

HEALTH RISK SURVEY

**Prepared for
Sunflower Health Network
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INTRODUCTION

During August and September, 2000, the Sunflower Health Network sponsored a telephone survey. Households throughout the thirteen-county region served by the Network were contacted. The purpose of the survey was to identify key health risk factors for people living in the region.

The survey instrument used was developed by the Behavioral Risk Factor Surveillance System (BRFSS), a national data collection system coordinated by the Centers for Disease Control and Prevention in Atlanta. This instrument is used regularly by the Kansas Department of Health and Environment in its ongoing process of identifying statewide health risks and completing county-level health assessments.

The Overview, which begins on page 4, offers the reader a brief summary of the survey results for the entire region. If the meaning of some terms or the definition of some risk factors is unclear, it may be helpful to review the Definitions on pages 2 - 3.

In Highest Priority Health Risks, found on pages 6 - 17, the reader can review in detail all health risk factors affecting at least 20% of the people living in the region served by the Network.

County-Specific Information, pages 18 - 44, provides county-level data for all risk factors assessed.

A Note About Sampling Error

Every survey which polls a sample of a larger population is subject to some level of error. For any survey, it is important for the reader to consider the impact of this sampling error, often called the margin of error, for the data under consideration.

The sampling error for the regional-level data collected during this survey is $\pm 2.2\%$. An example may be helpful. For a given variable, assume that this survey indicated that 50% of the people in the region were at risk, plus or minus 2.2%. This means that if several other surveys were taken that randomly sampled the same number of people throughout the region, 19 out of 20 times, those surveys would indicate that between 47.8% and 52.2% ($50\% \pm 2.2\%$) of the respondents were at risk.

For some regional health risks, sampling error was considerably greater. For example, when assessing persons at risk for lack of immunizations, only people age 65 and over were considered. For clinical breast exams, only women age 40 and over were assessed.

Because the number of respondents is much smaller when analyzing county-level data, the sampling error is much higher. For all County-Specific Information, we have provided a conservative estimate of sampling error. Overall, when comparing one county to another, the percentage differences must be quite high for the differences to be statistically significant.

DEFINITIONS

The following definitions were developed by BRFSS.

Sedentary Lifestyle: Respondents who reported they did not exercise at all or did not engage in non-job related physical activity at least 3 times per week for at least 20 minutes each time.

Failed to Use Safety Belt: Respondents who reported they did not always use a safety belt when they drive or ride in an automobile.

Never Received a Pneumonia Vaccination: Respondents age 65 and older who had never received a pneumonia vaccination.

Lacked Recent Influenza Vaccination: Respondents age 65 and older who had not received an influenza vaccination within the past 12 months.

Not Very Healthy and Full of Energy: Respondents who reported not feeling very healthy and full of energy for 14 or more days during the past 30 days.

Not Enough Rest or Sleep: Respondents who reported they did not get enough rest or sleep 14 or more days during the past 30 days.

Worried, Tense or Anxious: Respondents who reported they felt worried, tense or anxious 14 or more days during the past 30 days.

Sad, Blue Depressed: Respondents who reported they felt sad, blue or depressed 14 or more days during the past 30 days.

Hypertension: Respondents who reported that they had ever been told by a doctor or other health professional that they had high blood pressure or hypertension.

Overweight: Based on Body Mass Index. $BMI = \text{weight (in kilograms)} \div \text{height in meters squared (kg/m}^2\text{)}$. Males with a BMI ≥ 27.8 and females with a BMI ≥ 27.3 were considered to be overweight.

High Blood Cholesterol: Respondents who had ever had their blood cholesterol checked and had been told by a doctor or other health professional that their blood cholesterol was high.

Lack Recent Pap Smear Test: Female respondents with an intact uterus (i.e., who had not had a hysterectomy) who reported they had not received a Pap smear test within the past two years.

Limited Activity Due to Impairment, Health Problem: Respondents who reported they were limited in an activity due to an impairment or health problem.

Routine Care Limitations: Respondents who reported they needed help with routine care needs - everyday household chores, doing necessary business, shopping, getting around for other purposes.

Personal Care Limitations: Respondents who reported they needed help with personal care needs - eating, bathing, dressing, getting around the house.

Poor Health Status: Respondents who self-reported that, in general, their health was fair or poor.

Current Cigarette Smokers: Respondents who reported that they had smoked at least 100 cigarettes in their lifetimes and were current smokers.

Lack Recent Mammogram: Female respondents age 40 and older who had not had a mammogram within the past two years.

Lack Recent Clinical Breast Exam: Female respondents age 20-39 who had not had a clinical breast exam within the past 3 years and female respondents 40 or older who had not had a clinical breast exam within the past 2 years.

Lacked Usual Source of Routine Healthcare: Respondents who reported they did not have one doctor or health professional that they saw for their routine medical care.

Pain Makes it Hard to Do Usual Activities: Respondents who reported that pain curtailed their usual activities for 14 or more days during the past 30 days.

