

Jasper County Health Needs Assessment:  
Towards A Healthy Illinois 2010

Approved by  
Jasper County Board of Health

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Coordinated by  
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## Acknowledgments

This Jasper County Health Needs Assessment has been developed by staff of the Jasper County Health Department. The assessment was also reviewed by the I-PLAN Community Health Committee and by the Jasper County Board of Health. The assessment was approved by the board of health, at the July 2007 board of health meeting.

The department gratefully acknowledges the cooperation and participation of the staff, the I-PLAN Community Health Committee and the Jasper County Board of Health.

## **Executive Summary**

The Jasper County Health Needs Assessment represents a process which identifies particular health needs in a jurisdictional area. The assessment also allows the Jasper County Board of Health to address the health priority areas identified by the needs assessment. The assessment is structured into six major categories of public health interest: Demographic and Socioeconomic Characteristics, General Health and Access to Care, Maternal and Child Health, Chronic Disease, Infectious Disease, and Environmental/Occupational Health and Injury Control. Most of the data elements presented and analyzed are a product of the I-PLAN data system. The analysis of the I-PLAN data set, allows for a systematic approach to the needs assessment. While the assessment provides an overview of health in Jasper County, it is important to remember that the identification of broad health problems and the establishment of priorities is critical to this process. Intervention strategies are also necessary to achieve year 2010 objectives in the county. Since not all of the indicators pertain to public health department programs there will be a need to collaborate with other government and private sector agencies, in order to address all of the issues in the year 2010 objectives.

The following is a general breakdown for all of the indicators in the data system.

### **Demographic and Socioeconomic Characteristics**

The population of Illinois had a fairly robust 8.6% increase from 1990 to 2000. The population in Jasper County declined by 4.6%, during this same period. It is obvious that Jasper County is losing population in proportion to the State of Illinois. Employment in Jasper County is somewhat limited, with a small factory base, and a relatively high unemployment rate. Many county residents are employed in other counties, or are involved in agricultural employment.

Population based on age is similar to state percentages, except in the 65+ range, where Jasper County has a significantly higher percentage of 65+ residents. The median age for the county is 38.1, while median age for Illinois is 34.7. In regard to population distribution, Jasper County is 99.1% white. The county is predominately rural in geography, with much of the land being used for agricultural purposes.

Jasper County also has a higher rate of poverty than the state as a whole. The percentage of the population who are medicaid enrollees has been climbing. From 1999

through 2002, the rate went from 14.5% of the population, to 16.4% of the population. The state rates are lower, and the Medicaid population in Jasper County has increased significantly in recent years. Per capita income is significantly lower in the county, when compared to the State of Illinois data.

### **General Health and Access to Care Indicators**

The crude mortality rate in Jasper County is at 930.0 per 100,000 population. The state rate is 805.0 per 100,000 population. The leading causes of mortality in the county are heart disease, coronary heart disease, malignant neoplasm, cerebrovascular disease, and lung cancer. The state of Illinois has the same leading causes of mortality.

Jasper County also has a problem with a significant number of county residents, who do not have any health insurance coverage. In a 6-year time frame from 1993 through 1998, Jasper County averaged 13.8% of the population who were uninsured. This totals almost 1400 people at any given time, who have no health insurance.

Jasper County has a higher percentage than the state as a whole, of adult population (age 18 and above) who did not visit a doctor and receive a physical examination in the last two years. Much of this problem stems from the fact that many county residents are uninsured, and they are not financially able to pay a physician for this service. Additionally, lack of access to care is another contributing factor.

The ratio of Medicaid enrollees to Medicaid Physician Vendors in Jasper County is significantly higher than the statewide ratio. This is another indication of the lack of access to care for county residents.

Jasper County continues to have a federal and state designation as a health Professional Shortage Area, Medically Under Served Area, and Primary Care Health Service Shortage Area. This has been a long-standing designation, with little improvement in the status of the designation. Jasper County has been unable to recruit enough full time physicians into the county. This makes access to care very difficult for county residents. There is a definite need to recruit at least one more full time physician.

The Percent of Population on Optimally Fluoridated Public Water Supplies has increased dramatically since 1991. In 1991 only 36.3% of Jasper County residents were served with fluoridated public water supplies. In 1996 81.1% were served. The state percentage rate in 1996 was 85.9%. The percentage has probably increased as the latest available data is 1996. The dramatic improvement can be attributed to the establishment and growth of the EJ Rural Water System. This water system has been gradually implemented in phases, throughout Jasper County. The system has not only provided fluoridated water, but has also provided many county residents with a safe and dependable supply of water. The EJ Water system has improved the quality of life for many people in this area.

## **Maternal and Child Health Indicators**

Jasper County's average infant mortality rate of 6.9 (2000 - 2004) is a significant decrease from the average rate of 10.1 from 1995 through 1999. In 2004 there were no infant deaths, with the rate dropping to 6.9, which is somewhat close to the Healthy People 2010 objective of 45 per 1,000 live births. It may be possible to achieve the target rate by the year 2010.

Low birth weight and very low birth weight in Jasper County, on average, are much lower than the state or U.S. rates.

Mothers who smoke in Jasper County, are significantly higher than the state percentage. For 2004, the last year data is available, the percentage of mothers who smoked during pregnancy was at 22.9%. The state percentage was at 10.2%. This is a significant difference. Mothers who drink during pregnancy in Jasper County is at 0 % for 2003. The state percentage is .4%. There appears to be a more significant problem with mothers who smoke, as compared to mothers who drink.

Prenatal care in Jasper County is more than adequate. The 2004 percentage of women in Jasper County, who receive adequate prenatal care is 85.3%. The state percentage is at 73.1%. 89.9% of Jasper County mothers received prenatal care in the first trimester. The state's percentage is 80.7%. The healthy people 2010 target is 90%.

In the Women, Infant, and Children Nutrition Program only 1.6% of the clients had low weight for height. The state was at 2.3%. The last data year available was 1996. This indicates proper nutrition for children enrolled in the program.

The percent of births to teens in Jasper County for 2004, was 2.8%. The State of Illinois registered at 2.6%. Teenage mothers are considered in these statistics, when they are in the 10 - 17-age group.

Child abuse and neglect cases seem to be rising in Jasper County. The rate is at 37 cases per 1000 children. The year 2010 objective is 10.3 per 1,000 children.

## **Chronic Disease**

Coronary heart disease remains the leading cause of death in Jasper County. This has been a long term trend for several years. Our high number of elderly population, and significantly prevalent risk factors, contribute to the mortality rate. As the need assessment indicates, there was a slight drop in the mortality rate from 1999 through 2004. This is an indication that intervention programs have proven to be successful. However, we will need to continue to expand our education programs on weight control, exercise, smoking cessation, and dietary habits.

Cerebrovascular disease mortality in Jasper County is also higher than the state rate. Like coronary heart disease the mortality rate for cerebrovascular disease dropped sharply from the year 1999 through 2004. Again, this is an indication of successful intervention strategies. However, the mortality rate is still higher than the state rate, and we must

continue to expand our intervention programs.

Lung Cancer Mortality in Jasper County is significantly higher than the State of Illinois rate, and the year 2010 target objective.

In 2002 lung cancer deaths peaked at 11. In 2003 and 2004 there was a significant drop in the number of deaths. 2003 had 8 deaths and 2004 had 6 deaths. Prevention strategies have worked, however, much more work needs to be done.

The mortality rate for colorectal cancer in Jasper County is higher than the state rate, and the Healthy People 2010 target rate of 13.9 per 100,000 population. This is an indication of the continued need for intervention strategies to address this problem.

Behavioral risk factors such as obesity, sedentary lifestyle, and smoking in Jasper County, are all higher than State of Illinois rates. These risk factors contribute to high mortality rates for coronary heart disease, cerebrovascular disease, and various cancers.

### **Infectious Disease Indicators**

Rates for syphilis, gonorrhea, AIDS and HIV infection have been reduced significantly at the state and national level. Jasper County had no reported syphilis cases, and only 2 AIDS and 2 HIV cases reported. Chlamydia rates seem to be increasing. Even though overall infectious disease rates have been decreasing across the spectrum, we must be vigilant at the local level, and continue to expand our information and education efforts.

Vaccine preventable diseases are currently under control. In 2002 77% of Jasper County children were fully immunized by their second birthday. This puts Jasper County significantly ahead of the state percentage of 57.8%. The Healthy People 2010 target rate for the United States is 90%. From 1998 - 2002 there were no vaccine preventable diseases reported in Jasper County.

Tuberculosis cases are decreasing in Illinois. From 2000 through 2005, there was a 20% decrease in reported cases. Jasper County had no cases reported during this same time frame. Even though this is a very significant decrease, prevention and education efforts must continue.

### **Environmental/Occupational/Injury Control Indicators**

Jasper County is a very rural area. In many areas EJ Water has supplied the county with a safe and dependable supply of water. However, the county still has areas, where the primary water supply comes from older unsafe dug wells. As time passes, EJ Water will eventually replace all of these older systems. This is, and will continue to be a very beneficial development for the county residents.

Jasper County does not have any hazardous waste sites. Much of this waste is trucked through the county, to sites in surrounding counties. Since the county is very rural, there is a significant potential for hazardous waste dumping. Some of this has occurred in the past,

so the possibility of this happening, is very real.

Air pollution does not appear to be a significant problem in the county. The industrial base is small, with the county located some distance away from large industrial areas.

Mortality associated with motor vehicles crashes in Jasper County are higher than the rate for Illinois. In a five-year period from 2000 through 2004 the Jasper County rate was at 23.8 per 100,000, as compared to the state rate of 12.1 per 100,000. This is surprising, since Jasper County is small in geographic size, and does not have a large population.

Unintentional injuries are the sixth leading cause of mortality in Jasper County. Much of the employment in the county is farm related, with a few factories also in the area. These occupations can be dangerous, with employees operating machinery and handling chemicals

Blood lead levels in Jasper County are relatively low, when compared to urban and metropolitan areas. This is probably true, because of the lack of any kind of housing in rural areas.

Sentinel events statistics, did not indicate any unusual health problems or diseases in Jasper County.

# **Community Health Needs Assessment**

## **Statement of Purpose**

The community health needs assessment will be reviewed by the Local Community Health Committee. The purpose of this review, will be to determine priority health indicators for Jasper County. Once the priorities have been established, the committee and the management staff of the health department will construct a plan to address these priorities. This plan will then be implemented. Evaluation of the plan will take place at various intervals during the five-year time frame. Hopefully, this plan of action will help improve the health of the Jasper County community.

## **Description of the Community Participation Process**

An I-PLAN 2007 Local Community Health Committee was formed to have input into the Community Health Needs Assessment, and the Community Health Plan. After much discussion by the Jasper County Board of Health, it was decided that the health board would serve as the committee. The I-PLAN process was explained to board members, and all agreed to serve. This would stream line the process for the limited staff involved in the project. The name of each board member who served on the committee is listed below.

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## **Method for Establishing Priorities**

The method used to establish priorities was the nominal group process. Because the committee was small, this process seemed like the most useful. However, because the group was small, it allowed participants an equal opportunity to express opinions and ideas, and to come to a group consensus more quickly. Because our department had limited staff to work on this project, it was felt the process could be streamlined with fewer committee members.

The majority of the data needed to establish the priorities was based on an analysis of I-PLAN data.

## **Process and Outcome of Setting Priorities**

The local community health committee met at a number of committee meetings, to determine priorities from the needs assessment. The committee discussed the I-PLAN data, and the needs assessment, to finally set the priorities. A plan was developed to address these priorities. The priority areas selected by the committee, are described in the plan.

