

Nebraska Rural 2010

Health Goals and Objectives



Progress Report



Nebraska Department of Health and Human Services



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RURAL 2010 HEALTH GOALS AND OBJECTIVES FOR NEBRASKA

Progress Report

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Nebraska Department of Health and Human Services

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EXECUTIVE SUMMARY

INTRODUCTION

One-fifth of all Americans currently live in rural areas of the United States. In Nebraska, more than 40 percent of the population live in non-metropolitan areas of the state. Rural residents are subject to many of the same health problems that urban-dwellers are, but they also face some additional challenges related to living in rural areas.

In 2003, the Southwest Rural Health Research Center at Texas A & M University published *Rural Healthy People 2010: A Companion Document to Healthy People 2010*. This report identifies and addresses Healthy People 2010 objectives of particular interest to rural America. It contains overviews of the top rural health concerns and corresponding Healthy People 2010 objectives, results of literature reviews on these topics, and descriptions of successful practices and programs that could serve as models of practice for rural communities to use in achieving key objectives.

In November 2004, the *Rural 2010 Health Goals and Objectives for Nebraska* report was issued. This report outlined rural-urban disparities in twelve priority areas (such as access to high-quality health care, cancer, and injury prevention) and summarized factors that may contribute to these disparities. It identified Nebraska 2010 objectives contained in the *Nebraska 2010 Health Goals and Objectives* report that are most relevant to rural areas of the state.

The current report looks at progress made toward Nebraska's Rural 2010 objectives over the past four years and examines health disparities that still exist between rural and urban Nebraskans.

Please note that the purpose of both the national and the Nebraska Rural Healthy People 2010 reports is to explore some of the disparities and disadvantages facing many rural communities with regard to health status and health care systems. The intent is to create a better understanding of rural health needs, not to diminish in any way the advantages that rural areas offer to their residents and visitors or the work that has already been done in improving health status and systems of care in rural areas.

HIGHLIGHTS

There are more than 50 individual objectives in this report that address rural health issues. Most of the objectives were selected because they point out health disparities that currently exist between rural and urban populations in Nebraska. For a few of the objectives, the disparities between rural and urban residents are not great, but the objective has been included because improvements in health status or prevalence of risk behaviors are needed in all segments of the population (e.g., obesity).

Table 1 presents a summary of progress toward Nebraska Rural 2010 health objectives for rural and for urban areas of the state. In general, more progress toward 2010 targets was evident for urban areas, although improvements were noted in rural Nebraska as well.

Overall, five objectives were met in the six urban counties combined, while none were met in the rural areas. However, 47 percent of the objectives showed progress in rural areas, compared to only 33 percent in the urban counties.

On the negative side, rates for 19 objectives (37 percent) experienced movement away from their targets for 2010 in rural Nebraska, while only 29 percent of urban rates did. No change in rates for 8 percent of objectives was noted in rural areas and 4 percent in urban areas.

Due primarily to unavailability of urban baseline data for Youth Risk Behavior Survey indicators in the Substance Abuse and Tobacco Use priority areas, progress for nearly one-fourth of all objectives (24 percent) could not be assessed for urban areas in Nebraska.

Summary of Results by Priority Area

Table 2 compares progress toward selected Nebraska Rural 2010 health objectives in rural and urban areas in the state.

Everyone needs **access to high-quality health care** services in order to eliminate health disparities and increase the quality and years of healthy life for all people in Nebraska. Without access to high-quality health care, many of the Healthy People 2010 objectives will not be achieved.

- ◆ Having no health insurance or having a health care plan that provides inadequate coverage for needed services, coupled with a lack of financial resources to cover services falling outside insurance coverage, makes it difficult or impossible for many people to get necessary medical care. In Nebraska, the proportion of rural adults (aged 18 to 64 years) with no health insurance increased from 16 percent in 2002 to 19 percent in 2006 (Table 2). For urban adults, the uninsured rate for urban adults rose from 12 percent in 2002 to 15 percent in 2006. Thus, rural adults continue to be more likely than those living in urban areas to be uninsured.
- ◆ Among rural Hispanic Nebraskans, 48 percent had no health insurance in 2006. This represents an increase from 2002, when 42 percent of rural Hispanic adults were uninsured. Urban Hispanic Nebraskans also experienced an increase in the proportion of adults who had no health insurance coverage (from 38 percent in 2002 to 52 percent in 2006).
- ◆ Nebraska has many rural areas that are underserved and have shortages of physicians, midlevel practitioners, mental health professionals, dentists, and other health professionals. In 2002, there were 61 primary care physicians per 100,000 people in rural counties compared to 78 per 100,000 in urban counties in Nebraska. Since 2002, the number of primary care physicians increased slightly in rural areas to 63 per 100,000 in 2007, while this number decreased somewhat to 76 per 100,000 in urban areas.
- ◆ In 2005, more than one-half of Nebraska's counties (49 of 93) were federally-designated primary care Health Professional Shortage Areas (HPSA's). Over 95 percent of Nebraska counties (89 of 93) were designated as mental health HPSA's. In addition, there are many more counties that qualify as state-designated shortage areas.

Cancer remains the second leading cause of death in Nebraska and the United States, although death rates have fallen in recent years.

- ◆ There is generally little difference in cancer incidence and mortality rates between rural and urban areas nationwide. In Nebraska, urban rates were slightly higher than rates in rural areas. However, rural residents nationwide and in Nebraska are less likely to obtain cancer screenings according to nationally established timelines.
- ◆ In 2006, Nebraska women aged 40 years or older were somewhat less likely to report having a mammogram in the past two years to check for breast cancer than they were in 2002. Among rural women, prevalence was 70 percent in 2006 compared to 72 percent in 2002. Although prevalence among urban women also decreased during this period, the rural-urban disparity persists with a greater proportion of urban women having mammograms in 2006 (77 percent).

Table 1
Summary of Progress on Nebraska Rural 2010 Health Objectives
by Priority Area

Priority Area	PROGRESS IN RURAL AREAS OF NEBRASKA					
	# of Objectives	Objectives Met	Progress Toward Target	Moving Away from Target	Mixed or No Change	Cannot Assess
Access to Quality Health Services	6	--	--	5	--	1
Cancer	5	--	2	3	--	--
Diabetes	2	--	1	1	--	--
Heart Disease & Stroke	5	--	3	1	--	1
Immunization & Infectious Diseases	1	--	1	--	--	--
Injury & Violence Prevention	3	--	3	--	--	--
Maternal, Infant & Child Health	6	--	2	1	1	2
Mental Health & Mental Disorders	2	--	--	1	1	--
Nutrition/Overweight	1	--	--	1	--	--
Physical Activity & Fitness	1	--	--	--	1	--
Oral Health	4	--	1	2	1	--
Substance Abuse	8	--	6	2	--	--
Tobacco Use	7	--	5	2	--	--
Total	51	0	24	19	4	4
Percent of Total	100%	0%	47%	37%	8%	8%

Priority Area	PROGRESS IN URBAN AREAS OF NEBRASKA					
	# of Objectives	Objectives Met	Progress Toward Target	Moving Away from Target	Mixed or No Change	Cannot Assess
Access to Quality Health Services	6	--	1	4	--	1
Cancer	5	1	1	2	1	--
Diabetes	2	--	1	1	--	--
Heart Disease & Stroke	5	--	3	1	--	1
Immunization & Infectious Diseases	1	--	1	--	--	--
Injury & Violence Prevention	3	1	1	1	--	--
Maternal, Infant & Child Health	6	--	3	1	--	2
Mental Health & Mental Disorders	2	--	1	--	--	1
Nutrition/Overweight	1	--	--	1	--	--
Physical Activity & Fitness	1	--	1	--	--	--
Oral Health	4	1	--	2	1	--
Substance Abuse	8	1	2	1	--	4
Tobacco Use	7	1	2	1	--	3
Total	51	5	17	15	2	12
Percent of Total	100%	10%	33%	29%	4%	24%

TABLE 2
Comparison of Progress in Rural vs. Urban Areas in Nebraska
Selected Health Indicators

	Rural Nebraskans			Urban Nebraskans		
	Baseline Rate	Current Rate	Current vs. Baseline	Baseline Rate	Current Rate	Current vs. Baseline
ACCESS TO HIGH-QUALITY HEALTH CARE						
Adults aged 18-64 years with no health insurance	16%	19%	Worse	12%	15%	Worse
Hispanic Americans	42%	48%	Worse	38%	52%	Worse
Primary care physicians per 100,000 population	61	63	Better	78	76	Worse
CANCER						
Women aged 40+ who had mammogram in past two years	72%	70%	Worse	80%	77%	Worse
Women aged 18+ who had Pap test within past 3 years	80%	74%	Worse	85%	79%	Worse
Adults aged 50+ who ever had sigmoidoscopy or colonoscopy	37%	46%	Better	48%	52%	Achieved 2010 Objective
DIABETES						
Prevalence of clinically-diagnosed diabetes per 1,000 population aged 18+	56	74	Worse	61	74	Worse
Diabetes-related deaths per 100,000 population	70.1	69.4	Better	78.0	69.2	Better
African American	*	91.5	Can't Assess	168.3	168.7	No Change
Native American	381.6	271.1	Better	280.9	254.6	Better
Hispanic American	120.8	121.2	No Change	94.5	92.4	Better
HEART DISEASE AND STROKE						
Coronary heart disease deaths per 100,000 population	124.8	107.2	Better	123.1	103.5	Better
Stroke deaths per 100,000 population	57.3	47.6	Better	50.9	47.5	Better
Prevalence of high blood pressure among adults aged 18+	24%	25%	Worse	23%	24%	Worse
Adults who had blood cholesterol level checked in last 5 years	67%	69%	Better	71%	73%	Better
IMMUNIZATION AND INFECTIOUS DISEASES						
Adults aged 65+ who were vaccinated against influenza in the past 12 months	69%	73%	Better	67%	74%	Better
INJURY PREVENTION						
Unintentional injury deaths per 100,000 population	50.6	45.4	Better	33.0	36.4	Worse
Death rate due to motor vehicle crashes per 100,000 population	27.1	23.0	Better	11.6	9.6	Achieved 2010 Objective
Adults who "always" or "nearly always" used seatbelts	77%	80%	Better	85%	90%	Better

	Rural Nebraskans			Urban Nebraskans		
	Baseline Rate	Current Rate	Current vs. Baseline	Baseline Rate	Current Rate	Current vs. Baseline
MATERNAL, INFANT, AND CHILD HEALTH Infant mortality rate per 1,000 live births Women who smoked during pregnancy	6.7 16.4%	7.2 14.4%	Worse Better	7.0 12.6%	6.1 10.4%	Better Better
MENTAL HEALTH AND MENTAL DISORDERS Suicide rate per 100,000 population	9.8	9.6	No Change	13.4	9.6	Better
NUTRITION AND OVERWEIGHT / PHYSICAL ACTIVITY Adults who are obese (BMI = 30+) Adults who participated in no leisure-time physical activity	23% 23%	28% 23%	Worse No Change	23% 21%	26% 19%	Worse Better
ORAL HEALTH Adults aged 65 - 74 who have lost all their permanent teeth due to cavities or periodontal disease Percent of population served by community water systems with optimally fluoridated water	27% 32%	22% 31%	Better No Change	19% 95%	22% 95%	Worse Achieved 2010 Objective
SUBSTANCE ABUSE Alcohol-related motor vehicle fatality rate per 100,000 population Adolescents in grades 9 - 12 who: - reported binge drinking in the past 30 days - reported drinking and driving in the past 30 days - reported use of marijuana in the past 30 days	11.4 41% 30% 16%	9.7 28% 18% 11%	Better Better Better Better	4.9 NA NA NA	4.0 32% 17% 26%	Achieved 2010 Objective Can't Assess Can't Assess Can't Assess
TOBACCO USE Adults who currently smoke cigarettes Adolescents in grades 9 - 12 who: - reported using tobacco products in the past 30 days - reported smoking cigarettes in the past 30 days - reported using "spit" tobacco in the past 30 days Households with children under age 18 years where there are no smoking rules or smoking is allowed some or all of the time	21% 38% 30% 12% 20%	18% 33% 20% 11% 23%	Better Better Better Better Worse	24% NA NA NA 27%	19% 34% 24% 6% 14%	Better Can't Assess Can't Assess Achieved 2010 Objective Better
*Mortality rate based on fewer than five deaths.						

- ◆ The proportion of women aged 18 years or older who reported having a Pap test in the last three years to screen for cervical cancer was down among both rural and urban residents. Prevalence of this screening dropped six percentage points between 2002 and 2006 for each group. In 2006, urban women (79 percent) continued to be more likely than rural women (74 percent) to have a Pap test in the last three years.
- ◆ More Nebraska adults reported ever having a sigmoidoscopy or colonoscopy to check for colorectal cancer in 2006 compared to 2002, with a greater increase in screening rates occurring among rural Nebraskans. Among urban residents, the proportion increased from 48 percent to 52 percent, achieving the Nebraska 2010 objective for increasing this screening rate. The proportion of rural adults aged 50 and older who ever had this screening done rose from 37 percent in 2002 to 46 percent in 2006. Thus, despite the larger increase in screening rates among rural adults, they were still somewhat less likely to have this testing done than urban residents.

The number of newly-diagnosed cases of **diabetes** has risen at an alarming rate in the United States. With obesity on the increase, it is likely that this upward trend will continue.

- ◆ Racial/ethnic, age, socioeconomic, and lifestyle factors appear to be stronger risk factors for developing diabetes than rural/urban residence by itself. Differences in prevalence of diabetes between rural and urban areas of Nebraska were not large in 2002 (56 vs. 61 persons with clinically-diagnosed diabetes per 1,000 adults, respectively). However, prevalence of this disease increased in both areas—to 74 per 1,000 among both rural and urban adults in 2006.
- ◆ Overall diabetes-related death rates in 2004 improved slightly compared to 2002, with greater improvement occurring in urban areas of Nebraska. Mortality rates in 2004 were nearly the same in rural areas (69.4 deaths per 100,000 population) and in urban areas (69.2 per 100,000).
- ◆ The diabetes-related death rate for rural Native Americans was down 29 percent in 2000-2004, compared to 1998-2002. Still, the 2000-2004 rate for this group (271.1) was more than twice as high as the rate for rural Hispanic Americans (121.2) and 4.0 times as high as the rate for white Nebraskans living in rural areas (67.9).
- ◆ Urban Native Americans (254.6) and African Americans (168.7) also experienced much greater mortality due to diabetes than white Nebraskans in 2000-2004.

Although the coronary **heart disease** death rate has decreased significantly over the last twenty years, heart disease remains the leading cause of death in Nebraska and the nation. Deaths due to **stroke** have also fallen considerably, but stroke still ranks third as a leading cause of death. Advances in therapy and technology were the cause of much of the improvement in death rates, rather than disease prevention through lifestyle changes.

- ◆ Coronary heart disease death rates in Nebraska decreased in both rural and urban areas between 2002 and 2004. The rural death rate (107.2 deaths per 100,000 population) was slightly higher than the urban rate (103.5) in 2004. In addition, rural death rates were higher for all racial/ethnic groups except African Americans, where urban mortality was greater.
- ◆ Overall stroke death rates also declined somewhat between 2002 and 2004. In 2004, rates were nearly the same in rural and urban areas. However, mortality due to stroke was higher in rural than in urban areas for whites (47.1), Native Americans (60.8) and Asian Americans (59.0) in 2000-2004.

- ◆ Self-reported prevalence of high blood pressure among Nebraska adults changed little from 2003 (23 percent) to 2005 (24 percent). Rates of hypertension increased by one percentage point each for rural and urban Nebraskans.
- ◆ The proportion of adults who had their blood cholesterol level checked within the past five years increased by two percentage points each in rural and urban areas of the state. In 2005, urban residents (73 percent) were somewhat more likely than rural residents (69 percent) to report having this testing done in the last five years.

Pneumonia and influenza together make up the seventh leading cause of death in the United States. **Influenza vaccinations** (“flu shots”) can prevent up to 70 percent of hospitalizations and 85 percent of deaths from influenza-related pneumonia.

- ◆ Influenza vaccination rates among persons 65 and older increased in both rural and urban areas of Nebraska in 2006. Rural rates rose from 69 percent in 2002 to 73 percent in 2006. In urban areas of the state, 74 percent of older adults received a flu shot in 2006 compared to 67 percent in 2002.

For the first time since 1998, **unintentional injuries** moved up to fourth place among the leading causes of death in Nebraska in 2004. These injuries were the leading cause of death for persons aged 1 through 44 years in the state for that year.

- ◆ In 2002, the unintentional injury death rate in rural Nebraska (50.6 deaths per 100,000 population) was 53 percent higher than the rate in urban areas of the state (33.0 per 100,000). In 2004, the rural injury death rate decreased to 45.4 while the urban rate increased to 36.4, thus narrowing the rural-urban gap somewhat.
- ◆ Although death rates due to motor vehicle crashes decreased in both rural and urban areas between 2002 and 2004, the rate in rural areas remained much higher than the urban rate. In Nebraska, the 2004 motor vehicle fatality rate was 23.0 deaths per 100,000 in rural areas—2.4 times the rate in urban areas (9.6). In fact, the urban rate achieves the Nebraska 2010 objective of no more than 12.0 motor vehicle deaths per 100,000.
- ◆ Self-reported seatbelt usage rates improved among rural and urban residents in Nebraska between 2002 and 2006. Still, adult respondents to the 2006 Behavioral Risk Factor Surveillance System who lived in rural counties (80 percent) were less likely than residents of urban counties (90 percent) to report “always” or “nearly always” using their seatbelts while riding in or driving a motor vehicle.

In addition to the impact it has on individuals and families, **infant mortality** is an important measure of a population’s health and an indicator of social wellbeing.

- ◆ The infant mortality rate in rural Nebraska decreased from 7.5 infant deaths per 1,000 live births in 2000 to 4.7 in 2003, but moved back up to 7.2 in 2004. In urban areas, the infant mortality rate decreased from 7.0 per 1,000 in 2000 to 6.1 in 2004.
- ◆ Early and continuing prenatal care is essential to the health and wellbeing of both infant and mother. In general, women who receive early and comprehensive prenatal care are less likely to have preterm or low birth weight infants. In this Progress Report, prenatal care rates for 2005 are not comparable to data for previous years due to changes in the way these data are recorded on the birth certificate and due to surrounding states being unable to provide these data for Nebraska residents giving birth.

- ◆ The number of women **smoking during pregnancy** has decreased nationwide and in Nebraska in recent years. In 2005, 12.0 percent of new mothers in the state smoked during the third trimester of their pregnancy. Mothers in rural areas (14.4 percent) were more likely than those living in urban areas (10.4 percent) in Nebraska to report smoking during their third trimester of pregnancy. (The 2005 rate is not strictly comparable to rates in previous years, which were smoking rates during pregnancy in general).

Mental health is another focus area of importance to all people in Nebraska. It is estimated that, in the past year, one of every five adults in the state had a diagnosable mental disorder. One-half of the population will experience a mental disorder at some point in their lifetime.

- ◆ In Nebraska, the suicide rate was lower in rural areas (9.8 deaths per 100,000) than in urban areas (13.4 per 100,000) in 2002. However, in 2004, this rate decreased more in urban than in rural areas, resulting in rates of 9.6 deaths per 100,000 for both.

Obesity and physical inactivity are risk factors related to a variety of health problems, such as diabetes, heart disease and stroke, and some kinds of cancer. Prevalence of overweight and obesity among adults, adolescents, and children has risen tremendously over the last twenty years in the United States.

- ◆ In Nebraska, prevalence of obesity varied little between urban and rural areas of the state in 2002 (23 percent each). According to the 2006 Behavioral Risk Factor Surveillance System (BRFSS), obesity rates for adults rose substantially, with 28 percent of respondents in rural areas and 26 percent of those in urban areas reporting heights and weights that categorized them as obese.
- ◆ In addition to dietary habits, physical inactivity also plays an important role in the development of obesity. According to the 2002 Nebraska BRFSS, 23 percent of rural adults participated in no leisure-time physical activity in the month preceding the survey. Among urban adults, the proportion who were physically inactive was slightly smaller (21 percent). Little improvement was noted in 2006, with rural adults (23 percent) still more likely than urban adults (19 percent) to be physically inactive in their leisure hours.

Oral health problems include tooth decay, periodontal disease, and cancers of the mouth and throat. Dental disease is one of the most preventable of health problems. Proper dental hygiene and good eating habits, combined with regular professional dental care, decrease the risk of developing cavities and periodontal disease.

- ◆ In rural areas of Nebraska, the proportion of the population aged 65 to 74 years reporting loss of all their permanent teeth to cavities or periodontal disease decreased by five percentage points between 2002 and 2006. More than one-fifth of older adults (22 percent) surveyed in both rural and urban areas in 2006 had experienced loss of all their teeth.
- ◆ Water fluoridation is the process of adjusting the natural fluoride concentration in a water supply to a level that will provide the best protection against tooth decay. In the six Nebraska counties classified as urban, 95 percent of the population served by community water systems receives optimally fluoridated water, thus achieving the 2010 target rate. In contrast, only about one-third of the people living in rural areas and served by community water systems (31 percent) receive drinking water that is optimally fluoridated. These Nebraskans who are not receiving optimally fluoridated drinking water are at greater risk for developing dental cavities.

- ◆ Shortages of dentists in rural areas also have a major impact on the dental health of these Nebraskans. Eighteen Nebraska counties have no dentists in practice. In 2005, 54 counties (or areas) were designated dental shortage areas by the State and two counties contain federally-designated HPSA's.

The annual toll of deaths, illnesses, and injuries due to **substance abuse** (alcohol and other drugs) is one of the most serious preventable public health problems in the United States.

- ◆ Although the alcohol-related motor vehicle fatality rate for rural counties in Nebraska has declined from 11.4 deaths per 100,000 population in 2002 to 9.7 in 2004, the rural death rate from this cause was more than double the rate in urban counties (4.0 per 100,000) in 2004. The current urban rate meets the Nebraska 2010 objective of no more than 4.0 of these deaths per 100,000 people.
- ◆ Binge drinking in the Youth Risk Behavior Survey is defined as having five or more drinks on at least one occasion in the past 30 days. Prevalence of binge drinking among adolescents in rural areas of the state declined from 41 percent in 2001 to 28 percent in 2005. The rate for rural high school students in Nebraska is lower than the rate reported for urban students in 2005 (32 percent).
- ◆ The 2005 Nebraska Youth Risk Behavior Survey also found that 18 percent of rural high school students reported drinking and driving in the past 30 days. This rate is one percentage point higher than the 17 percent recorded for urban adolescents in 2005, but represents a substantial decrease from 30 percent in 2001 for rural teens.
- ◆ Rural teens reported a decrease in prevalence of marijuana use in 2005. In 2001, 16 percent of rural students in grades 9 through 12 stated that they had used marijuana in the past month. In 2005, only 11 percent reported current use of this drug. Among urban high school students, prevalence of marijuana use was more than twice as high (26 percent in 2005).

Tobacco use remains the single most preventable cause of disease and death in the United States today. Cigarette smoking alone is responsible for about 438,000 deaths each year—about one-fifth of all deaths in this country. An additional 8.6 million Americans have a serious illness caused by smoking. In Nebraska, cigarette smoking cost approximately \$858 million for medical care of people with smoking-related illness and for lost wages and productivity in 2002.