Lack Healthcare Coverage: Respondents who reported that they lacked any form of health care coverage.

Unable to See a Doctor Due to Cost: Respondents who reported they were unable to see a doctor due to cost, during the past twelve months.

Diabetes Mellitus: Respondents who reported that they were told by a doctor they had diabetes. Pregnant females were excluded from this definition.

Smokeless Tobacco User: Respondents who reported that they currently use smokeless tobacco products, including tobacco and snuff.

At Risk for HIV/AIDS: Respondents who self-reported that their risk of contracting HIV was medium or high.

OVERVIEW

The table that begins on this page lists in order the health risk factors for the region served by the Sunflower Health Network. Whenever possible, regional results have been compared with state-level data and national data. Unless otherwise noted, state and national data are from *Health Risk Behaviors of Kansans 1997*, the most recent edition available for the health risk data maintained by the Kansas Department of Health and Environment.

Risk Factor		% of Region At Risk	% of State At Risk¹	% of Nation At Risk¹
Sedentary Lifestyle		72%	51% ²	N/A
Failed to Use Safety Belt		45%	46%	31%
Immunizations				
	Never Received a Pneumonia Vaccination	42%	56%	54%
	Lacked Recent Influenza Vaccination	34%	39%	34%
Mental Health				
	Not Very Healthy or Full of Energy	41%	36%	N/A
	Not Enough Rest or Sleep	25%	19%	N/A
	Worried, Tense, Anxious	17%	9%	N/A
	Sad, Blue, Depressed	9%	4%	N/A
Hypertension		35%	21%	23%
Overweight		35%	32%	31%
High Blood Cholesterol		34%	28%	29%
Cervical Cancer Screening - Lack Recent Pap Smear Test		28%	18%	N/A
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	25%	11%	N/A
	Routine Care Limitations	7%	4%	N/A
	Personal Care Limitations	3%	2%	N/A
Poor Health Status		20%	11%	13%

Risk Factor	% of Region At Risk	% of State At Risk¹	% of Nation At Risk¹
Current Cigarette Smokers	18%	23%	23%
Breast Cancer Screening			
Lack Recent Mammogram	17%	31%	28% ³
Lack Recent Clinical Breast Exam	16%	N/A	N/A
Lack Usual Source of Routine Healthcare	17%	14%	N/A
Pain Make it Hard to Do Usual Activities	12%	N/A	N/A
Lack Healthcare Coverage	12%	10%	12%
Unable to See a Doctor Due to Cost	9%	8%	N/A
Diabetes Mellitus	8%	3%	5%
Smokeless Tobacco User	5%	5%	N/A
At Risk for HIV/AIDS	4%	9%	6%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

³ Data for females age 50 and older

HIGHEST PRIORITY HEALTH RISKS

This section of the report discusses in greater detail the health risks that affect at least 20% of the people living in the Central Kansas region.

Each analysis includes the following components:

- Regional Summary = percentage of persons throughout the region who are at risk
- Breakdown by County = percentage of persons in each county who are at risk
- Differences Among Counties = statistically significant differences among counties
- Factors Contributing to High-Risk Profile = demographic factors that make it more likely for an individual to be high-risk, according to KDHE's 1997 data.

SEDENTARY LIFESTYLE

Regional Summary: 72% of the respondents throughout the region are at high risk.

Breakdown by County

	% of County at Risk
Clay County	72%
Cloud County	74%
Dickinson County	70%
Ellsworth County	73%
Jewell County	74%
Lincoln County	78%
McPherson County	71%
Mitchell County	67%
Osborne County	75%
Ottawa County	68%
Republic County	73%
Russell County	76%
Smith County	79%

Differences Among Counties

Smith and Lincoln Counties had the highest percentage of persons at risk. There was a statistically significant difference between the percentage of persons at risk in Smith County and the lower percentage of at-risk people in Mitchell County.

Factors Contributing to High-Risk Profile:

- Older
- Less education
- Lower income
- Retired/widowed
- Living in rural areas

FAILURE TO USE SAFETY BELTS

Regional Summary: 45% of the respondents throughout the region are at high risk.

Breakdown by County

	% of County at Risk
Clay County	44%
Cloud County	48%
Dickinson County	41%
Ellsworth County	53%
Jewell County	48%
Lincoln County	57%
McPherson County	37%
Mitchell County	49%
Osborne County	53%
Ottawa County	40%
Republic County	42%
Russell County	47%
Smith County	48%

Differences Among Counties

Lincoln, Ellsworth and Osborne Counties had the highest percentages of persons at-risk. There were statistically significant differences between these counties and the lower percentages of at-risk people in McPherson, Dickinson and Ottawa Counties.

Factors Contributing to High-Risk Profile:

- Males
- Younger
- Less education
- Lower income
- African-American or Hispanic

IMMUNIZATIONS

Regional Summary: 34% of the respondents throughout the region who are 65 years or older have not had an influenza vaccination recently. 42% of seniors have never been vaccinated for pneumonia.