## **Jasper County Health Needs Assessment Introduction**

One of the leadership responsibilities of a local health department is to accurately assess the health needs of the residents of a particular county, and to determine the priority of those needs, to determine sound health policy. This needs assessments attempts to update the baseline data provided in the IPLAN assessment in 1999. The assessment also provides a benchmark for the next I-PLAN in 2012.

The content of this county assessment includes all of the I-PLAN data, and some data from various other sources. The assessment compares data from Jasper County, and compares the data to state and in some cases United States data. In some indicators categories, Jasper County will experience problems in achieving Healthy People 2010 targets. However, in other categories Jasper County is at or above Healthy People 2010 data targets.

The assessment is structured to include six categories of data elements:

1. Demographic and Socioeconomic Characteristics
2. General Health and Access to Care
3. Maternal and Child Health
4. Chronic Disease
5. Infectious Disease
6. Environmental/Occupational and Injury Control

Within each category community health indicators, or measurements, form the foundation for the analysis. The community health indicators reflect many of the health issues of interest to public health agencies, including mortality, natality, morbidity, and the prevalence of risk factors in the population. An assessment of the indicators, serves as a way to transform many public health and health oriented data sets into useful information for policy makers. For a number of indicators a chart comparison was done, to visually indicate the data for Jasper County, the State of Illinois and the United States as a whole.

The report is intended to provide a basic assessment of health in Jasper County. Individual indicators should be more thoroughly analyzed, than is possible in this report, before health policy is developed. The assessment process is useful in identifying broad health problems, and establishing general priorities for program intervention, if year 2010 objectives are to be achieved in Illinois and Jasper County.

The data used in the Jasper County health needs assessment, represents a snapshot of health and health related issues for Jasper County. The majority of the data assessed, reflects a time period of 1997 through 2004. This allowed for a much more comprehensive, and pertinent assessment of health indicators in Jasper County.

**IPLAN**  
**Demographic and Socioeconomic Characteristics**  
**Jasper County**

## **INTRODUCTION**

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

## **ANALYSIS**

- 1.01 **Population by Age and Gender** - Age is reported in completed years. Age groupings were created to reduce the number of age categories to seven. Age groups provided allow the monitoring of health indicators among several important age groups (IDPH Illinois Center for Health Statistics, 1995). The most recent information available for population by age and gender is 2000. Female and male population is comparable in Jasper County, except at birth, with a slight increase of female population in the 45 to 64 age range. Female population in the 65+ range is 58%; male population is 42%. State percentages are comparable, but Jasper County has more elderly 65+ and less 15 to 44 years of age. A data source is the 2000 U.S. Bureau of the Census & Modified Age-Race-Sex Tabulation (MARS).
- 1.02 **Dependency Indicators** - These dependency indicators are broken out by total population, by sex and by race. The age parameters define the population less than 18 and more than 64 as potentially dependent on the population age 18 through 64. The dependency indicator describes the amount of the potentially dependent portion of the population as a proportion of the potentially independent population (Mausner and Bahn, 1974). Data Source: Illinois Center for Health Statistics (using data from U. S. Bureau of the Census and MARS). Males and females over age 64 who are dependent on the 18 through 64 age population runs about 4% higher than Illinois. Dependency indicators show that Jasper County's males and females under age 18 are essentially the same as Illinois percentages according to the 2000 U.S. Bureau of Census.
- 1.03 **Race/Ethnicity Distribution** - Starting in 1989, data from the National Vital Statistics System for newborn infants was tabulated according to the race of the mother. Before 1989, race of newborn was based on race of both parents. These figures represent the percentages and actual numbers of populations by race. Race includes American Indian or Alaskan Native, Asian, Native Hawaiian or other Pacific Islander, black, white or other. The ethnicity population distribution is represented in Hispanic and Non-Hispanic percentages and actual numbers. Hispanic origin includes persons of Mexican, Puerto Rico, Cuban, Central and South American and other or unknown Spanish origins (2000 U.S. Bureau of Census). The statistics for 2000, shows 99.1% of Jasper County population is white. Illinois has 73.5% white and U.S. has 75.1% white.

- 1.04 **Median Age for Population** - This measure divides the age distribution into two equal parts: one half of the cases falling below the median value and one-half above the median value. Median age is 38.1 in Jasper County; 34.7 in Illinois; and 35.3 in U.S. (2000 U.S. Bureau of the Census)
- 1.05 **Percent of Population 25+ Who Are Not High School Graduates** - This indicator reports the percentage of population 25 years of age and older who are not high school graduates. The percentage of population 25 years of age and older who are not high school graduates is 17.4% in Jasper County, 18.6% in Illinois and 19.6% in U.S. These figures are based on 2000 U.S. Bureau of the Census.
- 1.06 **High School Drop Outs** - These numbers represent the percentage of persons who are of school-attending age that is not presently enrolled in school. Dropping out of school is associated with multiple social and health problems including substance abuse, delinquency, intentional and unintentional injury, and unintended pregnancy. (IPLAN Data Set)

Year	Jasper County	Illinois	Difference
1997	3.1%	6.8%	3.7%
1996	5.5%	6.9%	1.4%
1995	5.8%	7.0%	1.2%
1994	2.7%	7.3%	4.6%
1993	5.1%	6.6%	1.5%
1992	3.9%	6.2%	2.3%
1991	1.5%	6.3%	4.8%
1990	4.1%	6.6%	2.5%

- 1.07 **Percent of Population Poverty** - According to the 2000 Census Data, there were 242 families below the poverty level in Jasper County. This is 8.5% of the county population as compared to 4.8% for Illinois and 9.2% for the U.S. Additionally there were 989 individuals living below the poverty line. This is 9.9% of the county population compared to 10.7% for the state and 12.4% for the U.S.
- 1.08 **Percent of Population Receiving Food Stamps** - The percent receiving food stamps based on 2000 information is 5.8% in Jasper County, compared to 6.8% in Illinois. 2001 information is 6.2% and 6.8% respectively. 2002 data show 6.1% and 7.3 % respectively. Those receiving food stamps in 2003 are 6.7% in Jasper County and 7.8% in Illinois. 2004 data indicated 7.3% for Jasper County and 8.5% for Illinois. (Data from IPLAN Data Set)

1.09 **Percent of Population Rural** - Urban population indicates all persons living in urbanized areas or places of 2,500 or more inhabitants. The population not classified as urban constitutes the rural population (IDPH Illinois Center for Health Statistics, 1995). Jasper County is considered 70.3% rural population. State of Illinois population is considered 15.4% rural.

1.10 **Percent of Unemployed** - Unemployed persons are defined as those not at work during the survey week, but who had attempted to find work during the last four weeks and were still looking (Vital Statistics Illinois 1990). Data source is the Illinois Department of Employment Security. The data listed is the average rate for each individual year.

Year	Jasper County	Illinois	Difference
2005	5.7%	5.7%	0
2004	6.1%	6.2%	0.1%
2003	6.8%	6.7%	0.1%
2002	5.7%	6.5%	0.8%
2001	5.5%	5.4%	0.1%
2000	5.0%	4.5%	0.5%

1.11 **Percent of Population Who are Medicaid Enrollees** - This indicator reports the actual number and percent of Medicaid enrollees for total population. This program is state operated and administered but has federal financial participation. Within certain broad federally-determined guidelines, states decide who is eligible; the amount, duration, and scope of services covered; rates of payments for providers; and methods of administering the program. Medicaid provides health care services for certain low-income persons. Medicaid does not provide health services to all poor people in every state (Health, United States, 1993). This indicator reports the actual percent of Medicaid enrollees for the total population.

Year	Jasper County	Illinois	Difference
2002	16.4%	14.0%	2.4%
2001	15.3%	12.6%	2.7%
2000	14.1%	12.2%	1.9%
1999	14.3%	12.4%	1.9%

1.12 **Percent of Single Parent Households** - Single parent households are defined as either a family with a male or female householder with no spouse present, or an unmarried couple household with a child present. The data source is the U.S. Bureau of the Census. 1990 statistics show 5.0% single parent households in Jasper County, 9.3% in Illinois, and

9.3% in U.S.

- 1.13 **Per Capita Personal Income** - This indicator reports the per capita personal income for total population. Data source is IPLAN Data Set - U.S. Dept. Of Commerce, Bureau of Economic Analysis.

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>	<b>Difference</b>
<b>1998</b>	18,958	29,853	10,895
<b>1997</b>	19,968	28,468	8,500
<b>1996</b>	18,343	27,005	8,662
<b>1995</b>	17,014	25,643	8,629
<b>1994</b>	17,712	24,440	6,728

## **Summary of Demographic and Socioeconomic Characteristics**

Jasper County has a higher percentage of population 65+ compared to the state. Population 64 years of age and above who are dependent on population 18 through 64 is 4% higher than Illinois. Average age for Jasper County residents are almost four years older than the average age for our state and country. Our rate of high school drop outs is about 3.5% lower than Illinois percentages and our rate of non high school graduates is 1% lower than the state. These statistics are representative of the older population in Jasper County. People in our county live longer, and so would be more dependent on a younger population.

There are 1% fewer Jasper County residents receiving food stamps and Medicaid assistance compared to the state. Unemployment is almost the same in Jasper County, as compared to the state and per capita income is about \$10,000 lower than Illinois averages.



**IPLAN**  
**General Health and Access to Care Indicators**  
**Jasper County**

**INTRODUCTION**

This section provides an overview of the health status using general measures of mortality, years of life lost, and life expectancy. The indicators in this section could be used, for example, to analyze the problems of premature death in conjunction with a detailed analysis of specific causes. General measures of health care access included in this category also attempt to quantify the availability and use of basic health services and the presence of financial barriers to health access.

**ANALYSIS**

2.01 **Mortality Rates** - This indicator reports crude mortality rates per 100,000 population. The annual crude rate is defined as the total number of deaths over all ages divided by the midyear population times a constant. The crude death rate is:  $m = (\text{total deaths} / \text{total population}) \times 100,000$  (IDPH Illinois Center for Health Statistics, 1995).

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>	<b>U.S.</b>
<b>2004</b>	930.0	805.0	-
<b>2003</b>	910.0	829.2	-
<b>2002</b>	1,198.0	842.9	-
<b>2001</b>	1,009.9	840.1	-
<b>2000</b>	1,156.5	855.8	-
<b>1999</b>	1,057.7	891.5	-
<b>1998</b>	1,076.2	864.0	-

2.02 **Leading Causes of Mortality, ICD-9** - The National Center for Health Statistics

determines which underlying causes of death are "leading causes" for statistical purposes.

The first chart depicts death in Jasper County annually by top ten indicators; the next chart shows Illinois percentages.