- ◆ Prevalence of cigarette smoking among Nebraska adults declined somewhat between 2002 and 2006. In rural areas, smoking rates dropped from 21 percent to 18 percent. In Nebraska, adults living in rural areas (18 percent) were nearly as likely as urban adults (19 percent) to report that they were current smokers in 2006.
- ◆ Use of smokeless tobacco, however, is much more prevalent in rural areas of Nebraska. Thirteen percent of rural adult males reported currently using chewing tobacco or other forms of smokeless tobacco in 2002, compared to only 6 percent of urban men. In 2004, 11 percent of rural men stated they currently use this form of tobacco, compared to 7 percent of urban males.
- ◆ Although use of tobacco by rural adolescents was down somewhat in Nebraska in 2005, it remains a major concern. In 2001, 38 percent of rural high school students used tobacco products (i.e., cigarettes, smokeless tobacco, or cigars) in the past month. In 2005, prevalence declined to 33 percent, nearly matching the current tobacco use rate for urban high school students (34 percent).

- ◆ Current prevalence of cigarette smoking among rural adolescents decreased considerably between 2001 (30 percent) and 2005 (20 percent). One-fourth of urban adolescents (24 percent) reported smoking cigarettes in the past 30 days in 2005.
- ◆ In 2005, the proportion of urban high school students who currently used smokeless (“spit”) tobacco was 6 percent, achieving the State’s 2010 objective of no more than 6 percent prevalence. Among rural students, the rate was nearly twice as high (11 percent).
- ◆ Second-hand smoke is associated with a number of adverse health effects in non-smokers. A recent national study found that rural residents were more accepting than urban residents of tobacco in the household, in the car, and around children. Results of the 2006 Nebraska BRFSS also found that rural respondents (23 percent) with children under age 18 in their household were more likely than those from urban areas (14 percent) to report that they either had no rules regarding smoking or smoking was allowed some or all of the time in their homes.

METHODOLOGY

The Nebraska 2010 Rural Health objectives are a subset of the State’s 2010 health goals and objectives. Established Nebraska 2010 objectives were compared with the national Rural Healthy People 2010 objectives for overlap. Rural and urban data for these objectives were compiled. Objectives were included if rural/urban disparities were noted or if the objectives were of particular importance overall (e.g., obesity objectives). In addition, rural and urban data were analyzed for other Nebraska 2010 objectives not included in the national Rural 2010 report and used if disparities were noted for Nebraska. A proposed list of objectives for the Nebraska report was then reviewed by the Nebraska Office of Public Health for inclusion in this report.

Please note that there may be other 2010 objectives with important rural and urban disparities that could have been included in both the national and the Nebraska Rural Healthy People 2010 reports. These reports are not intended to be totally comprehensive. However, future iterations of these reports may include additional objectives of importance as they are identified.

DATA ISSUES

The definition of “rural” used in this report differs from the definition used in the Nebraska Behavioral Risk Factor Surveillance System (BRFSS) reports. In the BRFSS, three counties are classified as “urban” (Douglas, Sarpy, and Lancaster Counties) and the remaining 90 counties are “rural”. In this report, the six counties that are Metropolitan Statistical Areas (MSA’s) are considered “urban” (Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington Counties). The remaining 87 counties are classified as “rural”. Due to these differences in definitions of “rural” and “urban”, BRFSS prevalence estimates reported in other HHSS documents may differ from those presented in this report.

Whenever data were available for Nebraska, rural and urban data have been presented in this report by race and ethnicity. For some objectives (primarily those based on behavioral

risk factors), whites and Hispanic Americans were the only population groups with sufficient numbers of respondents to analyze and report prevalence estimates. In addition, although African Americans comprise the second largest racial minority group in Nebraska, the majority of them reside in the six urban counties. In many cases, the numbers were insufficient in rural areas to make comparisons or to report rates.

All mortality rates in this report (except infant mortality rates) are age-adjusted to the 2000 standard unless otherwise noted.

Please note that 2010 objectives have been changed since baselines were established for some U.S. and some Nebraska indicators, due to progress toward objectives or for other reasons. Some baselines have also been changed due to revisions in data definitions, sources, or corrections.

RESULTS AND DISCUSSION

ACCESS TO HIGH-QUALITY HEALTH SERVICES

Health Impact

Everyone needs to have access to high-quality health care services in order to eliminate health disparities and increase the quality and years of healthy life for all Americans. In recent years, major changes in the structure of the U.S. health care system have been taking place. Rising health care costs, changes in payment and health care delivery systems, and Medicaid reform are all having an impact on health care consumers, particularly on vulnerable and at-risk populations.

Shortages of physicians, dentists, and other health professionals, along with hospital closures in the past twenty years and lack of public transportation, create barriers to health care for many rural residents. Use of mid-level practitioners has helped to alleviate access problems in many rural areas, but unmet need for access to high-quality health care still remains a problem in many communities.

Delivery of emergency medical services (EMS) is another component of the health care system where there are wide disparities between rural and urban areas. Lack of available professional and paraprofessional service providers, geographic barriers (such as long distances between the patient needing emergency care and the nearest hospital emergency department), along with resource constraints, all contribute to differences in the type and quality of emergency medical care available in rural and urban areas.

Healthy People 2010 Goal

The national Healthy People 2010 goal is to improve access to comprehensive, high-quality health care services.

Progress Toward Nebraska Rural 2010 Health Objectives

In rural areas of Nebraska, none of the six access to care objectives were met or showed progress toward the rates targeted for achievement by 2010 (**Table 3**). In fact, rates for five of the six objectives moved away from their respective targets. For one objective (racial/ethnic representation in the health professions), data were not available by rural and urban residence.

In urban areas, progress was noted for one access to care objective. The proportion of adults with a specific source of ongoing care increased from the baseline rate. For four of these objectives, rates moved away from their targets. As was the case with rural areas, data were not available to assess progress for racial/ethnic representation among primary care physicians in practice in Nebraska.

TABLE 3
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Access to High Quality Health Services

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective
	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate												
#1-1 Percent of persons aged 18 to 64 years with health insurance White African American Hispanic American	2002	84	2006	81	2006	86	2002	88	2002	88	2006	85	2002	86	2002	86	2006	83	100	100
#1-4c Percent of adults aged 18+ with specific source of ongoing care. (Have "one [or more] persons you think of as your personal doctor or health care provider") White Hispanic American	2002	88	2006	86	2006	86	2002	83	2002	85	2006	85	2002	86	2002	86	2006	85	98	96
#1-8 Racial and ethnic representation in health professions Primary care physicians--African American as % of total Primary care physicians--Native American as % of total Primary care physicians--Asian American as % of total Primary care physicians--Hispanic American as % of total NOTE: Although Objective 1-8 has set targets for increasing the proportion of primary care physicians in racial and ethnic minority groups, the intent is not to decrease the number of minority physicians in currently "over-represented" population groups (i.e., Asian Americans).	2002	Not Available for Rural vs. Urban	2006	Not Available for Rural vs. Urban	2006	Not Available for Rural vs. Urban	2002	Not Available for Rural vs. Urban	2002	Not Available for Rural vs. Urban	2006	Not Available for Rural vs. Urban	2002	1.3	2002	1.3	2006	1.2	4.4	13
#1-9a Hospitalizations for pediatric asthma (age <18 years) /10,000 persons Data by race/ethnicity unavailable	2001	9.1	2003	9.5	2003	9.5	2001	8.0	2001	8.0	2003	9.7	2001	8.6	2001	8.6	2003	9.6	7.9	17.3
#1-9b Hospitalizations for uncontrolled diabetes (age 18-64 years) /10,000 persons Data by race/ethnicity unavailable	2001	3.5	2003	4.3	2003	4.3	2001	3.6	2001	3.6	2003	5.1	2001	3.5	2001	3.5	2003	4.8	2.8	5.4
#1-9c Hospitalizations for immunization-preventable pneumonia or influenza (age 65+ years) /10,000 persons Data by race/ethnicity unavailable	2001	10.9	2003	22.1	2003	22.1	2001	5.3	2001	5.3	2003	17.4	2001	8.7	2001	8.7	2003	20.2	16.0	8.0
NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural. NA = Not Available																				

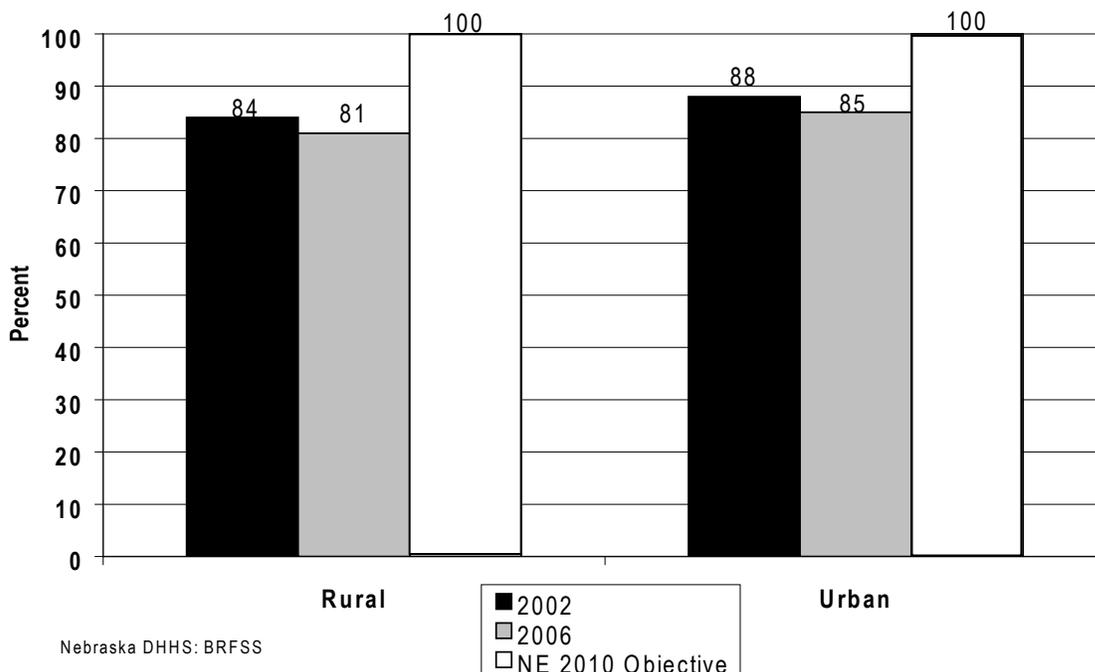
Health Insurance

Having no health insurance or having a health care plan that provides inadequate coverage for needed services, coupled with a lack of financial resources to cover services falling outside insurance coverage, makes it difficult or impossible for many people to get necessary care.

Both Nebraska and the nation have established an objective to increase to 100 percent the proportion of adults under age 65 who have health insurance coverage.

In Nebraska, the proportion of rural adults (aged 18 to 65 years) with health insurance decreased from 84 percent in 2002 to 81 percent in 2006 (**Figure 1**). For urban adults in this age group, the proportion that were insured also declined from 88 percent in 2002 to 85 percent in 2006. So, although insurance rates were down in both rural and urban areas of the state, rural adults continue to be more likely than those living in the six urban counties to be uninsured.

Figure 1
Adults Aged 18 to 64 with Health Insurance
in Rural/Urban Areas (2002 vs. 2006)

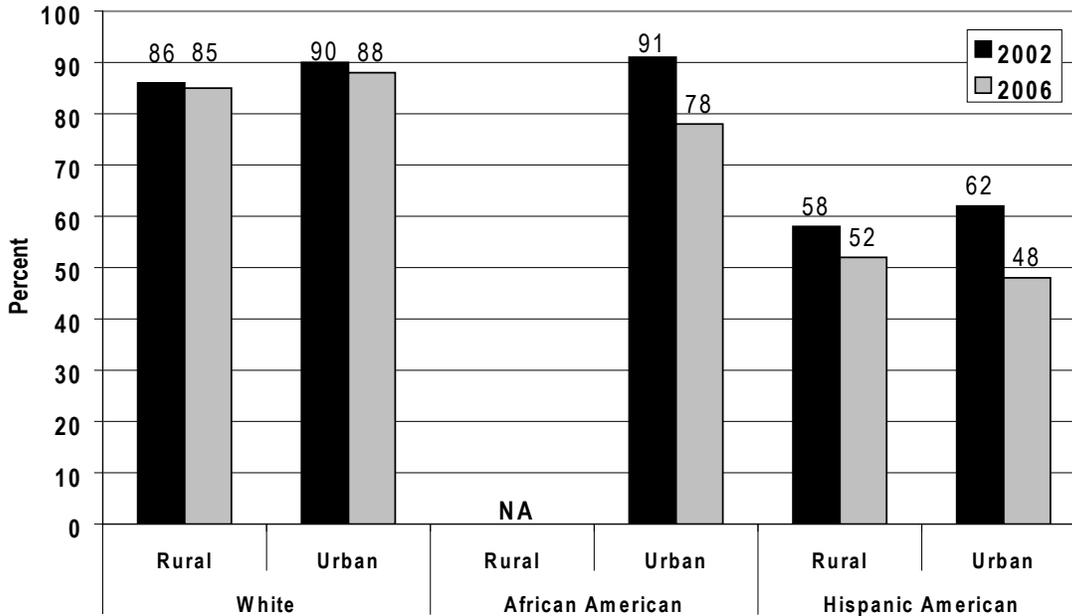


Among Hispanic Nebraskans, only about one-half (52 percent) had health insurance in 2006 (**Figure 2**). This represents a decrease from 2002, when 58 percent reported they had health insurance coverage. Urban Hispanic Nebraskans also experienced a decrease in the proportion of adults who had health insurance (from 62 percent in 2002 to 48 percent in 2006).

TABLE 4
Primary Care Physician to Population Ratio
Rural (Non-Metropolitan) vs. Urban (Metropolitan) Areas
in Nebraska (2002 vs. 2007)

	# Primary Care Physicians/100,000 Population			
	2002	2003	2005	2007
Rural (Non-Metropolitan)	61	62	62	63
Urban (Metropolitan)	78	79	80	76
Nebraska	70	71	72	70
Source: Nebraska DHHS, Office of Rural Health. UNMC Health Professions Tracking Center.				

Figure 2
Adults Aged 18 to 64 with Health Insurance in Rural/Urban Areas by
Race/Ethnicity (2002 vs. 2006)



Nebraska DHHS: BRFSS

Thus, in Nebraska, 19 percent of all rural adults under age 65 years and nearly one-half of rural Hispanic adults in this age group (48 percent) had no health insurance in 2006.

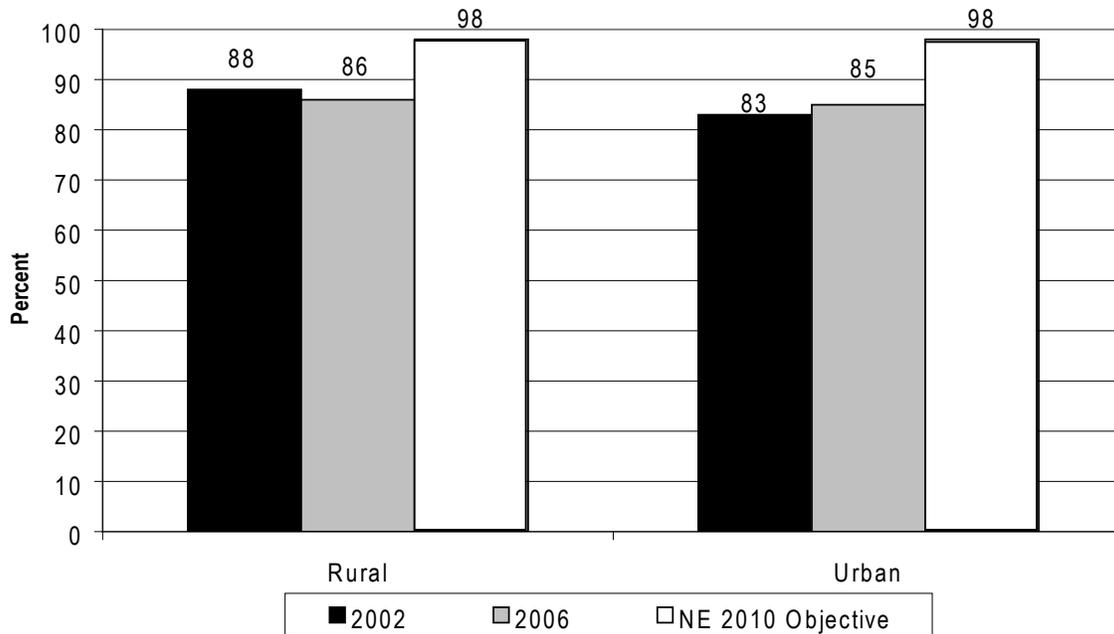
Access to Health Care Providers

Usual Source of Health Care

Shortages of physicians and other health care providers in rural areas can make it difficult for rural residents to find and maintain a regular source of health care. Since the proportion of persons who are elderly and/or poor (population groups frequently needing more health care services) is generally greater in rural areas, the unmet need resulting from provider shortages can be substantial.

Adults participating in the Nebraska BRFSS were asked whether or not they had one or more persons they consider their personal doctor or health care provider. In 2006, the proportion of rural adults who reported that they have a personal health care provider (86 percent) was down somewhat from 2002 (88 percent) (**Figure 3**). In the urban counties, slightly more adults reported having a personal physician in 2006 (85 percent), compared to 2002 (83 percent).

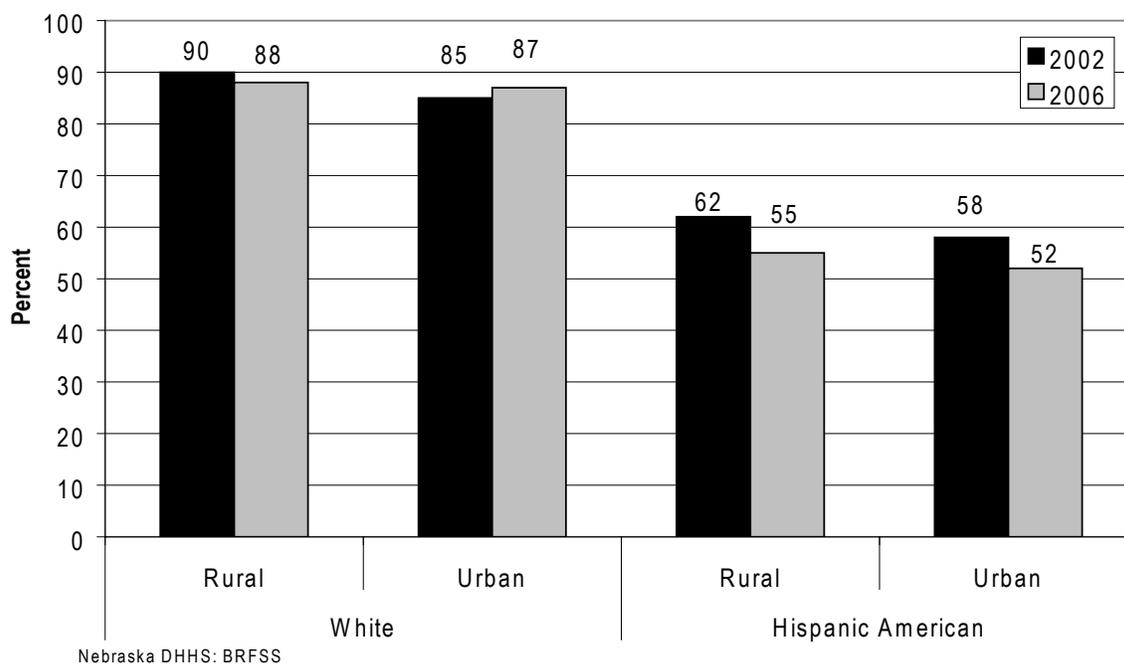
Figure 3
Adults Who Have a Usual Source of Health Care
Rural/Urban Areas (2002 vs. 2006)



Nebraska DHHS: BRFSS

In 2006, Hispanic adults in Nebraska (53 percent) were much less likely than white residents (87 percent) to report having a personal physician. The proportion of Hispanic adults with a personal health care provider declined in both rural and urban areas of the state between 2002 and 2006 (**Figure 4**). However, in 2006, rural Hispanic Nebraskans (55 percent) were still somewhat more likely than those living in urban areas (52 percent) to say they have a personal health care provider.

Figure 4
Adults Who Have a Usual Source of Health Care
Rural/Urban Areas by Race/Ethnicity (2002 vs. 2006)



The Nebraska 2010 objective is to have at least 98 percent of adults with a specific ongoing source of medical care.

Health Care Provider Shortages in Rural Areas

In Nebraska and in the United States overall, many rural areas are underserved and have shortages of physicians, mental health professionals, dentists, and other health professionals. According to a 2003 national study of the physician workforce published by the U.S. General Accounting Office, the supply of physicians increased in both metropolitan and non-metropolitan (rural) areas of the U.S. between 1991 and 2001. However, geographic disparities persisted with a much lower physician-to-population ratio in rural areas (122 physicians per 100,000 population) than in metropolitan counties (267 physicians per 100,000).

In Nebraska, there were 61 primary care physicians per 100,000 people in rural counties in 2002 (Table 4), compared to 78 per 100,000 in urban counties. Since 2002, the number of primary care physicians increased slightly in rural areas to 63 per 100,000 in 2007. The number decreased somewhat to 76 per 100,000 in urban areas. Even with these changes, however, the physician-to-population ratio in rural areas of Nebraska remains lower than the ratio in urban parts of the state.

The Health Professions Educational Assistance Act of 1976 provided for designation of Health Professional Shortage Areas (HPSA's) as a means of increasing the number of physicians practicing in underserved areas. Currently, the majority of primary care HPSA's are located in rural and frontier areas of U.S. states and territories, rather than in urban areas. It is estimated that about 20 percent of the U.S. population lives in primary medical care HPSA's.

In 2005, more than one-half of Nebraska's counties (49 of 93) were federally-designated primary care HPSA's. Over 95 percent of Nebraska counties (89 of 93) were designated as mental health HPSA's. In addition, there are many more counties that qualify as state-designated shortage areas.

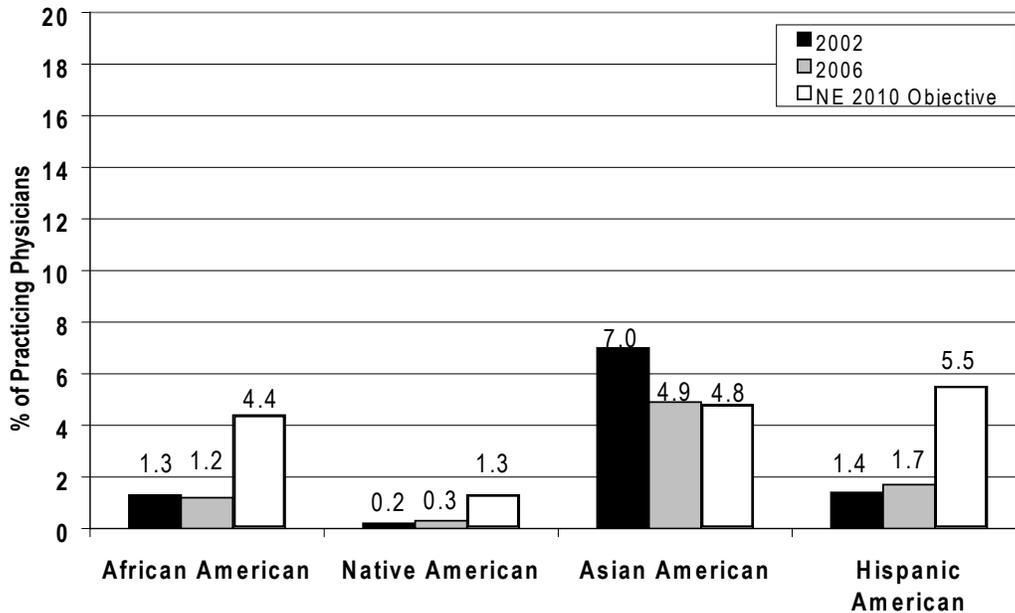
Racial/Ethnic Minority Physicians

Increasing the number of health care providers from certain racial and ethnic groups has been found to be an effective means of increasing access to care for underserved people, particularly for low-income and racial and ethnic minority populations.