Breakdown by County

	% of Persons 65+ at Risk - Flu	% of Persons 65+ at Risk - Pneumonia
Clay County	24%	34%
Cloud County	34%	48%
Dickinson County	30%	37%
Ellsworth County	37%	44%
Jewel County	46%	51%
Lincoln County	41%	35%
McPherson County	29%	37%
Mitchell County	32%	34%
Osborne County	31%	37%
Ottawa County	38%	54%
Republic County	37%	49%
Russell County	41%	50%
Smith County	42%	44%

Differences Among Counties

Because of the smaller numbers of people in this sample (only persons age 65+), there were no statistically significant differences among counties when assessing the percentage of seniors receiving the pneumonia vaccine. Jewel, Russell and Smith Counties had the highest percentages of persons failing to get a flu shot within the past twelve months. There were statistically significant differences between these counties and the lower percentage of at-risk persons in Clay County.

Factors Contributing to High-Risk Profile:

Flu Vaccination

- Males
- Lower education
- Incomes above \$35,000

Pneumonia Vaccination

- Males
- Lower education
- Widowed

MENTAL HEALTH

Regional Summary: 41% of the respondents throughout the region said that for at least 14 days during the past 30 days they did NOT feel healthy or full of energy. 25% of the people in the region did not get enough rest or sleep for 14 or more days during the past 30 days. 17% of the region's residents felt worried, tense or anxious for 14 or more days during the past 30 days. Finally, 9% of the region felt sad, blue or depressed for 14 or more days during the past 30 days.

Breakdown by County

	% of County At Risk - Sad, Blue, Depressed	% of County at Risk - Worried, Tense, Anxious	% of County at Risk - Not Enough Rest or Sleep	% of County at Risk - Not Healthy, Full of Energy
Clay County	11%	22%	26%	43%
Cloud County	10%	18%	23%	34%
Dickinson County	9%	17%	23%	42%
Ellsworth County	13%	19%	22%	43%
Jewell County	7%	20%	23%	44%
Lincoln County	13%	25%	39%	42%
McPherson County	8%	14%	27%	40%
Mitchell County	7%	8%	20%	38%
Osborne County	9%	13%	22%	43%
Ottawa County	6%	20%	23%	34%
Republic County	12%	18%	31%	44%
Russell County	10%	21%	24%	50%
Smith County	7%	11%	22%	34%

Differences Among Counties

Russell County had the highest percentage of persons who indicated they seldom felt healthy or full of energy. There was a statistically significant difference between Russell county and the lower percentages of at-risk persons in Cloud, McPherson, Mitchell, Ottawa and Smith Counties.

The number of persons in Lincoln County who did not get enough rest or sleep was significantly greater than the percentage for almost all other counties.

Lincoln, Clay, Ottawa and Russell Counties had the highest percentage of persons who said they felt worried, tense or anxious. There were statistically significant differences between these counties and the lower percentages of at-risk persons in Smith and Mitchell Counties.

There were no meaningful differences among counties when evaluating the percentage of residents feeling sad, blue or depressed.

Factors Contributing to High-Risk Profile:

Sad/Blue/Depressed:

- females
- less education
- lower income
- divorced/separated

Worried/Tense/Anxious

- females
- less income
- divorced/separated

Not Enough Rest or Sleep

- younger
- less education
- divorced/separated

Not Healthy or Full of Energy

- younger
- less income
- lower education

HYPERTENSION

Regional Summary: 35% of the respondents throughout the region had been told by a doctor or other health professional that they have high blood pressure.

Breakdown by County

	% of County at Risk
Clay County	29%
Cloud County	31%
Dickinson County	29%
Ellsworth County	41%
Jewell County	43%
Lincoln County	31%
McPherson County	32%
Mitchell County	42%
Osborne County	38%
Ottawa County	30%
Republic County	43%
Russell County	40%
Smith County	36%

Differences Among Counties

Republic, Jewell, Mitchell, Ellsworth and Russell Counties had the highest percentages of persons at-risk. There were statistically significant differences between these counties and the lower percentages of at-risk people in Clay and McPherson Counties.

Factors Contributing to High-Risk Profile:

- Females
- Older
- Less education
- Lower income

OVERWEIGHT

Regional Summary: 35% of the respondents throughout the region were overweight, according to the BMI (Body Mass Index).

Breakdown by County

	% of County at Risk
Clay County	32%
Cloud County	37%
Dickinson County	33%
Ellsworth County	44%
Jewell County	35%
Lincoln County	39%
McPherson County	32%
Mitchell County	37%
Osborne County	32%
Ottawa County	30%
Republic County	36%
Russell County	40%
Smith County	29%

Differences Among Counties

There were no significant differences when comparing the percentage of overweight females. Lincoln, Ellsworth and Russell Counties had the highest percentages of overweight males. There were statistically significant differences between these counties and the lower percentage of at-risk persons in McPherson County.

