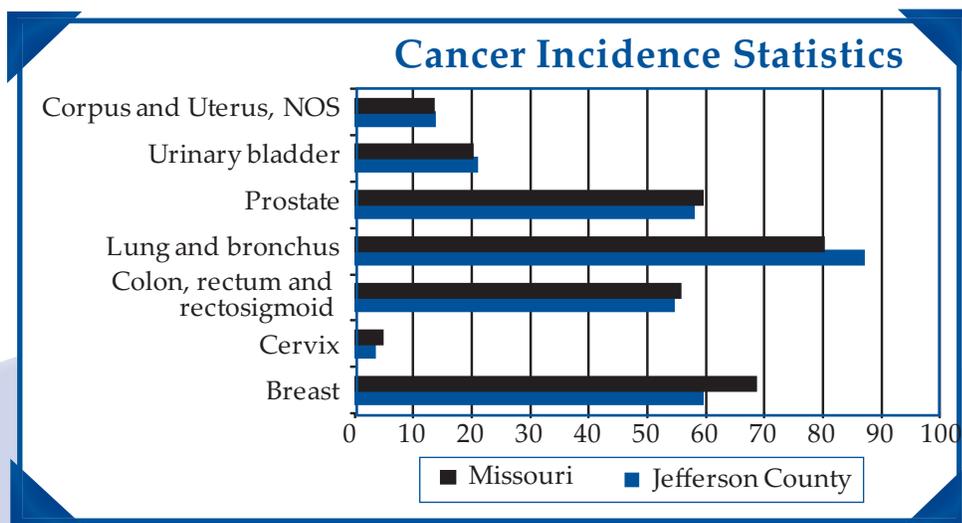
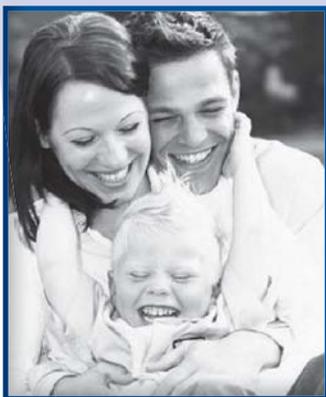
## Cancer

Cancer is a group of diseases that may cause almost any sign or symptom. The signs and symptoms will depend on where the cancer is, how big it is, and how much it affects nearby organs or tissues. If a cancer has spread (metastasized), symptoms may appear in different parts of the body. Cancer begins when cells in a part of the body start to grow out of control. There

are many kinds of cancer, but they all start because of out-of-control growth of abnormal cells. A cancer may cause symptoms like fever, extreme tiredness (fatigue), or weight loss. This may be because cancer cells use up much of the body's energy supply, or they may release substances that change the way the body makes energy from food. Or the cancer may cause the immune system to react in ways that produce these symptoms.

*American Cancer Society (<http://www.cancer.org>)*

Cancer claims the lives of more than half a million Americans every year and is the second leading cause of death in the United States, exceeded only by heart disease. The financial costs of cancer are



overwhelming, costing an estimated \$206 billion according to the National Institutes for Health. Cancer is the second leading cause of death for Jefferson County residents, claiming 4,004 lives between 1997 and 2007. Cancer related deaths have been decreasing in Jefferson County since the 1999-2001 time frame and are currently slightly higher than state rates according to Missouri Department of Health and Senior Services information.

Early detection is key to successful cancer treatment. Jefferson County residents are less likely to undergo preventative screening for early cancer detection. The 2007 Health and Preventative Practices Survey conducted by the Missouri Department of Health and Senior services indicates nearly 14% of women aged 40 and older have never had a mammogram, and 35% of men and women aged 50 and older have never had a colonoscopy.

### Cancer Pre-Screening Rates

	Jefferson County	Missouri
Never had a mammogram - women age 40 and over	13.4	8.7
Never had a pap smear - women age 18 and over	4.6	3.4
Never had a blood stool test - men and women age 50 and older	58.7	58.5
Never had a sigmoidoscopy - men and women age 50 and older	35.2	36.6

The Jefferson County Cancer Coalition works to 'mobilize Jefferson County to eradicate cancer through education, awareness and services.' In 2008, one of the major projects of the Coalition, with the help of the American Cancer Society, was to promote the 'Get the Test' program with local physicians. The 'Get the Test' program promotes all cancer screenings, especially focusing on colorectal cancer screening. The Coalition also sponsored four mammography screening events with the assistance of the Siteman Cancer Center and the Missouri Baptist Medical Center, providing screening services for 124 clients. Health fairs also presented opportunities for Coalition members to provide education and information to nearly 1,200 people. Coalition members also distributed 6,000 brochures to all 6<sup>th</sup> graders attending public schools to promote the Great American Smoke Out, which encourages the decision to not smoke. Information about local resources is available on the Coalition website, <http://jeffcocancer.org/>.



# Diabetes, Obesity & PHYSICAL ACTIVITY

## Diabetes

Diabetes is a costly disease that can have serious complications and premature death. It is a major cause of heart disease and stroke and a leading cause of leg and foot amputations unrelated to injury, kidney failure, and new blindness in adults. The Centers for Disease Control and Prevention reported that 1.5 million new cases of diabetes were diagnosed in people age 20 years or older in 2005.

(<http://www.cdc.gov/Features/Livingwithdiabetes/>)

Diabetes is also an issue for Jefferson County residents. From 1997 – 2007, there were 554 deaths for a county rate of 32.2 as compared to the state rate of 24.6, according to the Missouri Department of Health and Senior Services Leading Cause of Death profile. Diabetes related mortality has decreased since 2000, but remains higher than the 1991 rates.

The hospitalization and emergency room visit rates for diabetes for the 2002 -2006 time period were below state rates for Jefferson County, however hospitalization rates have increased since 1994 as evidenced in the graph.

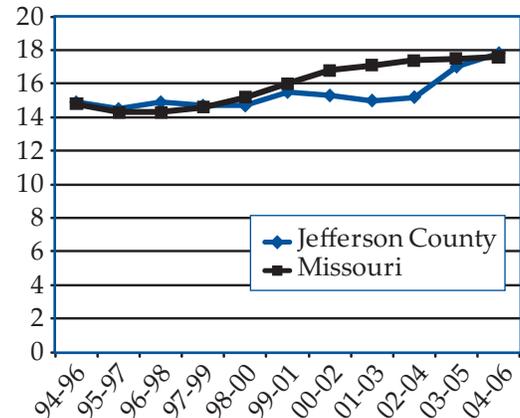
## Obesity & Physical Activity

Obesity is one of the most serious health issues facing society today. In the past twenty years, the problem of obesity has grown so rapidly that it is considered a national epidemic. In Missouri, more than one in five adults are considered obese, and more than half of the adult population is considered overweight, which can lead to obesity.

