

Health and Health-Related Behaviors in Nebraska: Overall Trends, Progress Toward Healthy People 2010 Goals, and Rural-Urban Comparisons

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Executive Summary

This report examines the trends in selected health and health-related behavior indicators in Nebraska from 1995 through 2006. We further compare the prevalence rates of these indicators to Nebraska's Healthy People 2010 goals and examine the rural-urban disparities in 2006. Data in this report can be used by policy makers and program managers to develop priorities and assess progress toward meeting 2010 goals.

We used data from Nebraska's Behavioral Risk Factor Surveillance System (BRFSS) to assess the health of Nebraska adults in the following four areas from 1995 through 2006: health status and chronic conditions, access to care, behavioral risk factors, and use of preventive health measures. This report shows that from 1995 through 2006, the use of preventive health measures among the elderly population increased, and the smoking rate among adults decreased. However, health status and chronic conditions, access to health care, certain behavioral risk factors, and use of preventive health measures by women worsened in the same period. The data show disparities between the health of rural and urban Nebraskans. Effective policy interventions are necessary to reverse the trend of declining health status and worsening health behaviors. Specific efforts should focus on reducing the gap between rural and urban residents.

Key Findings

Areas of Improvement

Increased use of preventive health measures among the elderly population:

- Flu shot for adults aged 65 or older 64.4% in 1995 to 73.3% in 2006
- Pneumonia vaccination for adults aged 65 or older 36.1% in 1995 to 68.3% in 2006
- Sigmoidoscopy for adults aged 50 or older 38.2% in 1997 to 51.5% in 2006

Improvement in certain behavioral risk factors:

- Smoking 21.9% in 1995 to 18.7% in 2006
- Physical inactivity 22.9% in 1996 to 21.0% in 2006

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Areas of Decline

Decreased health status and increased burden of chronic diseases:

- Self-reported health (good, very good, or excellent) 89.4% in 1995 to 87.1% in 2006
- Arthritis 20.7% in 1999 to 26.1% in 2005
- Asthma 9.6% in 1999 to 11.2% in 2006
- Diabetes 4.4% in 1995 to 7.4% in 2006
- High blood pressure for those tested 21.8% in 1995 to 24.5% in 2005
- High blood cholesterol for those tested 28.5% in 1995 to 35.2% in 2005

Decreased access to health care:

- Health insurance for adults aged 18 to 64 90.2% in 1995 to 83.0% in 2006
- Have a personal doctor 87.6% in 1996 to 85.0% in 2006

Worsening of certain behavioral risk factors:

- Obesity 16.3% in 1995 to 26.9% in 2006
- Binge drinking 15.9% in 1995 to 17.3% in 2005

Decreased use of preventive health measures among women:

- Pap test for women aged 18 or older 75.2% in 1995 to 70.7% in 2006

Rural-Urban Disparities

As of 2006, the rural population of Nebraska fared worse in 11 of the 18 indicators for health status and chronic conditions, access to health care, behavioral risk factors, and use of preventive health measures. There were no significant rural-urban differences in the remaining 7 indicators. Trend data for 1995 through 2006 also support the rural-urban disparities.

Worse health status and higher prevalence of certain chronic conditions in rural areas:

- Self-reported health (good, very good, or excellent) 85.3% rural, 88.8% urban in 2006
- Arthritis 29.4% rural, 23.4% urban in 2005
- High blood pressure for those tested 28.0% rural, 21.6% urban in 2005
- High blood cholesterol for those tested 37.3% rural, 33.5% urban in 2005

Poorer access to health care and higher prevalence of overweight or obesity in rural areas:

- Health insurance for adults aged 18 to 64 80.6% rural, 85.2% urban in 2006
- Overweight or obesity 66.3% rural, 61.8% urban in 2006

Less use of preventive health measures in rural areas:

- Pneumonia vaccination for adults aged 65 or older 65.8% rural, 71.5% urban in 2006
- Sigmoidoscopy for adults aged 50 or older 46.5% rural, 57.0% urban in 2006
- Mammogram for women aged 40 or older 70.1% rural, 76.5% urban in 2006
- Pap test for women aged 18 or older 67.1% rural, 73.9% urban in 2006

Introduction

In 2002, the Nebraska Health and Human Services System set goals for the prevalence of certain health conditions, behavioral risk factors, and the use of preventive measures for Nebraskans by 2010. Using 12 years of data (1995 to 2006) from Nebraska's Behavioral Risk Factor Surveillance System (BRFSS), this report documents the progress toward Nebraska's 2010 goals in four areas: health status and chronic conditions, access to health care, behavioral risk factors, and use of preventive health services. By comparing the prevalence data to Nebraska's Healthy People 2010 goals, this report identifies areas that need to be improved to reach the goals by 2010.

This report also examines rural-urban health disparities and highlights areas for improvement among Nebraska's rural population. In this report, "urban areas" refers to the three metropolitan statistical areas (MSAs) in Nebraska and their nine related counties: Lincoln MSA (Lancaster and Seward counties), Omaha-Council Bluffs MSA (Cass, Douglas, Sarpy, Saunders, and Washington counties), and Sioux City MSA (Dakota and Dixon counties). "Rural areas" refers to all areas outside of these three MSAs and nine counties in Nebraska (84 counties).

Eighteen indicators were used to measure health and health-related behaviors of Nebraskans in the following four areas: health status and chronic conditions, access to health care, behavioral risk factors, and use of preventive health measures.

The health status and chronic conditions of the population were measured by self-reported health and the prevalence rate in Nebraska of five common chronic conditions: asthma, arthritis, diabetes, high blood pressure, and high blood cholesterol.

- Self-reported health was measured by the percentage of adults who reported their general health status was good, very good, or excellent.
- Asthma was measured by the percentage of adults who had ever been told by a health care professional that they had asthma.
- Arthritis was measured by the percentage of adults who had ever been told by a health care professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia.
- Diabetes was measured by the percentage of adults who had ever been told by a health care professional that they had diabetes, excluding women who had diabetes during pregnancy.
- High blood pressure was measured by the percentage of adults who were tested and had ever been told by a health care professional that they had high blood pressure, excluding women who had high blood pressure during pregnancy.
- High blood cholesterol was measured by the percentage of adults who were tested and had ever been told by a health care professional that they had high blood cholesterol.