Factors Contributing to High-Risk Profile:

- Males
- Increases to age 65, then declines
- Less education
- Hispanic
- Living in rural areas

HIGH BLOOD CHOLESTEROL

Regional Summary: 34% of the respondents throughout the region had been told by a doctor or other health professional that their blood cholesterol was high.

Breakdown by County

	% of County at Risk
Clay County	26%
Cloud County	40%
Dickinson County	31%
Ellsworth County	30%
Jewell County	44%
Lincoln County	37%
McPherson County	38%
Mitchell County	39%
Osborne County	31%
Ottawa County	22%
Republic County	36%
Russell County	32%
Smith County	29%

Differences Among Counties

Jewell, Cloud, Mitchell, McPherson and Republic Counties had the highest percentages of persons at-risk. There were statistically significant differences between these counties and the lower percentages of at-risk people in Clay and Ottawa Counties.

Factors Contributing to High-Risk Profile:

- Older
- Less education
- African-American
- Retired/widowed/divorced/separated

LACK RECENT PAP SMEAR TEST

Regional Summary: 28% of the women in the region with an intact uterus had not had a Pap smear within the past twenty-four months.

Breakdown by County

	% of County at Risk
Clay County	30%
Cloud County	21%
Dickinson County	25%
Ellsworth County	24%
Jewell County	26%
Lincoln County	23%
McPherson County	26%
Mitchell County	29%
Osborne County	40%
Ottawa County	31%
Republic County	33%
Russell County	30%
Smith County	27%

Differences Among Counties

Statistical comparisons among counties could not be calculated, since this factor involved respondents' answers to more than one question on the survey.

Factors Contributing to High-Risk Profile:

- Older
- Less education
- Lower income
- Living in rural areas

ACTIVITY LIMITATIONS

Regional Summary: 25% of the people in the region said they were limited in the activities they could perform because of an impairment or health problem.

Breakdown by County

	% of County at Risk
Clay County	23%
Cloud County	26%
Dickinson County	22%
Ellsworth County	22%
Jewell County	34%
Lincoln County	23%
McPherson County	24%
Mitchell County	29%
Osborne County	19%
Ottawa County	22%
Republic County	32%
Russell County	29%
Smith County	29%

Differences Among Counties

Jewell and Republic Counties had the highest percentages of persons at-risk. There were statistically significant differences between these counties and the lower percentages of at-risk people in Dickinson and Osborne Counties.

Factors Contributing to High-Risk Profile:

- Females
- Older
- Less education
- Lower income
- People living in rural areas

HEALTH STATUS

Regional Summary: 20% of the respondents throughout the region self-reported that their general health was fair or poor.

Breakdown by County

	% of County at Risk
Clay County	16%
Cloud County	20%
Dickinson County	21%
Ellsworth County	14%
Jewell County	21%
Lincoln County	18%
McPherson County	19%
Mitchell County	25%
Osborne County	23%
Ottawa County	22%
Republic County	23%
Russell County	19%
Smith County	22%

Differences Among Counties

Mitchell County had the highest percentages of persons at-risk. There were statistically significant differences between Mitchell County and the lower percentages of at-risk people in Clay and Ellsworth Counties.

Factors Contributing to High-Risk Profile:

- Older
- Less education
- Lower household income
- Retired/not employed
- Living in rural areas

COUNTY-SPECIFIC INFORMATION

This section of the report includes county-level data for all of the health risk factors analyzed. Data about the region and the state are offered for purposes of comparison.

CLAY COUNTY

Sampling Error: 7.4%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		72%	72%	51% ²
Failed to Use Safety Belt		44%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	34%	42%	56%
	Lacked Recent Influenza Vaccination	24%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	43%	41%	36%
	Not Enough Rest or Sleep	26%	25%	19%
	Worried, Tense, Anxious	22%	17%	9%
	Sad, Blue, Depressed	11%	9%	4%
Hypertension		29%	35%	21%
Overweight		32%	35%	32%
High Blood Cholesterol		26%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		30%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	23%	25%	11%
	Routine Care Limitations	7%	7%	4%
	Personal Care Limitations	4%	3%	2%
Poor Health Status		16%	20%	11%
Current Cigarette Smokers		21%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Breast Cancer Screening			
Lack Recent Mammogram	15%	17%	31%
Lack Recent Clinical Breast Exam	13%	16%	N/A
Lack Usual Source of Routine Healthcare	18%	17%	14%
Pain Make it Hard to Do Usual Activities	9%	12%	N/A
Lack Healthcare Coverage	12%	12%	10%
Unable to See a Doctor Due to Cost	8%	9%	8%
Diabetes Mellitus	5%	8%	3%
Smokeless Tobacco User	7%	5%	5%
At Risk for HIV/AIDS	4%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