Based on the 2007 Health and Preventative Practices Survey, Jefferson County, 34.1% of residents are reported as overweight, with 30.3% reported as obese. People who are overweight or obese are more likely to experience a multitude of health problems related to chronic diseases, which are leading causes of death for county residents and Missouri overall. Jefferson County residents also report less leisure-time physical activity and overall fair or poor general health status. Physical activity and nutrition are cornerstones of healthy lifestyles. Many chronic diseases and poor health outcomes are linked to a lack of physical exercise and poor nutrition.

The Jefferson County Health Department is committed to providing education, counseling and screening services to residents. The Health Education team provided services to over 50,000 county residents in 2008. They presented 940 informational classes on topics ranging from nutrition, methamphetamine, sexually transmitted diseases, sun safety, dental health, cancer prevention and tobacco cessation.

## Diabetes Hospitalization Rates



The Jefferson County Health Department and Get Healthy DeSoto received funding from the Missouri Foundation for Health to increase physical activity and improve nutrition in DeSoto. Health department staff members were trained to present “Sneakers”, a four-week physical activity and education program and “Funtastic Nutrition”, a six-week healthy eating program from BJC Healthcare Youth Outreach and Development. The programs were presented to third graders at Vineland Elementary, Athena Elementary, Sunrise and St. Rose of Lima. School staff received weekly emails to promote physical activity and healthy eating. Get Healthy DeSoto distributed weekly newsletters to residents living in the 63020 zip code and organized various wellness events including a Better Body Challenge, a golf tournament, and walking clubs. Additional funds were provided in December of 2008 in order to increase county resident access to fresh produce, increase physical activity and improve nutrition in DeSoto restaurants. Plans are in progress to develop two community gardens and ten percent of the produce from the gardens will be donated to local food pantries. The health department will team with Get Healthy DeSoto to work with local restaurants to designate healthy menu choices and to develop new healthy menu items. Grant money will also be used to make enhancements to the walking trail at one local park.

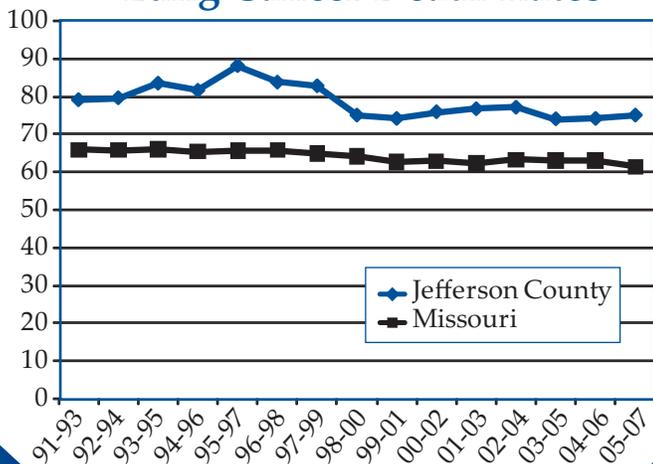
# Alcohol, Tobacco & SUBSTANCE ABUSE

## Alcohol

There were 291 deaths (rate of 12.9) in Jefferson County during the 1996 – 2006 time period that were Alcohol or Drug Induced according to the Missouri Department of Health and Senior Services. The Leading Cause of Death profile also indicates the state rate was 14.0, just slightly higher than the county rate.

Missouri State Highway Patrol records reflect that Jefferson County arrests for Driving Under the Influence (DUI) fluctuate from year to year, but average out to 809 per year during 2001 to 2007. Additionally, alcohol is reported to be a factor in an average of 6.2% of all Jefferson County traffic accidents each year. In 2007 alone, there were fourteen fatalities in the county due to alcohol related crashes.

### Lung Cancer Death Rates



## Tobacco

Tobacco use kills nearly half a million Americans each year, with one in every six U.S. deaths the result of smoking. Smoking harms nearly every organ of the body, causing many diseases and compromising smokers' health in general. Nicotine, a component of tobacco, is the primary reason that tobacco is addictive, although cigarette smoke contains many other dangerous chemicals, including tar, carbon monoxide, acetaldehyde, nitrosamines, and more.\*

\*National Institute on Drug Abuse (<http://www.drugabuse.gov/ResearchReports/Nicotine/Nicotine.html>)

Overall, smoking attributable deaths are decreasing in Missouri and in Jefferson County as well. Missouri Department of Health and Senior Services data reflect that an estimated 3,288 people in Jefferson County died from smoking related problems from 1997-2007, for a county rate of 181.5 as compared to the state rate of 155.6. However, the rate of deaths due to lung cancer from 1997-2007 was 77.1 and 63 for the state, reflecting a significantly higher rate for the county.

Jefferson County conducted a Tobacco Use and Awareness Survey in 2008 and found that of 274 residents who responded, approximately 42% were current tobacco users. This percentage is higher than a 2007 study completed by the Missouri Department of Health and Senior Services, which reported 35.4% of the 401 respondents were tobacco users. Both surveys reported that over half of the respondents would support smoke-free restaurants and recognized that secondhand smoke causes health problems.

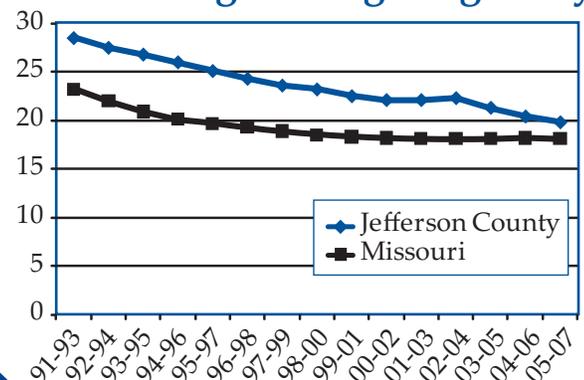
### TOBACCO PREVENTION EDUCATION EFFORTS

- ❖ ABC's of Tobacco Youth Prevention
- ❖ Tar Wars 5th Grade Tobacco Prevention
- ❖ Tobacco Use and Influence (7th and 10th grade prevention)
- ❖ Tobacco Newsflash
- ❖ Clean Indoor Air Law Compliance
- ❖ Freedom From Smoking
- ❖ Smoke-Free Teens On Purpose (STOP)
- ❖ Tobacco Cessation Line

In 2007, the rate of babies born to mothers who smoked while pregnant was 20.0 in Jefferson County. The Missouri rate was 17.7.

This reflects a significant decline over a ten year period, however rates are still of concern. Smoking nearly doubles a woman's chances for having a low-birthweight baby and increases the risk for pre-term delivery. Premature and low-birthweight babies face an increased risk of serious health problems during the newborn period, along with risks of chronic lifelong disabilities and even death.