Access to health care was measured using two indicators: having health insurance and having a personal doctor.

- Having health insurance was measured by the percentage of adults aged 18 to 64 years who had any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans (including Medicare and Medicaid).
- Having a personal doctor was measured by the percentage of adults who had at least one personal doctor or health care provider.

Behavioral risk factors measured included smoking, binge alcohol drinking, physical inactivity, and overweight and obesity.

- Smoking was measured by the percentage of adults who had smoked more than 100 cigarettes in their life and who had smoked on some or all days in the past month.
- Binge drinking was measured by the percentage of adults who had had five or more drinks on one occasion in the past month.
- Physical inactivity was measured by the percentage of adults who had not done any physical activity or exercise during the past 30 days other than their regular job.
- Overweight was measured by the percentage of adults whose body mass index was greater than or equal to 25 and less than 30. Body mass index equals weight in kilograms divided by height in meters squared.
- Obesity was measured by the percentage of adults whose body mass index was greater than or equal to 30.

Preventive measures considered in this report included vaccination and early detection measures taken by certain groups of people.

- Flu shot was measured by the percentage of adults aged 65 years or older who had had a flu shot in the last year.
- Pneumonia vaccination was measured by the percentage of adults aged 65 years or older who had ever had a pneumonia vaccination.
- Sigmoidoscopy was measured by the percentage of adults aged 50 years or older who had ever had a sigmoidoscopy.
- Pap test was measured by the percentage of women aged 18 years or older who had had a Pap test in the past two years.
- Mammogram was measured by the percentage of women aged 40 years or older who had had a mammogram in the past two years.

Findings

Part 1. Overall Change, Progress Toward Nebraska Healthy People 2010 Goals, and Comparison of Rural and Urban Nebraska Adults, 1995-2006

We calculated the state prevalence rates for the 18 health indicators using 1995 data (or the earliest data available thereafter) and 2006 data (or the latest data available prior). In addition, we calculated the prevalence rate in urban and rural areas using 2006 data or the latest data available. Chi-square tests were used to test the rural-urban difference for each health indicator. The complex survey design effect of BRFSS was adjusted using SUDAAN software when calculating the p-values. The p-values for the rural-urban comparison for all indicators were compared to a significance level of 0.05 to determine significance of the differences.

Table 1. Prevalence rates of 18 indicators in selected years and comparison of rural and urban adults in Nebraska, 2006

Health Indicators	Target 2010 ^a	Nebraska 1995 ^b	Nebraska 2006 ^c	Urban 2006 ^c	Rural 2006 ^c	P-value*
Health status and chronic conditions						
Self-reported health (good/very good/excellent)		89.4%	87.1%	88.8%	85.3%	<0.01
Arthritis		20.7% ^d	26.1% ^e	23.4% ^e	29.4% ^e	<0.01
Asthma		9.6% ^d	11.2%	12.2%	10.0%	0.06
Diabetes	2.5%	4.4%	7.4%	7.5%	7.3%	0.78
High blood pressure	16.0%	21.8%	24.5% ^e	21.6% ^e	28.0% ^e	<0.01
High blood cholesterol	17.0%	28.5%	35.2% ^e	33.5% ^e	37.3% ^e	0.01
Access to health care						
Having health insurance (18-64)	100.0%	90.2%	83.0%	85.2%	80.6%	0.01
Having a personal doctor	96.0%	87.6% ^f	85.0%	84.6%	85.8%	0.41
Behavioral risk factors						
Smoking	12.0%	21.9%	18.7%	19.3%	18.0%	0.30
Binge drinking	6.0%	15.9%	17.3% ^e	18.4% ^e	15.9% ^e	0.05
Physical inactivity	15.0%	22.9% ^g	21.0%	19.1%	23.0%	<0.01
Overweight or obesity		53.3%	63.9%	61.8%	66.3%	0.01
Obesity	3.0%	16.3%	26.9%	25.7%	28.3%	0.07
Preventive measures						
Flu shot (65+)	90.0%	64.4%	73.3%	74.0%	72.8%	0.60
Pneumonia vaccination (65+)	90.0%	36.1%	68.3%	71.5%	65.8%	0.03
Sigmoidoscopy (50+)		38.2% ^g	51.5%	57.0%	46.5%	<0.01
Mammogram (women 40+)		62.4%	73.3%	76.5%	70.1%	<0.01
Pap test (women 18+)		75.2%	70.7%	73.9%	67.1%	<0.01

Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

^aNebraska Healthy People 2010 Goals and Objectives, Nebraska Health and Human Services System, 2002.

^b1995 data or the earliest data available thereafter.

^c2006 data or the latest data available prior.

^dData from 1999.

^eData from 2005.

^fData from 1996.

^gData from 1997.

*Compared to a significance level of 0.05 to determine significance of the rural-urban differences.

1.1 Overall Change from 1995 (or earliest data available thereafter) to 2006 (or latest data available prior)

Health status and chronic conditions: The percentage of Nebraska adults who reported poorer health and who had chronic diseases was higher in 2006 than in 1995/1999.

- Self-reported health (good, very good, or excellent) 89.4% in 1995 to 87.1% in 2006
- Arthritis 20.7% in 1999 to 26.1% in 2005
- Asthma 9.6% in 1999 to 11.2% in 2006
- Diabetes 4.4% in 1995 to 7.4% in 2006
- High blood pressure 21.8% in 1995 to 24.5% in 2005
- High blood cholesterol 28.5% in 1995 to 35.2% in 2005

Access to health care: The percentage of Nebraska adults who had health insurance or a personal doctor was lower in 2006 than in 1995/1996.

- Having health insurance 90.2% in 1995 to 83.0% in 2006
- Having a personal doctor 87.6% in 1996 to 85.0% in 2006

Behavioral risk factors: The prevalence of smoking and physical inactivity among Nebraska adults was lower in 2006 than in 1995/1996. However, the rate of binge drinking and obesity increased from 1995 to 2006.