<b>Jasper County</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>	<b>1995</b>	<b>1994</b>	<b>1993</b>	<b>1992</b>	<b>1991</b>	<b>1990</b>
<b>Total Deaths</b>	113	94	98	114	128	119	121	138	120
<b>Heart Disease</b>	34%	37%	35%	32%	32%	37%	36%	38%	38%
<b>Coronary Heart Disease</b>	27%	29%	29%	24%	28%	33%	34%	34%	31%
<b>Malignant Neoplasm</b>	19%	26%	18%	32%	23%	25%	18%	25%	12%
<b>Cerebrovascular Disease</b>	12%	8%	10%	9%	9%	7%	11%	7%	15%
<b>Lung Cancer</b>	4%	5%	5%	14%	9%	7%	-	7%	3%
<b>Chrnc Obst Pulm Disease</b>	-	-	4%	8%	5%	2%	3%	4%	7%
<b>Pneumonia &amp; Influenza</b>	4%	3%	4%	-	3%	6%	8%	3%	4%
<b>Colo-rectal Cancer</b>	3%	4%	3%	4%	4%	-	3%	6%	-
<b>Unintentional Injuries</b>	3%	6%	-	4%	5%	-	3%	5%	3%
<b>Motor Vehicle Injuries</b>	-	5%	-	4%	2%	-	2%	-	-
<b>Lymph &amp; Hemat Cancer</b>	-	-	-	4%	-	-	-	3%	-
<b>Diabetes Mellitus</b>	-	-	4%	-	-	-	-	-	3%

<b>Jasper County</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>	<b>1995</b>	<b>1994</b>	<b>1993</b>	<b>1992</b>	<b>1991</b>	<b>1990</b>
<b>Female Breast Cancer</b>	-	3%	-	-	-	2%	-	-	-
<b>Septicemia</b>	-	-	3%	-	-	-	-	-	-
<b>Atherosclerosis</b>	-	-	-	-	-	-	-	-	3%
<b>Cirrhosis of Liver</b>	-	-	-	-	-	2%	-	-	-
<b>Falls</b>	2%	-	-	-	-	-	2%	-	-
<b>Suicide</b>	-	-	-	-	-	2%	-	-	-

<b>Illinois</b>	<b>1998</b>	<b>1997</b>	<b>1996</b>	<b>1995</b>	<b>1994</b>	<b>1993</b>	<b>1992</b>	<b>1991</b>	<b>1990</b>
<b>Heart Disease</b>	31%	32%	32%	33%	33%	33%	34%	34%	34%
<b>Coronary Heart Disease</b>	25%	25%	26%	26%	26%	27%	27%	28%	28%
<b>Malignant Neoplasm</b>	24%	24%	23%	23%	23%	24%	24%	23%	24%
<b>Cerebrovascular Disease</b>	7%	7%	7%	7%	7%	7%	7%	7%	7%
<b>Lung Cancer</b>	7%	7%	7%	6%	7%	6%	7%	6%	6%
<b>Chrnc Obst Pulm Disease</b>	4%	4%	4%	4%	4%	4%	4%	4%	4%
<b>Pneumonia &amp; Influenza</b>	4%	4%	4%	4%	4%	4%	4%	4%	4%
<b>Unintentional Injuries</b>	4%	4%	4%	4%	4%	3%	3%	4%	4%

Illinois	1998	1997	1996	1995	1994	1993	1992	1991	1990
<b>Colo-rectal Cancer</b>	3%	3%	3%	3%	3%	3%	3%	3%	3%
<b>Diabetes Mellitus</b>	3%	3%	3%	2%	2%	2%	2%	2%	2%

2.03 **Life Expectancy at Birth** - Life expectancy, the average number of years an individual is expected to live, is an important summary measure for comparing death rates within and between countries and over time. The term "life expectancy" is generally used to refer to expectations of life at birth, the average number of years of life that a newborn infant is expected to live (Mausner and Bahn, 1974). No county data or six county grouping is available. 2001 information has Illinois at 76.8 and U.S. at 77.2 years of age. (Illinois Vital Statistics - 2001)

2.04 **Percent of Excess Non-White Deaths** -This indicator applies the white death rate for age 0-64 to obtain the expected nonwhite deaths (if they experience the same death rate as whites). Subtracting expected Non-White deaths from actual Non-White deaths gives the number of excess Non-White deaths. No county data or six county grouping is available. Illinois shows a 46% rate with actual number of 3,486. This data is available from the 2004 census year. Information source is Illinois Department of Public Health.

2.05 **Population Uninsured** - The report shows the percentage uninsured population between age 18 and 64. Lack of insurance is important because that status is an indicator of lack of access to health care services. The uninsured all too often do not have the resources to pay for needed care, including crucial preventive care to avoid the development of unnecessarily serious complications and chronic conditions. The data source is the Illinois Behavioral Risk Factor Surveillance System (BRFSS) and data was obtained from adult respondents in English-speaking households with telephones. Therefore, this information is likely to be underestimated.

<b>Year &amp; Gender</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>1998</b>	10.7%	9.7%
Male	11.0%	9.6%
Female	10.5%	9.9%
<b>1997</b>	12.8%	10.6%
Male	7.9%	9.6%
Female	17.5%	11.6%
<b>1996</b>	15.0%	14.2%
Male	16.2%	14.8%
Female	13.8%	13.6%
<b>1995</b>	12.0%	13.4%
Male	11.8%	14.4%
Female	12.2%	12.3%
<b>1994</b>	15.9%	11.6%
Male	14.9%	12.8%
Female	16.7%	10.7%
<b>1993</b>	16.9%	11.8%
Male	14.2%	11.3%
Female	18.8%	12.1%

2.06 **Cause Specific Years of Potential Life Lost, ICD 9** - This is the total number of years of life lost for a specific indicator in Jasper County. This is a measure of premature mortality that is calculated over the age range from birth to 65 years of age using seven age groups. The number of deaths for each age group is multiplied by the years of life lost, calculated as the difference between age 65 years and the midpoint of the age group. Years of potential life lost is derived by summing years of life lost over all age groups.

This information is gathered by IDPH and national data from National Center for Health Statistics (NCHS).

<b>Jasper County</b>	<b>2004</b>	<b>2003</b>	<b>2002</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
<b>Accidents</b>	174	44	304	202	61	115
<b>Congenital Anomalies</b>	-	-	-	-	-	64
<b>Homicide</b>	44	-	-	-	-	64
<b>Chronic Lower Respiratory Disease</b>	-	-	-	-	-	62
<b>Motor Vehicle Accidents</b>	133	44	223	40	30	54
<b>Malignant Neoplasms</b>	49	78	63	152	71	49
<b>Coronary Heart Disease</b>	14	43	7	49	83	36
<b>Diseases of the Heart</b>	21	43	-	49	91	36
<b>Female Breast Cancer</b>	-	-	-	-	14	27
<b>Cerebrovascular Diseases</b>	-	14	7	27	-	14
<b>Perinatal Conditions</b>	-	64	-	-	194	-
<b>Lung Cancer</b>	14	14	49	69	27	-
<b>Cirrhosis of the Liver</b>	7	-	-	-	7	-
<b>Fires and Burns</b>	-	-	20	116	-	-
<b>Lymph and Memato Cancer</b>	34	27	-	27	-	-
<b>Lip/Oral/Phrnx Cancer</b>	-	-	-	27	-	-
<b>Firearms</b>	-	-	4	-	-	-
<b>Falls</b>	-	-	30	-	-	-
<b>Suicide</b>	-	-	10	-	-	-
<b>Colo-rectal Cancer</b>	-	14	-	-	-	-
<b>Nephritis, etc</b>	27	-	-	-	-	-

2.07 **Percent of Population With No Medical Physical in Past Two Years - This indicator**

reports the percent of adult population (age 18 and above) who did not visit a doctor and receive a physical examination in the last two years. The percent of a population is identified here as not having seen a physician for a routine check-up within the past two years (IDPH BRFSS).

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>1998</b>	16.2%	15.8%
<b>1997</b>	18.1%	16.7%
<b>1996</b>	21.2%	16.0%
<b>1995</b>	17.5%	15.3%
<b>1994</b>	13.6%	12.9%
<b>1993</b>	16.9%	16.4%
<b>1992</b>	17.3%	12.9%
<b>1991</b>	12.2%	11.8%
<b>1990</b>	17.7%	13.9%

2.08 **Medicaid Enrollees to Medicaid Physicians Vendors Ratio** - This indicator reports the ratio of Medicaid enrollees to active Medicaid physician vendors. Medicaid enrollees are those enrolled in the Medicaid program and receiving services during a given month. Physician vendors are those physicians that are licensed in a county to provide Medicaid services, and have submitted and received payment for claims exceeding \$5,000 worth of services in a given year. Those factors are used to create a ratio (IDPH Division of Health Policy, 1995).

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2002</b>	553.0:1	82.3:1
<b>2001</b>	516.7:1	74.3:1
<b>2000</b>	1427.0:1	73.1:1

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>1999</b>	1483.0:1	74.0:1

2.09 **Advanced Life Support Emergency Care Vehicles** - This indicator reports the number and rate per 100,000 population of advanced life support pre-hospital emergency care vehicles. Advanced Life Support or Mobile Intensive Care means an advanced level of pre-hospital and inter-hospital emergency care that includes basic life support functions (including cardiopulmonary resuscitation (CPR) plus cardiac monitoring, cardiac de fibrillation, electrocardiography, administration of anti-arrhythmic agents, intravenous therapy, administration of medications, drugs and solutions, use of adjunctive medical devices, trauma care, and other authorized techniques and procedures) initiated for the treatment of real or potential acute life threatening conditions under the direction of a physician licensed to practice medicine in all of its branches or a registered professional nurse/MICN or registered professional nurse/Field RN and where authorized by the Project Medical Director in an IDPH approved advanced life support system (Public Act 85-785; 88-1). Data Source: Numerator: IDPH Division of Emergency Medical Services, and denominator: U. S. Bureau of the Census. The numerator was compiled by the IDPH Division of Emergency Medical Services and the denominator from U.S. Bureau of Census.

<b>Year</b>	<b>Jasper Co. %</b>	<b>Jasper Co. #</b>	<b>Illinois %</b>	<b>Illinois #</b>
<b>1998</b>	28.6	3	18.0	2,170
<b>1997</b>	28.8	3	18.3	2,181
<b>1996</b>	38.1	4	18.2	2,162
<b>1995</b>	28.3	3	17.8	2,109

2.10 **Percent of Population Living in Primary Care Health Professional Shortage Area** - The Health Professional Shortage Area (HPSA) designation is based on the 2000 U. S.



Census, unless a population estimate is produced at the federal level. The U. S. Department of Health and Human Services (HHS) is responsible for listing the designated primary medical care shortage areas in the Federal Register. (IDPH Center for Rural Health, 1995). The HPSA designation is based on the ratio of population to health care providers in a defined service area. The most frequently used HPSA is that for primary care physicians -- those in general practice and the specialties of family practice, general internal medicine, pediatrics and obstetrics-gynecology. The following minimum ratios will qualify an area for designation as an HPSA:

1. 3,500 population: 1 full-time equivalent (FTE) primary care physician; or
2. 3,000 population: 1 full-time equivalent primary care physician, if the poverty level in the service area is 20 percent or greater or the infant mortality rate is at least 20 deaths per 1,000 live births.

Additionally, health care in contiguous areas must be over utilized, excessively distant, or inaccessible to the population within the service area being considered for HPSA designation (Medically Underserved, 1994). The 1990 IPLAN statistical data showed Jasper County residents reside in 100% shortage area. Illinois residents reside in shortage area of 15.4%. Health Professional Shortage Areas reports are published quarterly in the Medicare B Bulletin so physicians can bill the extra 10% allowed in the under-served areas. Jasper County was again recently designated as a State and Federal HPSA shortage area. Latest designation occurred in February 2007 (IDPH Center for Rural Health).

2.11 **Population With Optimally Fluoridated Public Water Supplies** - This indicator reports the percent of population and the number of residents receiving the oral health benefits of optimal levels of fluoride through community water supplies. (IDPH Division of Dental Health)

Year	Jasper Co. %	Jasper Co. #	Illinois %	Illinois #
1997	99.0%	10,291	85.1%	10,120,072
1996	81.1%	8,516	85.9%	10,179,270
1995	40.2%	4,260	82.8%	9,790,685

<b>Year</b>	<b>Jasper Co. %</b>	<b>Jasper Co. #</b>	<b>Illinois %</b>	<b>Illinois #</b>
<b>1994</b>	36.9%	3,910	82.9%	9,743,314
<b>1993</b>	35.0%	3,714	78.1%	9,131,388
<b>1992</b>	32.4%	3,433	79.2%	9,193,006
<b>1991</b>	36.3%	3,850	81.9%	9,453,921

## **Summary of General Health and Access to Care Indicators**

Jasper County has a higher annual crude mortality rate than Illinois. On the leading cause of mortality, Jasper County has higher death rates due to heart disease, coronary heart disease, and cerebrovascular disease, compared to Illinois statistics. The malignant neoplasm death, lung cancer and diabetes mellitus are lower than Illinois' rates. Jasper County also seems to have a higher rate of population that does not have health insurance and visits the physicians less for regular checkups.