Nebraska's 2010 objectives for racial/ethnic representation among primary care physicians seek to increase the proportions of these physicians so that each matches their corresponding proportion in the population.

According to the Health Professions Tracking Center at the University of Nebraska Medical Center (**Figure 5**), African Americans, Native Americans, and Hispanic Americans were all under-represented among primary care physicians practicing in the state in 2006. In Nebraska, the proportion of primary care physicians in active practice increased somewhat to 1.7 percent in 2006 for Hispanic Americans (from 1.4 percent in 2002). However, they account for 5.5 percent of the state's population. Little change was seen since 2002 in the proportions of African Americans (1.2 percent) and Native Americans (0.3 percent) who were practicing primary care physicians in 2006. African Americans comprise 4.4 percent of the population and Native Americans, 1.3 percent of the population of Nebraska. Thus, percentages of primary care physicians for all three racial/ethnic groups continue to fall far short in comparison to the proportions of the state's population that they represent.

Figure 5
Primary Care Physicians in Nebraska
by Race/Ethnicity (2002 vs. 2006)



Source: Health Professions Tracking Center, UNMC. U.S. Census 2000.

Thus, racial and ethnic minorities (with the exception of Asian Americans) are seriously under-represented in the physician population of the state. Even if the racial/ethnic minority physicians currently in practice were optimally distributed throughout the state, shortages are severe enough that access to care would be limited for people seeking care from these providers in both rural and urban areas.

Hospitalizations for Ambulatory-Care-Sensitive Conditions

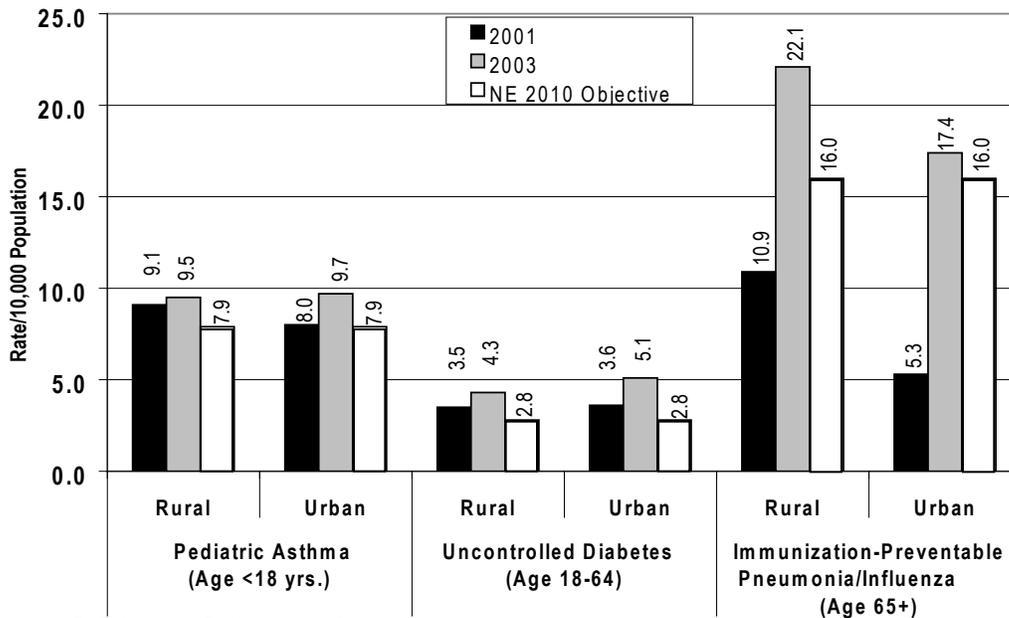
Ambulatory-care-sensitive medical conditions are responsive to high-quality primary care health services. High hospital admission rates for ambulatory-care-sensitive conditions indicate limited access to primary care and/or receipt of low-quality primary care services. Pediatric asthma, uncontrolled diabetes, and immunization-preventable influenza and pneumonia among older adults are all conditions for which hospitalizations generally could be avoided by provision of appropriate preventive and primary care services.

Pediatric Asthma

In Nebraska, no target hospitalization rate for pediatric asthma was originally set as a Healthy People 2010 objective. At that time, asthma death rates were fairly high and it was difficult to determine what direction asthma hospitalization rates should go to improve health. If asthma deaths were occurring because patients were not receiving hospital care when needed, then it might be advisable to target a higher hospitalization rate as a means of reducing asthma deaths. However, asthma deaths have generally been decreasing since 1999 in Nebraska and a reduction to no more than 7.9 hospitalizations per 10,000 children under age 18 years was adopted for 2010.

Since 2001 (the rural/urban baseline), the hospitalization rate for pediatric asthma has increased slightly among rural children (from 9.1 to 9.5 hospitalizations per 10,000 children in 2003) (Figure 6). Among children living in urban areas, the rate has risen more sharply (from 8.0 in 2001 to 9.7 in 2003). So, although rural rates for asthma hospitalizations among children were higher in 2001, 2003 hospitalization rates for pediatric asthma were nearly the same in rural and urban areas.

Figure 6
Hospitalizations for Ambulatory-Care-Sensitive Conditions
in Rural/Urban Areas (2001 vs. 2003)



SOURCE: Nebraska DHHS, Hospital Discharge data.

Uncontrolled Diabetes

Uncontrolled diabetes is another ambulatory-care-sensitive condition for which hospitalization rates are being tracked in Healthy People 2010. The Nebraska 2010 objective is to reduce hospitalizations for this condition to no more than 2.8 per 10,000 persons aged 18 to 64 years.

In 2001, almost no difference was found in hospitalization rates for rural (3.5 per 10,000 population) and urban (3.6) residents of Nebraska (**Figure 6**). By 2003, rates had increased to 4.3 hospitalizations per 10,000 people living in rural areas and to 5.1 per 10,000 among urban residents.

Immunization-Preventable Pneumonia or Influenza

The Nebraska 2010 target rate for hospitalizations due to immunization-preventable pneumonia or influenza among the elderly (aged 65 and older) was set at no more than 16.0 per 10,000 population, based on 1999 data. In 2001, the rural (10.9) hospitalization rate was double the rate in urban areas (5.3), indicating that there may have been limited access to primary care for elderly rural residents or that primary care services in these areas may have needed improvement.

In 2003, hospitalization rates for immunization-preventable pneumonia or influenza had risen considerably and were double the 2001 rates for both rural (22.1) and urban (17.4) elderly persons (**Figure 6**). However, the rate of increase was greater among the urban population (+228%) than among rural residents (+103%), narrowing the gap between these two groups somewhat.

CANCER

Health Impact

Although death rates have fallen in recent years, cancer is second only to heart disease as a leading cause of death in the United States and in Nebraska. According to the American Cancer Society, nearly 1.4 million Americans will be diagnosed with cancer and more than 564,800 will die from this disease in 2006. In Nebraska, it is estimated that 8,450 people will receive a diagnosis of cancer and 3,410 Nebraskans will die from it.

The National Institutes of Health estimate that overall costs of cancer in 2004 were \$189.8 billion nationwide. In addition to health expenditures for cancer, this figure includes costs of lost productivity due to illness and premature death resulting from cancer.

Healthy People 2010 Goal

The national Healthy People 2010 goal for cancer is to reduce the number of new cases as well as the illness, disability, and deaths caused by cancer.

Progress Toward Nebraska Rural 2010 Objectives

Two Nebraska cancer objectives showed progress toward 2010 target rates in rural areas (**Table 5**). The overall cancer death rate declined and the proportion of adults aged 50 and older who ever received a colonoscopy or sigmoidoscopy increased from the baseline. On the other hand, three of the five cancer objectives moved away from target rates in rural Nebraska. All three objectives seek to increase cancer screening rates.

Urban areas of the state achieved somewhat greater progress toward Nebraska's 2010 cancer objectives. One objective—the proportion of adults aged 50 and older who ever had a colonoscopy or sigmoidoscopy to screen for colorectal cancer—reached the target rate for 2010. As in rural areas, the overall cancer death rate in urban Nebraska counties decreased from the baseline. However, rates for two of the five cancer objectives worsened. The proportion of women receiving a Pap test in the past three years decreased, as did the proportion of women aged 40 and older who had a mammogram in the last two years. For one objective (the proportion of adults 50 and older who had a fecal occult blood test in the past two years), no change occurred in the screening rate.

Cancer Incidence and Mortality

In Nebraska, there were 173.5 cancer deaths per 100,000 population in 2004. The 2010 objective for overall cancer deaths is to reduce this rate to no more than 147.0.

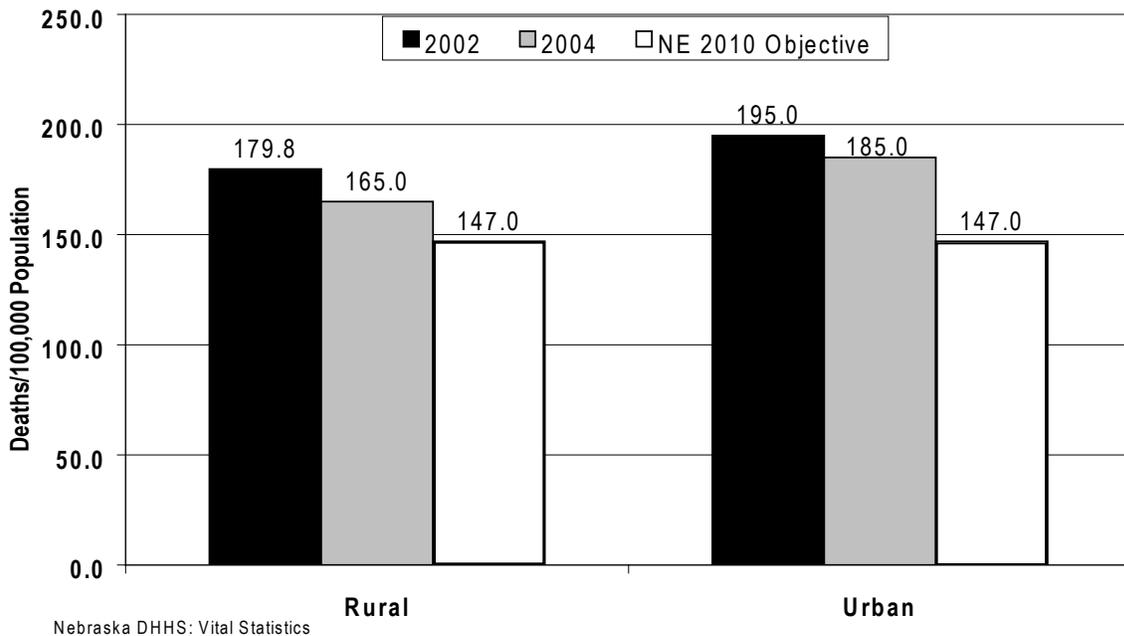
**TABLE 5
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Cancer**

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline		Current		Baseline		Current		Baseline		Current		Baseline		Current		NE 2010 Objective	US 2010 Objective		
	Data Year	Rate	Data Year	Rate																
#3-1 Overall cancer death rate White African American Native American Asian American Hispanic American	2002	179.8	2004	165.0	2002	195.0	2004	185.0	2002	186.6	2004	173.5	2002	186.6	2004	173.5	147.0	158.6		
	1998-2002	178.5	2000-2004	164.7	1998-2002	199.4	2000-2004	182.6	1998-2002	186.8	2000-2004	171.9	1998-2002	186.8	2000-2004	171.9	147.0	158.6		
	1998-2002	234.9	2000-2004	206.1	1998-2002	255.2	2000-2004	259.8	1998-2002	254.2	2000-2004	256.0	1998-2002	254.2	2000-2004	256.0	147.0	158.6		
	1998-2002	210.2	2000-2004	185.5	1998-2002	227.0	2000-2004	226.3	1998-2002	219.0	2000-2004	203.7	1998-2002	219.0	2000-2004	203.7	147.0	158.6		
	1998-2002	118.3	2000-2004	150.0	1998-2002	139.8	2000-2004	121.6	1998-2002	135.2	2000-2004	135.4	1998-2002	135.2	2000-2004	135.4	85.2	158.6		
1998-2002	123.0	2000-2004	110.6	1998-2002	123.4	2000-2004	124.3	1998-2002	123.4	2000-2004	117.1	1998-2002	123.4	2000-2004	117.1	72.0	158.6			
#3-11b Percent of women who received a Pap test within last 3 years (age 18+ with or without uterine cervix) White African American Hispanic American	2002	80	2006	74	2002	85	2006	79	2002	82	2006	76	2002	82	2006	76	90	90		
	2002	80	2006	73	2002	86	2006	78	2002	82	2006	76	2002	82	2006	76	90	90		
	2002	NA	2006	NA	2002	90	2006	90	2002	89	2006	91	2002	89	2006	91	90	90		
	2002	NA	2006	74	2002	NA	2006	80	2002	81	2006	77	2002	81	2006	77	90	90		
#3-12a Percent of adults age 50+ who had fecal occult blood test in past 2 years White Hispanic American	2002	28	2006	26	2002	33	2006	33	2002	30	2006	28	2002	30	2006	28	50	33		
	2002	28	2006	25	2002	33	2006	30	2002	30	2006	28	2002	30	2006	28	50	33		
	2002	NA	2006	17	2002	NA	2006	NA	2002	14	2006	14	2002	14	2006	14	50	33		
#3-12b Percent of adults age 50+ who ever had sigmoidoscopy or colonoscopy White Hispanic American	2002	37	2006	46	2002	48	2006	52	2002	42	2006	49	2002	42	2006	49	50	50		
	2002	38	2006	47	2002	49	2006	57	2002	43	2006	52	2002	43	2006	52	50	50		
	2002	NA	2006	35	2002	NA	2006	NA	2002	NA	2006	34	2002	NA	2006	34	50	50		
#3-13 Percent of women age 40+ who had mammogram within the past 2 years White Hispanic American	2002	72	2006	70	2002	80	2006	77	2002	75	2006	73	2002	75	2006	73	82	70		
	2002	72	2006	70	2002	79	2006	77	2002	75	2006	73	2002	75	2006	73	82	70		
	2002	NA	2006	49	2002	NA	2006	NA	2002	NA	2006	52	2002	NA	2006	52	75	70		

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
NA = Not Available

According to the national *Rural Healthy People 2010* report, there is usually little difference in incidence and mortality rates for cancer between urban and rural areas. However, in Nebraska, the age-adjusted mortality rate for cancer was about 12 percent higher in the six urban counties combined (185.0 deaths per 100,000 population) than it was in the remaining rural Nebraska counties (165.0) in 2004 (**Figure 7**). Urban cancer mortality rates were higher than the rural rate for each racial/ethnic group except Asian Americans, where the rural rate was currently higher (**Figure 8**).

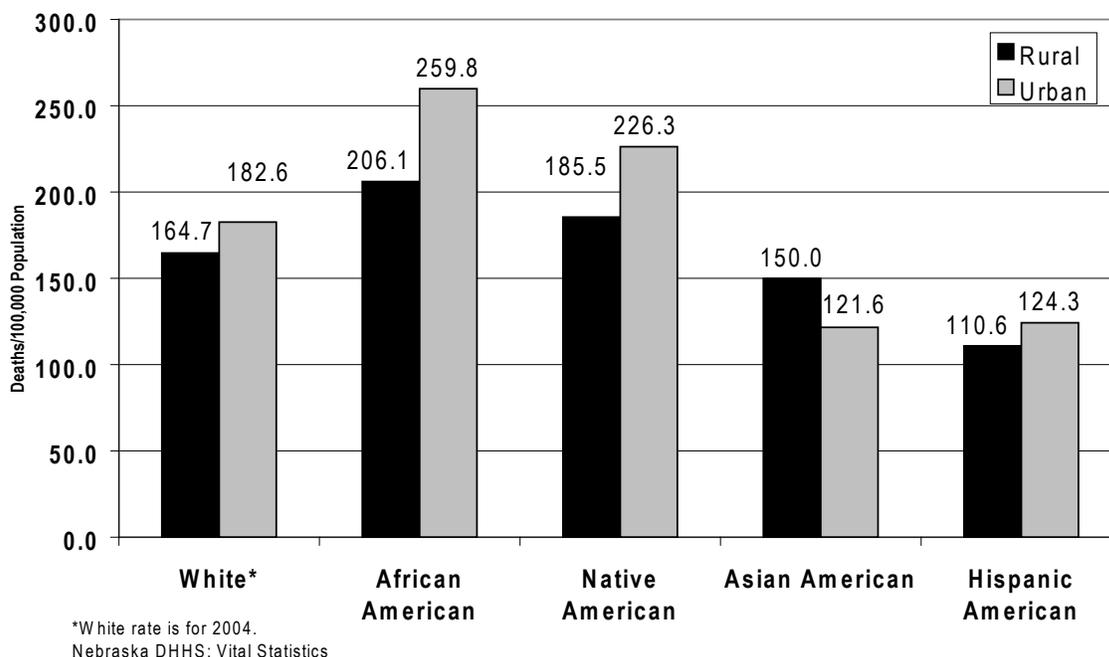
Figure 7
Age-Adjusted Cancer Death Rates
in Rural and Urban Areas (2002 vs. 2004)



The overall cancer mortality rate declined in rural (-8 percent) and in urban (-5 percent) areas of the state between 2002 and 2004. Cancer mortality rates decreased for whites, African Americans, Native Americans, and Hispanic Americans in rural Nebraska. Rates also dropped for white Nebraskans and Asian Americans in urban counties, while little change was evident for African Americans, Native Americans, and Hispanic Americans residing there.

Cancer mortality rates continue to be higher for African Americans and Native Americans than for other racial and ethnic groups in Nebraska. This pattern holds true in both rural and urban areas of the state.

Figure 8
Age-Adjusted Cancer Death Rates in Rural and Urban Areas
by Race/Ethnicity in Nebraska (2000-2004)

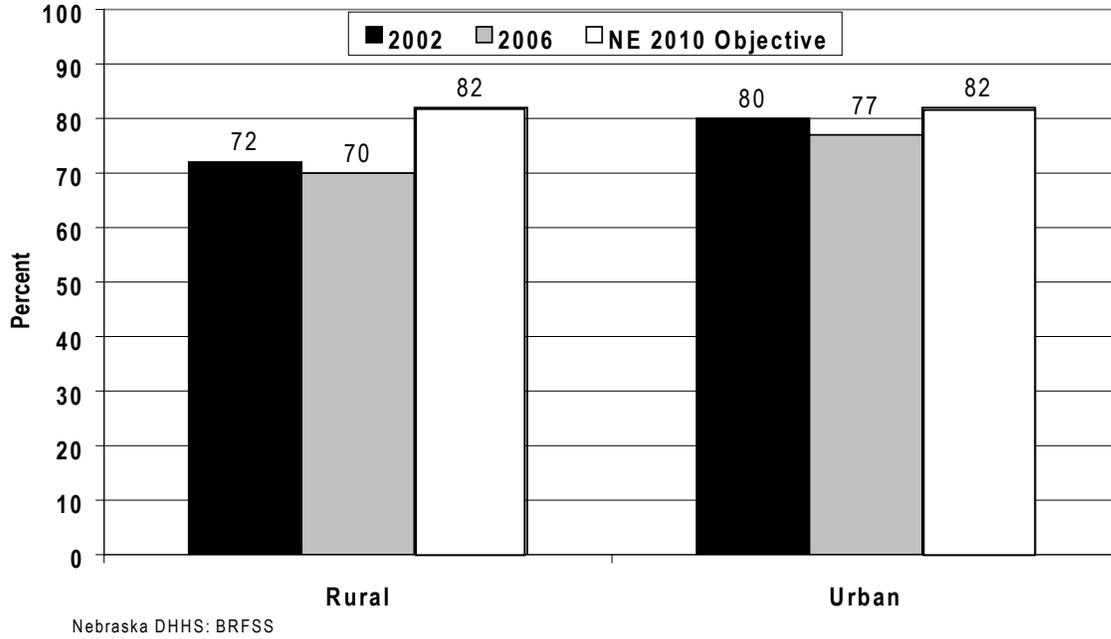


Prevalence of Cancer Screening

Data from the BRFSS indicate that rural residents nationwide are less likely to obtain certain cancer-screening services according to nationally established timelines. In Nebraska, the prevalence of cancer screening was lower in rural areas than in urban areas for each of the four screening tests reported here. In addition, rates of screening for breast and cervical cancer among both rural and urban women have declined from the 2002 baseline.

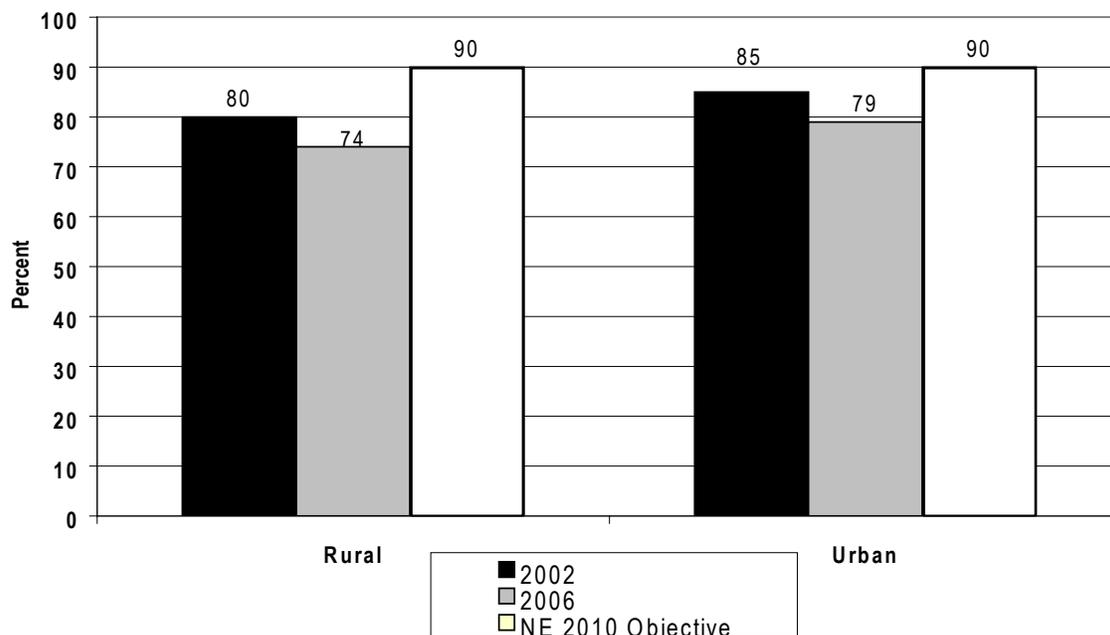
In 2006, Nebraska women aged 40 years or older were somewhat less likely to report having a mammogram in the past two years to check for breast cancer than they were in 2002. Among rural women, prevalence was 70 percent in 2006 compared to 72 percent in 2002 (**Figure 9**). Although prevalence among urban women also decreased during this period, the rural-urban disparity persists with a greater proportion of urban women having mammograms in 2006 (77 percent).