### Smoking During Pregnancy



## HERE ARE SOME THINGS TO LOOK FOR IN IDENTIFYING A METH LAB:

- ❖ Unusual, strong odors (like cat urine, ether, ammonia, acetone or other chemicals).
- ❖ Residences with windows blacked out.
- ❖ Renters who pay their landlords in cash. (Most drug dealers trade exclusively in cash.)
- ❖ Lots of traffic - people coming and going at unusual times. There may be little traffic during the day, but at night the activity increases dramatically.
- ❖ Excessive trash including large amounts of items such as: antifreeze containers, lantern fuel cans, red chemically stained coffee filters, drain cleaner and duct tape.
- ❖ Unusual amounts of clear glass containers being brought into the home.
- ❖ Windows blacked out or covered by aluminum foil, plywood, sheets, blankets, etc.
- ❖ Secretive / protective area surrounding the residence (like video cameras, alarm systems, guard dogs, reinforced doors, electrified fencing).
- ❖ Persons exiting the structure to smoke
- ❖ Little traffic during the day, but high traffic at late hours; including different vehicles arriving and staying for short periods of time.
- ❖ Little or no mail, furniture, visible trash and no newspaper delivery.

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

## Substance Abuse

The Missouri State Highway Patrol statistics indicate an increasing number of arrests due to narcotics during the 2003 – 2007 time period. The arrests are differentiated between Possession of narcotics and Manufacture or Sale of Narcotics. While possession arrests declined in 2007, the overall trend shows increases of arrests for both charges indicating an increasing problem with illegal drug distribution and use.

Issues surrounding Methamphetamine have been a focus of the Jefferson County Health Department. The number of meth lab incidents as

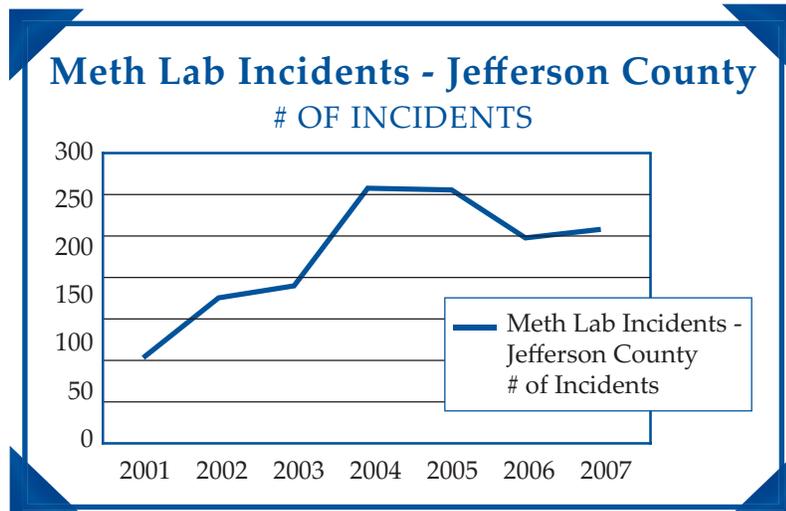
reported by the Missouri State Highway Patrol shows how the number of incidents has more than doubled in the past six years. In 2008, there were a total of 6,757 meth lab incidents (meth labs seized) nationwide; 1,487 or 22% of those were in Missouri, ranking Missouri the highest in the country. Of the meth lab incidents in Missouri, 203 or 14% were in Jefferson County, ranking the county highest in the state and accounting for 3% of the national total.

The Jefferson County Health Department conducted a Methamphetamine Community Assessment to help determine residents' knowledge, beliefs and social norms regarding current methamphetamine education efforts. The survey results indicated that

the community is in need of basic education regarding the drug, reasons people use meth, addiction rates, and the impact meth has on physical appearance.

A meth lab can exist almost anywhere – in a home, apartment, trailer, or even the trunk of a car. Unfortunately, many properties in Jefferson County that were previously used as meth labs are being sold and then re-inhabited without proper cleanup and often without the purchaser

knowing of the property's history. This creates a significant risk of exposure to the new resident(s). Exposure to meth lab contaminants can cause a variety of symptoms including respiratory distress, burns on exposed skin, headaches, dizziness and nausea. While there are no existing state regulations, the Jefferson County Health Department is currently working with the County Building Commission and local health educators to create standards for the county.



# Infant & CHILD HEALTH

The Missouri Department of Health and Senior Services Infant and Child Health Profile reports data on specific health and risk indicators for children. According to this data, infants and children in Jefferson County have low risk levels. The rates for unintentional injuries, hospitalizations, and death are all lower than state rates. The leading cause of inpatient hospitalization for children under the age of 15 was Respiratory (throat and lung) problems with at rate of 74.9 for the 2000 – 2006 time period. The state rate was 97.7.



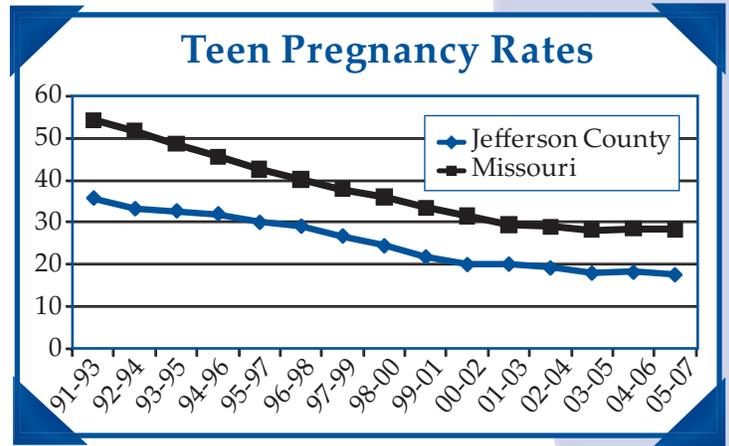
Jefferson County rates for Infants participating in WIC are consistently and significantly lower than state rates. The county rate for Infants on Medicaid is also lower than the state rate according to the Missouri Department of Health and Senior Services.

One of the primary concerns in Jefferson County is exposure to lead and the impact of that exposure on health. Children less than 72 months of age are at greatest risk for lead poisoning and are the primary focus for blood lead testing. In 2007, there were 602 children tested for elevated blood levels, with 36 children being followed for elevated blood levels. In 2008, 158 children were tested and 36 children were being tracked. The Jefferson County Health Department will continue to work with the Environmental Protection Agency and county residents to monitor lead levels in the community.

The Jefferson County Health Department has an established Family Literacy Program which promotes immunizations, literacy at an early age, and interaction between parents and children through reading activities. This is accomplished by distributing new books to children who may be at risk for low literacy skills. The books are distributed when recommended immunizations are given. The immunizations are routinely provided for children and adults at no charge, while other vaccines are available for a nominal fee.