When looking at the loss of potential life in Jasper County, the greatest number of years lost was due to accidents, motor vehicle accidents, malignant neoplasms, heart disease, and coronary heart disease in that order.

In demographics we noticed the percentage of Jasper County Medicaid enrollees was lower than Illinois' percentage of enrollees. However, Jasper County residents in 2002 only have one doctor for every 553 Medicaid recipients and on the average Illinois has one doctor for every 82 Medicaid recipients. Not only is there a shortage of Medicaid physicians in Jasper County, but this county is also designated as a Health Professional Shortage Area.

**IPLAN**  
**Maternal and Child Health Indicators**  
**Jasper County**

**INTRODUCTION**

This section will 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 the incidence of low birth weight and receipt of prenatal care, and genetic, metabolic, and other disorders which contribute significantly to infant deaths and morbidity.

**ANALYSIS**

- 3.01 **Live Births** - A live birth is the complete removal from its mother of a product of conception, irrespective of the duration of the pregnancy, which after such separation, breathes or shows any other evidence of life such as heartbeat, umbilical cord pulsation, or definite movement of voluntary muscles, whether the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered a live birth (Health, United States, 1993). Data Source: IDPH and NCHS Vital Statistics. Live births for Jasper County are: 2004 was 109 white; 2003 was 139 white; 2002 was 115 white; 2001 was 105 white; and 2000 was 110 white.
- 3.02 **Infant Mortality** - This indicator reports the number of infant deaths, by race. The description of the infant mortality rate is the number of deaths less than one year of age divided by the number of live births, usually expressed as deaths per 1,000 live births (Bland, 1987). An infant death is the death of a live-born child before his or her first birthday. Deaths in the first year of life may be further classified according to age as neonatal and post-neonatal. Neonatal deaths are those that occur during the first 27 days of life; post-neonatal deaths are those that occur between 28 days and one year of age

(Health, United States, 1993). Healthy People 2010 Objective: By year 2010, reduce the infant mortality rate to no more than 4.5 per 1,000 live births, reduce the neonatal mortality rate to no more than 2.9 per 1,000 live births, and reduce the post-neonatal mortality rate to no more than 1.2 per 1000 live births (Healthy People 2010). The 2002-2004 rate for Jasper County was at 6.9. The 1995-1998 rate was at 10.1. This is a 31.7% reduction. The numbers are as follows: 2004 was 0; 2003 was 1 neonatal; 2002 was 0; 2001 was 0; 2000 was 3 neonatals; 1999 was 1 neonatal and 1 post-neonatal; 1998 was 1 neonatal and 1 post-neonatal; and 1997 was 0.

<b>Year</b>	<b>Live Births in Jasper County</b>	<b>Infant Mortality in Jasper County</b>	<b>Rate for Jasper County per 1000</b>	<b>Rate for Illinois per 1000 births</b>
<b>2004</b>	104	0	0	7.3
<b>2003</b>	139	1	7.1	7.6
<b>2002</b>	115	0	0	7.2
<b>2001</b>	105	0	0	7.5
<b>2000</b>	110	3	27.2	8.3
<b>1999</b>	111	2	18.0	8.3
<b>1998</b>	115	2	17.3	8.2
<b>1997</b>	114	0	0	8.2

3.03 **Low Birth Weight** - This indicator reports the number and percent of infants of low birth weight (less than 2,500 grams) and very low birth weight (less than 1,500 grams). Birth weight is defined as the first weight of the newborn obtained after birth. Low birth weight is defined as less than 2,500 grams or 5 pounds 8 ounces. Very low birth weight is defined as less than 1,500 grams or 3 pounds 4 ounces (Health, United States, 1993). Healthy People 2010 Objective: By 2010, reduce low birth weight to an incidence of no more than 5% of live births and very low birth weight to no more than 0.9% of live births. Data Source: IDPH and NCHS Vital Statistics - Healthy People 2010

<b>Year</b>	<b>Jasper County Low Birth Rate</b>	<b>Jasper County Very Low Birth Rate</b>	<b>Illinois Low Birth Rate</b>	<b>Illinois Very Low Birth Rate</b>
<b>2004</b>	3.7%	0%	8.4%	1.7%
<b>2003</b>	10.8%	1.48%	8.3%	1.6%
<b>2002</b>	7.0%	0%	8.2%	1.7%
<b>2001</b>	5.7%	0%	8.0%	1.6%
<b>2000</b>	6.4%	2.7%	8.0%	1.7%
<b>1999</b>	6.3%	0%	8.0%	1.7%
<b>1998</b>	9.6%	0%	8.0%	1.6%
<b>1997</b>	6.1%	2.6%	8.0%	1.6%

3.04 **Mothers Who Smoke During Pregnancy** - This indicator reports the number and percent of mothers who smoke during pregnancy by race. An area of concern is the effect of nicotine and other tobacco substances on the developing fetus and the neonate. Many of these substances (especially nicotine) easily cross the placenta to the baby and are also found in breast milk. An increase in the fetal heart rate can be seen for 90 minutes after the mother has smoked a cigarette. Mothers who smoke heavily have almost a twofold increased risk of spontaneous abortion, are likely to deliver babies who are small for their gestational age, and have offspring with over a twofold increased risk of congenital abnormalities (Schuckit, 1995). Healthy People 2010 Objective: By 2010, increase abstinence from tobacco use by pregnant women to a least 99% (Healthy People - 2010).

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2004</b>	22.9%	10.2%
<b>2003</b>	15.8%	9.6%
<b>2002</b>	14.8%	10%
<b>2001</b>	15.2%	10.5%
<b>2000</b>	21.8%	10.9%

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>1999</b>	20.7%	11.5%
<b>1998</b>	18.3%	12%
<b>1997</b>	23.7%	12.3%

3.05 **Mothers Who Drink During Pregnancy** - This indicator reports the number and percent of mothers who drink during pregnancy by race. The exact role of alcohol in producing specific impairment in the developing fetus has not been conclusively proved. However, the information available to date favors either a direct or an indirect role of alcohol in problems in fetal development. There is ample evidence that alcohol is capable of causing bodily damage in almost all systems. The developing baby does not have efficient alcohol metabolizing systems, and the result is these substances are likely to stay with the baby over an extended period of time. The possible harm to the newborn baby from transfer of alcohol in breast milk also argues against the use of alcohol while breast-feeding (Schuckit, 1995). Healthy People 2010 Objective: By 2010, increase abstinence from alcohol by pregnant women to at least 94%. Data Source: IDPH

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2003</b>	.9%	.4%
<b>2002</b>	0%	.4%
<b>2001</b>	0%	.4%
<b>2000</b>	1.8%	.5%
<b>1999</b>	0%	.8%
<b>1998</b>	0%	.8%
<b>1997</b>	.9%	.9%
<b>1996</b>	1.5%	1.1%

3.06 **Kessner Index of Prenatal Care** - This indicator reports the number and percent of pregnant women who receive adequate care, intermediate care and inadequate care during

pregnancy. The Kessner Index is recognized by health care experts as a first generation measurement of adequacy of prenatal care indices . It is based on gestational age, trimester prenatal care began, and the number of prenatal visits. The Kessner Index reflects plausible gestational age (20 through 50) weeks and appropriate birth weight for each gestational age category. The adequacy of care for each live birth is determined by the Modified Kessner Index, using the gestational age of the infant at time of delivery, the trimester the prenatal care began and the number of prenatal visits. The adequacy of care is divided into three categories: adequate, intermediate and inadequate (IDPH Illinois Center for Health Statistics, 2001). Healthy People 2010 objective: by 2010, increase to at least 90% the proportion of all pregnant women who receive early and adequate prenatal care (Healthy People 2010).

<b>Year</b>	<b>Jasper Co. Adequate</b>	<b>Illinois Adequate</b>	<b>Jasper Co. Intermediate</b>	<b>Illinois Intermediate</b>	<b>Jasper Co. Inadequate</b>	<b>Illinois Inadequate</b>
<b>2004</b>	85.3%	73.17%	12.8%	15.9%	1.8%	9.7%
<b>2003</b>	84.2%	74.4%	13.7%	16.3%	2.2%	8.2%
<b>2002</b>	87.8%	75.1%	8.7%	17.0%	3.5%	7.0%
<b>2001</b>	87.6%	74.5%	10.5%	17.5%	1.9%	7.3%
<b>2000</b>	84.5%	73.1%	12.7%	18.6%	2.7%	7.6%
<b>1999</b>	81.1%	73.8%	15.3%	17.6%	1.8%	8.0%
<b>1998</b>	79.1%	74.2%	19.1%	17.6%	1.7%	7.6%
<b>1997</b>	89.5%	73.7%	7.9%	18.1%	2.6%	7.6%

**3.07 Mothers Begin Prenatal in 1st Trimester** - This indicator reports number and percent of mothers beginning prenatal care in the first trimester. Generally, a woman with an uncomplicated pregnancy should be examined approximately every four weeks for the first 28 weeks of pregnancy, every two to three weeks until 36 weeks of gestation, and weekly, thereafter, although flexibility is desirable. Women with medical or obstetric



problems may require closer surveillance. The appropriate intervals between visits are determined by the nature and severity of the problems (Prenatal Care Guidelines, 1994). Healthy People 2010 Objective: By 2010, increase to at least 90% the proportion of all pregnant women who receive prenatal care in first trimester (Health People 2010). Data Source: IDPH and NCHS Vital Statistics. Percentage of mothers in Jasper County who received prenatal care in the first trimester:

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2004</b>	89.9%	80.7%
<b>2003</b>	88.5%	82.0%
<b>2002</b>	91.3%	82.8%
<b>2001</b>	94.3%	81.9%
<b>2000</b>	87.3%	80.7%
<b>1999</b>	89.2%	80.8%
<b>1998</b>	85.2%	81.2%
<b>1997</b>	93.0%	81.1%

3.08 **Infants Positive for Cocaine** - Medical practice with regards to cocaine testing in newborns has been changing over the last few years. Hospitals no longer routinely use urine testing; meconium testing is performed instead. These results are not usually returned to the hospital before the child is discharged, and so the test results are not available to the Adverse Pregnancy Outcome Reporting System (APORS). This means that we are observing a decline in the number of children with positive results, simply as a result of the changes in medical practice. Therefore, we do not plan to release further data on prenatal cocaine exposure until a better data source can be identified. Anyone who wishes more information about prenatal cocaine exposure may contact the APORS staff at 217 785-1873.

The indicator reports the five-year average number and five-year average incidence rate per 10,000 live births of newborns reported as having been affected by cocaine in utero (including displaying withdrawal symptoms after birth) or evidence of cocaine by a positive laboratory screen. Since newborn cocaine exposure is rare, the occurrence rate can fluctuate dramatically, due to chance only. Moving five year intervals are therefore used to provide more stable rates. Researchers who request data will get the average number and rate for the five years ending with the year specified. For example, if 1993 is selected, a table containing the five-year average number and rate for 1989-1993 will be provided. The table also will contain the 95% confidence interval for the average incidence rate, so that two rates can readily be compared. The simple rule of thumb is, if two confidence intervals overlap, the difference between the two associated rates is not statistically significant.