- Smoking 21.9% in 1995 to 18.7% in 2006
- Binge drinking 15.9% in 1995 to 17.3% in 2005
- Physical inactivity 22.9% in 1996 to 21.0% in 2006
- Obesity 16.3% in 1995 to 26.9% in 2006

Use of preventive health measures: The percentage of elderly Nebraskans who used preventive health measures was higher in 2006 than in 1995/1997, but the percentage of women who had a Pap test was lower in 2006.

- Flu shot 64.4% in 1995 to 73.3% in 2006
- Pneumonia vaccination 36.1% in 1995 to 68.3% in 2006
- Sigmoidoscopy 38.2% in 1997 to 51.5% in 2006
- Mammogram 62.4% in 1995 to 73.3% in 2006
- Pap test 75.2% in 1995 to 70.7% in 2006

1.2 Comparison of 2006 Rates to Nebraska Healthy People 2010 Goals

Table 1 shows that the prevalence rates for the 11 indicators that had Healthy People 2010 goals all fell short of those goals in 2005 or 2006.¹ These numbers suggest that efforts should be made in all four areas—health status and chronic conditions, access to health care, behavioral risk factors, and use of preventive health measures—to reach the Healthy People 2010 goals. Particularly wide gaps exist for the following three indicators:

- Obesity 26.9% in 2006, compared to goal of 3%
- Binge drinking 17.3% in 2005, compared to goal of 6%
- Diabetes 7.4% in 2006, compared to goal of 2.5%

¹Significant at the level of 0.05 using SUDAAN 95% confidence interval.

1.3 Rural-Urban Disparities in 2006

Health status and chronic conditions: Nebraska's rural population reported a poorer health status and a larger burden of chronic conditions than did their urban counterparts. The percentage of people reporting good, very good, or excellent health was lower and the prevalence rates of arthritis, high blood pressure, and high blood cholesterol were higher in rural areas than in urban areas. The prevalence rates of diabetes and asthma were similar for both urban and rural areas.

- Self-reported health (good, very good, or excellent) 85.3% rural, 88.8% urban in 2006
- Arthritis 29.4% rural, 23.4% urban in 2005
- Asthma 10.0% rural, 12.2% urban in 2006
- Diabetes 7.3% rural, 7.5% urban in 2006
- High blood pressure 28.0% rural, 21.6% urban in 2005
- High blood cholesterol 37.3% rural, 33.5% urban in 2005

Access to health care was also worse in rural areas than in urban areas. There was no significant rural-urban difference in the percentage of adults who had a personal doctor. However, rural residents were less likely to report having health insurance.

- Having health insurance 80.6% rural, 85.2% urban in 2006
- Having a personal doctor 85.8% rural, 84.6% urban in 2006

Behavioral risk factors were also unhealthier in rural areas than in urban areas. There was no significant rural-urban difference in the prevalence of smoking and binge alcohol drinking. However, rural residents were more likely to be overweight or obese than their urban counterparts. Rural residents were also less likely to engage in leisure time physical activities; however, physical activity is often part of a rural resident's regular job.

- Smoking 18.0% rural, 19.3% urban in 2006
- Binge drinking 15.9% rural, 18.4% urban in 2005
- Physical inactivity 23.0% rural, 19.1% urban in 2006
- Overweight or obesity 66.3% rural, 61.8% urban in 2006
- Obesity 28.3% rural, 25.7% urban in 2006

Preventive health measures were less likely to be used by the rural population than by the urban population. A lower percentage of pertinent population groups in rural areas took four preventive health measures: pneumonia vaccination, sigmoidoscopy, mammogram, and Pap test. There was no significant difference between the flu shot take-up rate in rural and urban Nebraska in 2006.

- Flu shot 72.8% rural, 74.0% urban in 2006
- Pneumonia vaccination 65.8% rural, 71.5% urban in 2006
- Sigmoidoscopy 46.5% rural, 57.0% urban in 2006
- Mammogram 70.1% rural, 76.5% urban in 2006
- Pap test 67.1% rural, 73.9% urban in 2006

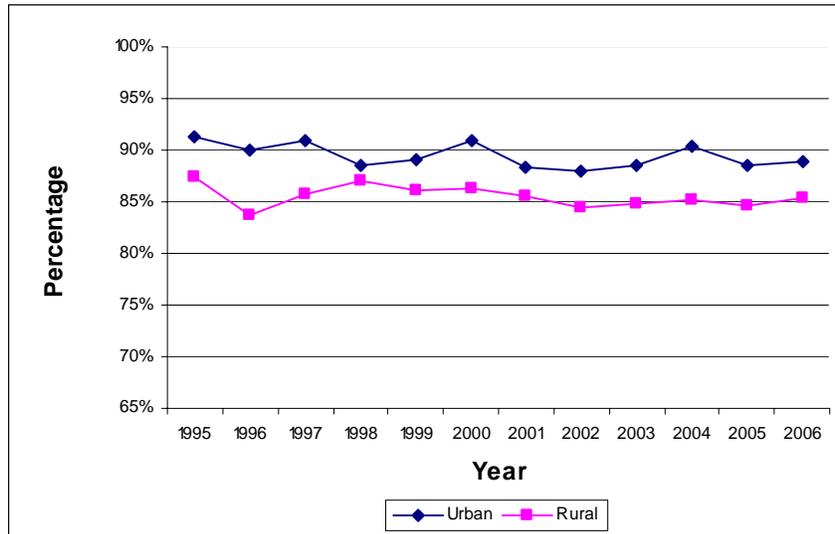
Part 2: Trends in Selected Health and Health-Related Behavior Indicators

To prepare this section, we calculated the prevalence rates of the 18 health and health-related behavior indicators for both urban and rural populations using BRFSS data from 1995 (or the earliest date thereafter) to 2006 (or the latest date prior). The 12-year trend for each health indicator is presented in Figures 1 to 17. The prevalence rates of the 18 indicators in each of the four areas are compared between urban and rural areas and to available Nebraska Healthy People 2010 goals.

2.1. Health Status and Chronic Conditions: Overall, the health status of Nebraskans declined and the chronic disease burden, based on five common chronic conditions, increased (Figures 1 to 6).