## Teen PREGNANCY

Teen pregnancy is of concern to many counties in Missouri, including Jefferson County. Teen birth rates are of concern because teens generally have poor eating habits, neglect to take vitamins and may smoke, drink alcohol, or take drugs during pregnancy. Future opportunities are also diminished for teen mothers because they are more likely to drop out of high school and then face employment limitations due to a lack of skills and education. Employment limitations can potentially force the teen mother to become financially dependent on family or public assistance.



The Jefferson County Health Department operates one of the largest public family planning programs in the state. The program provides contraceptive counseling and services for residents who wish to plan the timing and number of children. Over 1,000 pregnancy tests were administered in 2008, along with over 1,200 tests given in 2007.

Jefferson County teen pregnancy rates are lower than statewide rates, and have been steadily decreasing since 1991. During the 2003 – 2007 time period, there were 324 births to mothers aged 15 to 17, for a county rate of 2.2 as compared to the state rate of 3.3 according to the Missouri Department of Health and Senior Services. There were also 895 births to mothers age 18 to 19, for a county rate of 6.2, as compared to the state rate of 7.9.

## FAMILY SAFETY

# Abuse & Neglect

Every day, across the country, the very people children rely on for protection and comfort subject them to abuse or neglect. Children in our own community face these same risks. In Missouri, there are over 60,000 children involved in the child protection system each year. Approximately 10,000 of those children are confirmed as abused or neglected.

<http://www.childabuseprevention.org/index.php>

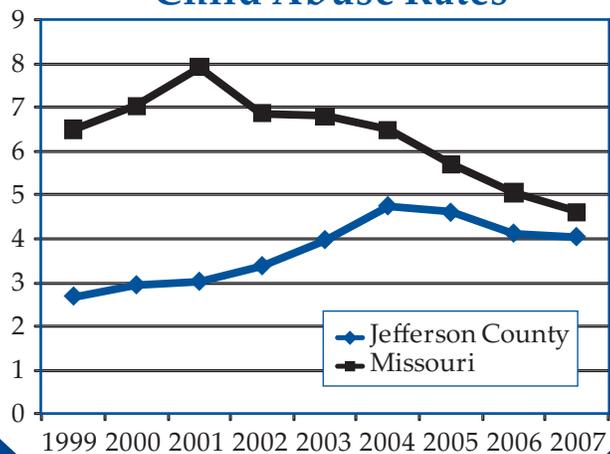
The harmful effects of child abuse and neglect vary depending on a number of factors, including the circumstances, personal characteristics of the child, and the child's environment. In many cases, child abuse and neglect have consequences for children, families, and society that last lifetimes.

<http://www.childwelfare.gov/can/impact/>

From 1999 through 2007, Jefferson County rates of child abuse and neglect were significantly lower than state rates according to reports from the Missouri Department of Social Services. Of the substantiated reports, the majority of cases were related to physical abuse, neglect, and/or sexual mistreatment.

From 1999 through 2006, there have been a total of 2,389 children placed out-of-home due to child abuse and neglect, according to Missouri Juvenile Court records.

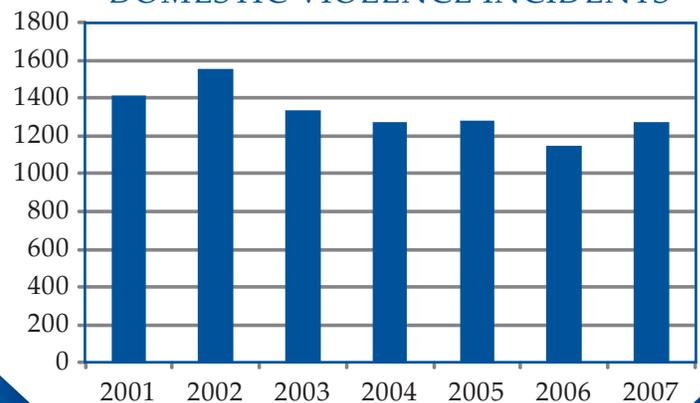
### Child Abuse Rates



The Missouri Department of Health and Senior Services Assault Injury Profile indicates 221 emergency room visits in Jefferson County that were recorded as child abuse during the 1996 – 2006 time period, for a county rate of 0.4, as compared to the state rate of 0.6.

The Missouri state highway patrol records the number of incidents related to domestic violence reports. The rates per 100,000 population for Jefferson county are: 2001 - 713.3; 2002 - 761.8; 2003 - 647.5; 2004 - 614.2; 2005 - 699.7; 2006 - 618.3; and 2007 - 656.5. Rates have remained fairly consistent with no dramatic increases or decreases. The Missouri Department of Health and Senior Services Assault Injury Profile indicates Jefferson county had 196 emergency room visits due to domestic violence during the 1996 – 2006 time period, for a county rate of 0.1, equaling the state rate of 0.1. The Missouri Department of Health and Senior Services Assault Injury Profile also records the number of incidents of Adult Abuse. For the 1996-2006 time period, there were 131 emergency room visits for a county rate of 0.1 as compared to the state rate of 0.2.

### Jefferson County DOMESTIC VIOLENCE INCIDENTS



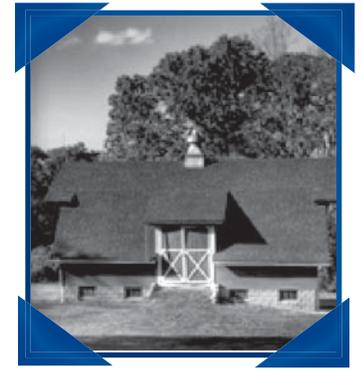
People often think of domestic violence only in terms of the black eyes and bruises that can be seen. In reality, domestic violence is a pattern of assaultive and coercive behaviors that abusers use to control their intimate partners. In addition to the very real threat of harm or death to themselves or their children, victims must contend with the accompanying financial and emotional hardship. They also often weigh cultural and religious values that emphasize keeping families intact and respond to the violence in spite of justice and social service systems that don't always provide adequate safety and support.

<http://www.mocadsv.org/dv101/>

# Environment

The Jefferson County Health Department provides environmental health services such as inspections and testing. Food handling establishments are inspected to ensure compliance with sanitation standards and safety practices. Swimming pools are inspected to ensure safety and chemical and bacteriological quality. Hotels and motels are inspected annually for safety and sanitation. Other inspections occur in response to complaints of insects and rodents or of a general nature. Public and private drinking water supplies are tested for bacterial contamination. The Jefferson County Health Department also records reports of animal bites and submits the heads of biting or questionable animals to the state lab for rabies testing. The local health department performs these state mandated inspections and testing, but also faces additional challenges.

Jefferson County has many environmental challenges including air, water, and land pollution. The pervasiveness of lead and its accessibility by county residents presents a continuous exposure problem. The smelter at Herculaneum presents unique problems with lead exposure through air pollution, lead dust contamination and soil recontamination. Other areas of concern include the SW Jefferson County Mining Site and the Meramec River Bottom. The Environmental Protection Agency (EPA) has proposed moving the SW Jefferson County Mining Site to the National Priorities List and it has designated



the Herculaneum zip code area for universal lead testing. The Jefferson County Health Department continues to monitor, test and track the impact of lead contamination in the county.