Figure 9
Mammogram in Past Two Years Among Women Aged 40+
in Rural/Urban Areas (2002 vs. 2006)



The proportion of women aged 18 and older who reported having a Pap smear in the last three years to screen for cervical cancer was down among both rural and urban residents (**Figure 10**). Prevalence of this screening dropped six percentage points between 2002 and 2006 for each group. In 2006, urban women (79 percent) continued to be more likely than rural women (72 percent) to have a Pap test in the last three years.

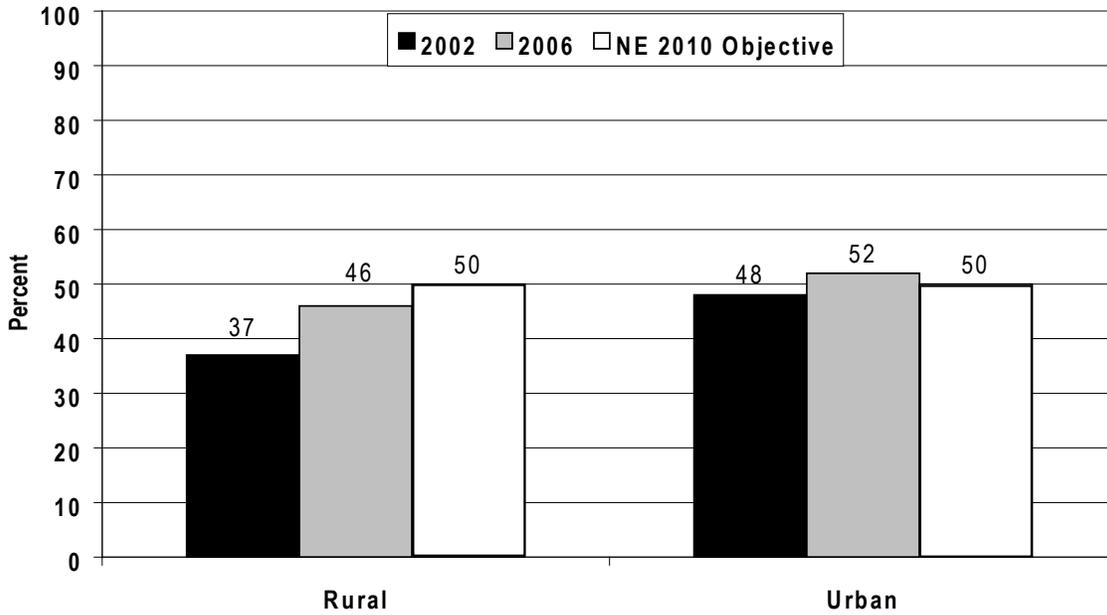
Figure 10
Pap Test in Past Three Years (Women Aged 18+)
in Rural/Urban Areas (2002 vs. 2006)



Smaller proportions of Nebraska adults reported being screened for colorectal cancer, but rural-urban disparities in prevalence were evident for these tests as well (**Table 5**). In 2006, 33 percent of urban adults aged 50 and older stated they had a fecal occult blood test to check for colorectal cancer in the past two years. Among rural residents, 26 percent had been tested within this time period.

More Nebraska adults in this age group reported ever having a sigmoidoscopy or colonoscopy to screen for colorectal cancer in 2006 compared to 2002, with a greater increase in screening rates occurring among rural Nebraskans (**Figure 11**). Among urban residents, the proportion increased from 48 percent to 52 percent, achieving the Nebraska 2010 objective for increasing this screening rate. The proportion of rural adults aged 50 and older who ever had this screening done rose from 37 percent in 2002 to 46 percent in 2006. Thus, despite the larger increase in screening rates among rural adults, they were still somewhat less likely to have this testing done than urban residents.

Figure 11
Ever Had Sigmoidoscopy or Colonoscopy--Adults Aged 50+
in Rural/Urban Areas (2002 vs. 2006)



Nebraska DHHS: BRFSS

In 2006, only about one-third of Hispanic Nebraskans in rural areas (35 percent) and in the state overall (34 percent) stated that they ever had a colonoscopy or sigmoidoscopy to check for colorectal cancer. In comparison, approximately one-half of white residents in rural areas (47 percent) and statewide (52 percent) reported ever having this screening done. (Data are unavailable for Hispanic adults in urban areas.)

DIABETES

Health Impact

As of 2005, an estimated 20.8 million people in the United States (7.0 percent of the population) have diabetes. Of these, 6.2 million have the disease but have not been diagnosed and are unaware they have diabetes. In addition, an estimated 54 million adults are at high risk for developing diabetes. They have pre-diabetes; that is, their blood sugar is elevated but not high enough for them to be classified as having diabetes.

The number of newly-diagnosed cases of diabetes has risen rapidly in the U.S. in recent years, with an estimated 1.5 million new cases developing in 2005. With obesity on the increase, it is likely that the number of cases will continue this strong upward trend.

Diabetes was the sixth leading cause of death in 2004 in Nebraska and the nation, accounting for 295 deaths in the state and more than 73,000 deaths nationwide. Diabetes was also listed as a contributing factor for more than 224,000 U.S. deaths. The total cost of diabetes in the United States was estimated to be about \$132 billion in 2002.

Diabetes often results not only in a shortened life span, but also increases the probability of various complications such as heart disease, stroke, kidney failure, blindness and amputation of the lower limbs. Persons with diabetes are also more likely than are people without diabetes to die from complications of influenza or pneumonia. Women with diabetes are at greater risk of pregnancy complications than are women who do not have this disease. In addition, infants born to mothers with diabetes are more likely than other infants to die at birth or have birth defects.

Healthy People 2010 Goal

The national Healthy People 2010 goal for diabetes is to reduce the disease burden and economic costs of diabetes and improve the quality of life for all persons who have or are at risk for diabetes.

Progress Toward Nebraska Rural 2010 Objectives

Progress toward 2010 diabetes objectives was similar in rural and urban areas of Nebraska. Prevalence of clinically-diagnosed diabetes increased among both rural and urban residents between 2002 and 2006 (**Table 6**).

On the other hand, diabetes-related death rates decreased between 2002 and 2004 in both rural and urban areas of the state, although the decline in rural diabetes mortality was slight.

TABLE 6
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Diabetes

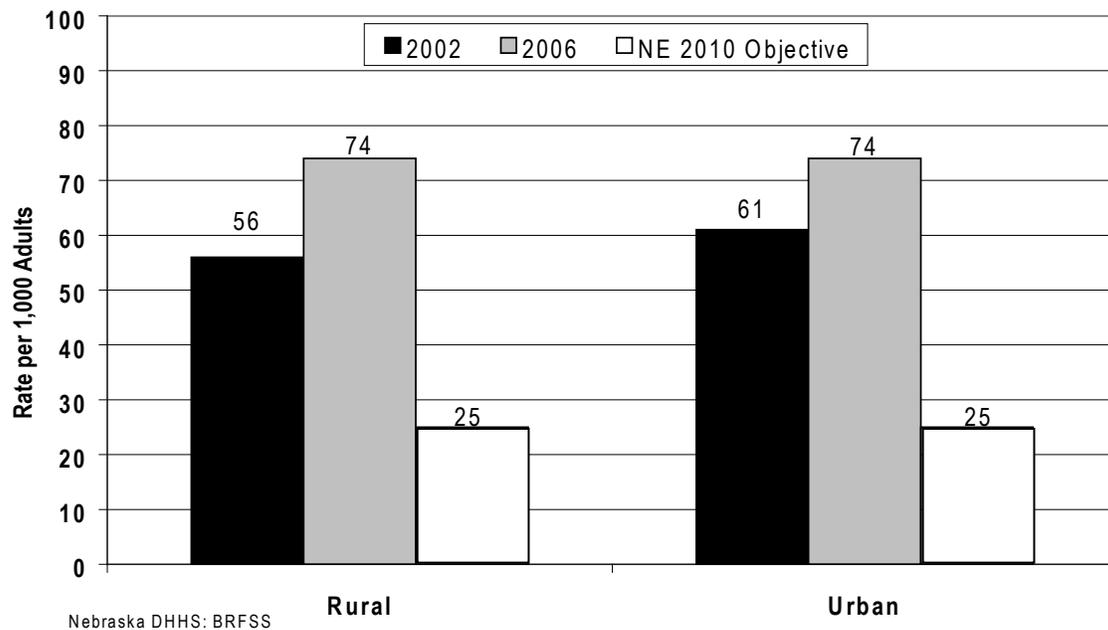
Objective	RURAL						URBAN						TOTAL						OBJECTIVES			
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective		
	Data Year	Rate																				
#5-3 Overall prevalence rate of clinically diagnosed diabetes per 1,000 population aged 18+	2002	56	2006	74	2002	61	2006	74	2002	58	2006	74	2002	58	2006	74	2002	58	2006	74	25	25
	2002	55	2006	74	2002	58	2006	74	2002	57	2006	74	2002	57	2006	74	2002	57	2006	74	25	25
	2002	NA	2006	NA	2002	118	2006	91	2002	119	2006	81	2002	119	2006	81	2002	119	2006	81	25	25
	2002	58	2006	77	2002	69	2006	52	2002	64	2006	63	2002	64	2006	63	2002	64	2006	63	25	25
#5-5 Diabetes-related death rate per 100,000 population	2002	70.1	2004	69.4	2002	78.0	2004	69.2	2002	72.2	2004	69.0	2002	72.2	2004	69.0	1998-2002	2004	2004	69.0	25.0	46
	1998-2002	68.3	2004	67.9	1998-2002	72.5	2004	64.0	1998-2002	69.4	2004	66.6	1998-2002	69.4	2004	66.6	1998-2002	2004	2004	66.6	25.0	46
	1998-2002	*	2000-2004	91.5	1998-2002	168.3	2000-2004	168.7	1998-2002	164.6	2000-2004	163.4	1998-2002	164.6	2000-2004	163.4	1998-2002	2000-2004	2000-2004	163.4	25.0	46
	1998-2002	381.6	2000-2004	271.1	1998-2002	280.9	2000-2004	254.6	1998-2002	337.1	2000-2004	263.1	1998-2002	337.1	2000-2004	263.1	1998-2002	2000-2004	2000-2004	263.1	25.0	46
	1998-2002	*	2000-2004	44.2	1998-2002	103.0	2000-2004	55.2	1998-2002	76.0	2000-2004	50.8	1998-2002	76.0	2000-2004	50.8	1998-2002	2000-2004	2000-2004	50.8	25.0	46
1998-2002	120.8	2000-2004	121.2	1998-2002	94.5	2000-2004	92.4	1998-2002	107.7	2000-2004	108.8	1998-2002	107.7	2000-2004	108.8	1998-2002	2000-2004	2000-2004	108.8	25.0	46	

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
*Mortality rate based on fewer than 5 deaths.
NA = Not Available

Prevalence of Diabetes

Racial/ethnic, age, socioeconomic, and lifestyle factors appear to be stronger risk factors for developing diabetes than rural/urban residence by itself. Differences in prevalence of diabetes between rural and urban areas of Nebraska were not large in 2002 (56 vs. 61 persons with clinically-diagnosed diabetes per 1,000 adults, respectively). However, prevalence of this disease increased in both areas—to 74 per 1,000 among both rural and urban adults in the state in 2006 (**Figure 12**).

Figure 12
Prevalence of Clinically-Diagnosed Diabetes
Among Adults Aged 18+ in Rural/Urban Areas (2002 vs. 2006)



Prevalence of clinically-diagnosed diabetes increased among white Nebraskans in both rural and urban areas (**Table 6**). Among Hispanic Americans in rural Nebraska counties, prevalence of diabetes rose from 58 per 1,000 persons in 2002 to 77 per 1,000 in 2004. In urban counties, however, the trend was downward with the rate for Hispanic adults dropping from 69 in 2002 to 52 in 2004. For African Americans in urban counties, prevalence decreased from 118 per 1,000 persons in 2002 to 91 per 1,000 in 2004.

Data for rural African Americans and for Native Americans and Asian Americans in both rural and urban areas are unavailable due to small number of respondents.

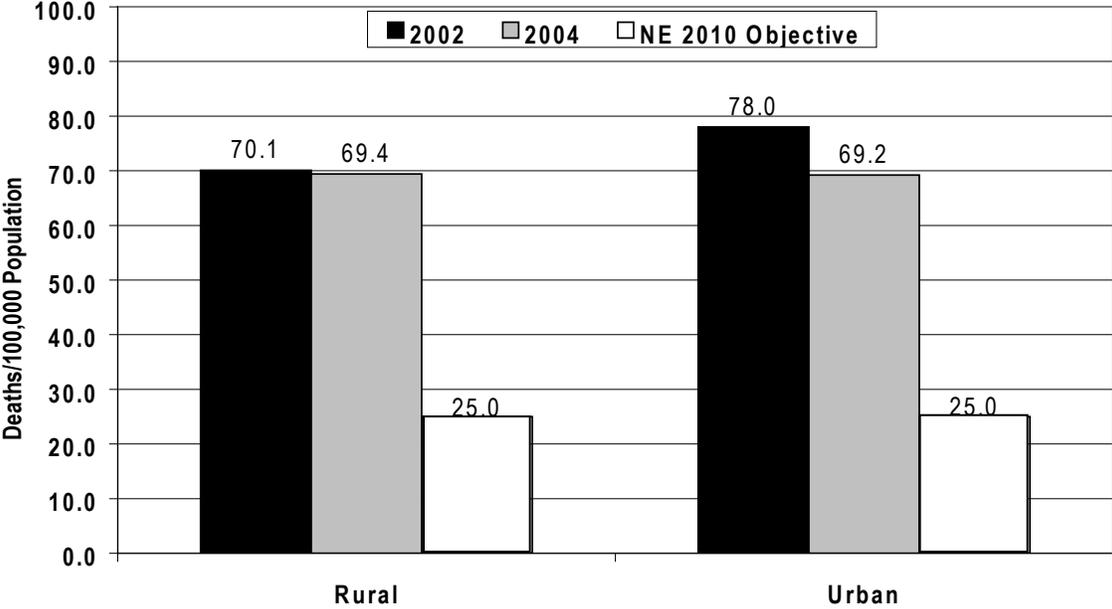
The Nebraska 2010 objective is to reduce prevalence of diagnosed diabetes to no more than 25 per 1,000 adults aged 18 or older.

Mortality Due to Diabetes

The Nebraska 2010 objective for diabetes-related deaths has been set at no more than 25 deaths per 100,000 population.

Overall, diabetes-related death rates improved somewhat compared to the baseline, with a greater decline occurring in urban areas of Nebraska where the rate dropped from 78.0 in 2002 to 69.2 deaths per 100,000 in 2004. In rural counties, the mortality rate decreased only slightly (from 70.1 to 69.4) during this period. As a result, 2004 mortality rates were nearly the same in rural (69.4) and in urban (69.2) areas of the state (**Figure 13**).

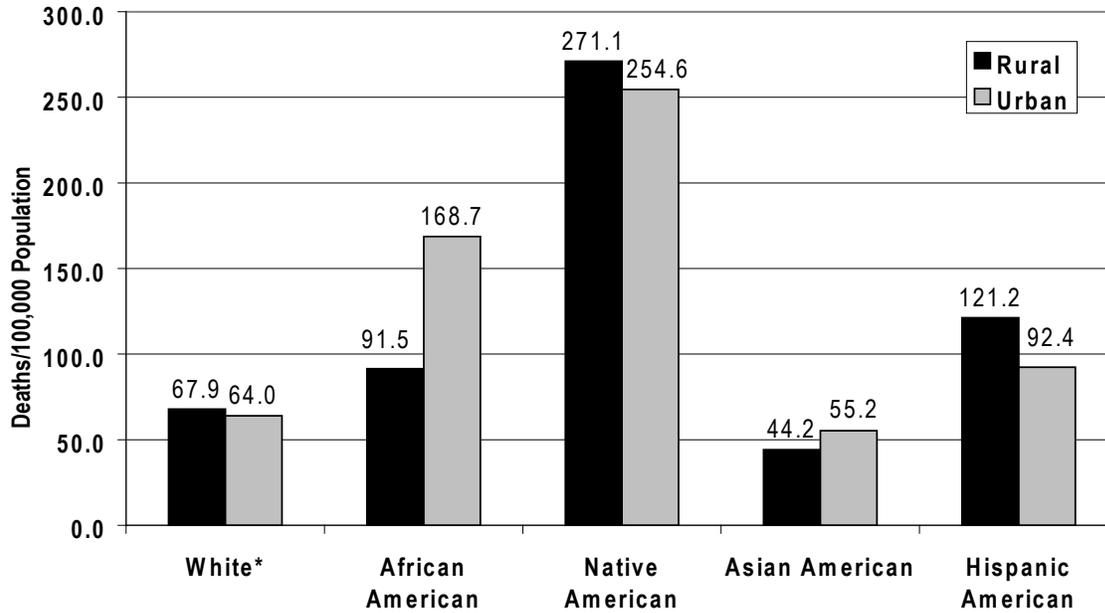
Figure 13
Age-Adjusted Diabetes-Related Death Rates
in Rural/Urban Areas (2002 vs. 2004)



Nebraska DHHS: Vital Statistics

The diabetes-related death rate for rural Native Americans was down 29 percent in 2000-2004, compared to 1998-2002 (**Figure 14**). Still, the 2000-2004 rate for this group (271.1) was more than twice as high as the rate for rural Hispanic Americans (121.2) and 4.0 times as high as the rate for white Nebraskans living in rural areas (67.9).

Figure 14
Age-Adjusted Diabetes-Related Death Rates
in Rural/Urban Areas by Race/Ethnicity (2000-2004)



*White rate is for 2004.
 Nebraska DHHS: Vital Statistics

Urban Native Americans (254.6 deaths per 100,000) and African Americans (168.7) also experienced much greater mortality due to diabetes than urban white Nebraskans (64.0) in 2004.

HEART DISEASE AND STROKE

Health Impact

Cardiovascular disease (CVD) includes a wide variety of heart and blood vessel diseases, of which coronary heart disease and stroke are the principal components. The American Heart Association estimates that 71.3 million Americans currently have one or more types of CVD. An estimated 13.2 million persons have coronary heart disease and 5.5 million have had a stroke.

CVD is the leading cause of death and disability in the United States today. CVD was the underlying cause of 37.3 percent of all deaths in 2003. If deaths in which CVD was a contributing cause are included, CVD accounted for 58 percent of deaths in 2002. CVD claims more lives each year than the next four leading causes of death combined (i.e., cancer, chronic lower respiratory diseases, accidents, and diabetes).

The estimated direct and indirect costs of CVD in the United States for 2006 are \$403.1 billion.

Healthy People 2010 Goals

The national Healthy People 2010 goals for Heart Disease and Stroke are aimed at improvements in cardiovascular health and quality of life through the prevention, detection, and treatment of risk factors; early identification and treatment of heart attacks and strokes; and the prevention of recurrent cardiovascular events.

Progress Toward Nebraska Rural 2010 Objectives

The progress achieved toward Nebraska's 2010 cardiovascular health objectives was similar in rural and urban areas of the state. For three objectives, improvement was seen among both rural and urban residents, compared to baseline rates. Mortality due to coronary heart disease and due to strokes decreased since 2002 in both rural and urban areas (**Table 7**), while the proportion of adults who had their blood cholesterol levels checked in the past five years increased.

On the negative side, the proportions of both rural and urban residents who reported having high blood pressure were up from baseline rates. No assessment of progress was made for the proportion of adults who had their blood pressure checked during the past two years, due to lack of current data.

**TABLE 7
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Heart Disease and Stroke**

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective
	Data Year	Rate	Rate	Data Year	Rate	Rate														
#12-1 Coronary heart disease death rate per 100,000	2002	124.8	107.2	2004	123.1	103.5	2002	124.3	106.1	2004	124.3	106.1	2004	124.3	106.1	2004	106.0	84.0	162.0	162.0
	1998-2002	134.6	107.1	2004	133.3	103.5	1998-2002	134.6	106.0	2004	134.6	106.0	2004	134.6	106.0	2004	106.0	90.0	162.0	162.0
	1998-2002	157.4	71.5	2000-2004	141.5	136.1	1998-2002	141.8	131.2	2000-2004	141.8	131.2	2000-2004	141.8	131.2	2000-2004	131.2	121.5	162.0	162.0
	1998-2002	298.7	191.6	2000-2004	197.8	121.6	1998-2002	263.1	166.4	2000-2004	263.1	166.4	2000-2004	263.1	166.4	2000-2004	166.4	121.5	162.0	162.0
	1998-2002	*	54.9	2000-2004	105.8	44.5	1998-2002	83.4	48.4	2000-2004	83.4	48.4	2000-2004	83.4	48.4	2000-2004	48.4	26.0	162.0	162.0
#12-7 Stroke death rate	2002	57.3	47.6	2004	50.9	47.5	2002	54.9	47.6	2004	54.9	47.6	2004	54.9	47.6	2004	47.4	47.4	50	50
	1998-2002	57.5	47.1	2004	56.6	46.3	1998-2002	57.1	46.7	2004	57.1	46.7	2004	57.1	46.7	2004	47.4	47.4	50	50
	1998-2002	*	74.6	2000-2004	89.9	88.8	1998-2002	89.5	87.4	2000-2004	89.5	87.4	2000-2004	89.5	87.4	2000-2004	87.4	47.4	50	50
	1998-2002	61.2	60.8	2000-2004	99.5	43.5	1998-2002	73.6	56.0	2000-2004	73.6	56.0	2000-2004	73.6	56.0	2000-2004	56.0	47.4	50	50
	1998-2002	70.2	59.0	2000-2004	57.8	36.6	1998-2002	60.4	46.6	2000-2004	60.4	46.6	2000-2004	60.4	46.6	2000-2004	46.6	32.7	50	50
#12-9 Percent of adults with high blood pressure (age 18+)--among those who ever had it checked	2003	24	25	2005	23	24	2003	23	24	2005	23	24	2005	23	24	2005	24	16	14	14
	2003	26	26	2005	23	25	2003	23	25	2005	23	25	2005	23	25	2005	25	16	14	14
	2003	NA	NA	2005	29	31	2003	30	31	2005	30	31	2005	30	31	2005	31	16	14	14
	2003	9	12	2005	9	8	2003	9	8	2005	9	8	2005	9	8	2005	10	10	14	14
	2002	94	Data No Longer Available	2005	95	Data No Longer Available	2002	95	Data No Longer Available	2005	95	Data No Longer Available	2002	95	Data No Longer Available	2005	Data No Longer Available	97	95	95
#12-12 Percent of adults who had BP check in past 2 years (and can state if it is high or low)--age 18+	2002	94	Data No Longer Available	2005	95	Data No Longer Available	2002	95	Data No Longer Available	2005	95	Data No Longer Available	2002	95	Data No Longer Available	2005	Data No Longer Available	97	95	95
	2002	92	92	2005	91	91	2002	92	92	2005	92	92	2005	92	92	2005	97	97	95	95
	2003	67	69	2005	71	73	2003	69	71	2005	69	71	2005	69	71	2005	71	80	80	80
	2003	69	71	2005	72	74	2003	71	72	2005	71	72	2005	71	72	2005	72	80	80	80
	2003	NA	NA	2005	63	71	2003	65	71	2005	65	71	2005	65	71	2005	72	80	80	80
#12-15 Percent of adults (age 18+) who had blood cholesterol level checked in last 5 years	2003	39	41	2005	54	50	2003	47	46	2005	47	46	2005	47	46	2005	46	80	80	80
	2003	67	69	2005	71	73	2003	69	71	2005	69	71	2005	69	71	2005	71	80	80	80
	2003	69	71	2005	72	74	2003	71	72	2005	71	72	2005	71	72	2005	72	80	80	80
	2003	NA	NA	2005	63	71	2003	65	71	2005	65	71	2005	65	71	2005	72	80	80	80
	2003	39	41	2005	54	50	2003	47	46	2005	47	46	2005	47	46	2005	46	80	80	80

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.