- **Self-reported health:** The percentage of adults who reported good, very good, or excellent health declined from 91.3% to 88.8% in urban areas and from 87.4% to 85.3% in rural areas from 1995 to 2006 (Figure 1). There was a generally stable declining trend for both urban and rural adults, with lower prevalence rates in rural areas in all 12 years.

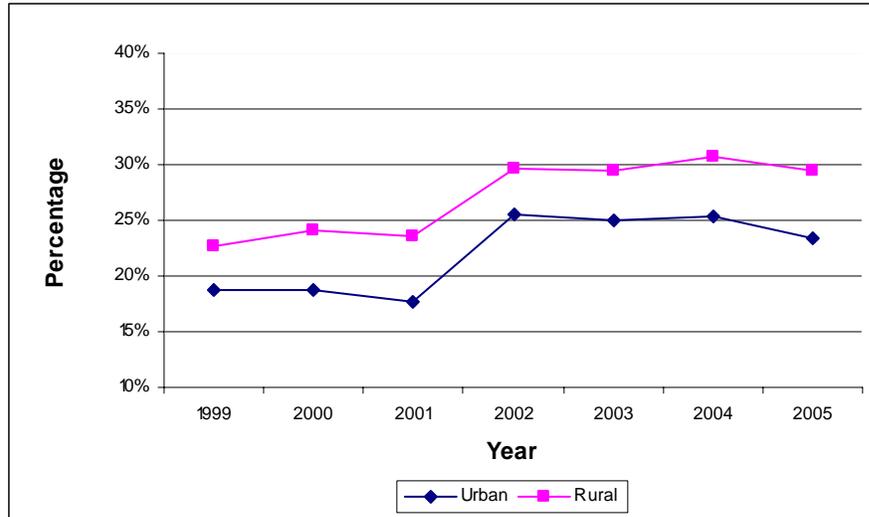
Figure 1. Prevalence of good, very good, or excellent health status



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Arthritis:** The arthritis prevalence rate increased from 18.8% to 23.4% in urban areas and from 22.6% to 29.4% in rural areas from 1999 to 2005 (Figure 2), resulting from the changed survey question in 2002. Not considering the increase in 2002, the prevalence rate remained stable for both urban and rural populations, with higher prevalence rates in rural areas.

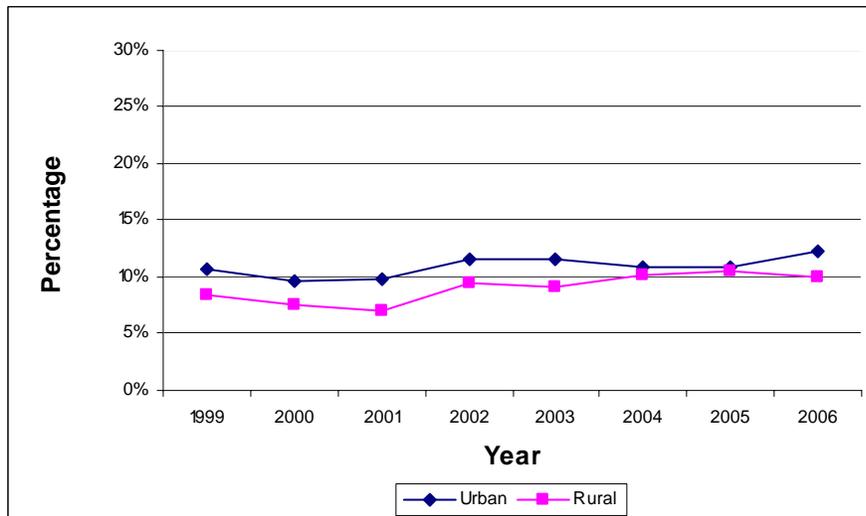
Figure 2. Prevalence of arthritis



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1999-2005.
 Note: The rate increase after 2001 is the result of a changed survey question.

- Asthma:** The asthma prevalence rate increased from 10.8% to 12.2% in urban areas and from 8.5% to 10.0% in rural areas from 1999 to 2006 (Figure 3). Although the asthma prevalence rate dropped slightly in both urban and rural areas from 1999 to 2001, there was a slowly increasing trend from 2002 through 2006. The asthma prevalence trends were the same for both urban and rural populations, with lower asthma prevalence in rural areas in all years examined.

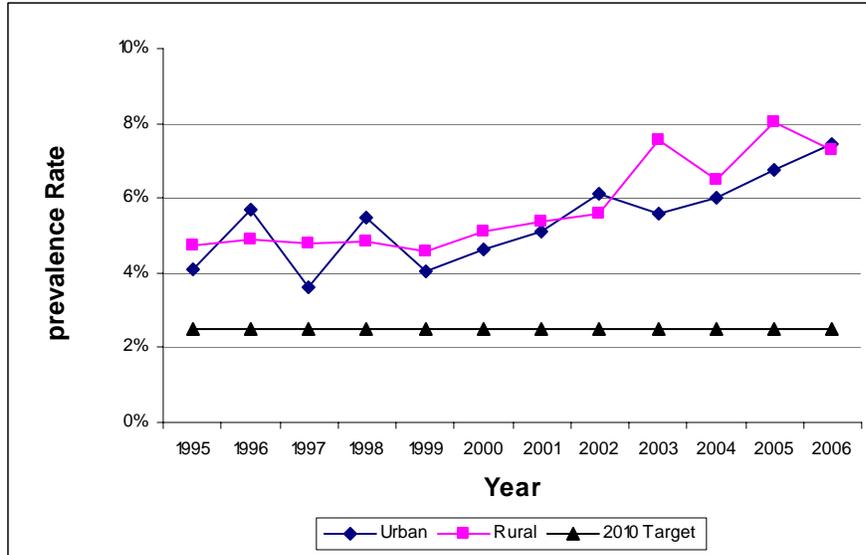
Figure 3. Prevalence of asthma



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1999-2006.

- Diabetes:** The diabetes prevalence rate increased from 4.1% to 7.5% in urban areas and from 4.8% to 7.3% in rural areas from 1995 to 2006 (Figure 4). Despite the fluctuations in some years, the diabetes prevalence rate generally increased for both urban and rural populations.