The Indoor Air Program operated by the Jefferson County Health Department has been discontinued due to budget constraints, however there continues to be a growing number of concerns and complaints regarding indoor air quality. Air quality can be affected by smoke, pesticides and other chemicals used in manufacturing, cleaning and maintenance, including painting and carpet cleaning. Air quality can also be impacted by mold and bacteria.

The Jefferson County Health Department also responds to other environmental health issues. These issues range from foodborne illness investigations to landfill investigations. Environmental public health specialists provide education about issues such as West Nile virus, sanitary food handling, licensing of day care centers and nursing homes, and other specialized laboratory testing.



Jefferson County Health Department in recent years has worked closely with federal, state and local agencies to be better prepared for emergencies caused not only by a bioterrorist attack but by all other hazards. Planning and exercising of coordinated emergency response is ongoing. JCHD has successfully responded to severe weather situations and hazardous material spills as well as to emerging diseases such as the 2009 H1N1 “swine” influenza. An unknown factor is how much awareness of emergency preparedness has been raised among facilities such as schools or nursing homes and among families and individuals in the community, and what steps they have taken to be prepared. JCHD is planning to survey for that information and to plan future activities to assure that the community is prepared.

# Dental HEALTH

There are no dentists in Jefferson County that will accept Medicaid, which prevents many residents from seeking preventative care. In turn, the lack of care leads to critical problems and eventually the resident ends up in the emergency room. Emergency rooms in Missouri have seen increasing numbers of patients with dental problems over the past seven years. The rates across the state have increased from 5.3 in 2000-02 to 7.1 in 2004-06 (rate is per 1,000 people). For Jefferson County residents, the rates of dental related emergency room visits are increasing as well, however county rates are below state rates. Jefferson County rates increased from 3.6 in 2000-02 to 4.4 in 2004-06.

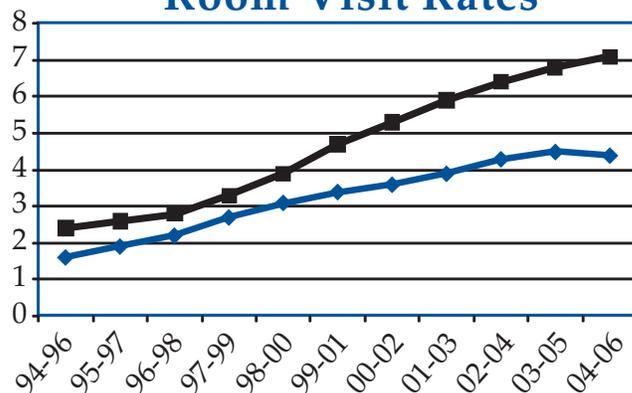
Jefferson County Health Department operates the Smiles to Go Mobile Dental Clinic, providing accessible, affordable, and convenient dental services to residents. Preventative and restorative dental services are offered to Medicaid eligible children and adults with developmental disabilities. Smiles to Go has traveled to every school district in the county, including 30 schools in 2008. Other agencies in Jefferson County that also provide dental services include Head Start, WIC, Ponybird, Loving Care and other county disability resource sites. Along with dental services, the Smiles to Go mobile clinic presents educational sessions and distributes oral health kits which include a toothbrush, toothpaste, floss, mirrors and educational materials to every school student at visited schools.



Jefferson County Health Department



## Dental Related Emergency Room Visit Rates



The goal of Smiles to Go is to ensure knowledge of proper oral health preventative techniques and access to dental services for low-income, uninsured and under insured children and developmentally disabled adults regardless of financial, transportation, or other barriers.

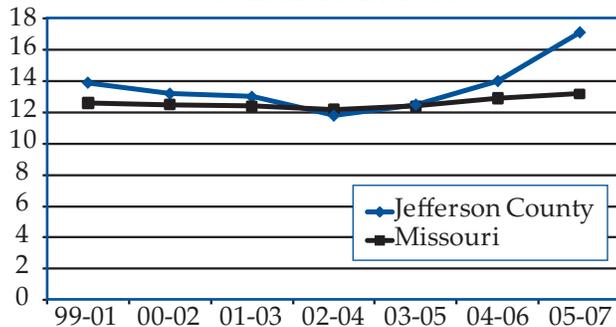


# Mental HEALTH

The mental health status of a county can be difficult to track, however there are some factors that can provide an indication of problems. Those factors include rates of suicide, self-inflicted injuries, alcohol and substance abuse, and domestic and family violence rates.



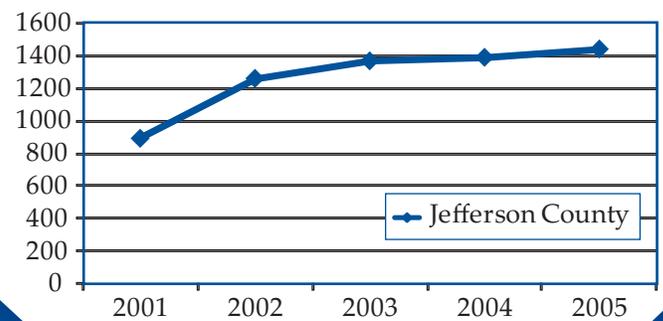
## Suicide Rates



For Jefferson County, rates of hospitalization and emergency room visits due to self-inflicted injuries are all lower than state rates for the 1996 – 2006 time period. Missouri Department of Health and Senior Services data also indicates that the rate for suicides for the 1997 – 2007 time period was 14.2 for Jefferson County as compared to 12.7 for the state. While this is not a statistically significant difference, trending data shows an increase in suicide rates for Jefferson County over the past few years.

KidsCount data shows an increasing number of children receiving public SED (serious emotional disturbance) mental health services. In 2001, there were 897 children receiving services. The number jumped to 1,439 by 2005, for an increase of 38%. COMTREA, a mental health provider in Jefferson County, indicates in their 2007 Year End Report that almost 70% of requests for services were related to children. COMTREA provided targeted case management services to 457 children and adolescents, provided medication management services to 857, and conducted 586 youth psychiatric evaluations.