CLOUD COUNTY

Sampling Error: 7.2%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		74%	72%	51% ²
Failed to Use Safety Belt		48%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	48%	42%	56%
	Lacked Recent Influenza Vaccination	34%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	34%	41%	36%
	Not Enough Rest or Sleep	23%	25%	19%
	Worried, Tense, Anxious	18%	17%	9%
	Sad, Blue, Depressed	10%	9%	4%
Hypertension		31%	35%	21%
Overweight		37%	35%	32%
High Blood Cholesterol		40%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		21%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	26%	25%	11%
	Routine Care Limitations	5%	7%	4%
	Personal Care Limitations	3%	3%	2%
Health Status		20%	20%	11%
Current Cigarette Smokers		16%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Breast Cancer Screening			
Lack Recent Mammogram	14%	17%	31%
Lack Recent Clinical Breast Exam	13%	16%	N/A
Lack Usual Source of Routine Healthcare	22%	17%	14%
Pain Make it Hard to Do Usual Activities	10%	12%	N/A
Lack Healthcare Coverage	13%	12%	10%
Unable to See a Doctor Due to Cost	8%	9%	8%
Diabetes Mellitus	9%	8%	3%
Smokeless Tobacco User	3%	5%	5%
At Risk for HIV/AIDS	4%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

DICKINSON COUNTY

Sampling Error: 6.2%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	70%	72%	51% ²
Failed to Use Safety Belt	41%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	37%	42%	56%
Lacked Recent Influenza Vaccination	30%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	42%	41%	36%
Not Enough Rest or Sleep	23%	25%	19%
Worried, Tense, Anxious	17%	17%	9%
Sad, Blue, Depressed	9%	9%	4%
Hypertension	29%	35%	21%
Overweight	33%	35%	32%
High Blood Cholesterol	31%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	25%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	22%	25%	11%
Routine Care Limitations	7%	7%	4%
Personal Care Limitations	3%	3%	2%
Health Status	21%	20%	11%
Current Cigarette Smokers	20%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	16%	17%	31%
Lack Recent Clinical Breast Exam	18%	16%	N/A
Lack Usual Source of Routine Healthcare	16%	17%	14%
Pain Make it Hard to Do Usual Activities	8%	12%	N/A
Lack Healthcare Coverage	10%	12%	10%
Unable to See a Doctor Due to Cost	8%	9%	8%
Diabetes Mellitus	10%	8%	3%
Smokeless Tobacco User	4%	5%	5%
At Risk for HIV/AIDS	6%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

ELLSWORTH COUNTY

Sampling Error: 9.0%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	73%	72%	51% ²
Failed to Use Safety Belt	53%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	44%	42%	56%
Lacked Recent Influenza Vaccination	37%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	43%	41%	36%
Not Enough Rest or Sleep	22%	25%	19%
Worried, Tense, Anxious	19%	17%	9%
Sad, Blue, Depressed	13%	9%	4%
Hypertension	41%	35%	21%
Overweight	44%	35%	32%
High Blood Cholesterol	30%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	24%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	22%	25%	11%
Routine Care Limitations	8%	7%	4%
Personal Care Limitations	3%	3%	2%
Health Status	14%	20%	11%
Current Cigarette Smokers	18%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Breast Cancer Screening			
Lack Recent Mammogram	15%	17%	31%
Lack Recent Clinical Breast Exam	11%	16%	N/A
Lack Usual Source of Routine Healthcare	12%	17%	14%
Pain Make it Hard to Do Usual Activities	10%	12%	N/A
Lack Healthcare Coverage	10%	12%	10%
Unable to See a Doctor Due to Cost	4%	9%	8%
Diabetes Mellitus	11%	8%	3%
Smokeless Tobacco User	1%	5%	5%
At Risk for HIV/AIDS	4%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

JEWEL COUNTY

Sampling Error: 9.3%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		74%	72%	51% ²
Failed to Use Safety Belt		48%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	51%	42%	56%
	Lacked Recent Influenza Vaccination	46%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	44%	41%	36%
	Not Enough Rest or Sleep	23%	25%	19%
	Worried, Tense, Anxious	20%	17%	9%
	Sad, Blue, Depressed	7%	9%	4%
Hypertension		43%	35%	21%
Overweight		35%	35%	32%
High Blood Cholesterol		44%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		26%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	34%	25%	11%
	Routine Care Limitations	10%	7%	4%
	Personal Care Limitations	5%	3%	2%
Health Status		21%	20%	11%
Current Cigarette Smokers		19%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	14%	17%	31%
Lack Recent Clinical Breast Exam	18%	16%	N/A
Lack Usual Source of Routine Healthcare	20%	17%	14%
Pain Make it Hard to Do Usual Activities	20%	12%	N/A
Lack Healthcare Coverage	17%	12%	10%
Unable to See a Doctor Due to Cost	11%	9%	8%
Diabetes Mellitus	5%	8%	3%
Smokeless Tobacco User	5%	5%	5%
At Risk for HIV/AIDS	10%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