*Mortality rate based on fewer than 5 deaths.

NA = Not Available

Mortality Due to Heart Disease and Stroke

Although the coronary heart disease death rate has decreased significantly over the last twenty years, heart disease remains the leading cause of death in Nebraska and the nation. Deaths due to stroke have also fallen considerably, but stroke still ranks third as a leading cause of death. Advances in therapy and technology were the cause of much of the improvement in death rates, rather than disease prevention through lifestyle changes.

According to the *Nebraska 2010 Health Goals and Objectives—A MidCourse Review* report issued in December 2007, revised target rates have been set for coronary heart disease mortality overall (84.0 deaths per 100,000 population) and for the Hispanic population of the state (52.0). Other 2010 target rates for coronary heart disease deaths have not changed.

Coronary heart disease death rates in Nebraska decreased in both rural and urban areas between 2002 and 2004 (**Figure 15**). The rural death rate (107.2 deaths per 100,000 population) was slightly higher than the urban rate (103.5) in 2004. In addition, rural death rates were higher for all racial/ethnic groups except African Americans, where urban mortality was greater (**Figure 16**).

Figure 15
Age-Adjusted Coronary Heart Disease Death Rates
by Rural/Urban Area (2002 vs. 2004)

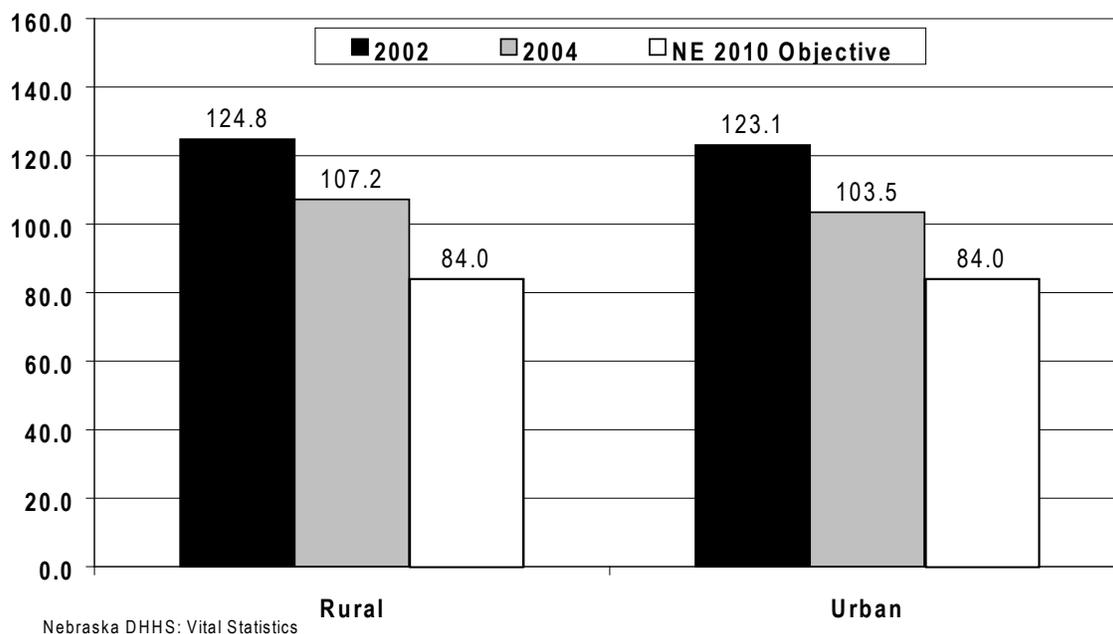
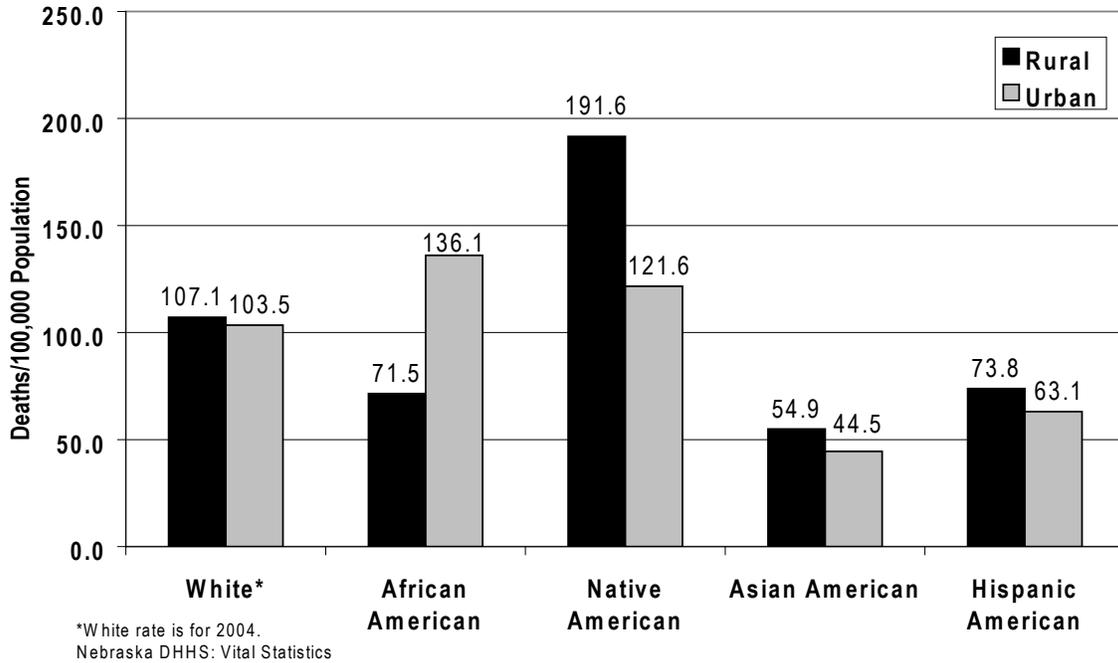
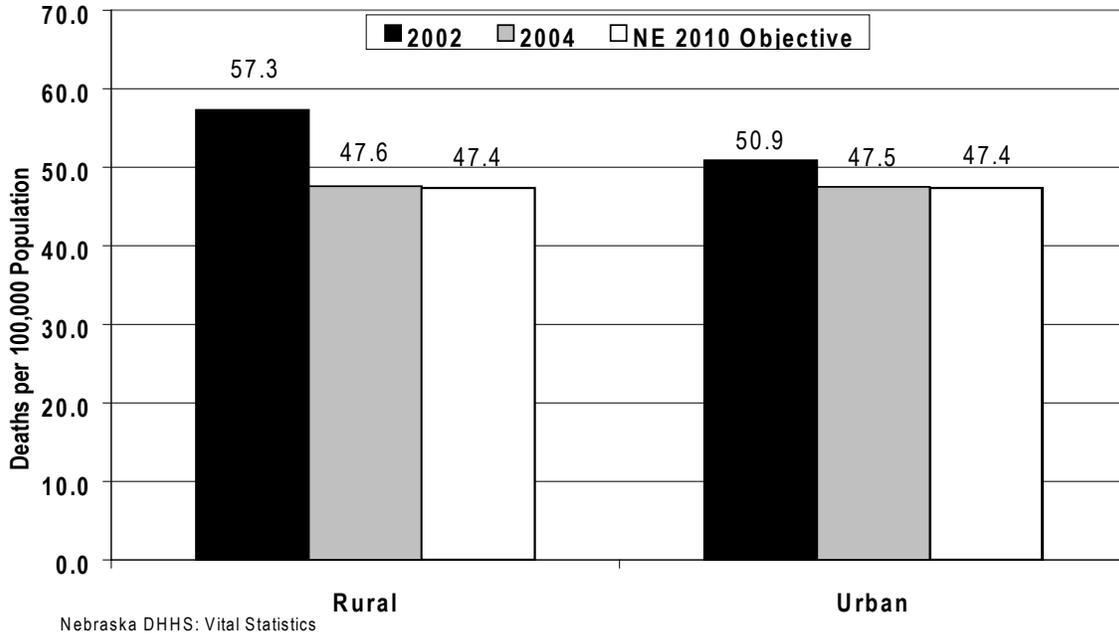


Figure 16
Age-Adjusted Coronary Heart Disease Deaths in Rural/Urban Areas by
Race/Ethnicity (2000-2004)



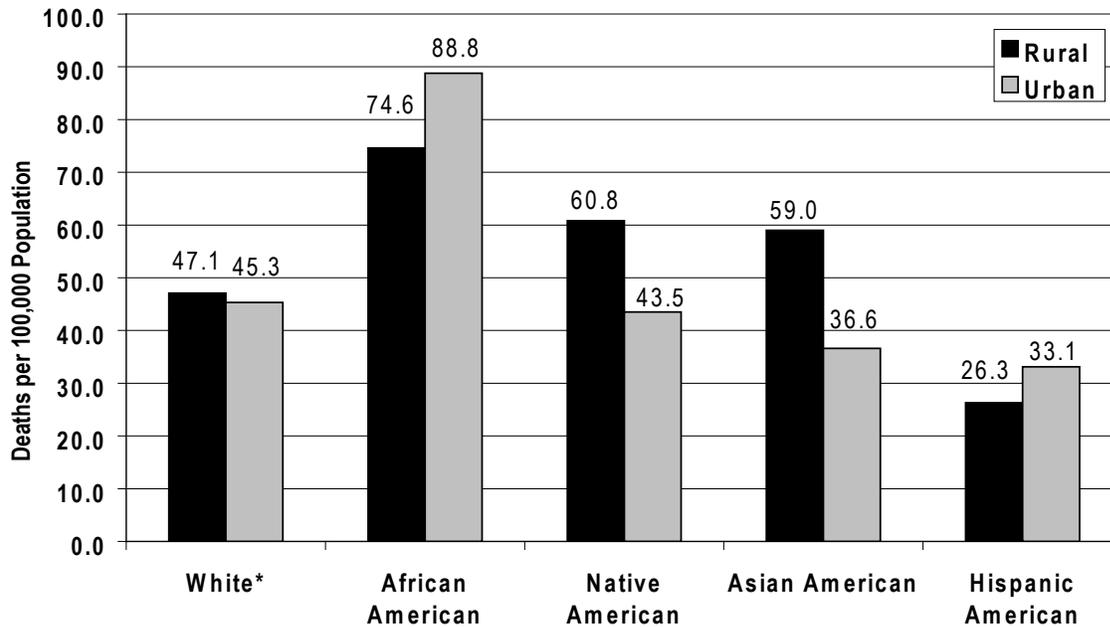
Overall stroke death rates also declined somewhat between 2002 and 2004. In 2004, rates were nearly the same in rural (47.6 per 100,000) and urban (47.5) areas (**Figure 17**). However, mortality due to stroke was higher in rural than in urban areas for whites (47.1), Native Americans (60.8), and Asian Americans (59.0) in 2000-2004 (**Figure 18**).

Figure 17
Age-Adjusted Stroke Death Rates
in Rural/Urban Areas (2002 vs. 2004)



The overall Nebraska 2010 objective for stroke deaths is to reduce the rate to no more than 47.4. The same target rate was set for African Americans, Native Americans, and whites, while lower targets were adopted for Asian Americans (32.7) and Hispanic Americans (22.3) in the state.

Figure 18
Age-Adjusted Stroke Death Rates in Rural/Urban Areas
by Race/Ethnicity (2000-2004)

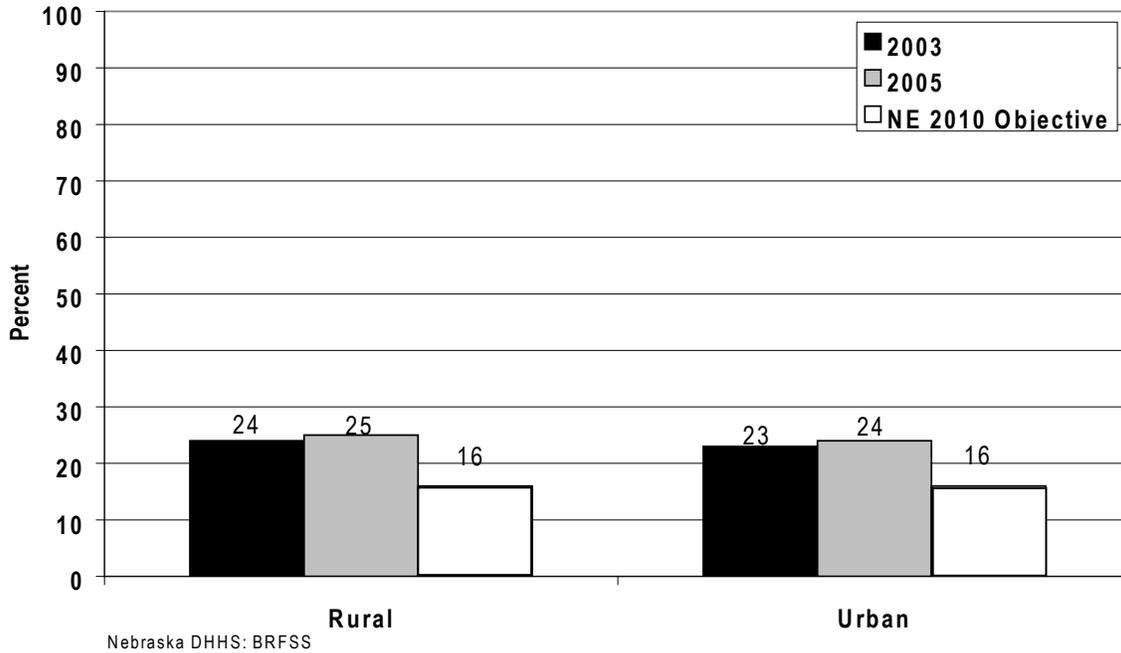


*White rate is for 2004.
 Nebraska DHHS: Vital Statistics

Prevalence of Risk Factors for Heart Disease and Stroke

High blood pressure and elevated blood cholesterol levels are important risk factors for coronary heart disease and stroke. In Nebraska, the proportions of adults who reported having high blood pressure were similar in rural (25 percent) and urban (24 percent) areas in 2005. Prevalence of self-reported hypertension increased by one percentage point each among rural and urban residents, compared to 2003 prevalence estimates (**Figure 19**).

Figure 19
Prevalence of High Blood Pressure Among Adults
in Rural/Urban Areas (2003 vs. 2005)

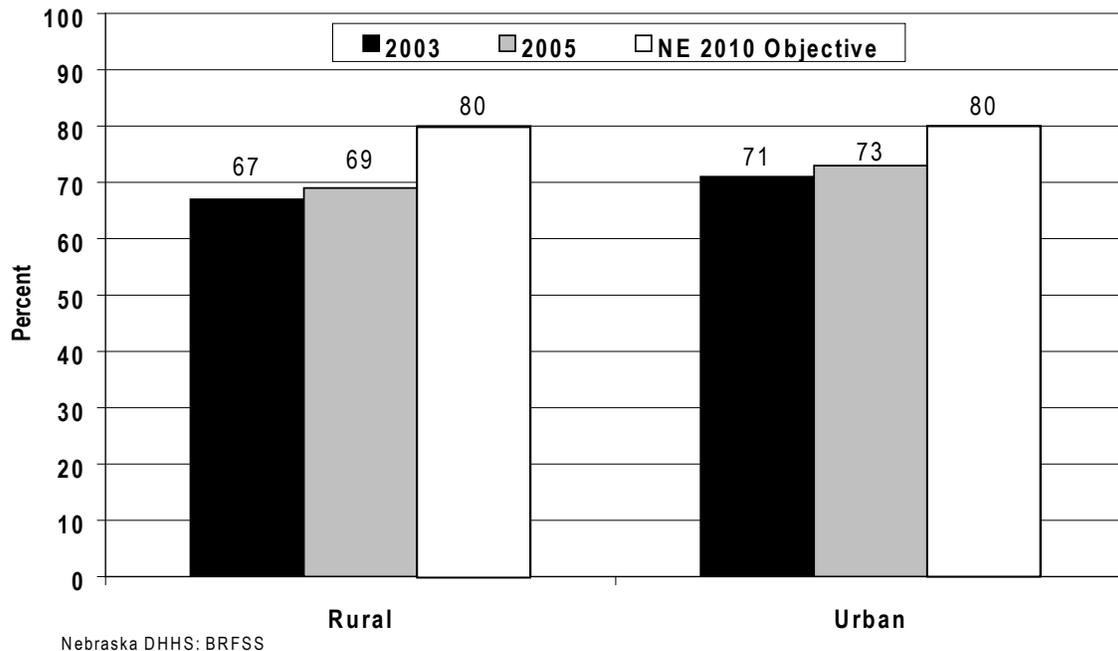


In 2005, the proportion of African American adults who stated they have high blood pressure was somewhat higher than the overall rate--31 percent in urban areas and in the state overall. Among Hispanic Nebraskans, prevalence of hypertension was much lower (12 percent among rural residents and 8 percent in urban areas).

The Nebraska 2010 overall objective for prevalence of hypertension is to reduce to no more than 16 percent the proportion of adults who were told they have high blood pressure.

Screening for high blood pressure and for elevated blood cholesterol levels is important in identifying persons at increased risk for cardiovascular disease so that lifestyle modifications and treatment can be initiated. In 2005, the proportion of adults who had their blood cholesterol level checked within the past five years increased by two percentage points in rural and urban areas of the state, compared to 2003 (**Figure 20**). In the current study, urban residents (73 percent) were somewhat more likely than rural residents (69 percent) to report having this testing done in the last five years.

Figure 20
Adults Who Had Their Cholesterol Level Checked
in the Past Five Years--Rural vs. Urban Areas (2003 vs. 2005)



The Nebraska 2010 target for cholesterol screening is to increase to at least 80 percent the proportion of adults who had their blood cholesterol level checked in the past five years.

No assessment of progress can be made for the remaining Rural 2010 Heart Disease/Stroke objective. Data on the proportion of adults who had their blood pressure checked within the past two years is no longer being collected through the Nebraska BRFSS.

IMMUNIZATION AND INFECTIOUS DISEASES

Health Impact

Infectious diseases have become an issue of global importance. Experts cite a number of factors that have increased the possibility of outbreaks of infectious disease becoming widespread rather than remaining contained in a relatively small area. Increases in international travel and commerce, increased immigration, and more frequent contacts with environments where infectious diseases continue to be leading causes of death all make it imperative that full immunization coverage be achieved in the United States and worldwide.

The widespread use of vaccines has proven very effective in reducing the incidence of many infectious diseases in the United States. However, one-fourth of all visits to physicians in this country are currently related to infectious disease, generating costs of more than \$120 billion each year.

Influenza vaccinations (“flu shots”) can prevent up to 70 percent of hospitalizations and 85 percent of deaths from influenza-related pneumonia. Pneumonia and influenza together made up the sixth leading cause of death in the United States in 2004. In Nebraska, pneumonia and influenza were the cause of 347 deaths in 2004.

Healthy People 2010 Goal

The national Healthy People 2010 goal is to prevent disease, death, and disability from infectious diseases.

Progress Toward Nebraska Rural 2010 Objectives

Although information on immunization levels for vaccine-preventable diseases among young children aged 19 to 35 months would be useful by rural/urban residence, Nebraska data on this objective come from CDC’s National Immunization Survey. It does not currently provide data by rural or urban status. For the state overall, 82.3 percent of children in this age group received the recommended series of vaccines in 2004, thus meeting Nebraska’s 2010 target rate for these immunizations. (This recommended series includes: four doses of diphtheria-tetanus-pertussis vaccine, three doses of polio vaccine, one dose of measles-mumps-rubella [MMR] or measles-containing vaccine, three doses of *Haemophilus influenzae* type b vaccine, and three doses of hepatitis B vaccine).

Only one Rural 2010 objective was set for Nebraska: increasing the proportion of adults aged 65 and older who received an influenza vaccination in the past 12 months to at least 90 percent (**Table 8**).

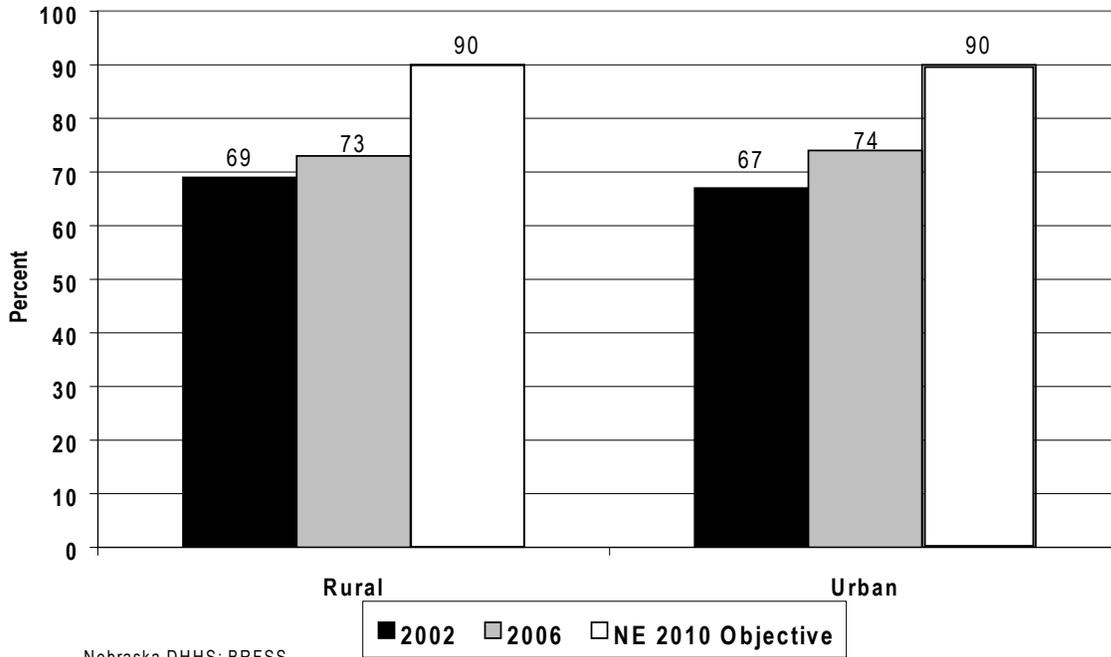
TABLE 8
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Immunization and Infectious Diseases

Objective	RURAL				URBAN				TOTAL				OBJECTIVES	
	Baseline		Current		Baseline		Current		Baseline		Current		NE 2010 Objective	US 2010 Objective
	Data Year	Rate												
#14-29a Percent of adults aged 65+ who were vaccinated against influenza in the past 12 months White	2002 2002	69 70	2006 2006	73 73	2002 2002	67 69	2006 2006	74 75	2002 2002	68 69	2006 2006	73 74	90 90	90 90

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.