## Number of Children RECEIVING SERVICES FOR SED



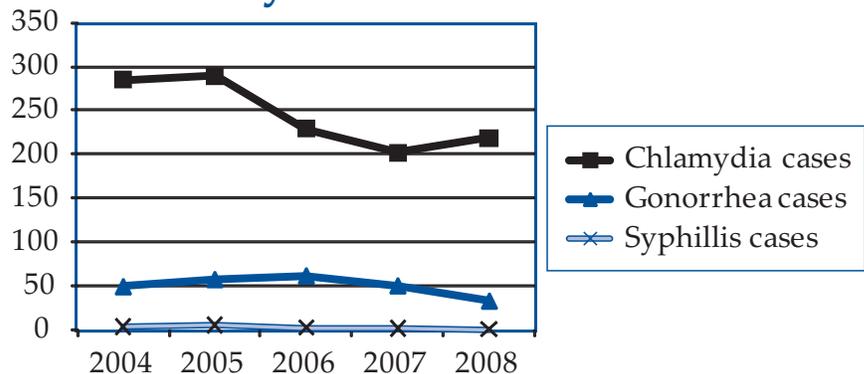
# Communicable

## DISEASE

The Jefferson County Health Department provides basic public health services to help prevent and control communicable diseases by finding, testing and treating those who have been exposed. Communicable diseases are those that can be spread through food, water, or personal contact. Many diseases that were fatal fifty years ago have now been eliminated except for occasional outbreaks which are quickly contained through the efforts of public health agencies. Immunization programs, along with good nutrition, are promoted by public health agencies which also helps stop the spread of communicable diseases.

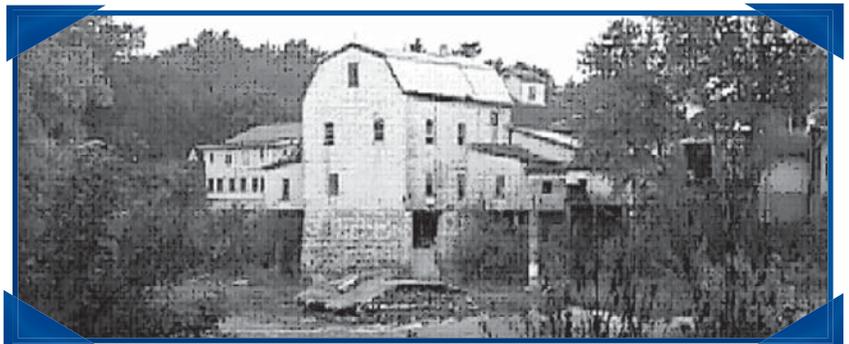


### Sexually Transmitted Diseases



Sexually transmitted disease rates have fluctuated in Jefferson County. The number of Chlamydia cases increased in 2008, but remains lower than in previous years. The 2008 rates for Gonorrhea were also lower than previous years. Syphilis rates remain low over the 2004 – 2008 time period, with less than 10 cases per year and only 1 case reported in 2008.

In 2008, there were 76 reported cases of pertussis, or whooping cough, in Jefferson County. In 2007, there was only one case reported. There was also a jump in the number of varicella (chickenpox) cases from 8 in 2007 to 42 in 2008.



## ACCESS TO CARE

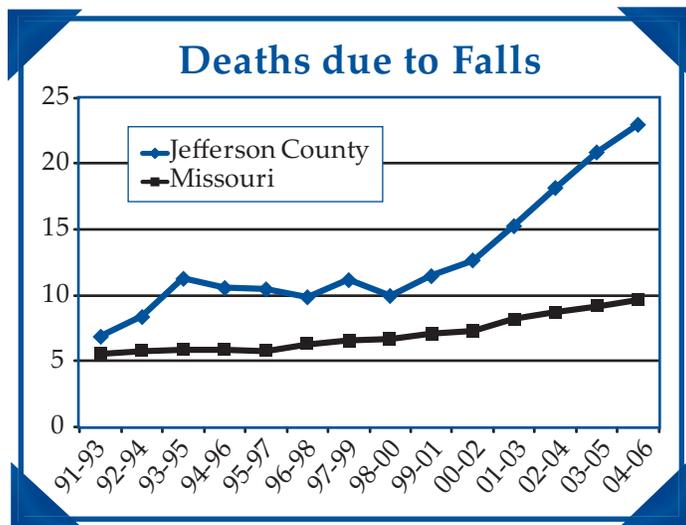
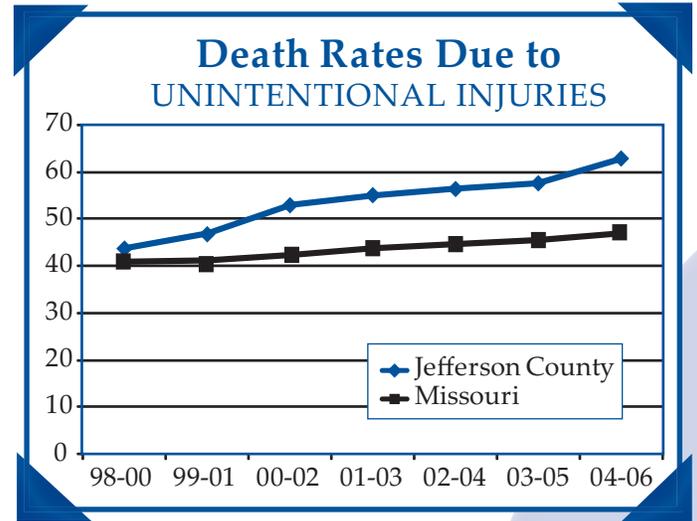
Jefferson County residents may face challenges in finding a health provider. According to Missouri Department of Health and Senior Services data, the county has four times more population per provider than the state average. The lack of public transportation is also an issue, as this prevents some population segments from traveling to St. Louis for health care and/or specialized services. Many of the existing providers in Jefferson County do not accept Medicaid, or are not accepting new Medicaid patients.

The Community Health Status Indicators, published by the U.S. Department of Health and Human Services, estimates there are 19,492 uninsured people in Jefferson County. There are also over 22,000 Medicare beneficiaries of which over 4,500 are disabled.