LINCOLN COUNTY

Sampling Error: 11.2%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		78%	72%	51% ²
Failed to Use Safety Belt		57%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	35%	42%	56%
	Lacked Recent Influenza Vaccination	41%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	42%	41%	36%
	Not Enough Rest or Sleep	39%	25%	19%
	Worried, Tense, Anxious	25%	17%	9%
	Sad, Blue, Depressed	13%	9%	4%
Hypertension		31%	35%	21%
Overweight		39%	35%	32%
High Blood Cholesterol		37%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		23%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	23%	25%	11%
	Routine Care Limitations	5%	7%	4%
	Personal Care Limitations	4%	3%	2%
Health Status		18%	20%	11%
Current Cigarette Smokers		22%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	20%	17%	31%
Lack Recent Clinical Breast Exam	10%	16%	N/A
Lack Usual Source of Routine Healthcare	12%	17%	14%
Pain Make it Hard to Do Usual Activities	14%	12%	N/A
Lack Healthcare Coverage	18%	12%	10%
Unable to See a Doctor Due to Cost	12%	9%	8%
Diabetes Mellitus	5%	8%	3%
Smokeless Tobacco User	1%	5%	5%
At Risk for HIV/AIDS	3%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

McPHERSON COUNTY

Sampling Error: 5.6%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	71%	72%	51% ²
Failed to Use Safety Belt	37%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	37%	42%	56%
Lacked Recent Influenza Vaccination	29%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	40%	41%	36%
Not Enough Rest or Sleep	27%	25%	19%
Worried, Tense, Anxious	14%	17%	9%
Sad, Blue, Depressed	8%	9%	4%
Hypertension	32%	35%	21%
Overweight	32%	35%	32%
High Blood Cholesterol	38%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	26%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	24%	25%	11%
Routine Care Limitations	7%	7%	4%
Personal Care Limitations	3%	3%	2%
Health Status	19%	20%	11%
Current Cigarette Smokers	14%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	14%	17%	31%
Lack Recent Clinical Breast Exam	16%	16%	N/A
Lack Usual Source of Routine Healthcare	12%	17%	14%
Pain Make it Hard to Do Usual Activities	11%	12%	N/A
Lack Healthcare Coverage	7%	12%	10%
Unable to See a Doctor Due to Cost	8%	9%	8%
Diabetes Mellitus	7%	8%	3%
Smokeless Tobacco User	5%	5%	5%
At Risk for HIV/AIDS	2%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

MITCHELL COUNTY

Sampling Error: 7.6%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	67%	72%	51% ²
Failed to Use Safety Belt	49%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	34%	42%	56%
Lacked Recent Influenza Vaccination	32%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	38%	41%	36%
Not Enough Rest or Sleep	20%	25%	19%
Worried, Tense, Anxious	8%	17%	9%
Sad, Blue, Depressed	7%	9%	4%
Hypertension	42%	35%	21%
Overweight	37%	35%	32%
High Blood Cholesterol	39%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	29%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	29%	25%	11%
Routine Care Limitations	6%	7%	4%
Personal Care Limitations	5%	3%	2%
Health Status	25%	20%	11%
Current Cigarette Smokers	16%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	18%	17%	31%
Lack Recent Clinical Breast Exam	11%	16%	N/A
Lack Usual Source of Routine Healthcare	14%	17%	14%
Pain Make it Hard to Do Usual Activities	9%	12%	N/A
Lack Healthcare Coverage	9%	12%	10%
Unable to See a Doctor Due to Cost	4%	9%	8%
Diabetes Mellitus	7%	8%	3%
Smokeless Tobacco User	6%	5%	5%
At Risk for HIV/AIDS	5%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

OSBORNE COUNTY

Sampling Error: 9.0%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	75%	72%	51% ²
Failed to Use Safety Belt	53%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	37%	42%	56%
Lacked Recent Influenza Vaccination	31%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	43%	41%	36%
Not Enough Rest or Sleep	22%	25%	19%
Worried, Tense, Anxious	13%	17%	9%
Sad, Blue, Depressed	9%	9%	4%
Hypertension	38%	35%	21%
Overweight	32%	35%	32%
High Blood Cholesterol	31%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	40%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	19%	25%	11%
Routine Care Limitations	7%	7%	4%
Personal Care Limitations	2%	3%	2%
Health Status	23%	20%	11%
Current Cigarette Smokers	19%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	22%	17%	31%
Lack Recent Clinical Breast Exam	24%	16%	N/A
Lack Usual Source of Routine Healthcare	20%	17%	14%
Pain Make it Hard to Do Usual Activities	17%	12%	N/A
Lack Healthcare Coverage	11%	12%	10%
Unable to See a Doctor Due to Cost	11%	9%	8%
Diabetes Mellitus	12%	8%	3%
Smokeless Tobacco User	2%	5%	5%
At Risk for HIV/AIDS	3%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