**Description** Cocaine and other brain stimulants are likely to cross the placenta to the fetus. In-utero exposure to cocaine may lead to a decrease in delivery of nutrients and oxygen to the fetus, resulting in intra-uterine growth retardation. During the early months of pregnancy, cocaine use can cause a miscarriage, when used late in pregnancy, it may trigger premature labor. It also may cause placental evidence that cocaine exposure may cause congenital anomalies such as malformation of the urinary tract (Chavez et al., 1989). Cocaine exposure also has been shown to result in infants having a temporary diminished response to their environment (Eyler et al., 1988) Data indicates no positive results in Jasper County. Data Source: IDPH adverse Pregnancy Outcomes Reporting System (APORS) January 2003

**3.09.02 Leading Causes of Mortality (Ages 1-4), ICD-10** - This indicator reports the number and percent of total deaths for leading causes of death for children, ages 1-4 years.

Included among the leading causes are subcategories (marked by "@"), such as "coronary heart disease" as a subcategory of "heart disease." The total number of deaths by race includes deaths due to all causes of death, without double-counting of subcategory causes.

If making comparisons to death for 1998 or prior years, please see "Changes from ICD-9

to ICD-10.”

Description: The National Center for Health Statistics determines which underlying causes of death are “leading causes” for statistical purposes. In the context of this indicator, non-leading causes are delineated by the symbol “@” and are included for programmatic and comparative purposes. From 1999 - 2004 Jasper County had one deaths from fire and burns. Data Sources: Illinois data from IDPH and national data from NCHS vital Statistics System. Data Availability:

3.10 **WIC: Low Weight for Height** - This indicator reports the number and percent of WIC children, ages 1-5, measured as having low weight for height. The nutritional risk of a participant is determined by a certified health professional (CHP), such as a physician, registered dietician, nutritionist, registered nurse, or other health professional at no cost to the program applicant, and is based on federal guidelines. There are three types of nutritional risk:

1. medically based risk (designated as "high priority") -- such as anemia, maternal age, history of pregnancy complications or poor pregnancy outcomes, and low weight.
2. diet based risk ("low priority") -- such as inadequate dietary patterns determined by a 24-hour dietary recall, food frequency, or a diet history.
3. predisposing conditions ("high priority") -- such as history of pregnancy complications or poor pregnancy outcomes, alcohol or drug abuse, or chronic infections (Illinois WIC Training Center Trainee Notebook). Data source: IDPH Division of Health Assessment and screening and CDC.

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>1996</b>	1.6%	2.3%
<b>1995</b>	2.8%	2.6%
<b>1994</b>	2.1%	2.7%
<b>1993</b>	1.8%	2.7%
<b>1992</b>	1.3%	2.5%

Year	Jasper County	Illinois
1991	0%	2.8%
1990	.7%	2.9%

3.11 **Teen Birth Rate** - This indicator reports the number and rate per 1,000 females of live births to teenagers, ages 10-14 and 15-17. Few situations are as life-changing for a young woman and her family as unintended, out-of-wedlock pregnancy. The manner in which she, her family, and her partner resolve the crisis may have lifelong consequences for the people involved and for the broader community. Reductions are targeted in pregnancies among all adolescents under age 18, with the assumption that most of such pregnancies are unintended pregnancies among unmarried teens. Although the baseline data do not exclude pregnancies among those who are married, married adolescents constitute only 1.9 percent of the entire population of adolescent girls aged 15 through 17. Healthy People 2010 Objective: By 2010 reduce the rate of adolescent pregnancy among females aged 15 to 17 to 43 per 1000 population. Data Source: IDPH and NCHS Vital Statistics.

Year	Ages 10-14	Ages 15-17
2004	1	2
2003	0	1
2002	1	4
2001	0	2
2000	0	4
1999	0	2
1998	2	4
1997	1	2

3.12 **Percent Births to Teens** - This indicator reports the number and percent of live births to teenage mothers (age 10 - 17). Description: One in 10 young women aged 19 and

younger become pregnant each year, and approximately 40 percent will experience at least one pregnancy before age 20. Initiation of sexual activity at a young age is a primary risk factor for unintended pregnancy. The only certain way to prevent teenage pregnancy is through abstinence from sexual intercourse. Abstinence also provides absolute protection from sexually transmitted diseases, including AIDS. However, for sexually active teenagers who will not postpone sexual activity, and who do not wish to become pregnant, consistent use of dual methods of contraception is the most effective means of reducing rates of pregnancy and sexually transmitted diseases(Healthy People, 1990). Data Source: IDPH and NCHS Vital Statistics

	2004	2003	2002	2001	2000	1999	1998	1997
<b>Jasper County</b>	2.8%	0.7%	4.3%	1.9%	3.6%	1.8%	5.2%	2.6%
<b>Illinois</b>	2.6%	3.4%	3.5%	3.8%	4.1%	4.3%	4.8%	5%

3.13 **Child Abuse/Neglect** - This indicator reports the number of children less than 18 years of age of founded child abuse/neglect cases. "Abused child" means any child whose parent or immediate family member, or any person responsible for the child's welfare, or any individual residing in the same home as the child, or a friend of the child's parent:

1. inflicts, causes to be injured, or allows to be inflicted upon such child physical injury, by other than accidental means, which causes death, disfigurement, impairment of physical or emotional health, or loss or impairment of any bodily function;
2. creates a substantial risk of physical injury to such child by other than accidental means which would be likely to cause death, disfigurement, impairment of physical or emotional health, or loss or impairment of any bodily function;
3. commits or allows to be committed any sex offense against such child, as such sex offenses are defined in the Criminal Code of 1961;
4. commits or allows to be committed an act or acts of torture upon such child; or
5. inflicts excessive corporal punishment.

"Neglected child" means any child whose parent or other person responsible for the child's welfare withholds or denies nourishment or medically indicated treatment

including food or care denied solely on the basis of the present or anticipated mental or physical impairment as determined by a physician acting alone or in consultation with other physicians or otherwise does not provide the proper or necessary support or medical or other remedial care recognized under State law as necessary for a child's well-being, or other care necessary for his or her well-being, including adequate food, clothing and shelter; or who is abandoned by his or her parents or other person responsible for the child's welfare; or who is a newborn infant whose blood or urine contains any amount of a controlled substance (Abused and Neglected Child Reporting Act, 1995). Healthy People 2010 Objective: By 2010, reduce the incidence of maltreatment of children younger than age 18 to 10.3 per 1,000 population. Data Source: Illinois Department of Children and Family Services. The numbers for Jasper County are as follows: 1997 was 37; 1996 was 35; 1995 was 60; 1994 was 26; 1993 was 15; 1992 was 21; 1991 was 30; 1990 was 31.

- 3.14 **Congenital Anomalies** - This indicator reports the five-year average number and five-year average incidence rate per 10,000 live births of congenital anomalies identified during the newborn stay. Since congenital abnormalities are rare, the occurrence rate can fluctuate dramatically, due to chance only. Moving five-year intervals are therefore used to provide more stable rates. Researchers who request data will get the average number and rate for the five years ending with the year specified. For example, if 1993 is selected, a table containing the five-year average number and rate for 1989-1993 will be provided. The table will also contain the 95% confidence interval for the average incidence rate, so that two rates can readily be compared. The simple rule of thumb is, if two confidence intervals overlap, the difference between the two associated rates is not statistically significant. For a child who has more than one congenital anomaly, each congenital anomaly is counted, with the exception of certain combinations of neural tube defects. Certain conditions of neural tube defects are not counted if a more serious neural tube defect exists, since they are secondary to the more serious defect. Thus, • if a child has anencephaly and spina bifida, only anencephaly is counted; or • if a child has spina bifida and hydrocephaly, only spina bifida is counted. Every other reportable birth defect is counted independently. This reporting protocol is consistent with that suggested by the

U.S. Centers for Disease Control and Prevention and with other reports issued by Illinois Department of Public Health's Division of Epidemiologic Studies. Description A congenital anomaly is any structural deformity that is identified at birth. They are specified by the International Classification of Diseases, 9th Revision, Clinical Classification, as codes 740-759.9. Additionally, congenital anomalies can be classified as major or minor. Major anomalies are those that affect survival, require substantive medical care, or result in marked physiologic or psychological impairment. Certain minor congenital abnormalities are not reportable to Illinois' Adverse Pregnancy Outcomes Reporting System and are not included in the tables. These include: 744.1 Accessory auricle 750.0 Tongue Tie 752.5x Undescended and retractile testicle 754.32 Congenital subluxation of hip, unilateral 754.33 Congenital subluxation of hip, bilateral 755.0x Polydactyly 755.63 Other congenital deformity of hip (joint) 757.32 Vascular hamartomas 757.33 Congenital pigmentary anomalies of skin 757.39 Other unspecified anomalies of skin. Most congenital abnormalities can be characterized as structural, that is, they are abnormalities involving the form of the organ or tissue. Others include chromosomal abnormalities that may cause unusual physical features, structural birth defects and mental retardation. Congenital abnormalities can have many causes, including single genes (inherited), chromosomal abnormalities, environmental exposures or random events in the development of the baby. Many also are thought to occur as a result of a combination of one or more of these factors. These abnormalities usually will impact the ability of the particular organ or tissue to perform its normal function. Genetic and chromosomal defects and a few known teratogens cause about 40 percent of these abnormalities, but the causes of the remaining 60 percent are unknown (March of Dimes Birth Defects Foundation.) In 2000, certain malformations, deformations and chromosomal abnormalities (ICD-10 Q00-Q99) were the second leading cause of infant mortality in Illinois, following disorders related to short gestation and low birthweight, and the second most common cause of mortality among children ages 1 through 5, after accidents (Illinois Department of Public Health). In addition, in the United States, birth defects are the fifth-leading cause of years of potential life lost and contribute substantially to childhood morbidity and long-term disability. Data Source: IDPH Adverse Pregnancy Outcomes Reporting System (APORS), December 2005

Congenital Anomalies (Incidence Rates for 10,000 Live Births)

Year	Jasper County	Illinois
<b>2000-2004</b>	501.7	397.6
<b>1999-2003</b>	482.8	346.8
<b>1998-2002</b>	539.6	312.1
<b>1997-2001</b>	558.6	298.5
<b>1996-2000</b>	446.7	299.4
<b>1995-1999</b>	435.5	296.3

3.15 **Medicaid Deliveries** - This indicator reports the number of Medicaid deliveries in Jasper County. A pregnant woman may become eligible for medical benefits when she meets non-financial and financial eligibility criteria. Non-financial requirements for Medicaid eligibility are factors such as citizenship, age, relationship, or categorical relatedness. Financial eligibility criteria include assets (resources) and income. A pregnant woman may have income up to 133 percent of the federal poverty level to be Medicaid eligible. If income is in excess of the standard, she may be eligible as a spend-down case. (IDPH Division of Health Policy, 1995). Data Source: IDPA. The number of deliveries are: 1993 was 39; 1990 was 35.

3.16 **IDPA-Eligible Children Receiving EPSDT** - This indicator reports the number and percent of IDPA-eligible children, ages 0-20, receiving Early Periodic Screening Diagnosis and Treatment (EPSDT) The Healthy Kids Program is the EPSDT Program mandated by the Social Security Act. The goals of this program are to: 1. improve the health status of Medicaid eligible children ages birth through 20 years through the provision of preventive medical care and early diagnosis and treatment of conditions which may threaten the child's health; and 2. reduce the long term costs of medical care to eligible children. These goals are achieved by offering the following services at no cost to eligible children: 1. periodic and inter-periodic health, vision, hearing and dental screening services to meet the health care needs of children, 2. immunizations against childhood diseases, 3. diagnostic laboratory procedures, 4. further diagnosis or treatment



necessary to correct or ameliorate defects and physical or mental illness or conditions which are discovered or determined to have increased in severity by a provider as a result of a periodic or inter-periodic health, vision, hearing or dental screening, 5. referral for dental care beginning at age two, and 6. case management services. Children are eligible for EPSDT services if they are under age six and infants at 133 percent of the federal poverty level or born after Oct. 1, 1983, and older than age five at 100 percent of the federal poverty level (89 Illinois Administrative Code Section 140.483), (42 U. S. C. 1396a(43), 1396d(4)(B)(Supp. 1987) ). Data Source: IDPA The numbers for Jasper County are: 1993 was 502; 1992 was 500; 1991 was 477; 1990 was 253.