Progress was achieved toward the target rate among both rural and urban residents in this age group. Influenza vaccination rates among persons aged 65 and older increased from 69 percent in 2002 in rural areas to 73 percent in 2006 (**Figure 21**). In urban areas, 74 percent of older adults received a flu shot in 2006, compared to 67 percent in 2002.

Figure 21
Adults Aged 65+ Who Had a Flu Shot in the Past 12 Months
by Rural/Urban Area (2002 vs. 2006)



Data are unavailable for comparison by racial and ethnic group due to the relatively small numbers of survey respondents in the 65-and-older age group for racial and ethnic minority populations in rural versus urban areas.

INJURY AND VIOLENCE PREVENTION

Health Impact

According to the National Center for Health Statistics, injuries (both intentional and unintentional) were the cause of 164,000 deaths in the United States in 2004. Injuries resulted in 2.8 million (inpatient) hospitalizations, 41.3 million visits to hospital emergency departments, and 105.3 million physician office visits in 2004.

Two-thirds of all injury deaths in the U.S. are due to unintentional injuries (i.e., those resulting from motor vehicle crashes, falls, residential fires, poisoning, drowning, etc.). However, violent and abusive behaviors (such as suicides, assaults, child abuse and neglect, and domestic violence) are responsible for nearly all of the remaining one-third of injury deaths. In Nebraska, there were 741 unintentional injury deaths, 166 suicides, and 39 homicides in 2004.

For the first time since 1998, unintentional injuries moved up to fourth place among the leading causes of death in Nebraska in 2004. Unintentional injuries were also the leading cause of death for persons aged 1 through 44 years in the state in 2004.

The lifetime cost of injuries occurring in a single year in the United States was \$406 billion, including medical expenses and productivity losses, according to 2006 estimates from the Centers for Disease Control and Prevention.

Healthy People 2010 Goal

The goal of the Injury and Violence Prevention objectives is to reduce injuries, disabilities, and deaths due to unintentional injuries and violence.

Progress Toward Nebraska Rural 2010 Objectives

All three injury prevention objectives showed progress toward the 2010 target rates in rural areas of Nebraska (**Table 9**). The unintentional injury death rate and the motor vehicle fatality rate both declined in rural Nebraska. The proportion of adults who reported “always” or “nearly always” using their seatbelts when driving or riding in a motor vehicle increased from the baseline.

In urban areas of Nebraska, one 2010 injury prevention objective (reducing the death rate due to motor vehicle crashes) was achieved in 2004. The proportion of adults who stated they “always” or “nearly always” wore seatbelts when driving or riding in a motor vehicle showed improvement. However, the mortality rate due to unintentional injuries among urban residents increased from the baseline.

**TABLE 9
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Injury and Violence Prevention**

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline		Current		Current		Baseline		Current		Current		Baseline		Current		NE 2010 Objective	US 2010 Objective		
	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate				
#15-13 Unintentional injury death rate per 100,000 population	1998-2002	50.6	2004	45.4	2002	33.0	2004	36.4	2002	41.0	2004	39.3	2002	41.0	2004	39.3	19.4	17.1		
	1998-2002	46.4	2004	45.7	1998-2002	30.5	2004	36.8	1998-2002	38.2	2004	39.9	1998-2002	38.2	2004	39.9	19.4	17.1		
	1998-2002	*	2000-2004	23.2	1998-2002	23.7	2000-2004	24.7	1998-2002	23.8	2000-2004	25.3	1998-2002	23.8	2000-2004	25.3	19.4	17.1		
	1998-2002	131.9	2000-2004	110.8	1998-2002	68.6	2000-2004	58.5	1998-2002	107.7	2000-2004	93.1	1998-2002	107.7	2000-2004	93.1	19.4	17.1		
	1998-2002	45.5	2000-2004	43.3	1998-2002	25.9	2000-2004	26.2	1998-2002	32.3	2000-2004	33.9	1998-2002	32.3	2000-2004	33.9	7.5	17.1		
#15-15a Death rate due to motor vehicle crashes per 100,000 population	1998-2002	27.1	2004	23.0	2002	11.6	2004	9.6	2002	18.8	2004	15.7	2002	18.8	2004	15.7	12.0	8.0		
	1998-2002	25.4	2004	23.0	1998-2002	11.4	2004	9.5	1998-2002	18.2	2004	15.0	1998-2002	18.2	2004	15.0	12.0	8.0		
	1998-2002	*	2000-2004	13.3	1998-2002	10.2	2000-2004	9.1	1998-2002	10.8	2000-2004	9.7	1998-2002	10.8	2000-2004	9.7	8.0	8.0		
	1998-2002	62.1	2000-2004	54.6	1998-2002	12.9	2000-2004	23.8	1998-2002	43.6	2000-2004	43.9	1998-2002	43.6	2000-2004	43.9	12.0	8.0		
	1998-2002	*	2000-2004	16.8	1998-2002	17.1	2000-2004	14.0	1998-2002	16.4	2000-2004	14.6	1998-2002	16.4	2000-2004	14.6	4.0	8.0		
#15-19 Percent of adults aged 18+ who "always" or "nearly always" used safety belts when riding in or driving a motor vehicle	2002	77	2006	80	2002	85	2006	90	2002	81	2006	85	2002	81	2006	85	92	92		
	2002	77	2006	80	2002	86	2006	89	2002	81	2006	85	2002	81	2006	85	92	92		
	2002	NA	2006	NA	2002	86	2006	90	2002	86	2006	86	2002	86	2006	86	92	92		
	2002	74	2006	81	2002	86	2006	94	2002	80	2006	88	2002	80	2006	88	92	92		

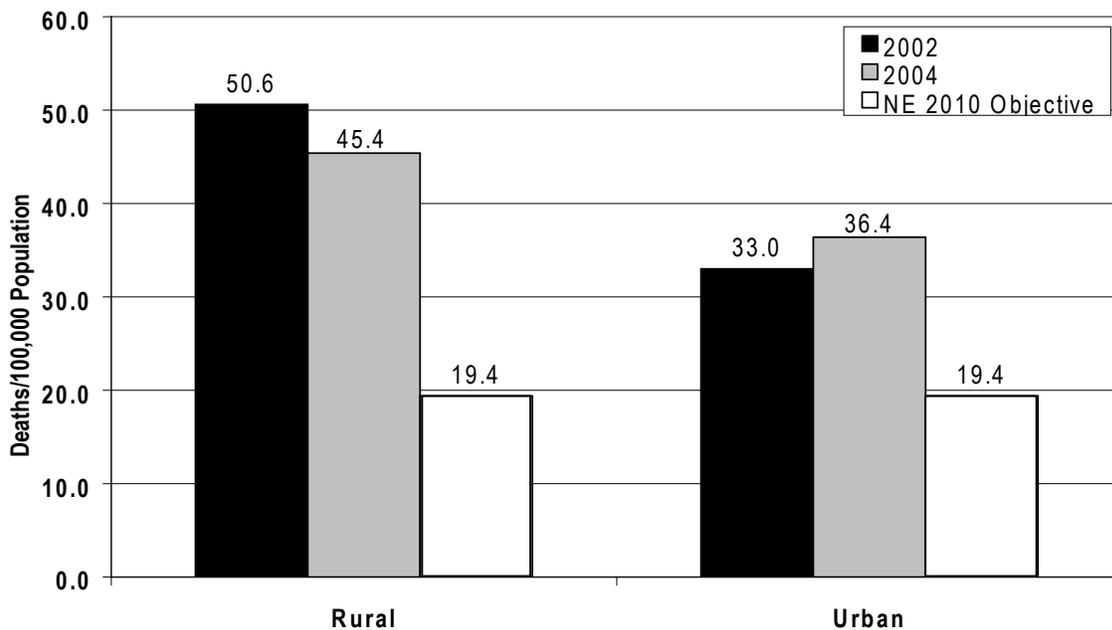
NOTE: Urban counties include: Cass, Dakota, Douglas, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
*Mortality rate based on fewer than 5 deaths.
NA = Not Available

Unintentional Injury Deaths

The Nebraska 2010 objective is to reduce the rate of unintentional injury deaths to no more than 19.4 per 100,000 overall and for all racial/ethnic groups except Asian Americans. The target for this population group was set much lower (at 7.5 deaths per 100,000), based on a lower baseline rate for these deaths.

In 2002, the unintentional injury death rate in rural Nebraska (50.6 deaths per 100,000 population) was 53 percent higher than the rate in urban areas of the state (33.0 per 100,000). In 2004, the rural injury death rate decreased to 45.4 while the urban rate increased to 36.4, thus narrowing the rural-urban gap somewhat (**Figure 22**).

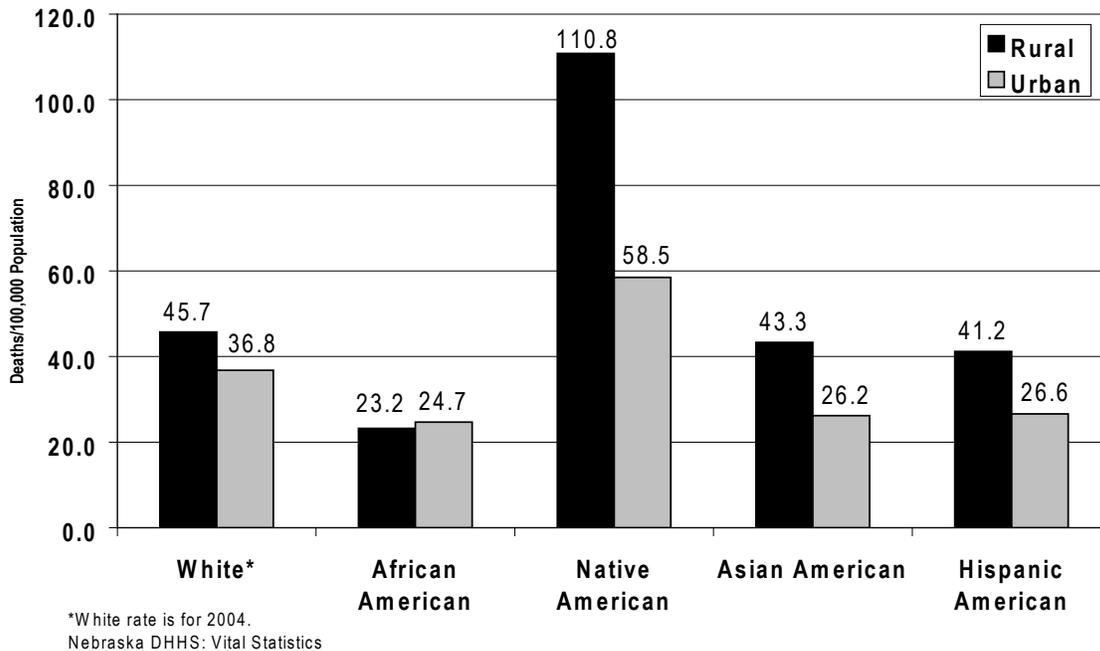
Figure 22
Age-Adjusted Unintentional Injury Death Rates
in Rural/Urban Areas (2002 vs. 2004)



Nebraska DHHS: Vital Statistics

Similar rural-urban disparities existed for each racial/ethnic group in the state in 2000-2004, except African Americans where unintentional injury death rates were similar by place of residence (**Figure 23**).

Figure 23
Age-Adjusted Unintentional Injury Death Rates
in Rural/Urban Areas by Race/Ethnicity (2000-2004)



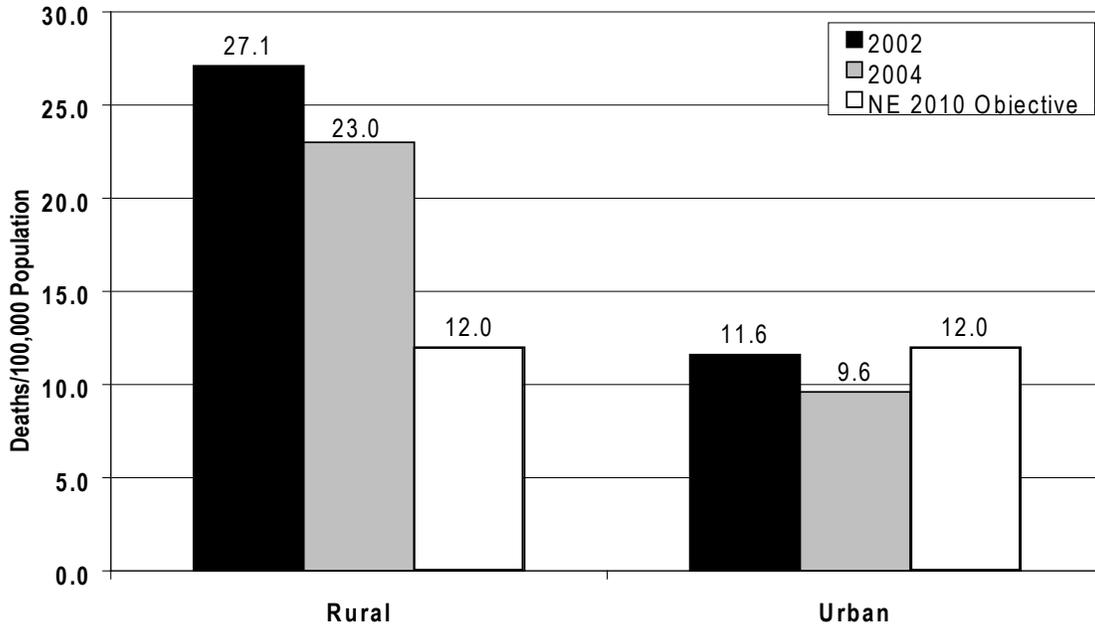
Unintentional injury mortality rates for Native Americans were particularly high, with 110.8 deaths per 100,000 in rural Nebraska and 58.5 deaths per 100,000 in urban areas of the state in 2000-2004.

Motor Vehicle Fatalities

Deaths due to motor-vehicle-related injuries are the leading cause of unintentional injuries nationwide and in Nebraska. Higher motor vehicle fatality rates are found in rural areas than in urban ones, nationwide and in Nebraska.

Although death rates due to motor vehicle crashes decreased in both rural and urban areas between 2002 and 2004, the rate in rural areas remained much higher than the urban rate (**Figure 24**). In Nebraska, the 2004 motor vehicle fatality rate was 23.0 deaths per 100,000 in rural areas—2.4 times the rate in urban areas (9.6). In fact, the urban rate achieves the overall Nebraska 2010 objective of no more than 12.0 motor vehicle deaths per 100,000.

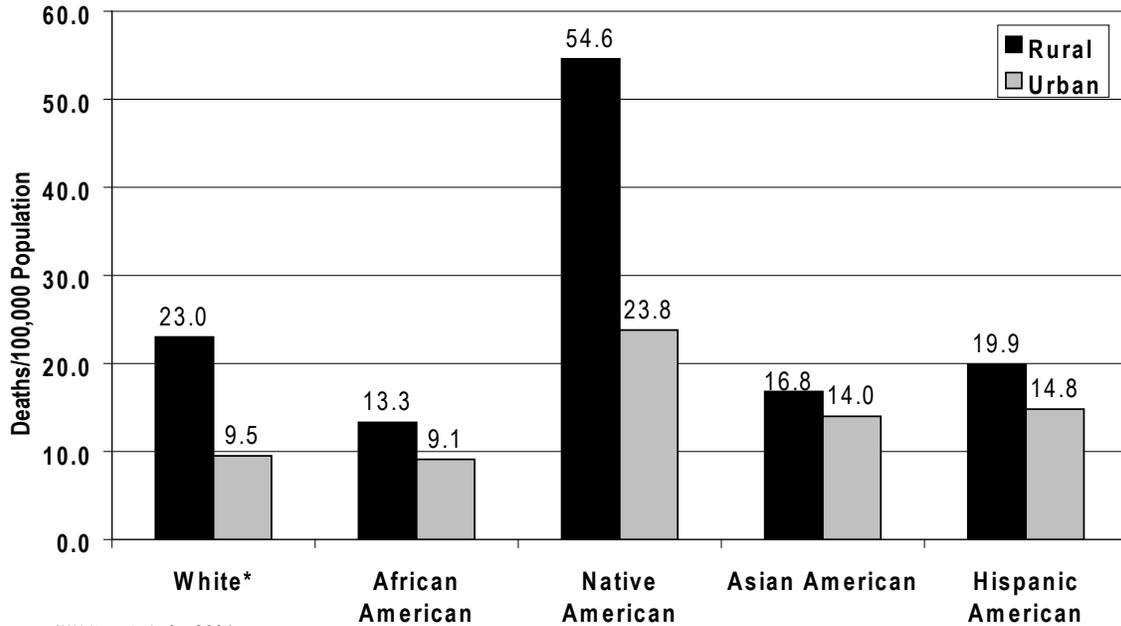
Figure 24
Age-Adjusted Motor Vehicle Crash Death Rates
in Rural/Urban Areas (2002 vs. 2004)



Nebraska DHHS: Vital Statistics

Similar disparities were found in rates for whites in rural (23.0) areas, compared to those residing in urban (9.5) locales (**Figure 25**). Among Native Americans, the fatality rate in rural counties was 54.6 in 2000-2004, compared to 23.8 in urban counties.

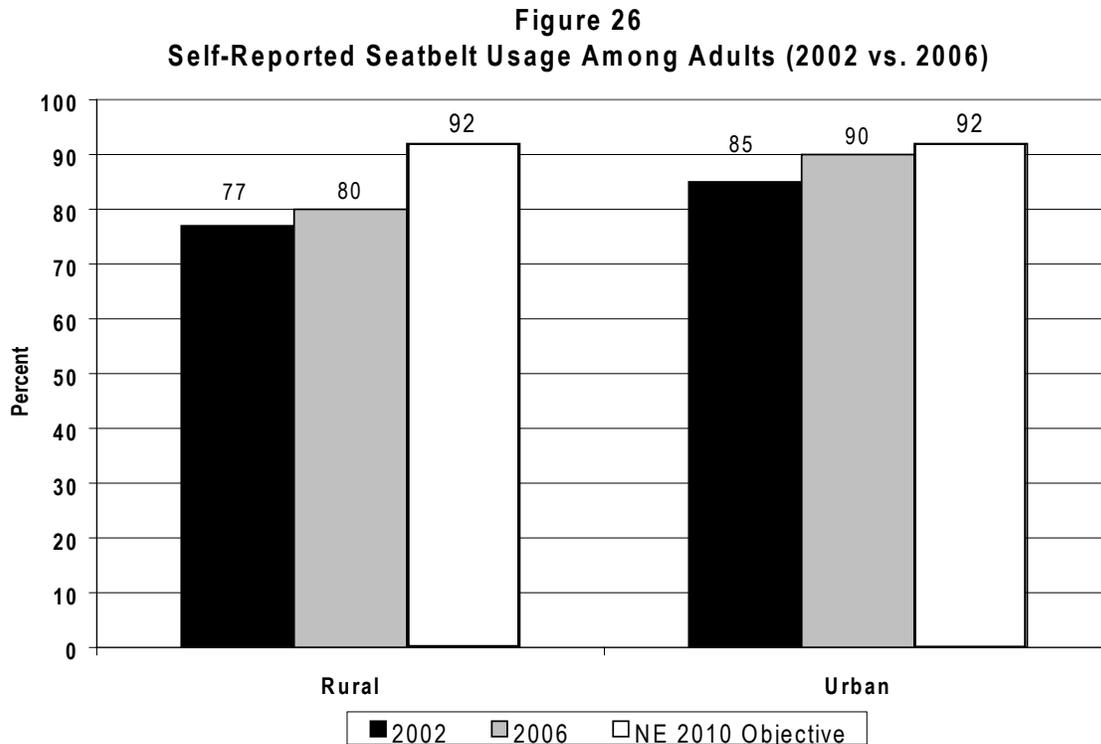
Figure 25
Age-Adjusted Motor Vehicle Crash Death Rates
in Rural/Urban Areas by Race/Ethnicity (2000-2004)



*White rate is for 2004.
 Nebraska DHHS: Vital Statistics

Seatbelt Usage

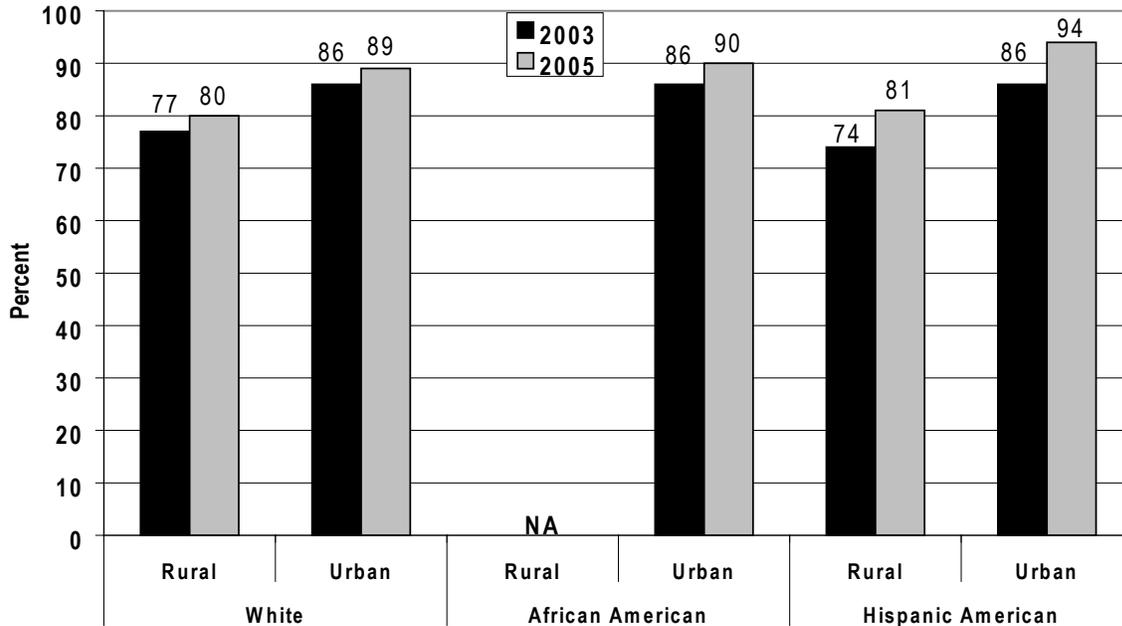
Failure to use safety belts (seatbelts) is an important factor contributing to unintentional injuries and deaths. In Nebraska, self-reported seatbelt usage rates improved among rural and urban residents between 2002 and 2006. Still, adult respondents to the 2006 BRFSS who lived in rural counties (80 percent) were less likely than residents of urban counties (90 percent) to state they “always” or “nearly always” use their seatbelts while riding in or driving a motor vehicle (**Figure 26**).