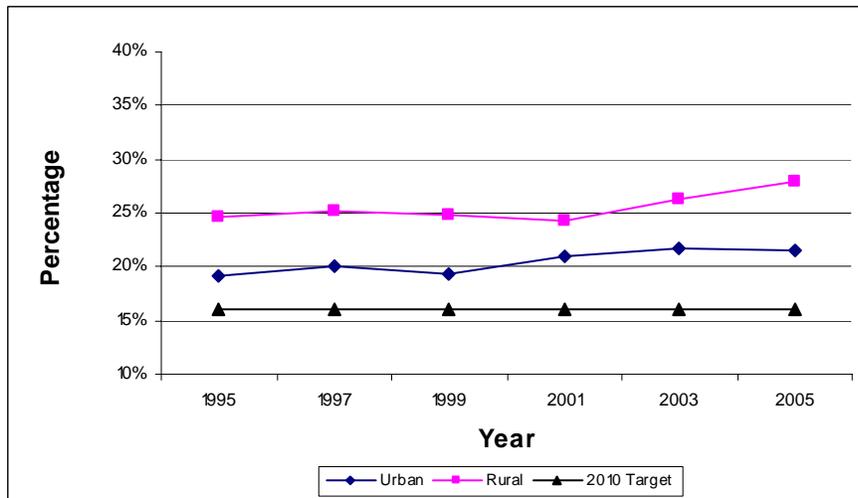
Figure 4. Prevalence of diabetes



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- High blood pressure:** The high blood pressure prevalence rate increased from 19.1% to 21.6% in urban areas and from 24.7% to 28.0% in rural areas from 1995 to 2005 (Figure 5). There was an overall increasing trend for both populations, with higher prevalence rates of high blood pressure in rural areas in all years examined.

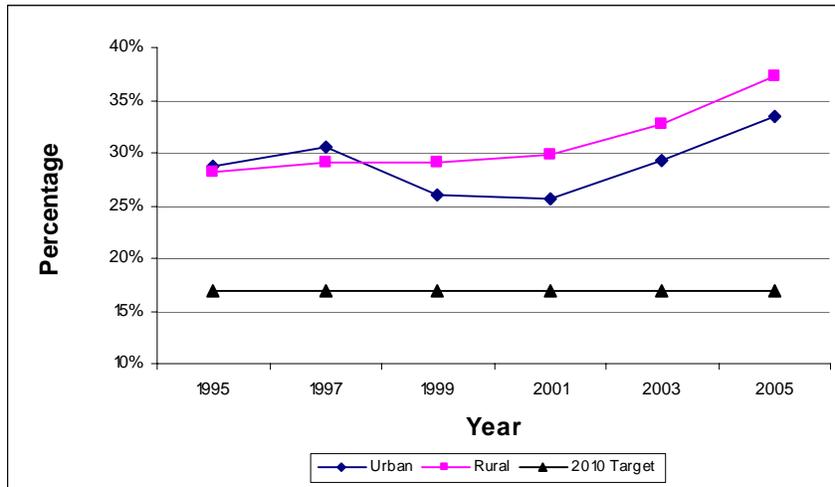
Figure 5. Prevalence of high blood pressure



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2005.

- High blood cholesterol:** The high blood cholesterol prevalence rate increased from 28.8% to 33.5% in urban areas and from 28.2% to 37.3% in rural areas from 1995 to 2005 (Figure 6). Although the prevalence rate in urban areas was slightly higher than in rural areas before 1997, it dropped considerably in 1999. After 1999, the high blood cholesterol prevalence rate increased steadily in both urban and rural areas, with higher rates in rural areas.

Figure 6. Prevalence of high blood cholesterol

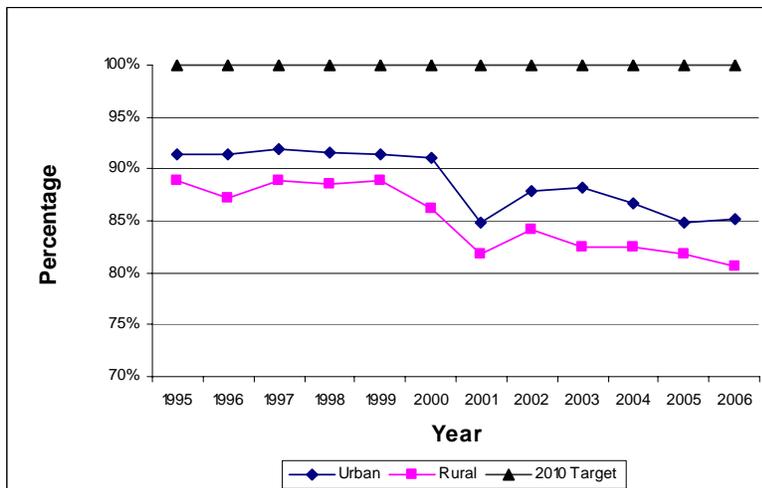


Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2005.

2.2. Access to health care: Access to health care worsened in both urban and rural Nebraska from 1995 through 2006 when measured by health insurance prevalence and the prevalence of having a personal doctor.

- Having health insurance:** The percentage of adults aged 18 to 64 years who were insured fell from 91.4% to 85.2% in urban areas and from 88.8% to 80.6% in rural areas from 1995 to 2006, with the biggest drop in 2001 (Figure 7). Although the insurance rate improved in 2002, it decreased in both urban and rural areas after 2003, with lower insurance rates in rural areas for all 12 years.