**3.17 Kotelchuck Index of Prenatal Care Utilization** - This indicator reports the number and percent of pregnant women who receive adequate plus (intensive), adequate care, intermediate care and inadequate care during pregnancy, by race. This indicator attempts to characterize prenatal care (PNC) utilization on two independent and distinctive dimensions - namely, adequacy of initiation of PNC and adequacy of received services (once PNC has begun). This index does not assess quality of the prenatal care that is delivered, only its utilization. The initial dimension "Adequacy of Initiation of PNC" characterizes the adequacy of the timing of initiation of PNC. This indicator uses the month prenatal care began to assess the timing when prenatal care began. The months are collapsed into four groupings: (1,2) (3,4) (5,6) (7-9 or none). The second dimension "Adequacy of Received Services" characterizes the adequacy of received PNC visits during the time period after prenatal care is begun until the delivery. This dimension attempts to characterize if the woman received the appropriate number of prenatal care visits for the time period she was receiving PNC services. It is based on American College of Obstetrics & Gynecology (ACOG) standards (one visit per month through 28 weeks gestation, one visit every 2 weeks through 36 weeks gestation, and one visit per week thereafter, adjusted for date of initiation of PNC). Gestational age is based on the estimated gestational age as reported on the birth certificate. This second dimension uses the fixed ACOG visit recommendation schedule as an underlying metric; defines an (expected) sector of it, beginning at the date of PNC initiation and ending at the gestational date at delivery; and then compares the expected visits with the actual visits

received to judge the utilization adequacy. The two dimensions are combined into a single summary APNCU Index. Definitions of care are as follows: Inadequate care: PNC begun after the 4th month or under 50% of expected visits were received; Intermediate care: PNC begun by month 4 and between 50-79% of expected visits were received; Adequate care: PNC begun by month 4 and 80-109% of expected visits were received; Adequate Plus (intensive) care: PNC begun by month 4 and 110% or more of expected visits were received. (Excerpt from "Overview of Adequacy of Prenatal Care Utilization Index", by Milton Kotelchuck, Ph.D., M.P.H., Department of Maternal and Child Health, The University of North Carolina at Chapel Hill, September 1994.) Data Source: IDPH Illinois Center for Health Statistics.

Adequate Plus (intensive) Care

Year	Jasper	Illinois
2004	37.6%	30.5%
2003	48.2%	29.7%
2002	40%	30.1%
2001	46.7%	29.9%

Inadequate Care

Year	Jasper	Illinois
2004	1.8%	8.8%
2003	6.5%	8.9%
2002	7.8%	9.3%
2001	2.9%	10.2%

**3.18 Method of Delivery** - This indicator reports the number and percent of the delivery methods for live births, by age group. Data Source: IDPH and NCHS Vital Statistics. Data Availability: Data are available by county of residence and community, and can be grouped. Formulas: (1) Vaginal, excludes VBAC births: Divide the number of vaginal births excluding women who had a previous cesarean delivery by the number of vaginal births plus number of primary cesarean deliveries, and multiply by 100 to express as a percent. Vaginal Percentage = (vaginal births, excluding VBACs / (vaginal births +

primary cesarean births ) x 100. (2) VBAC (vaginal birth after a prior cesarean delivery) Percentage: Divide the number of vaginal births to women who had a previous cesarean delivery by the total number of births to women with a previous cesarean delivery, and multiply by 100 to express as a percent. VBAC Percentage = (VBAC births / (VBAC births + repeat cesarean births - unknown delivery method)) x 100. (3) Primary Cesarean: Divide the number of first cesarean births by the total number of births to women who have not had a previous cesarean delivery, and multiply by 100 to express as a percent. Primary Cesarean Percentage = primary cesarean births / (primary cesarean births + vaginal births, excluding VBACs) x 100. (4) Repeat Cesarean Percentage: Divide the number of repeat cesarean births by the total number of births to women who have had previous cesarean delivery, and multiply by 100 to express a percent. Repeat Cesarean Percentage = (number of repeat cesarean births / (number of VBAC births + number of repeat cesarean births)) x 100. (5) Age group percentages: Divide the number of births for the age group by the total number of births within the delivery method, and multiply by 100 to express as a percent. Age group percentage example: Vaginal Ages 20-29 percentage = vaginal births for age group 20 to 29 / (vaginal births - unknown age vaginal births) x 100. Contact: IDPH Illinois Center for Health Statistics: (217) 785-1064.

Total Live Births (Actual Number) and Method of Delivery (By Percentage)

	2004	2003	2002	2001	2004	2003	2002	2001
	Jasper County				Illinois			
<b>Total Live Births</b>	109	139	115	105	180665	182393	180555	184022
<b>Vaginal</b>	87.0	83.3	86.1	77.7	81.1	82.5	83.6	84.7
<b>VBAC</b>	17.6	23.5	35.7	36.4	10.4	12.5	15.8	19.7
<b>Primary Cesarean</b>	13.0	16.7	13.9	22.3	18.9	17.5	16.4	15.3
<b>Repeat Cesarean</b>	82.4	76.5	64.3	63.6	89.6	87.5	84.2	80.3

## **Summary of Maternal and Child Health Indicators**

The purpose of the Maternal and Child Health Indicators is to give us an understanding of the key components of maternal, infant, and child health and the risk factors that contribute to ill health and poor outcomes. Jasper County had 578 births in a five-year period from 2000 to 2004. Infant mortality rates for the same five years were not measured because of the low number of deaths. The state infant mortality rate is 7.3 for the year 2004; the most recent available statistics. The rate continues to decline. The goal of Healthy People 2010 is to reduce the infant mortality rate to no more than 4.5 per 1,000 live births. When working with small numbers, the outcomes may become skewed. It is easy to see the fluctuation in small samples where the State of Illinois statistics stay constant.

Dramatic declines in the U. S. infant mortality rate have occurred in the past four decades, largely as a result of declines in mortality from pneumonia and influenza, respiratory distress syndrome, prematurity and low birth weight, congenital anomalies, and accidents. Despite the overall reductions, however, substantial racial/ethnic, educational, and income differences in infant mortality still exist (Bland, 1987).

Another interesting statistical data set is “mothers who smoke.” Calculated over an eight-year period Jasper County shows an average of 19.1%. Over the same eight-year period Illinois shows an average of 10.8%. The data source for this data comes from IDPH and Healthy People 2010 baselines. Since IDPH “women who smoke” data is acquired from information from the health departments, Jasper County may have a better reporting system than other counties. A high percentage of low birth weights are not reflected in the data for Jasper County compared to Illinois and this would surely be the outcome if we had a higher percentage of pregnant smokers. In any case, we will make an effort to address this with our tobacco grant from the Illinois Department of Public Health.

**IPLAN**  
**CHRONIC DISEASE**  
**JASPER COUNTY**

**INTRODUCTION**

In this century, chronic diseases have been the major causes of death among Illinois residents. Medical advancements have contributed to the reduction of deaths due to chronic disease. More emphasis on prevention and a healthy lifestyle have also reduced mortality rates. However, chronic diseases are still the number one cause for deaths among Illinois residents. Because of the lack of numbers for Jasper County alone, numbers will be aggregated for some indicators. Also, aggregation of counties will occur when data is not available. The counties that will be used are Jasper, Cumberland, Crawford, Richland, Effingham, and Clay.

**ANALYSIS**

4.01 **Coronary Heart Disease Mortality Rates ICD-10** - Coronary heart disease is the leading cause of death in Jasper County. This has been a long-term trend for several years. The crude mortality rate for the aggregate years of 1999 through 2004, for Jasper County, was 268.5 deaths per 100,000 population. This is considerably more than the state's rate of 184.3 per 100,000 population. From 1999 through 2004, the crude rate for Jasper County fell from 259.6 per 100,000 to 230.5 per 100,000. This is a significant drop. However, the 2004 rate for Jasper County is at 230.0 per 100,000 versus the state rate of 161.0 per 100,000. There is still work to be done, to a least lower our mortality rate to the state level. Healthy People 2010 Objective: By 2010, reduce coronary heart disease deaths to no more than 166 per 100,000.

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2004</b>	230.0	161.0
<b>2003</b>	210.0	173.5
<b>2002</b>	356.4	181.4

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2001</b>	198.0	186.1
<b>2000</b>	355.8	194.6
<b>1999</b>	259.6	210.5

4.02 **Cerebrovascular Disease Mortality Rates ICD-10** - The crude mortality rate for the aggregate years of 1999-2004 in Jasper County is 98.8 per 100,000 population. The state rate is at 57.1 per 100,000 population. This is higher than the state rate. From 1999 through 2003, the crude rate for Jasper County fell from 173.1 to 110.0 per 100,000. The 2004 state rate is at 50.9 per 100,000. The Jasper County rate is still too high, and needs to be reduced. Healthy People 2010 Objective: By 2010, reduce stroke deaths to no more than 48 per 100,000.

<b>Year</b>	<b>Jasper County</b>	<b>Illinois</b>
<b>2004</b>	-	50.9
<b>2003</b>	110.0	54.4
<b>2002</b>	118.8	56.9
<b>2001</b>	-	57.6
<b>2000</b>	-	59.7
<b>1999</b>		

4.03 **Chronic Liver Disease and Cirrhosis Mortality Rate** - The crude mortality rate for chronic liver disease was not calculated over the five year period, because of low mortality figures. There were only two deaths attributed to this indicator, in the five-year period. This is a very low prevalence in Jasper County. Healthy People 2010 Objective: By 2010, reduce chronic liver disease and cirrhosis mortality to no more than 3.0 per 100,000 population.

Year	Total Jasper County	< 65 years of age
2004	1	1
2003	0	0
2002	0	0
2001	0	0
2000	1	1
1999	0	0

4.04 **Breast Cancer Mortality Rates, ICD - 10** - The crude mortality rate for breast cancer was not calculated for Jasper County over the six-year period, because of low mortality figures. There were eight deaths attributed to this indicator, in the six-year period. This indicator reports the number of total and premature (ages 0-64) deaths and age-adjusted, crude, and premature rates per 100,000 population for mortality due to breast cancer. Healthy People 2010 Objective: By 2010, reduce breast cancer deaths to no more than 22.3 per 100,000 population.

Year	Total Jasper County	< 65 years of age
2004	2	0
2003	2	1
2002	1	0
2001	0	0
2000	2	2
1999	1	1

4.05 **Lung Cancer Mortality IDC-10** - The crude mortality rate for the 6-year period in Jasper County is 69.2 per 100,000 population. The state rate is at 54.3 per 100,000 population. This is higher than the state rate. It is also interesting to note that the Healthy People 2010 objective is to maintain the rate of lung cancer deaths to no more than 44.9

100,000 population. Both Jasper County and the state are significantly above the projected target for Healthy People 2010. Another interesting statistic, is the premature (< 65 yo) deaths during the time frame. There were 13 deaths attributed to lung cancer in this < 65 category. In 2002 lung cancer deaths in Jasper County peaked at 11. There was a significant drop in 2003 and 2004. This is an indication that intervention strategies have been working, however, more work needs to be done.