Nebraska DHHS: BRFSS

A similar pattern of seatbelt use is evident for whites and for Hispanic Nebraskans, with smaller proportions of these rural residents reporting “always” or “nearly always” wearing their seatbelts, compared to those living in urban areas (**Figure 27**).

Figure 27
Self-Reported Seatbelt Usage Among Adults
in Rural/Urban Areas by Race/Ethnicity (2003 vs. 2005)



Nebraska DHHS: BRFSS

The Nebraska 2010 objective for seatbelt usage matches the national objective that seeks to increase to at least 92 percent the proportion of adults who “always” or “nearly always” wear their safety belts.

MATERNAL, INFANT AND CHILD HEALTH

Health Impact

The health of mothers, infants, and children is of critical importance since they represent a substantial proportion of the population of the United States. Their health is also important as a predictor of the health of the next generation of Americans.

In the United States each year, approximately six million women become pregnant. While most women have a normal pregnancy and deliver a healthy infant, not all women experience a safe and healthy pregnancy. Racial and ethnic disparities persist in pregnancy-related deaths, preterm births, infant mortality, and prenatal care rates.

Healthy People 2010 Goal

The goal of the Maternal, Infant and Child Health (MCH) objectives is to improve the health and well-being of women, infants, children, and families through the nation.

Progress Toward Nebraska Rural 2010 Objectives

Progress was made toward MCH objectives in both rural and urban areas of Nebraska. In rural areas, improvement was made for two objectives—reducing the overall infant mortality rate and reducing the proportion of women who smoked cigarettes during pregnancy (**Table 10**). No change was noted in postneonatal death rates, while neonatal death rates increased slightly in rural counties.

In urban counties, three MCH objectives showed positive change. Infant mortality overall and neonatal mortality rates decreased somewhat from the baseline. The smoking rate among pregnant women also decreased. On the other hand, the postneonatal death rate increased slightly.

No assessment of progress in increasing first trimester prenatal care rates or the proportion of pregnant women who receive early and adequate care (as measured by the Kotelchuk index) was possible, due to changes in data reporting.

Infant Mortality Rates

In addition to the impact it has on individuals and families, infant mortality is an important measure of a population's health and indicator of social wellbeing. It reflects the overall state of maternal health and the quality and accessibility of primary health care that is available to pregnant women and infants.

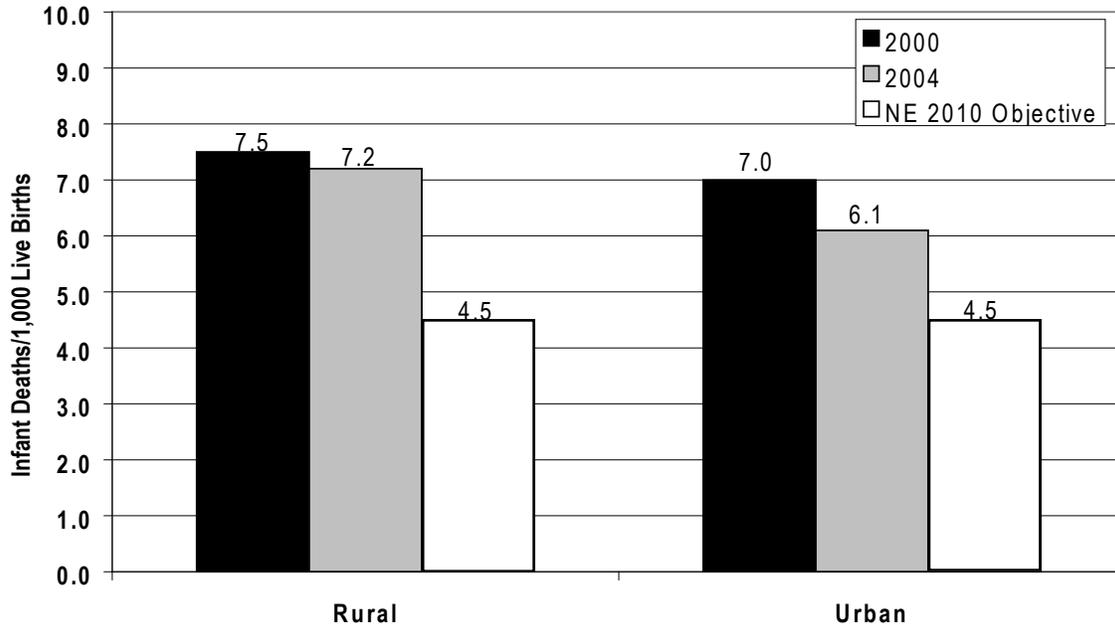
TABLE 10
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Maternal, Infant and Child Health

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective
	Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate			
#16-1c Infant mortality rate per 1,000 live births	2000	7.5		2004	7.2		2000	7.0		2004	6.1		2000	7.2		2004	6.6		4.5	4.5
	1998-2002			2004	6.9		1998-2002	6.1		2004	5.2		1998-2002	6.3		2004	5.9		4.5	4.5
	1998-2002	*		2000-2004	23.1		1998-2002	17.8		2000-2004	16.6		1998-2002	18.0		2000-2004	16.9		4.5	4.5
	1998-2002	10.2		2000-2004	12.1		1998-2002	19.6		2000-2004	18.7		1998-2002	13.6		2000-2004	14.4		4.5	4.5
	1998-2002	*		2000-2004	*		1998-2002	4.6		2000-2004	2.9		1998-2002	5.0		2000-2004	3.5		2.5	4.5
#16-1d Neonatal death rate (within first 28 days of life)	2000	7.0		2004	6.9		2000	7.4		2004	6.9		2000	7.2		2004	6.9		4.5	4.5
	1998-2002			2004	4.8		1998-2002	5.1		2004	3.8		1998-2002	4.7		2004	4.2		2.9	2.9
	1998-2002	4.2		2004	4.8		1998-2002	4.4		2004	3.2		1998-2002	4.3		2004	3.9		2.9	2.9
	1998-2002	*		2000-2004	*		1998-2002	12.0		2000-2004	11.1		1998-2002	12.0		2000-2004	11.3		2.9	2.9
	1998-2002	5.1		2000-2004	5.7		1998-2002	10.4		2000-2004	6.7		1998-2002	7.0		2000-2004	6.0		2.9	2.9
#16-1e Posineonatal death rate (between 28 days and one year)	2000	4.3		2004	4.6		2000	3.2		2004	2.1		2000	3.9		2004	2.1		1.2	1.2
	1998-2002			2004	4.6		1998-2002	5.8		2004	5.0		1998-2002	5.1		2004	4.8		2.9	2.9
	1998-2002	2.5		2004	2.5		1998-2002	2.1		2004	2.3		1998-2002	2.3		2004	2.4		1.2	1.2
	1998-2002	2.5		2004	2.1		1998-2002	1.6		2004	1.9		1998-2002	2.0		2004	2.0		1.2	1.2
	1998-2002	*		2000-2004	6.4		1998-2002	9.1		2000-2004	5.5		1998-2002	6.0		2000-2004	5.6		1.2	1.2
#16-6a Percent of pregnant women who begin prenatal care in the first trimester of pregnancy**	2000	82.7		2005	70.0		2002	83.4		2005	72.1		2002	83.1		2005	71.2		90	90
	2002	83.9		2005	73.4		2002	85.3		2005	74.9		2002	84.7		2005	74.2		90	90
	2002	63.8		2005	53.3		2002	69.7		2005	63.0		2002	69.5		2005	62.4		90	90
	2002	66.4		2005	24.7		2002	59.9		2005	48.4		2002	64.0		2005	33.4		90	90
	2002	68.8		2005	63.2		2002	87.3		2005	71.6		2002	84.8		2005	70.1		90	90
#16-6b Percent of pregnant women who receive early and adequate prenatal care (as measured by the Kotelchuk Index)**	2000	67.6		2005	59.5		2002	70.0		2005	52.4		2002	68.9		2005	55.4		90	90
	2002	74.3		2005	68.7		2002	73.7		2005	69.7		2002	73.9		2005	69.3		90	90
	2002	75.4		2005	70.7		2002	75.7		2005	71.8		2002	75.6		2005	71.3		90	90
	2002	66.0		2005	53.3		2002	59.8		2005	64.1		2002	60.0		2005	63.4		90	90
	2002	50.8		2005	49.3		2002	49.0		2005	51.1		2002	50.1		2005	50.2		90	90
#16-7c Percent of women who smoked cigarettes during pregnancy***	2000	61.8		2005	60.1		2002	73.2		2005	66.2		2002	72.9		2005	63.7		90	90
	2002	16.4		2005	14.4		2002	12.6		2005	10.4		2002	14.1		2005	12.0		2	1
	2002	Not Comparable		2005	16.2		2002	Not Comparable		2005	11.2		2002	Not Comparable		2005	13.3		2	1
	2002	6.7		2005	6.7		2002	6.7		2005	13.0		2002	6.7		2005	12.6		2	1
	2002	20.2		2005	20.2		2002	20.2		2005	23.6		2002	20.2		2005	21.5		2	1
#16-7c Mortality rate based on fewer than 5 deaths.	2000	6.1		2005	6.1		2002	6.1		2005	2.0		2002	6.1		2005	2.7		2	1
	2002	4.4		2005	4.4		2002	4.4		2005	3.5		2002	4.4		2005	3.8		2	1
	2002	4.4		2005	4.4		2002	4.4		2005	3.5		2002	4.4		2005	3.8		2	1
	2002	4.4		2005	4.4		2002	4.4		2005	3.5		2002	4.4		2005	3.8		2	1
	2002	4.4		2005	4.4		2002	4.4		2005	3.5		2002	4.4		2005	3.8		2	1

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
**Mortality rate based on fewer than 5 deaths.
*** Prenatal care and Kotelchuk Index rates in 2005 were based on patient records for trimester when prenatal care began instead of mother's recall, generally resulting in lower first trimester care rates.
*** In 2005, prevalence of smoking during pregnancy is specific to the third trimester.

The infant mortality rate in rural Nebraska decreased from 7.5 infant deaths per 1,000 live births in 2000 to 4.7 in 2003, but moved back up to 7.2 in 2004. Thus, the overall change was a slight improvement from the baseline (**Figure 28**). In urban areas, a greater decrease occurred in the infant mortality rate, with the rate dropping from 7.0 per 1,000 in 2000 to 6.1 in 2004. Both rural and urban rates are considerably higher than the Nebraska 2010 target rate of no more than 4.5 infant deaths per 1,000 live births.

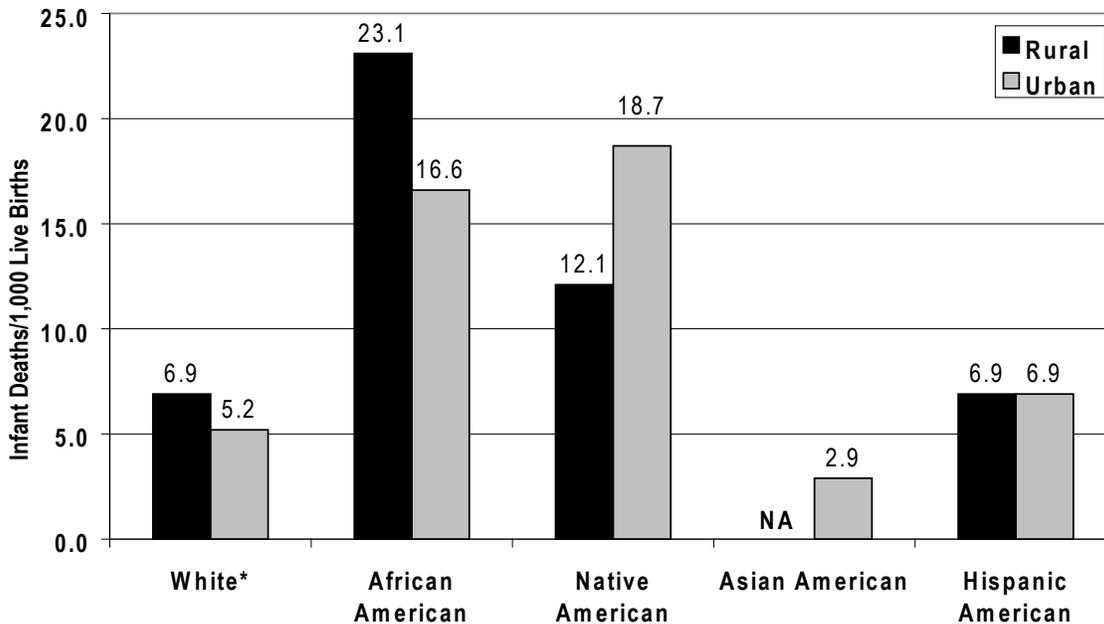
Figure 28
Infant Mortality Rates in Rural/Urban Areas of Nebraska
(2000 vs. 2004)



Nebraska DHHS: Vital Statistics

In Nebraska, infant mortality rates were highest among African Americans and Native Americans in 2000-2004 (**Figure 29**). For African Americans, the current rate (16.9 deaths per 1,000 live births) declined somewhat from the 1998-2002 rate (18.0) but was still 2.9 times as high as the current rate for white infants (5.9).

Figure 29
Infant Mortality Rates for Rural/Urban Areas of Nebraska
by Race/Ethnicity (2000-2004)



*White rate is for 2004.
 Nebraska DHHS: Vital Statistics

For Native Americans, the 2000-2004 rate (14.4) was up slightly from the baseline and was 2.4 times the rate for white babies. The urban infant mortality rate was higher (18.7) than the rural rate (12.1) for this population group in 2000-2004.

Infant mortality rates were down slightly for both rural and urban Hispanic Americans, with 6.9 infant deaths per 1,000 reported for both places of residence in 2000-2004. Although too few infant deaths occurred in rural Nebraska to be reported, Asian Americans overall experienced a large enough decrease in infant death rates to meet the Nebraska 2010 target rate of 4.5. (This target rate has been revised downward to 2.5).

Neonatal deaths occur within the first 28 days of life. The 2010 objective for Nebraska is to reduce the neonatal death rate to no more than 2.9 deaths per 1,000 live births. The urban neonatal mortality rate declined from 5.1 at the baseline to 3.8 in 2004. In rural areas, the rate increased somewhat from 4.2 to 4.8 in 2004.

Postneonatal deaths are those occurring among infants between the ages of 28 days and one year. The U.S. and the Nebraska objectives are the same—to reduce this rate to no more than 1.2 postneonatal deaths per 1,000 live births by 2010. The Nebraska rate remained nearly steady, edging upward from 2.3 in 1998-2002 to 2.4 in 2004. No change was seen in the rural rate, while the current urban rate moved up only slightly.

Prenatal Care

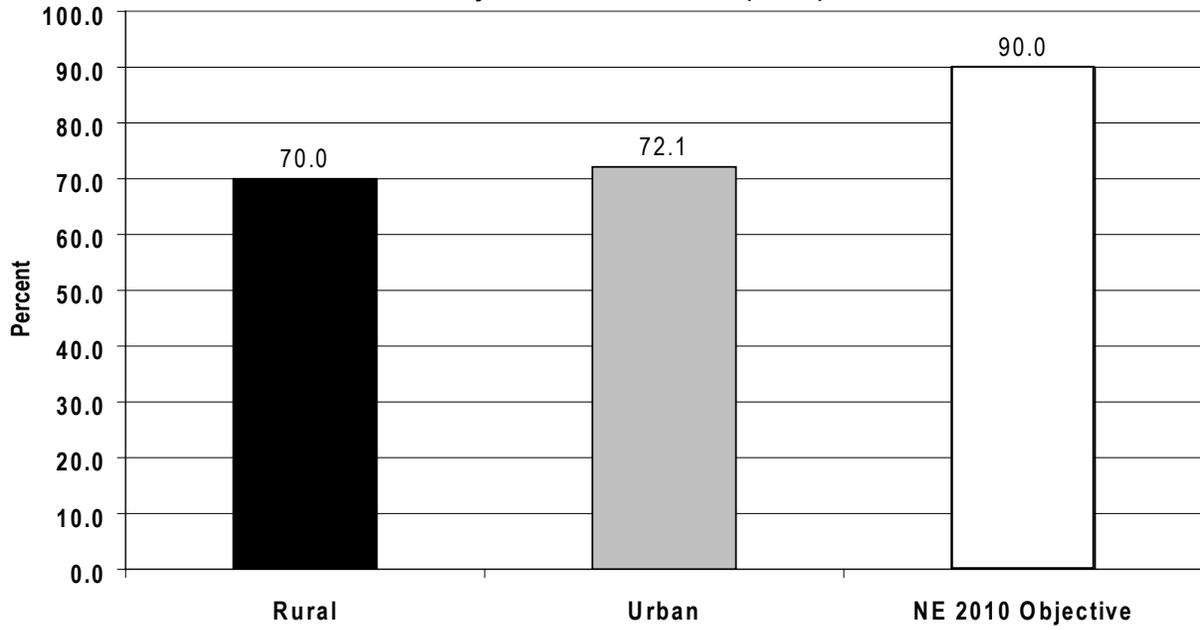
Early and continuing prenatal care is essential to the health and well-being of both infant and mother. In general, women who receive early and comprehensive prenatal care are less likely to have pre-term or low birth weight infants. In this Progress Report, prenatal care rates for 2005 are not comparable to data for previous years due to changes in the way these data are recorded on the birth certificate and due to surrounding states being unable to provide these for Nebraska residents giving birth there.

National and Nebraska 2010 objectives are to increase to at least 90 percent the proportion of women beginning prenatal care in the first trimester of pregnancy and to increase to at least 90 percent the proportion of women receiving early and adequate prenatal care (based on the Kotelchuk Index).

In 2005, 71.2 percent of Nebraska women received first trimester prenatal care. White (74.2 percent) and Asian American (70.1 percent) were the racial/ethnic groups with largest proportions of women getting this care. Rates for African American (62.4 percent) and Hispanic American (55.4 percent) were lower, with Native Americans (33.4 percent) least likely to receive first trimester care.

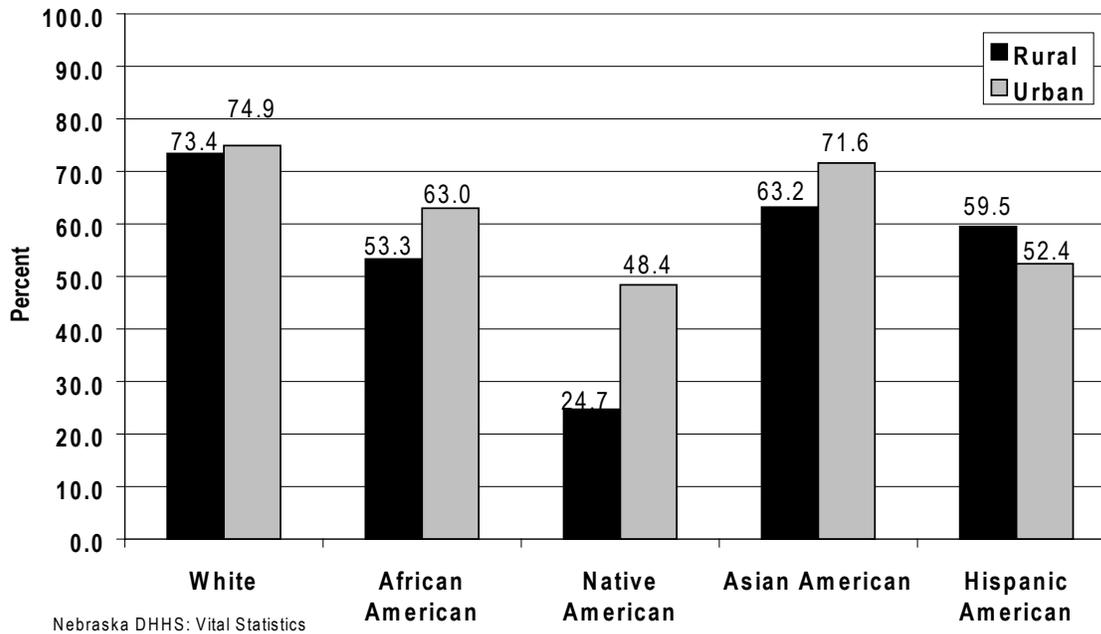
In 2005, the proportion of pregnant women beginning prenatal care in the first trimester was slightly higher in urban areas of the state (72.1 percent) than in rural counties (70.0 percent) (**Figure 30**). This pattern was seen for each racial and ethnic group in Nebraska, except Hispanic Americans where rural women were more likely to receive first trimester prenatal care. For African Americans, Native Americans, and Asian Americans, first trimester care rates were substantially higher in urban areas than in rural ones (**Figure 31**).

Figure 30
Proportion of Pregnant Women Receiving First Trimester Prenatal
Care by Rural/Urban Area (2005)



Nebraska DHHS: Vital Statistics

Figure 31
Proportion of Pregnant Women Receiving First Trimester Prenatal
Care in Rural/Urban Areas by Race/Ethnicity (2005)



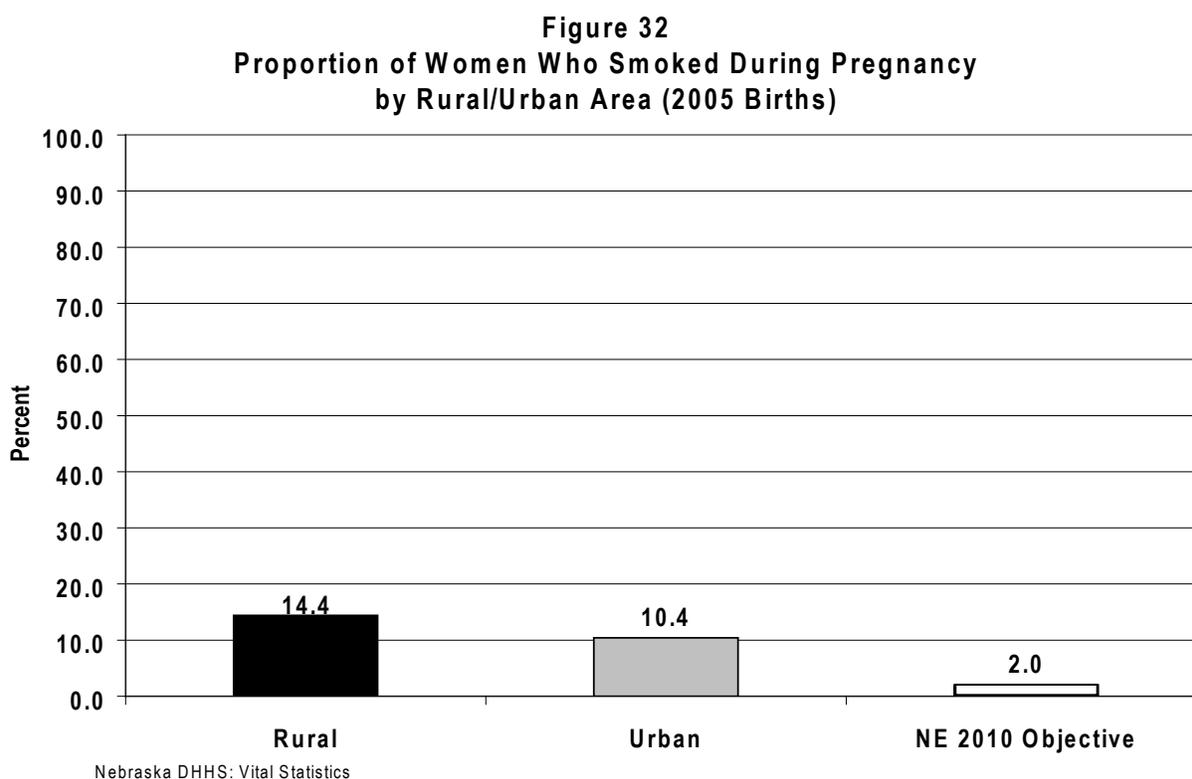
The proportion of women receiving “early and adequate” prenatal care (as measured by the Kotelchuk Index) was also slightly higher in urban Nebraska (69.7 percent) than in rural areas (68.7 percent). White women (71.3 percent) were the group most likely to receive early and adequate prenatal care, while Native American women (50.2 percent) were least likely to have this care during pregnancy. In each racial/ethnic group, the proportion of women getting this level of care was greater for urban women than for their rural counterparts.