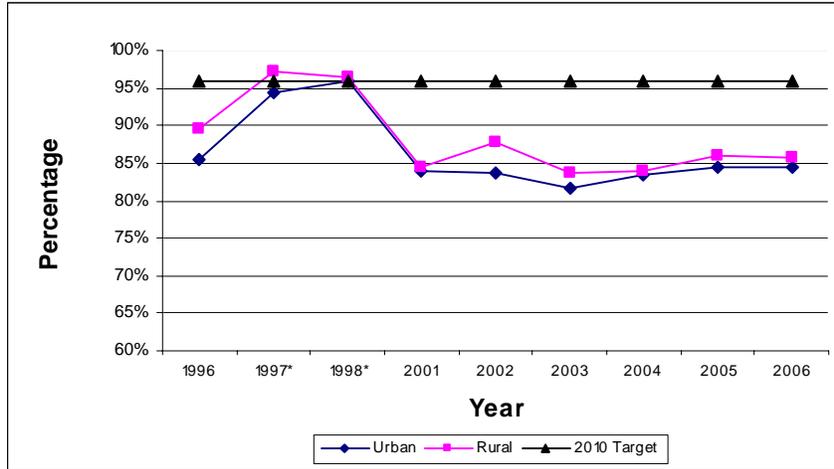
Figure 7. Prevalence of having health insurance



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Having a personal doctor:** The percentage of adults who had a personal doctor dropped from 85.5% to 84.6% in urban areas and from 89.6% to 85.8% in rural areas from 1996 to 2006 (Figure 8). Not considering 1997 and 1998, there was a slightly decreasing trend, with higher prevalence rates in rural areas over all years.

Figure 8. Prevalence of having a personal doctor

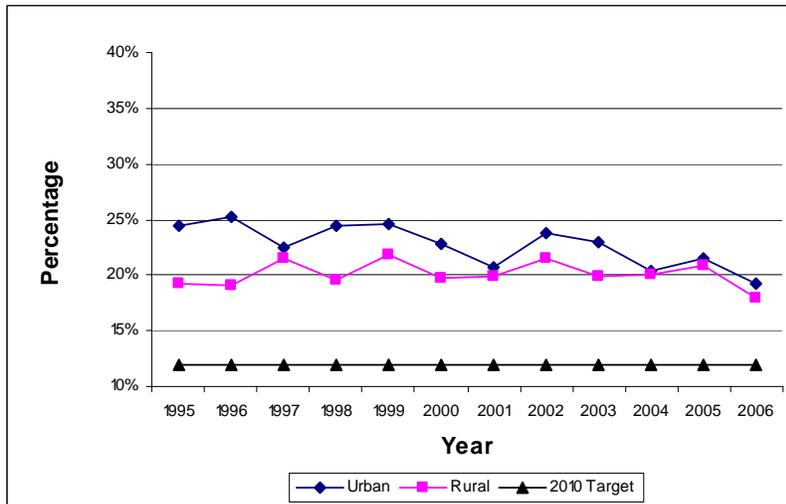


Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1996-2006.
 *The survey question in 1997 and 1998 was different from that in the rest of the years.

2.3. Behavioral risk factors: The smoking rate declined, and the percentage of people not actively engaging in physical activities dropped slightly overall. However the rate of binge alcohol drinking and obesity increased from 1995 through 2005.

- Smoking:** The percentage of adults who were current smokers declined from 24.4% to 19.3% in urban areas and from 19.3% to 18.0% in rural areas from 1995 to 2006 (Figure 9). The prevalence of smoking was lower in rural areas than in urban areas, but the difference in rates was getting smaller in most recent years.

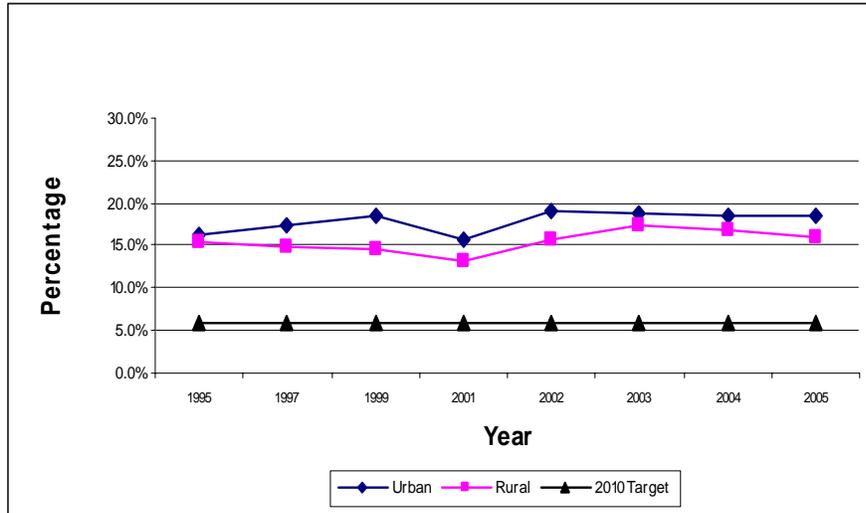
Figure 9. Prevalence of smoking



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Binge drinking:** The percentage of adults who had had five drinks on one occasion in the past 30 days increased from 16.4% to 18.4% in urban areas and from 15.4% to 15.9% in rural areas from 1995 to 2005 (Figure 10). Other than a slight drop in 2001, there was a steadily increasing trend for binge drinking in both urban and rural areas from 1995 through 2005, with lower rural rates for all 12 years examined.

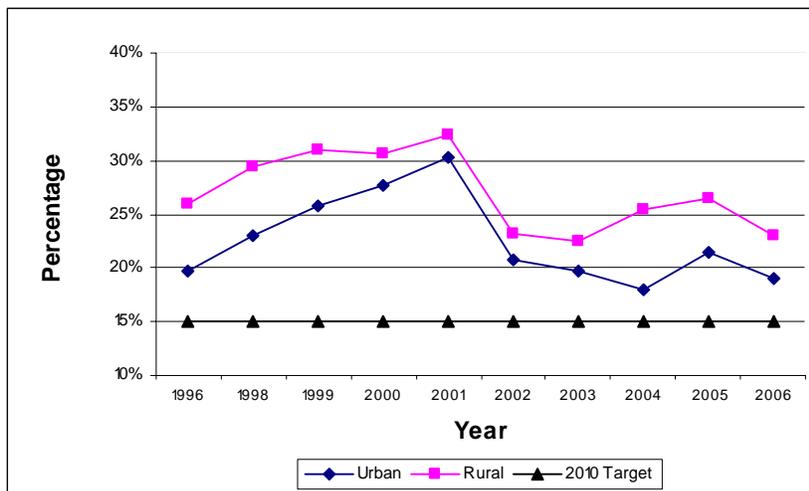
Figure 10. Prevalence of binge drinking



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2005.