<b>Year</b>	<b>Total Jasper County</b>	<b>&lt; 65 years of age</b>
<b>2004</b>	6	2
<b>2003</b>	8	2
<b>2002</b>	11	4
<b>2001</b>	8	4
<b>2000</b>	6	1
<b>1999</b>	3	0

4.06 **Colorectal Cancer Mortality ICD - 10** - The crude mortality rate for the 6-year period in Jasper County is 31.3 per 100,000 population. The state rate is at 21.5 per 100,000 population. The year 2010 target rate is 13.4. Both Jasper County and the state rate are significantly higher than the year 2010 target rate. Colorectal deaths in Jasper County range from a high of 8 in 2004 to 1 in 1999 and 2001. Healthy People 2010 Objective: By 2010, reduce colorectal cancer deaths to no more than 13.9 per 100,000 population

<b>Year</b>	<b>Total Jasper County</b>	<b>&lt; 65 years of age</b>
<b>2004</b>	8	0
<b>2003</b>	4	2
<b>2002</b>	2	0
<b>2001</b>	1	0
<b>2000</b>	3	0



Year	Total Jasper County	< 65 years of age
1999	1	0

4.07 **Cervical Cancer Mortality ICD - 10** - During the six-year period there was one deaths associated with cervical cancer in Jasper County. Because of the low numbers, rates could not be established.

4.08 **Prostate Cancer ICD - 10** - In the six-year period, there were 5 deaths attributed to prostate cancer in Jasper County. Mortality due to this disease seems to be decreasing. Our prevention and screening strategies at the health department have made a significant impact on the statistics. It is important for these interventions to continue.

Year	Total Jasper County	< 65 years of age
2004	0	0
2003	3	1
2002	1	0
2001	1	0
2000	0	0
1999	0	0

4.09 **Childhood Cancer ICD - 10** - Childhood cancer in the six-year period for Jasper County accounted for zero death. Because of the low number, a rate could not be established.

4.10 **Hospitalization Rate for Alcohol Dependence Syndrome** - From 1996 through 2001, Jasper County had 2 hospitalizations for alcohol dependence syndrome. One was between the age of 15 - 44 and one was between the age of 45-64. This was an insufficient number to establish a rate.

4.11 **Hospitalization Rate for Total Psychoses** - From 1996 through 2001, Jasper County had 185 people hospitalized for total psychoses. Between the ages of 15 - 44, there were 136

hospitalized and between the ages of 45-64 there were 49. This averages about 31 per year. However, no rates were calculated by the data system.

4.12 **Hospitalization for Diabetes** - Jasper County had 58 hospitalizations for diabetes complications, from 1996 through 2001. The hospitalization rate for the county was at 93.5 per 100,000 people. The state rate was at 153.5 per 100,000 people. Jasper County is below the state rate.

4.13 **Overweight, Smokers, Sedentary Lifestyles- Obesity:** Jasper County's rate for obesity is higher than the state rate for every year 1993 - 1998. *Sedentary Life Style:* Jasper County's rate for sedentary life style is higher than the state rate, for six of the six years calculated. *Smoking:* The smoking rate for Jasper County, as compared to the state, is higher in 5 of the six years calculated. Obesity, sedentary life style, and smoking are all risk factors that contribute to disease morbidity and mortality. These risk factors can be reduced or eliminated with proper diet, exercise, and the discontinuance of tobacco use. BRFSS Data also indicates an upward trend in these behavioral risk factors.

4.14.01 **Breast Cancer Age-adjusted Incidence Rate** - In a five-year period from 1998 - 2002, the age adjusted breast cancer incidence rate in Jasper County was 98.2 per 100,000 population. The state rate was 132.9. Jasper County is lower than the state and U.S. rate.

4.14.02 **Colorectal Cancer Age-adjusted Incidence Rate** - In five-year period from 1998 - 2002, the colorectal cancer age-adjusted rate for Jasper County was higher than the state and U.S. rates.

4.14.03 **Cervical Cancer Age-adjusted Incidence Rate** - During the five-year period from 1998 - 2002, there were only 2 incidences of cervical cancer in Jasper County. Because of the low numbers, a rate could not be established.

4.14.04 **Lung Cancer Age-adjusted Incidence Rate** - In the five-year period from 1998 - 2002, the age-adjusted lung cancer incidence rate is higher than the state or U.S. rate.

- 4.14.05 **Prostate Cancer Age-adjusted Incidence Rate** - In the five-year period from 1998 - 2002, the age-adjusted prostate cancer incidence rate is slightly higher than the state rate.
- 4.14.06 **Percent Diagnosed in situ Breast Cancer** - In the five-year period from 1998 - 2002, the percent of women diagnosed within situ breast cancer was lower than the state and U.S. percentage.
- 4.14.07 **Percent Diagnosed at Local Stage Colorectal Cancer** - From 1998 - 2002 Jasper County experienced a slightly higher percent than the state diagnosed with local stage colorectal cancer. This still remains a problem and indicates a slightly high cancer morbidity and mortality rate in Jasper County.
- 4.14.08 **Percent Diagnosed at Local Stage Prostate Cancer** - From 1998 - 2002, Jasper County experienced a significantly higher percentage rate diagnosed with local stage prostate cancer; as compared to the state percent. Jasper County rate is 88.9%. The state rate is 84.3%. This again indicates a problem that needs to be addressed.
- 4.14.09 **Percent Diagnosed at Local State Cervical Cancer** - From 1998 - 2002, Jasper County had a higher percentage rate, as compared to the state and U.S. Total numbers diagnosed were very low.
- 4.14.10 **Childhood Cancer Age-adjusted Incidence Rate** - Because of the low numbers, rates were not established for any of the years in the five-year period. Incidence rates are very low.

## **Summary of Chronic Disease Indicators**

Coronary heart disease remains the leading cause of mortality in Jasper County. This has been a long term trend, and it will take a considerable number of years to address this problem. Our high elderly population, and percentage of high risk factors contribute to the problem. There is a need to continue and expand health promotion programs on weight control, exercise, smoking cessation and dietary habits.

Lung cancer incidence is much higher in Jasper County, as compared to the state as a whole. The incidence rate is also higher than the year 2010 target rate. Lung cancer is also a primary contributing factor to premature mortality, and years of life lost. Greater emphasis needs to be placed on smoking cessation. At one time, there was enough funding from the State of Illinois Tobacco Settlement to fund cessation classes at the health department. However, funding for the tobacco grant has been reduced. Other intervention strategies will be implemented.

Colorectal cancer seems to be increasing in Jasper County. Colorectal cancer mortality rates are somewhat higher than the state rate, and are significantly higher than the Healthy People 2010 Projection. Prostate cancer registered 5 deaths in the six-year aggregated period. At the health department PSA clinics have been established as an intervention strategy for prostate cancer. Colorectal cancer interventions have also been started at the health department.

**IPLAN**  
**Infectious Disease**  
**Jasper County**

**INTRODUCTION**

The reduction in the incidence of infectious diseases stands as one of the most significant public health achievements of the past 100 years. Much of this progress is the result of improvements in basic hygiene, and the implementation of specific prevention strategies. Some of these include mass immunizations, the regulation of food production and handling, improvements in water treatment and sewage disposal, and the proper handling and storage of garbage and solid waste. Even with these scientific advancements, much remains to be done. The elderly, the very young, immunocompromised individuals, and particularly the socioeconomically disadvantaged are at increased risk for many infectious diseases. Another major problem, which has surfaced in the last ten years, is the number of people in the United States, who do not have health insurance. Because of the lack of adequate insurance, most people will not seek effective treatment for many infectious diseases. This trend must be reversed, as new infectious diseases continue to appear, and new modes of transmission of infectious agents continue to be identified.

**ANALYSIS**

**Sexually Transmitted Disease**

Around 12 million cases of sexually transmitted diseases occur annually in the United States. Of these numbers about 85% of the cases occur in the 15 - 29 year age group. By age 21, approximately one out of every five Americans has required treatment for a sexually transmitted disease. Because of the lack of numbers for Jasper County alone, data will be aggregated for some indicators. The counties that will be used in the aggregation are Jasper, Cumberland, Crawford, Richland, Effingham, and Clay.

5.01 **Syphilis Incidence Rates** - The total number of reported syphilis cases in the six county

group, for a five-year period, was zero cases. The statewide rate for the same period was 3.2 per 100,000 population for a total of 2,042. Jasper County had no reported case of syphilis during the five-year period.

- 5.02 **Gonorrhea Incidence Rates** - The reported rate for gonorrhea in Illinois is at 180.5 per 100,000 people. In the six county group the total number of cases for a five-year period was 48 or 9.0 per 100,000 population. The adolescent age group of 15 - 19 had 16 cases, or 34% of the total cases. Women suffer the majority of complications caused by gonorrhea. These complications include infertility, ectopic pregnancy, and pelvic inflammatory disease. For the five-year period, there were 27 cases reported for women in the 15 - 44 age group, or approximately 56% of the total cases. Jasper County had four reported cases of gonorrhea during the five-year period. The Healthy People 2010 target rate for gonorrhea is 19 per 100,000 people. The six county group is right on the target number.
- 5.03 **Chlamydia Incidence Rates** - Chlamydia is the most common sexually transmitted disease in the United States. In the five-year period, there were 414 reported cases for a 78.0 per 100,000 case rate. The rate for the state was 356.4 per 100,000. The six county aggregated rate is still much lower than the state rate of 356.4 per 100,000. Jasper County had 29 cases of chlamydia during the five-year period.
- 5.04 **AIDS Incidence Rates** - Recent statistics indicate that AIDS deaths have dropped 66.32%, to the lowest level since the mid 1990s. During a recent five year period, Illinois had 8,607 cases or 14.4 per 100,000 case rate. The six county area recorded 26 cases or 4.9 per 100,000 case rate for the same period of time. Men who have sex with men was the most prevalent mode of transmission in the six county area. The decline in deaths indicates that medical and drug therapy advancements made in the last ten years, have helped people with AIDS and HIV to live longer. The decrease in deaths from AIDS is positive news, however, the epidemic has not ended. The HIV/AIDS epidemic has taken the lives of nearly 16,000 Illinoisans. In the five-year period, Jasper County had 2 reported AIDS cases.

- 5.05 **HIV Infection Incidence Rates** - In the five-year period, there were 12,514 cases of HIV infection reported in Illinois. This is a case rate of 21.1 per 100,000. In the six county area there were 76 cases reported for a 14.2 per 100,000 case rate. There were no cases reported in childbearing women. The most prevalent mode of transmission is men who have sex with men, injection drug use, heterosexual contact, and unknown causes. In the five-year period, Jasper County had two HIV infections reported.
- 5.06 **Basic Series Vaccinations** - This data was available for Jasper County in a usable form. For 2002, 77% of children at age two had been appropriately immunized with the basic vaccination series. The state percentage for 2002 was 57.8%. The projected year 2010 rate for the United States is 90%. Jasper County is significantly ahead of state percentage, for children up to two years of age.
- 5.07 **Haemophilus Meningitis (Ages 0 - 2, 0 - 4)** - In the six county region and in the most recent five-year period, there were no reported cases of Haemophilus meningitis.
- 5.08 **Foodborne Pathogens Infection Rates** - In the six county region, there were 59 cases of salmonella reported in the five-year period. This produced a case rate of 11 per 100,000. During this same period the state had a rate of 13.7 per 100,000. The year 2010 Healthy People projected rate is 6.8 per 100,000. For campylobacter, there were 20 cases reported, with a rate of 3.7 per 100,000. The state rate was 7.4 per 100,000. There were no cases of listeria monocytogenes reported. Healthy People 2010 target rate for campylobacter is 12.3 per 100,000. . In Jasper County during this period of time, there were four reported cases of salmonella, and one reported case of campylobacter.
- 5.09 **Vaccine Preventable Diseases** - There were 31 vaccine preventable diseases reported in the six county area, for the five-year period. The most common disease reported was pertussis, followed by mumps. For Jasper County, during the same time frame, there were no vaccine preventable diseases reported.
- 5.10 **Hepatitis B Incident Rates** - The six group county selection had only three cases of

hepatitis B, during the five-year period. Jasper County had no cases reported during this period. The Jasper County Health Department will continue our hepatitis B immunization program to persons at risk. We also encourage immunization of infants according to IDPH guidelines.