# Unintentional INJURIES

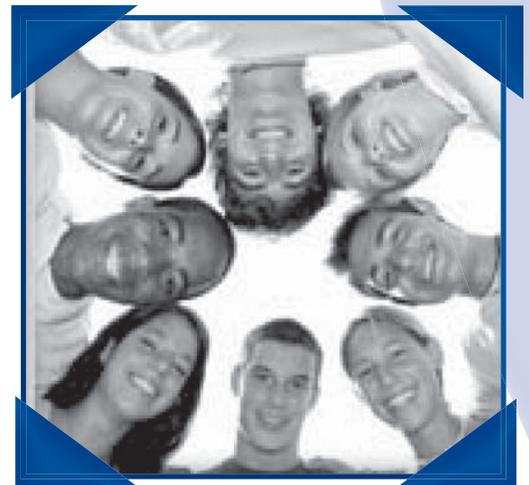
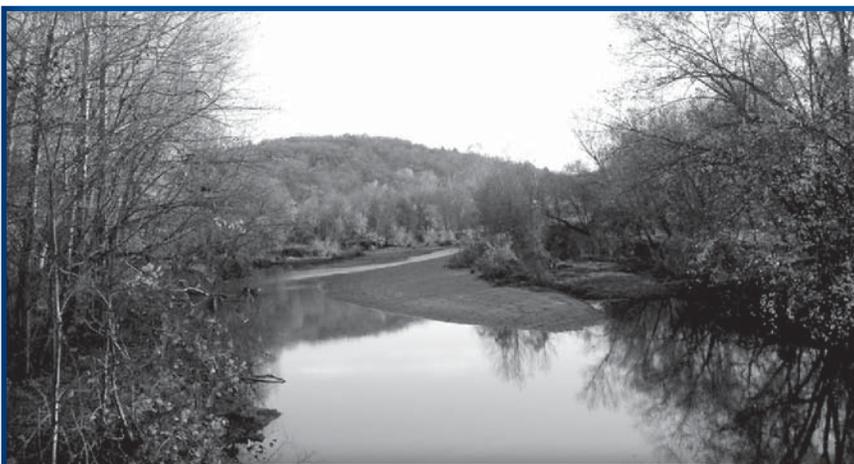
Risks for injuries and accidents change with every age, with curious children facing risks due to limited physical coordination and developing cognitive reasoning abilities. Working adults face risks of injuries while traveling to and from work, and while on the job. Seniors face risks from falls, increased travel after retirement, and the possibility of elder abuse. Children and seniors may be dependent on caregivers for many aspects of their safety, and may have only limited communication abilities when abuse or neglect has occurred.

The rates of deaths and hospitalizations due to unintentional injuries are high for Jefferson County residents. From 1996 – 2006, there were 1,037 deaths and 11,080 hospitalizations, per the Missouri Department of Health and Senior Services. The leading cause of unintentional injuries was motor vehicle accidents, followed by falls, then poisoning: drugs or alcohol.



There were 504 motor vehicle accident related deaths in Jefferson County during the 1996 – 2006 time period, for a county rate of 23.6 as compared to the state rate of 19.8. While the county rate is higher than the state rate, there has been a steady decline in the rate since the 2001 time period.

Injuries due to falls is the second leading cause of Unintentional Injuries in Jefferson County according to the Missouri Department of Health and Senior Services. The overall rate of deaths due to fall-related injuries has increased dramatically for Jefferson County, more than doubling in the past ten years. Older adults can take steps to reduce the risk of falling. Regular exercise, physician and pharmacist review of medications and side-effects, regular eye exams, and improved home lighting are all simple measures that can reduce the risk of injuries due to falls.



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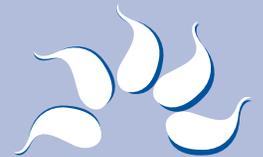
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# Jefferson County

HEALTH DEPARTMENT



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## Addendum to 2009 Jefferson County Health Department Health Assessment

### **Racial/Ethnic Composition of Population:**

According to the 2007 American Community Survey, three races comprise the majority of the population in Jefferson County. These races are Caucasian (97%), African American (1%), and Hispanic (1%). Other racial and ethnic groups make up a small portion of the population (<1%).

### **Medicaid:**

According to data from the 2003-2007 Missouri Department of Health and Senior Services Health and Preventive Practices Community Data Profile, 9.7% of Jefferson County residents in 2007 had no health care coverage, while the same rate for Missouri was significantly higher at 14.7%. A comparison of the data shows that, while the Jefferson County rate of no health care coverage may be lower than Missouri's rate, there is still a large portion of Jefferson County residents (1 in 10) without health care coverage. This limits residents' access to healthcare, especially preventive medicine. According to the 2008 Medicaid Participation Community Health Profile by the Missouri Department of Health and Senior Services, the rate for Jefferson County's Medicaid participation was 10.4%, which is 31.6% lower than Missouri's rate of 15.2%.

### **Poverty:**

According to the Missouri University Extension Social and Economic Profile of Jefferson County, the percentage of residents below the poverty rate in 2007 was 9.1%, while the Missouri rate was 13.3%.

### **Employment:**

According to data from the Missouri University Extension Social and Economic Profile of Jefferson County, the number of employed residents in 2007 was 77,072. The unemployment rate for Jefferson County was 8.2%, while the Missouri rate was 7.0%. The largest employment sector for Jefferson County workers was construction, which differed from Missouri and its largest workforce category, retail trade. In the same Social and Economic Profile, it was shown that 65.0% of Jefferson County employed residents worked outside of the county, and over 51% had a commute of over 30 minutes to work.

### **Life Expectancy:**

According to the United States Census, the average life expectancy of a person living in Jefferson County is 75.4 years, which is slightly lower than Missouri's average life expectancy of 76.8 years.

### **Hospitalization Rates:**

The first category of hospitalizations analyzed was preventable hospitalizations. The age adjusted rate of preventable hospitalizations in 2007 was 135.9. The rate has risen over the last twelve years of available data. The most common diagnosis for these preventable hospitalizations was dehydration. The second most common was bacterial pneumonia. The next category of hospitalizations looked at was emergency room admissions. The age adjusted rate of emergency room admissions in 2006 was 240.7 per 1,000 people. The single largest cause of admission was injury or poisoning, with the second leading cause being a respiratory (throat or lung) issue. The last category of hospitalizations assessed was hospital discharges. In 2006, the age-adjusted rate of hospital discharge for all diagnoses was 1,313.2 per 10,000 residents. Heart/circulation issues were the most common diagnoses for hospital discharges, occurring at an age-adjusted rate of 269.7 per 10,000. The next leading cause of hospital discharge was issues with the digestive system. (Missouri Information for Community Assessment)

### **Leading Causes of Injury:**

The rate of all injuries in Jefferson County has steadily decreased since 2000. In 2000, the rate of injury was 11,507.5 per 100,000, higher than the most recent rate (2006) of 8,206.1 per 100,000.

In 2006, the most recent data available, the three leading causes of injury were falls/jumps (28.6%), struck by/against by blunt object or fighting (16.1%), motor vehicle traffic (13.4%). (Missouri Information for Community Assessment)

### **Leading Causes of Death:**

According to the Missouri Department of Health and Senior Services (DHSS), the leading cause of death in Jefferson County is heart disease. Heart disease was the cause of death for 5,046 Jefferson County residents during 1997-2007, with an age-adjusted rate of 307.1 deaths per 100,000 residents. This rate was 16.9% higher than the Missouri state rate. Cancer was the

number two cause of death for residents, killing 4,004 people during 1997-2007. Lung cancer was the most prevalent form of cancer, killing 1,453 residents at an age-adjusted rate of 77.1, much higher than that of the state. Smoking attributable deaths were the third leading cause of death, with an age adjusted rate of 181.5 deaths per 100,000, significantly higher than the state average. All injuries, poisonings, and unintentional injuries were the fourth and fifth leading causes of death. Other significant causes of death for Jefferson County residents were stroke/cerebrovascular disease and chronic lower respiratory disease. The following table lists the top seven causes of death, number killed between 1997-2007, age-adjusted county rate, and age-adjusted state rate.