- Physical inactivity:** The percentage of adults in urban areas who had not done any leisure time physical activity or exercise during the past 30 days was similar in 1996 and 2006 (19.7% and 19.1%, respectively), but in rural areas, the percentage dropped from 26% in 1996 to 23% in 2006 (Figure 11). From 1996 to 2001, both urban and rural populations were increasingly inactive physically. This trend was reversed in 2002, with a 10 percentage point drop in the rate of physical inactivity. From 2002 to 2006, there was some improvement in physical exercise in some years.

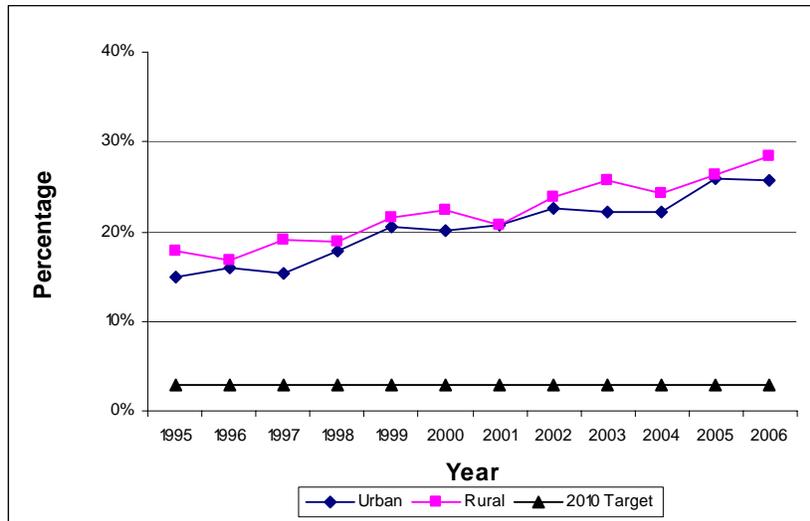
Figure 11. Prevalence of physical inactivity



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1996-2006.

- Obesity:** The obesity prevalence rate increased from 14.9% to 25.7% in urban areas and from 17.9% to 28.3% in rural areas from 1995 to 2006 (Figure 12). The rate of obesity increased in both urban and rural areas, with higher prevalence rates in rural areas.

Figure 12. Prevalence of obesity

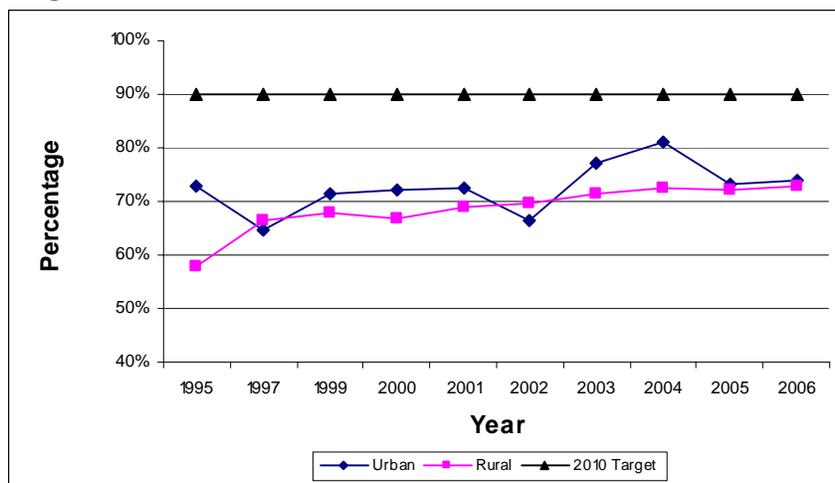


Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

2.4. Preventive measures: Both urban and rural areas saw some improvement in taking preventive and early detection measures.

- Flu shot:** The percentage of adults aged 65 years or older who had had a flu shot in the past year increased from 72.8% to 74% in urban areas and from 57.9% to 72.8% in rural areas from 1995 to 2006 (Figure 13). The increase in rural areas is notable even though rural areas had lower flu shot take-up rates in most of the years.

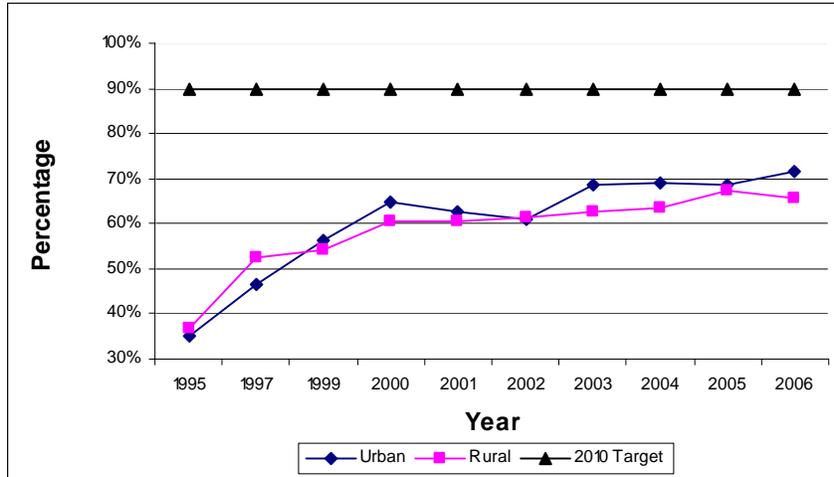
Figure 13. Prevalence of flu shot



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Pneumonia vaccination:** The percentage of adults aged 65 years or older who had ever had a pneumonia vaccination increased from 35.1% to 71.5% in urban areas and from 36.9% to 65.8% in rural areas from 1995 to 2006 (Figure 14). The generally increasing trend is notable for both urban and rural populations, with lower take-up rates in rural areas except in 1995 and 1997.