- 5.11 **Tuberculosis** - Tuberculosis cases decreased in Illinois from 2000 through 2005. Cases in Illinois for 2000 were 743. In 2005 reported cases decreased to 596. This reflects an approximate 20% drop in that 5-year time frame. The case rate for Illinois in 2005 was 4.8 per 100,000. The Healthy People 2010 case rate is 1.0 per 100,000. It will be difficult to achieve this much of a reduction by the year 2010. Jasper County had no cases reported in the five-year time period. Statistics from Illinois Department of Public Health.



## **Summary of Infectious Disease Indicators**

1. Rates for syphilis, gonorrhea, AIDS and HIV infection appear to be decreasing at the state and national level. At the local level we rarely see any of these diseases. However, we must continue to be vigilant, and maintain our information and education efforts.
2. Tuberculosis cases are decreasing in Illinois, at a very significant rate. Prevention efforts must continue to keep tuberculosis cases on the decline.
3. Chlamydia cases seem to be increasing at all demographic levels. Jasper County had only 29 cases in the five-year period. Prevention and education efforts must be maintained and improved.
4. Vaccine preventable diseases seem to be under control. Statewide, there are sporadic outbreaks of disease. However, this is limited and not consistent

**IPLAN**  
**Environmental/Occupational and Injury Control**  
**Jasper County**

**INTRODUCTION**

Environmental factors play a key role in the process of human development, health and disease. Human factors also play an important role in the nature and effects of environmental change. Some of the most difficult challenges faced by environmental health professionals, come from the toxic and ecological effects of the use of natural and synthetic chemicals, fossil fuels, and contamination and pollution in modern society. Jasper County is a rural area with very little industrialization. The major sources of chemicals in Jasper County are related to farming operations, trucks or trains passing through the area, small industries, and by-products from industries in neighboring counties. Although environmental problems occur occasionally in Jasper County, most of our problems do not mirror the problems of the more industrialized areas of the State of Illinois. The health department must deal with a significant number of environmental problems, related to inadequate or unsafe sources of water, improper sewage disposal, unsafe food sanitation, unsafe and dilapidated buildings, and garbage and soils waste problems.

Occupational injuries and disease are a continual problem for American industry and the workforce. With more people working, and spending the majority of their time on the job, continued resources must be devoted to reducing occupational injuries and diseases.

**ANALYSIS**

**6.01a Households with Drinking Water from Regulated Supplies/Private Tested Wells -**

No data available on IPLAN system.

**6.01b NPL Hazardous Waste Sites -** In the region there were 5 hazardous waste sites. In

Jasper County there were no hazardous waste sites.

- 6.02 **Toxic Agents Released into Air, Water and Soil** - 1994 is the most recent year that statistics for this indicator are available. For that year Jasper County had a total of 509 pounds of toxic agents released. Of this total 10 pounds were released to the land, with 499 pounds related to other offsite transfers.
- 6.03 **Mortality Due to Motor Vehicle Crashes ICD - 10** - The rate for mortality due to motor vehicle accidents in a five-year period from 2000 to 2004 was 23.8. This includes all age groups. The mortality rate for people less than 65 years of age is 28.5. Both of these rates are higher than the state rates of 12.1 and 11.4 respectively. This is somewhat high considering that Jasper County is relatively small in geographic size, and does not have a large population. Interventions in this area, could include expanded educational efforts, and stricter enforcement of traffic safety laws.
- 6.04 **Homicide Rates - ICD 10** - There was one homicides recorded in Jasper County, during the five-year time frame from 2000 to 2004. In the six county region, in the same time period, there were 9 homicides recorded. Although homicide is certainly a serious and unfortunate social problem, the six county region does not have a significant problem.
- 6.05 **Suicide Rates - ICD 10** - There were two suicides recorded in Jasper County, during the five-year time from 2000 to 2004. A county rate was not established for this because of low numbers. In the six county region, in the same time period, there were 53 suicides reported. This produced a rate of 10.0 per 100,000. The state rate was at 8.4 per 100,000, with the 2010 target at 5.0 per 100,000.
- 6.06 **Non-Fatal Head/Spinal Cord, and for Hip Injury Hospitalization Rates** - The hospitalization rate for hip fractures for people 65 years of age and older in Jasper County is lower than the state rate in 1999. However, in 1997, 1998, and 2000, the rates have increased dramatically. In some cases, the rate is 20% - 30% higher than the state rate. Head injuries, in Jasper County were so few that a rate was not established. In Jasper County spinal cord injuries were uncommon, with only three in the five-year period. It appears as if hip fractures are increasing in the county, with head injuries and spinal cord

injuries remaining relatively stable.

<b>Jasper County</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
<b>Hip Fracture</b>	935.7 (16)	867.1 (15)	584.8 (10)	959.8 (16)	** (9)
<b>Head Injury</b>	** (4)	** (5)	** (7)	** (7)	** (8)
<b>Spinal Cord</b>	** (1)	** (1)	** (0)	** (1)	** (0)

  

<b>Illinois</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>
<b>Hip Fracture</b>	765.0 (11,332)	752.2 (11,252)	757.6 (11,335)	723.5 (10,852)	734.4 (10,985)
<b>Head Injury</b>	74.8 (8,901)	64.6 (7,778)	61.2 (7,427)	63.8 (7,924)	65.9 (8,223)
<b>Spinal Cord</b>	5.0 (593)	4.4 (534)	3.8 (466)	3.8 (473)	3.8 (471)

**6.06.01 Non-Fatal Hip Fracture Hospitalization Rates, Age 65+ -** The hospitalization rate for non-fatal hip fractures for age 65+ in Jasper County, is lower than the state rate in 1999 only. For 1997, 1998, and 2000, the Jasper County rates were significantly higher. It is apparent that hip fractures are increasing in the county.

**6.06.02 Non-Fatal Head Injury Hospitalization Rates -** For the five year period of 1997 - 2001, non fatal head injuries were relatively low as compared to the state. All of the years, in the five-year period, did not have a rate established, because the reported injuries were below 10 per year. There were 31 non-fatal head injuries in Jasper County during the five year period.

**6.06.03 Non-Fatal Spinal Cord Injury Hospitalization Rates** - For the five-year period, non-fatal spinal cord injuries were very low in Jasper County, as compared to the state. All of the years in the five-year period did not have a rate established because the reported injuries were below 10 per year. There were only three non-fatal spinal cord injuries in Jasper County, during the five-year period.

**6.07 Alcohol Related Motor Vehicle Mortality Rates** - Alcohol related motor vehicle death rates in Jasper County were higher than the state rate in 1993 and a little more than 4 times the state rate in 1995. Although the rates are higher in two years, the total number of alcohol motor vehicle deaths from 1992 - 1996 was three. There is a need for continued alcohol prevention and treatment services in Jasper County. These services are provided by the Jasper County Health Department

<b>Year</b>	<b>Jasper Number</b>	<b>Jasper Rate</b>	<b>Illinois Rate</b>	<b>US Rate</b>	<b>Year 2010</b>
<b>1996</b>	0	0	4.1	Not available	4.0
<b>1995</b>	2	18.9	4.4	Not available	4.0
<b>1994</b>	0	0	4.0	Not available	4.0
<b>1993</b>	1	9.4	3.8	6.8	4.0
<b>1992</b>	0	0	4.2	6.9	4.0

**6.08 Occupational Diseases/Injuries** - The data for the 6 county region shows 5 cases of cancer associated with occupation. A year 2010 objective for occupational safety and health is the reduction of work-related injuries resulting in medical treatment, lost time from work, or restrictive work activity to no more than six cases per 100 full time workers. Since occupational injury surveillance in Illinois, is confined to estimating hospitalization for certain occupational inquiries, it under estimates the total number of injuries in all counties. Rate data is not available. The year 2010 objective for occupational lung disease, is the elimination of exposures that cause these diseases.

There is no specific year 2010 objective for sentinel occupational cancers, however, each case should be considered avoidable morbidity. Continued surveillance will be necessary to monitor trends in these cancers.

- 6.09 **Blood Lead Levels in Children** - Jasper County data for blood lead levels in children for the five-year time frame, indicated 10 children identified with blood lead levels of greater than 15 mcg/dl. Two children were identified with blood lead levels of greater than 25 mcg/dl. The six county group recorded data of 88 and 20 children respectively. It is important to identify, track, and remediate all high blood lead levels. However, since many of the counties in the region, do not have a large number of old dilapidated housing, cases are significantly more limited than in the large urban and metropolitan areas in Illinois.
- 6.10 **Assaults Rates** - In the five-year period, Jasper County recorded 13 criminal sexual assaults, 3 robberies and 197 aggravated assaults and battery/attempted murders. Because of the lack of numbers, rates were not established for robbery. The aggravated assault and battery/attempted murder rate was at 374.5 per 100,000 people. This is low compared to the state rate of 569.4 per 100,000 people. The criminal sexual assault rate was at 24.7 per 100,000 people. This is low compared to the state rate of 57.8 per 100,000 people. There was enough data for Jasper County to preclude the use of statistics for the 6 county region. Again, the data indicates that these crimes are much more common in urban and metropolitan areas.
- 7.01 **Sentinal Events** - Sentinel health events are those indicators that serve as a warning signal that the quality of care may need to be improved. They assume that unnecessary disease, disability and untimely death would have been prevented or managed if the health care system had functioned satisfactorily. The occurrence of any of these factors, should indicate that something is wrong in the health care system and can be used to determine the level of health of the general population and the effects of economic, political and other environmental effects upon it. For Jasper County during the five year period, there were four hospitalizations for dehydration, 16 for asthma, 56 for

uncontrolled hypertension and zero for rheumatic fever and tuberculosis.

7.02 **Sentinal Events - Cancer** - For Jasper County in the five-year period from 1998 through 2002, there were four cases of breast cancer and one case of cervical cancer identified.

No rates were established because of the low numbers.

## **Summary of Environmental/Occupational/Injury Control Indicators**

Many of the environmental health problems that face Jasper County, are not addressed in the IPLAN statistics. There are no indicators available for sewage, nuisance, solid waste, or the consequences of individuals living in unsafe and dilapidated housing.

It is important to note that environmental programs conducted by the Jasper County Health Department, are very fundamental to the quality of life for Jasper County residents. The programs are designed to provide environmental safeguards to county residents.

It is unclear whether toxic agents are released or deposited into Jasper County water, air and soil in greater quantity, or with more serious consequences than the United States as a whole. Health effects are often difficult or impossible to determine.

A basic element of a community's public health infrastructure, is the maintenance of a safe drinking water supply. With 1995 statistics being the most recently available, only 46% of Jasper County's households received water from regulated sources. Increased awareness of proper well construction is needed, along with increased usage of regulated supplies. The establishment of the EJ Water system, has been very beneficial to rural Jasper County residents. This will eventually increase the number of households, who get their water from a regulated supply. Hip fractures and motor vehicle accidents mortality were also slightly higher than state statistics.