Cause of Death	Number of People Killed	Age-adjusted county rate	Age-adjusted state rate
Heart Disease	5,046	307.1	262.7
Cancer	4,004	216.4	202.6
Smoking Attributable	3,288	181.5	155.6
All Injuries and Poisonings	1,488	72.9	66.0
Unintentional Injuries	1,071	54.1	44.0
Stroke/Cerebrovascular Disease	994	62.1	58.3
Chronic Lower Respiratory Disease	952	56.5	47.2

The behavioral risks and age groups associated with the leading health problems are outlined in the “Leading Health Problems, Behavioral Risks, and Age Groups Most at Risk Report,” which is located in Essential Service #1, Performance Standard 5, Performance Measure A. Smoking cigarettes and obesity/physical inactivity/poor diet were the two main behavioral risks associated with the leading health problems for Jefferson County. Middle school and high school students are most at risk for beginning these habits and middle age and elderly men are the highest group at risk for death from these issues. DHSS

**Leading Health Problems:**

The leading health problems identified in Jefferson County were heart disease, lung cancer, and chronic lower respiratory disease (CLRD). There are associated behavioral risk factors with these diseases in Jefferson County.

Heart disease was the cause of death of 5,046 Jefferson County residents during 1997-2007. The age adjusted rate of heart disease caused deaths was 307.1 per 100,000 residents, which is significantly statistically higher than the state rate of 262.7. The county rate is 16.9% higher than the state rate.

Lung cancer is another major health concern for Jefferson County residents. Lung cancer killed 1,453 residents during 1997-2007. The Jefferson County age adjusted rate of lung cancer caused deaths was 22.38% higher than the Missouri state rate.

The third major health issue in Jefferson County is chronic lower respiratory disease (CLRD). CLRD caused 952 deaths in Jefferson County during 1997-2007. The age adjusted rate for CLRD deaths per 100,000 residents in Jefferson County was 56.5, which is 19.7% higher than the state age-adjusted rate. CLRD is comprised of three diseases – chronic bronchitis, emphysema, and asthma. 80% of all cases of chronic bronchitis or emphysema are attributed to tobacco smoking. DHSS

### **Behavioral Risk Factors:**

According to data compiled by the Missouri Department of Health and Senior Services County Data Profiles, the leading health problems in Jefferson County are heart disease, lung cancer, and chronic lower respiratory disease (CLRD).

Heart disease was the cause of death of 5,046 Jefferson County residents from 1997-2007. The age adjusted death rate for heart disease was 307.1 per 100,000 residents, which when compared to the state rate of 262.7, is statistically significantly higher. The county rate is 16.9% higher than the state rate. Behavioral risk factors for heart disease include obesity, lack of exercise, alcohol use, cigarette smoking, and diet. With regards to obesity, 34.1% of Jefferson County residents were found to be overweight (BMI 25.0-29.9) and 30.3% were found to be obese (BMI > 30.0). These figures are comparable to the state average. Another behavioral risk factor for heart disease is a lack of physical activity. Jefferson County residents who did not participate in leisure time physical activity represented 23.4% of the population, which was slightly lower than the state average. Diet is another risk factor for heart disease and is associated with other behavioral risk factors. Eighty percent (80%) of Jefferson County residents do not eat at least five servings of fruit and vegetables a day, which is 4.86% higher than the state rate during the same time. The final behavioral risk factor for heart disease is smoking. Twenty-four (24%) of Jefferson County residents report that they currently smoke cigarettes. The behavioral risk factors of obesity, poor diet, lack of exercise, and smoking have contributed to a high rate of heart disease in Jefferson County.

Lung cancer is a significant health concern for Jefferson County residents. Lung cancer was the cause of death for 1,453 residents during 1997-2007. The Jefferson County age adjusted death rate for lung cancer was 22.38% higher than the Missouri state rate. The main behavioral risk factor associated with lung cancer is tobacco use. In 2007, twenty-four (24%) of Jefferson County residents reported to currently smoking cigarettes. The rate of lung cancer deaths for Jefferson County has remained significantly higher than the state rate since 1991 though. Both rates have declined over that period. This analysis demonstrates that cigarette smoking, a major behavioral risk factor for Jefferson County residents, is a risk to the population and is a factor in many of the leading health issues in the county.

The third major health issue in Jefferson County is chronic lower respiratory disease (CLRD). CLRD caused 952 deaths in Jefferson County during 1997-2007. The age adjusted death rate for CLRD deaths per 100,000 residents in Jefferson County was 56.5, which is 19.7% higher than the state age-adjusted rate. CLRD is comprised of three diseases – chronic bronchitis, emphysema, and asthma. Eighty percent (80%) of all cases of chronic bronchitis or emphysema are attributed to tobacco use. Therefore, tobacco use is a major behavioral risk factor for CLRD. As stated above, 23.7% of Jefferson County residents were found to smoke. In 2007, 19.4% of Jefferson County residents who work indoors were exposed to second hand smoke within the last week and 16.2% of Jefferson County residents were exposed to second hand smoke at home during the last week.

Upon analysis of the behavioral risk factor data for Jefferson County, two main behavioral risks were evident. The first was the health risk associated with a sedentary lifestyle and poor diet. It was reported that 64.4% of Jefferson County residents are obese or overweight (BMI > 25.0). With regards to physical activity, 23.4% of residents responded that they do not participate in physical activity during their leisure time. Finally, in relation to diet, 79.8% of residents reported not eating at least five servings of fruit and vegetables per day.

The second major behavioral risk factor is cigarette smoking. As stated above, 23.7% of residents reported smoking cigarettes, and 27.8% reported being a past smoker. This indicates that 51.5% of Jefferson County residents have either smoked or currently smoke, resulting in elevated risks for lung cancer, heart disease, and chronic lower respiratory disease. The number of smoking-attributable deaths in Jefferson County during 1997-2007 was 3,288. This was an age-adjusted rate of 181.5, which is 16.65% higher than the age-adjusted state rate. Also, 19.4% of Jefferson County residents who work indoors were exposed to secondhand smoke in the last week, and 22.8% of residents report living with someone who smokes.

Therefore, the two behavioral risk factors identified in Jefferson County that contribute to the leading health problems in the community are obesity/poor nutrition/physical inactivity and cigarette smoking.

Specific age groups are at a higher risk for these behavioral risk factors. Research indicates that many smokers begin smoking during their middle school and high school years. Jefferson County students are at a high risk for developing the behavioral risk of smoking cigarettes, especially due to the social norms about smoking in rural communities. The health effects of the behavioral risk of smoking cigarettes will affect middle-age populations and the elderly most highly. The issues related to obesity/physical inactivity/poor nutrition affect all age groups and both genders fairly equally.

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