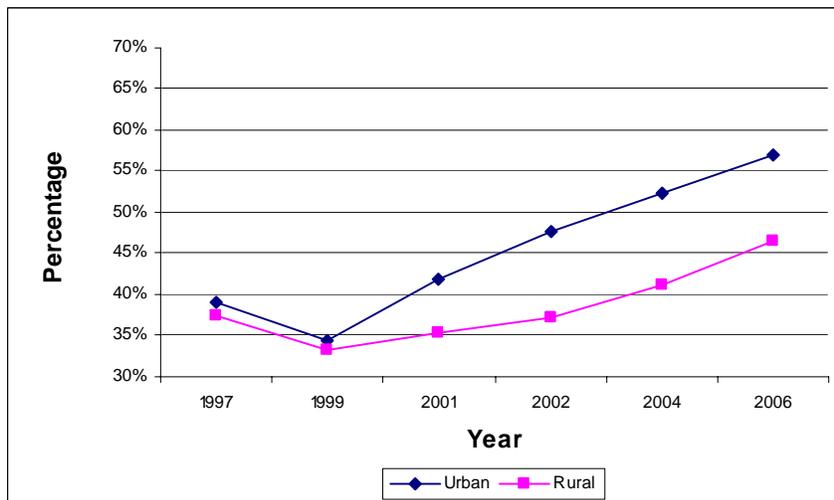
Figure 14. Prevalence of pneumonia vaccination



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Sigmoidoscopy:** The percentage of adults aged 50 years or older who had ever had a sigmoidoscopy increased from 39.2% to 57% in urban areas and from 37.5% to 46.5% in rural areas from 1997 to 2006 (Figure 15). After a decrease in 1999 in both urban and rural areas, the prevalence rates increased steadily, with lower take-up rates in rural areas.

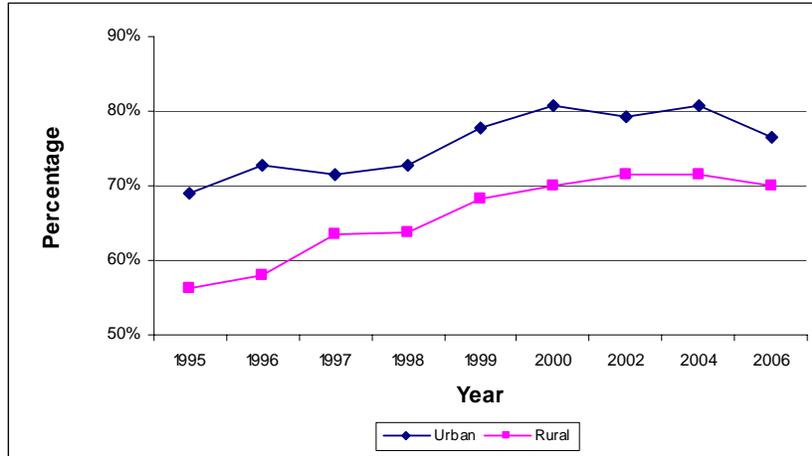
Figure 15. Prevalence of sigmoidoscopy



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1997-2006.

- Mammogram:** The percentage of women 40 years of age and older who had had a mammogram in the past two years increased from 60.9% to 76.5% in urban areas and from 56.2% to 70.1% in rural areas from 1995 to 2006 (Figure 16). For both populations, the rate of mammogram increased from 1995 to 2004 but dropped from 2004 to 2006, with lower rates in rural areas for all years examined.

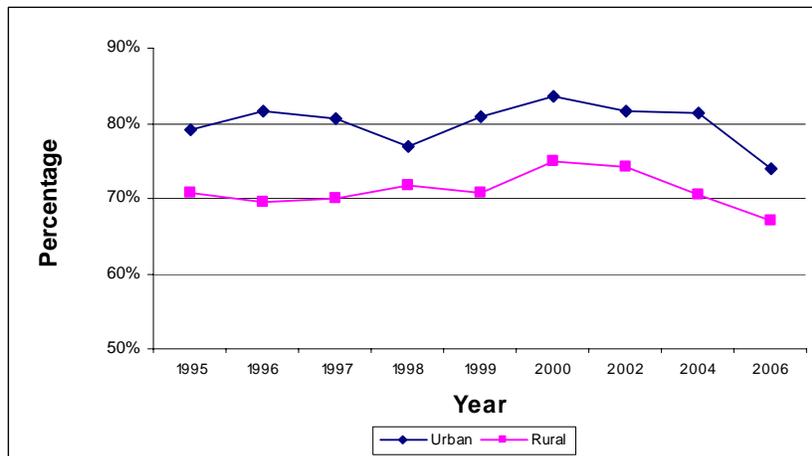
Figure 16. Prevalence of mammogram



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995-2006.

- Pap test:** The percentage of women aged 18 years or older who had had a Pap test in the past two years decreased from 79.1% to 73.9% in urban areas and from 70.7% to 67.1% in rural areas from 1995 to 2006 (Figure 17). For both urban and rural populations, there was no substantial change in the Pap test rate from 1995 to 2004, but the rate decreased from 2004 to 2006.

Figure 17. Prevalence of Pap test



Source: Behavioral Risk Factor Surveillance System data, Nebraska, 1995- 2006.

Summary and Recommendations

This report shows that from 1995 through 2006, Nebraska made progress in using preventive measures such as flu shot, pneumonia vaccination, and sigmoidoscopy among the elderly population; reducing current smoking; and increasing physical activity in rural areas. However, continued efforts in these areas are needed to reach the 2010 goals in Nebraska.

More importantly, this report identifies areas of decline in the health and health-related behaviors of Nebraskans, including worsening health status, increasing chronic disease burden, decreasing access to health care, worsening trends in binge drinking, and obesity problems. Declines in the rates of women who had had a mammogram and a Pap test in the most recent two years were also seen. Policy makers should give specific attention to these areas to identify the causal factors and adopt effective measures to reverse these trends.

This report also suggests a number of disparities between rural and urban populations. Rural populations experienced worse self-reported health status and a higher prevalence of chronic conditions. Lower prevalence of health insurance and a more serious obesity problem were also seen in rural areas of Nebraska. In addition, rural populations were less likely than their urban counterparts to report using preventive health measures. Policy makers should take rural-urban disparities into account when developing policies aimed at helping the rural population achieve 2010 health goals.

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Notes

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Nebraska Health Information Project

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Other reports have been published by the Nebraska Health Information Project, including biennial data books that present Nebraska health and demographic data at the county, area, and state levels. To find out more about these and future reports, visit our home page at <http://www.unmc.edu/nebraska>

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