OTTAWA COUNTY

Sampling Error: 9.0%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		68%	72%	51% ²
Failed to Use Safety Belt		40%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	54%	42%	56%
	Lacked Recent Influenza Vaccination	38%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	34%	41%	36%
	Not Enough Rest or Sleep	23%	25%	19%
	Worried, Tense, Anxious	20%	17%	9%
	Sad, Blue, Depressed	6%	9%	4%
Hypertension		30%	35%	21%
Overweight		30%	35%	32%
High Blood Cholesterol		22%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		31%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	22%	25%	11%
	Routine Care Limitations	8%	7%	4%
	Personal Care Limitations	4%	3%	2%
Health Status		22%	20%	11%
Current Cigarette Smokers		23%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	16%	17%	31%
Lack Recent Clinical Breast Exam	23%	16%	N/A
Lack Usual Source of Routine Healthcare	23%	17%	14%
Pain Make it Hard to Do Usual Activities	5%	12%	N/A
Lack Healthcare Coverage	18%	12%	10%
Unable to See a Doctor Due to Cost	11%	9%	8%
Diabetes Mellitus	8%	8%	3%
Smokeless Tobacco User	4%	5%	5%
At Risk for HIV/AIDS	3%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

REPUBLIC COUNTY

Sampling Error: 9.0%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		73%	72%	51% ²
Failed to Use Safety Belt		42%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	49%	42%	56%
	Lacked Recent Influenza Vaccination	37%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	44%	41%	36%
	Not Enough Rest or Sleep	31%	25%	19%
	Worried, Tense, Anxious	18%	17%	9%
	Sad, Blue, Depressed	12%	9%	4%
Hypertension		43%	35%	21%
Overweight		36%	35%	32%
High Blood Cholesterol		36%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		33%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	32%	25%	11%
	Routine Care Limitations	8%	7%	4%
	Personal Care Limitations	3%	3%	2%
Health Status		23%	20%	11%
Current Cigarette Smokers		22%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	24%	17%	31%
Lack Recent Clinical Breast Exam	18%	16%	N/A
Lack Usual Source of Routine Healthcare	12%	17%	14%
Pain Make it Hard to Do Usual Activities	15%	12%	N/A
Lack Healthcare Coverage	15%	12%	10%
Unable to See a Doctor Due to Cost	12%	9%	8%
Diabetes Mellitus	12%	8%	3%
Smokeless Tobacco User	8%	5%	5%
At Risk for HIV/AIDS	4%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

RUSSELL COUNTY

Sampling Error: 7.5%

Risk Factor		% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle		76%	72%	51% ²
Failed to Use Safety Belt		47%	45%	46%
Immunizations				
	Never Received a Pneumonia Vaccination	50%	42%	56%
	Lacked Recent Influenza Vaccination	41%	34%	39%
Mental Health				
	Not Very Healthy or Full of Energy	50%	41%	36%
	Not Enough Rest or Sleep	24%	25%	19%
	Worried, Tense, Anxious	21%	17%	9%
	Sad, Blue, Depressed	10%	9%	4%
Hypertension		40%	35%	21%
Overweight		40%	35%	32%
High Blood Cholesterol		32%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test		30%	28%	18%
Activity Limitations				
	Limited Activity Due to Impairment, Health Problem	29%	25%	11%
	Routine Care Limitations	6%	7%	4%
	Personal Care Limitations	3%	3%	2%
Health Status		19%	20%	11%
Current Cigarette Smokers		21%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	21%	17%	31%
Lack Recent Clinical Breast Exam	18%	16%	N/A
Lack Usual Source of Routine Healthcare	17%	17%	14%
Pain Make it Hard to Do Usual Activities	13%	12%	N/A
Lack Healthcare Coverage	11%	12%	10%
Unable to See a Doctor Due to Cost	12%	9%	8%
Diabetes Mellitus	5%	8%	3%
Smokeless Tobacco User	7%	5%	5%
At Risk for HIV/AIDS	5%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

SMITH COUNTY

Sampling Error: 9.0%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk¹
Sedentary Lifestyle	79%	72%	51% ²
Failed to Use Safety Belt	48%	45%	46%
Immunizations			
Never Received a Pneumonia Vaccination	44%	42%	56%
Lacked Recent Influenza Vaccination	42%	34%	39%
Mental Health			
Not Very Healthy or Full of Energy	34%	41%	36%
Not Enough Rest or Sleep	22%	25%	19%
Worried, Tense, Anxious	11%	17%	9%
Sad, Blue, Depressed	7%	9%	4%
Hypertension	36%	35%	21%
Overweight	29%	35%	32%
High Blood Cholesterol	29%	34%	28%
Cervical Cancer Screening - Lack Recent Pap Smear Test	27%	28%	18%
Activity Limitations			
Limited Activity Due to Impairment, Health Problem	29%	25%	11%
Routine Care Limitations	10%	7%	4%
Personal Care Limitations	2%	3%	2%
Health Status	22%	20%	11%
Current Cigarette Smokers	16%	18%	23%

Risk Factor	% of County At Risk	% of Region At Risk	% of State At Risk
Breast Cancer Screening			
Lack Recent Mammogram	17%	17%	31%
Lack Recent Clinical Breast Exam	18%	16%	N/A
Lack Usual Source of Routine Healthcare	19%	17%	14%
Pain Make it Hard to Do Usual Activities	16%	12%	N/A
Lack Healthcare Coverage	9%	12%	10%
Unable to See a Doctor Due to Cost	7%	9%	8%
Diabetes Mellitus	7%	8%	3%
Smokeless Tobacco User	5%	5%	5%
At Risk for HIV/AIDS	2%	4%	9%

¹ Data from *Health Risk Behaviors of Kansans 1997*

² Data from *Health Risk Behaviors of Kansans 1995*

DEMOGRAPHIC DATA

The following is a county-level breakdown of key demographic variables. The reader may want to use this data when evaluating patterns of responses for the preceding issues.

RESPONDENT AGE				
	18-45 Years	46-64 Years	65 and Older	Refused to Say
Clay County	36%	30%	33%	1%
Cloud County	39%	25%	35%	1%
Dickinson County	40%	22%	37%	1%
Ellsworth County	38%	27%	36%	0%
Jewell County	30%	36%	35%	0%
Lincoln County	52%	26%	22%	0%
McPherson County	40%	28%	32%	1%
Mitchell County	33%	28%	37%	2%
Osborne County	29%	28%	43%	1%
Ottawa County	42%	25%	33%	1%
Republic County	34%	30%	36%	0%
Russell County	38%	29%	33%	1%
Smith County	30%	17%	53%	0%
TOTAL SAMPLE	37%	27%	35%	1%

RESPONDENT RACE/ETHNIC GROUP				
	Caucasian	African-American	All Other Races	Refused to Say
Clay County	97%	1%	2%	0%
Cloud County	97%	1%	2%	1%
Dickinson County	93%	1%	5%	1%
Ellsworth County	96%	0%	3%	1%
Jewell County	98%	0%	2%	0%
Lincoln County	96%	1%	3%	0%
McPherson County	95%	2%	3%	1%
Mitchell County	98%	1%	1%	1%
Osborne County	99%	0%	1%	0%
Ottawa County	94%	1%	4%	1%
Republic County	98%	1%	0%	1%
Russell County	96%	2%	2%	1%
Smith County	98%	0%	1%	1%
TOTAL SAMPLE	96%	1%	2%	1%

RESPONDENT GENDER		
	Female	Male
Clay County	66%	34%
Cloud County	64%	36%
Dickinson County	66%	34%
Ellsworth County	69%	31%
Jewell County	59%	41%
Lincoln County	69%	31%
McPherson County	64%	36%
Mitchell County	66%	34%
Osborne County	66%	34%
Ottawa County	69%	31%
Republic County	65%	35%
Russell County	64%	36%
Smith County	71%	29%
TOTAL SAMPLE	66%	34%

METHODOLOGY

Because one goal for this project was to evaluate county-level data, this study used a stratified sampling technique. Each county, regardless of population, was allocated a target sample of at least 120 persons. This strategy was used to artificially reduce the margin of error for counties with the least population.

For each of the thirteen counties, a sample of residential telephone numbers was purchased. Goals for target sampling were achieved in all counties except Lincoln and Jewel Counties. In these areas, all residential phone numbers throughout the county were purchased and all households were contacted, with non-respondents (e.g., line was busy, not at home) contacted several times.

The table on the following page shows the sampling process used. County population was based on data from *Kansas Statistical Abstract*, July 1, 1998. "Unadjusted Sample" indicates the percentage of sample that would have been allocated to each county, based solely on county population. "Adjusted Sample" is the target sample used, with a minimum quota of 120 respondents per county. "Actual Sample" shows the numbers of persons contacted during this study. "Sampling Error" indicates the margin of error for county-level data, based on the number of persons contacted in each county.

	County Population	% of Total Population	Unadjusted Sample	Adjusted Sample	Actual Sample	Sampling Error
Clay County	9,148	7.83%	164	180	180	7.4%
Cloud County	10,027	8.58%	180	186	186	7.2%
Dickinson County	19,742	16.90%	355	250	250	6.2%
Ellsworth County	6,285	5.38%	113	120	120	9.0%
Jewell County	3,867	3.31%	70	120	113	9.3%
Lincoln County	3,338	2.86%	60	120	77	11.2%
McPherson County	28,630	24.50%	513	308	308	5.6%
Mitchell County	6,936	5.94%	125	166	168	7.6%
Osborne County	4,712	4.03%	85	120	120	9.0%
Ottawa County	5,905	5.05%	106	120	120	9.0%
Republic County	6,102	5.22%	110	120	120	9.0%
Russell County	7,558	6.47%	136	170	171	7.5%
Smith County	4,588	3.93%	83	120	121	9.0%
TOTAL	116,838	100.00%	2100	2100	2054	