Smoking During Pregnancy

The number of women smoking during pregnancy has decreased nationwide and in Nebraska in recent years. The Nebraska 2010 objective is to reduce the proportion of pregnant women who smoke during pregnancy to no more than two percent.

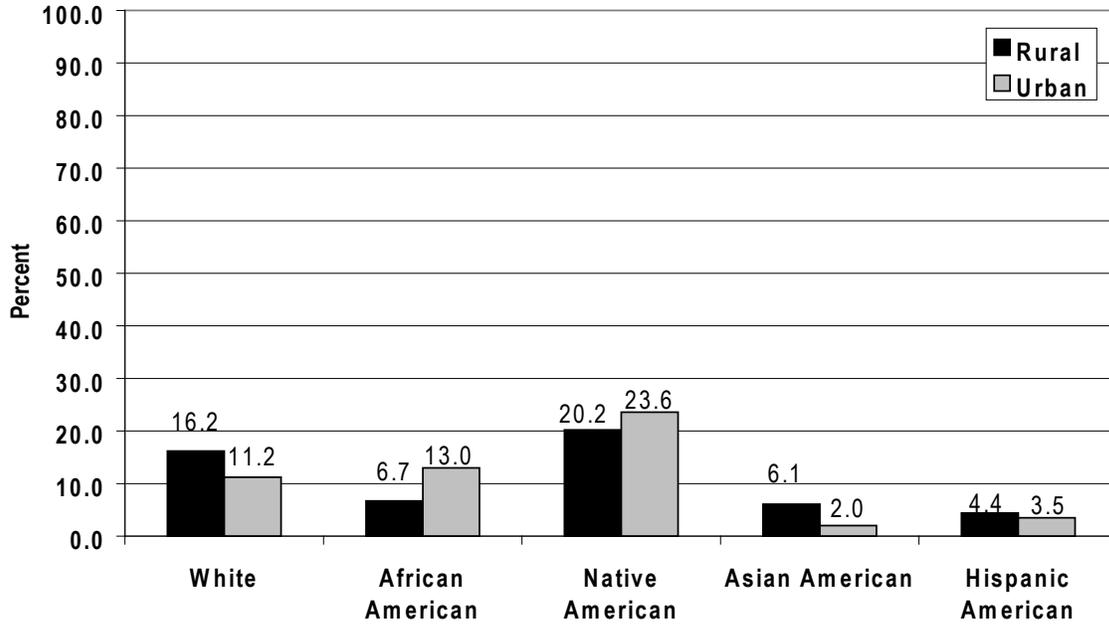
The 2005 smoking rate represents the proportion of pregnant women who smoked during the third trimester of pregnancy. This rate is not strictly comparable to rates in previous years, which were smoking rates during pregnancy in general. However, rates appear to be continuing the downward trend reported in recent years.

In 2005, 12.0 percent of new mothers in Nebraska smoked during the third trimester of their pregnancy, compared to 14.1 percent in 2002. Mothers in rural areas (14.4 percent) were more likely than those living in urban areas (10.4 percent) of the state to report smoking in the last three months of their pregnancy in 2005 (**Figure 32**).



In 2005, Native American mothers (21.5 percent) were much more likely than mothers of other racial/ethnic groups to state that they smoked during pregnancy (**Figure 33**). Hispanic (3.8 percent) and Asian (2.7 percent) American mothers were least likely to report this behavior. Among white, Asian American, and Hispanic American mothers, those living in rural areas were somewhat more likely than urban mothers to say they smoked in the third trimester of pregnancy.

Figure 33
Proportion of Women Who Smoked During Pregnancy in Rural/Urban
Areas by Race/Ethnicity (2005 Births)



Nebraska DHHS: Vital Statistics

MENTAL HEALTH AND MENTAL DISORDERS

Health Impact

Mental disorders are widespread in both rural and urban areas and affect about 20 percent of the population in a given year. About one-half of the population experiences a mental disorder over a lifetime. Mental illness also contributes to or is a consequence of disabilities or other serious health-related conditions. Of \$1 trillion spent on health care in the United States in 1997, \$71 billion was expended for direct costs of treating mental illness.

Major depression, particularly in combination with substance abuse, is a major risk factor for suicide. There is also evidence that depression, anxiety, and other psychosocial factors contribute to the development and progression of certain chronic diseases, such as heart disease and cancer.

Healthy People 2010 Goal

The national Healthy People 2010 goal is to improve mental health and ensure access to appropriate, high-quality mental health services.

Progress Toward Nebraska Rural 2010 Objectives

In Nebraska, suicide rates decreased in both rural and urban areas (**Table 11**). On the other hand, the proportion of adolescents who made a suicide attempt requiring medical attention in the past 12 months increased in rural areas. No baseline data were available for this objective for urban adolescents, so current progress cannot be measured.

Suicides

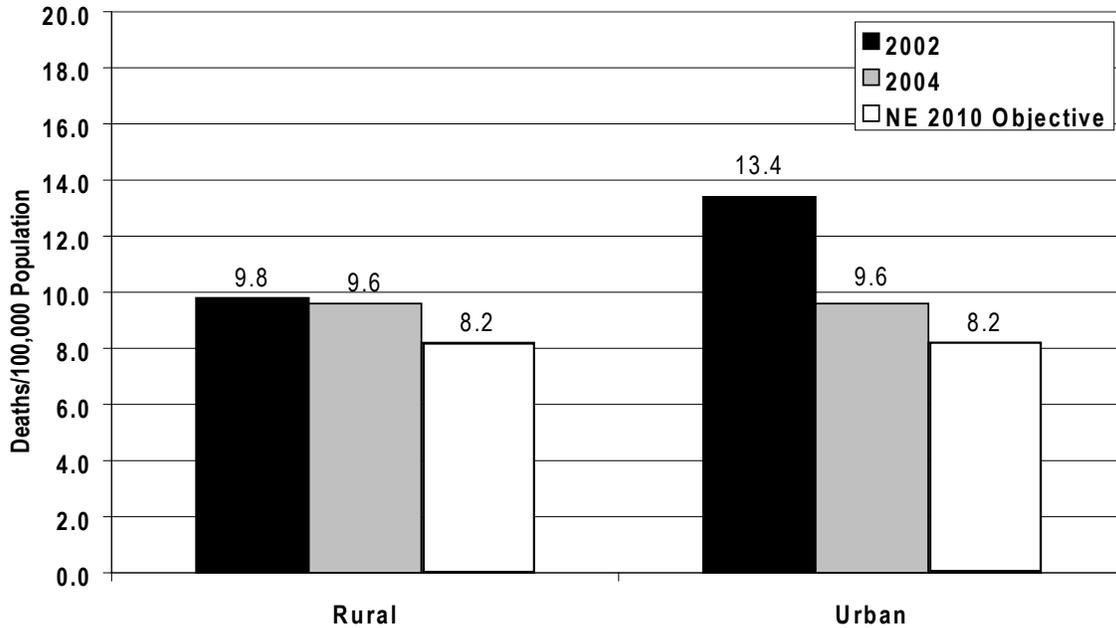
The Nebraska Healthy People objective is to reduce the suicide rate to no more than 8.2 suicides per 100,000 population by 2010.

In Nebraska, the suicide rate decreased from 11.7 per 100,000 people in 2002 to 9.5 per 100,000 in 2004. The suicide rate was lower in rural areas (9.8 deaths per 100,000) than in urban areas (13.4) in 2002. However, in 2004, this rate decreased more in urban than in rural areas, resulting in a rate of 9.6 for each (**Figure 34**).

TABLE 11
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Mental Health and Mental Disorders

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective
	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate		
#18-1 Suicide rate per 100,000 population	2002	9.8	2004	9.6	2002	13.4	2004	9.6	2002	11.7	2004	9.5	2002	11.7	2004	9.5	2004	8.2	4.8	
	1998-2002	11.9	2004	9.2	1998-2002	12.0	2004	10.2	1998-2002	11.9	2004	9.6	1998-2002	11.9	2004	9.6	2004	8.2	4.8	
	1998-2002	*	2000-2004	*	1998-2002	7.5	2000-2004	4.2	1998-2002	7.7	2000-2004	4.6	1998-2002	7.7	2000-2004	4.6	2000-2004	3.2	4.8	
	1998-2002	12.5	2000-2004	*	1998-2002	*	2000-2004	*	1998-2002	8.6	2000-2004	9.2	1998-2002	8.6	2000-2004	9.2	2000-2004	8.2	4.8	
	1998-2002	--	2000-2004	*	1998-2002	4.9	2000-2004	3.3	1998-2002	4.1	2000-2004	7.7	1998-2002	4.1	2000-2004	7.7	2000-2004	2.1	5.0	
#18-2 % of adolescents in grades 9-12 who made suicide attempt requiring medical attention in past 12 months Data by race/ethnicity unavailable	2001	1.4	2005	2.7	2001	NA	2005	3.8	2001	1.5	2005	3.2	2001	1.5	2005	3.2	2005	1.0	1.0	
	2001	1.4	2005	2.7	2001	NA	2005	3.8	2001	1.5	2005	3.2	2001	1.5	2005	3.2	2005	1.0	1.0	
NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sargey, and Washington. All other counties are considered rural.																				
*Mortality rate based on fewer than 5 deaths.																				

Figure 34
Age-Adjusted Suicide Rates by Rural/Urban Area
(2002 vs. 2004)



Nebraska DHHS: Vital Statistics

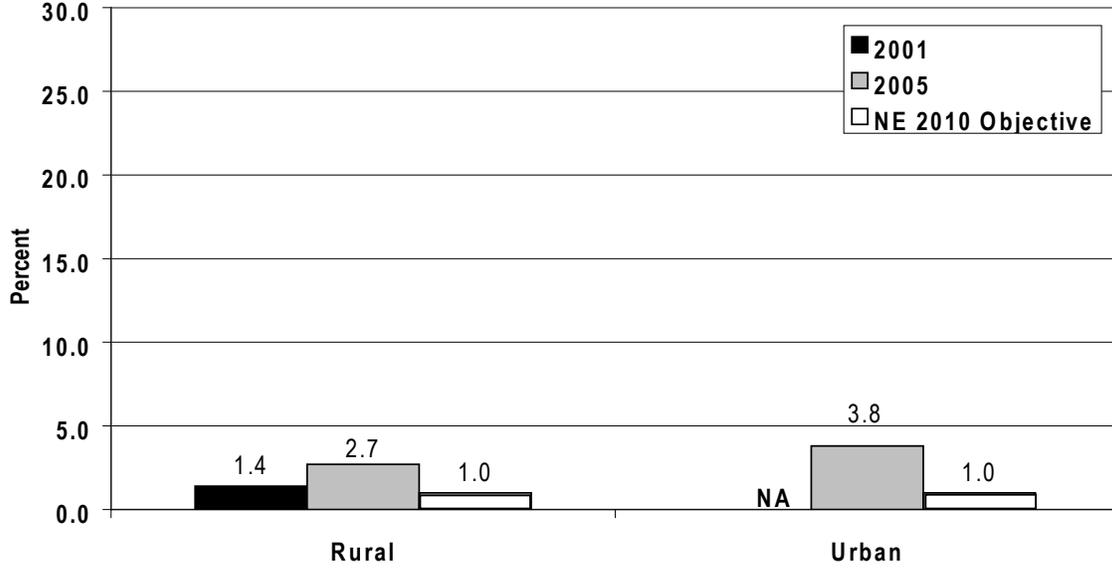
Compared to persons of other racial/ethnic groups, white Nebraskans experienced higher suicide rates in both rural (9.2) and urban (10.2) areas of the state, although these rates are down from the baseline period.

Suicide Attempts by Adolescents

According to the 2005 Nebraska Youth Risk Behavior Survey, 3.2 percent of high school students in grades 9 through 12 made a suicide attempt requiring medical attention in the 12 months prior to the survey. This rate is more than double the proportion reported in the 2001 YRBS, when 1.5 percent made such an attempt.

Urban high school students (3.8 percent) were more likely than those living in rural areas (2.7 percent) to say they had made this kind of suicide attempt (**Figure 35**). The proportion of rural teens who reported this behavior was up from 2001, when the rate was 1.4 percent. (Trend data are unavailable for urban students.)

Figure 35
Proportion of Adolescents (Grades 9-12) Making Suicide Attempt
Requiring Medical Attention in Past Year
(2001 vs. 2005)



Nebraska DHHS: Youth Risk Behavior Survey

NUTRITION AND OVERWEIGHT / PHYSICAL ACTIVITY AND FITNESS

Health Impact

The prevalence of overweight and obesity among adults, adolescents, and children has risen considerably over the past two decades in the United States and in Nebraska. Being overweight or obese often results in a variety of health problems and has been linked to increased risk of death.

Being overweight or obese substantially raises the risk of illness from: heart disease and stroke; high blood pressure; elevated blood cholesterol levels; type 2 diabetes; endometrial, breast, prostate, and colon cancers; gallbladder disease; arthritis; sleep disturbances; and breathing problems. Obese persons (both adults and children) may also suffer from stigmatization, discrimination, and lowered self-esteem.

Regular physical activity is important at all stages of life for maintaining health, enhancing quality of life, and preventing premature death. For good health, it is recommended that people engage in at least 30 minutes of moderate-intensity physical activity (such as brisk walking) on five or more days per week OR engage in vigorous physical activity for at least 20 minutes on three or more days per week.

For those who do not currently participate in any leisure-time physical activity, beginning to exercise at any level of intensity or for even small periods of time is preferable to continuing to get no exercise at all. For anyone just starting to exercise, experts agree that it is best to begin with “small steps”—starting out slowly and gradually increasing the frequency and duration of physical activity—as the key to successful behavior change.

Healthy People 2010 Goals

The goal of the Nutrition and Overweight objectives is to promote health and reduce chronic disease associated with diet and weight.

The goal of the Physical Activity and Fitness objectives is to improve health, fitness, and quality of life for all Americans through daily physical activity.

Progress Toward Nebraska Rural 2010 Objectives

Prevalence of obesity increased among adult Nebraskans, moving away from the targeted rate in both urban and rural areas of the state (**Table 12**).

The proportion of adults who did not engage in any leisure-time physical activity in the past month remained the same in rural Nebraska. A modest decrease in prevalence of physical inactivity was achieved in urban areas of the state.

TABLE 12
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Nutrition/Overweight and Physical Activity

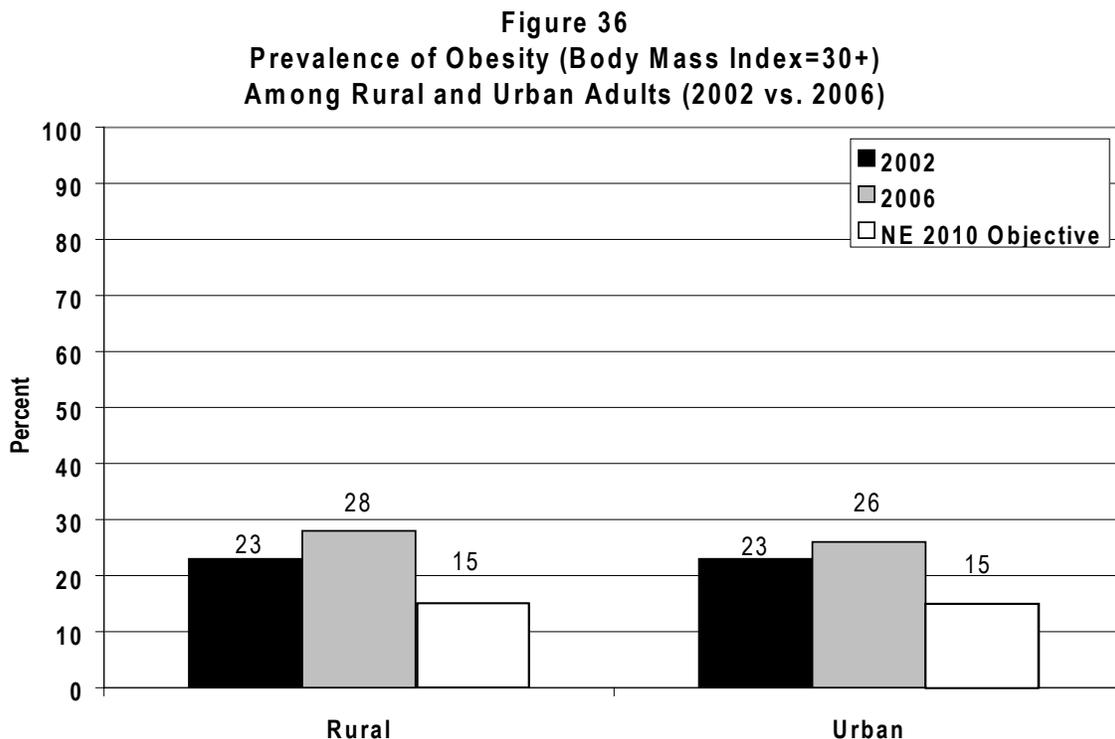
Objective	RURAL						URBAN						TOTAL						OBJECTIVES			
	Baseline		Current		Current		Baseline		Current		Current		Baseline		Current		Current		NE 2010 Objective	US 2010 Objective		
	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate	Data Year	Rate				
NUTRITION AND OVERWEIGHT																						
#19-2	Percent of adults aged 18+ who reported height and weight that placed them in the "obese" category according to the Body Mass Index																					
	2002	23	2006	28	2002	23	2006	26	2002	23	2006	26	2002	23	2006	27	2002	23	2006	27	15.0	15.0
	2002	23	2006	28	2002	23	2006	25	2002	23	2006	25	2002	23	2006	27	2002	23	2006	27	15.0	15.0
	2002	NA	2006	NA	2002	NA	2006	46	2002	34	2006	46	2002	34	2006	42	2002	34	2006	42	15.0	15.0
	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	35	2002	NA	2006	35	15.0	15.0
	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	10.0	15.0
	2002	26	2006	29	2002	26	2006	24	2002	28	2006	24	2002	27	2006	27	2002	27	2006	27	15.0	15.0
PHYSICAL ACTIVITY AND FITNESS																						
#22-1	Percent of adults aged 18+ who engaged in no leisure-time physical activity in the past month																					
	2002	23	2006	23	2002	21	2006	19	2002	22	2006	21	2002	22	2006	21	2002	22	2006	21	15	20
	2002	22	2006	23	2002	18	2006	17	2002	20	2006	20	2002	20	2006	20	2002	20	2006	20	15	20
	2002	NA	2006	NA	2002	41	2006	38	2002	40	2006	33	2002	40	2006	33	2002	40	2006	33	15	20
	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	31	2002	NA	2006	31	15	20
	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	2002	NA	2006	NA	15	20
	2002	34	2006	34	2002	43	2006	33	2002	38	2006	34	2002	38	2006	34	2002	38	2006	34	15	20

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
NA = Not Available

Prevalence of Obesity

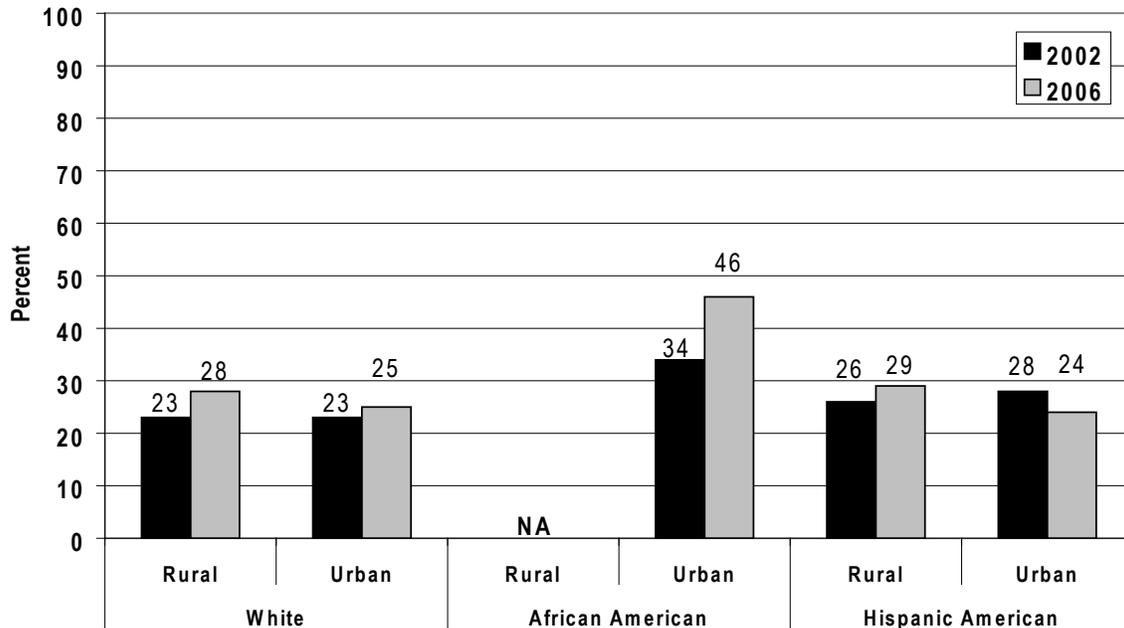
“Obesity” is defined in this report as a Body Mass Index (BMI) reading of 30 or more, while “overweight” is defined as a BMI of 25 to 29.

The Nebraska Healthy People 2010 objective is to reduce the proportion of adults who are obese to no more than 15 percent. In Nebraska, prevalence of obesity varied little between urban and rural areas of the state in 2002 (23 percent each) (**Figure 36**). According to the 2006 BRFSS, obesity rates for adults rose substantially, with 28 percent of respondents in rural areas and 26 percent of those in urban areas reporting heights and weights that categorized them as obese.



Prevalence of obesity varied by racial and ethnic group in Nebraska (**Figure 37**). In 2006, African Americans reported the greatest proportion of adults who were obese (42 percent), followed by Native Americans with 35 percent. Prevalence among white and Hispanic Nebraskans was 27 percent each. Among white and Hispanic residents, those living in rural areas were more likely to be obese than those in urban areas.

Figure 37
Prevalence of Obesity (BMI+30+) Among Adults
in Rural/Urban Areas by Race/Ethnicity (2002 vs. 2006)



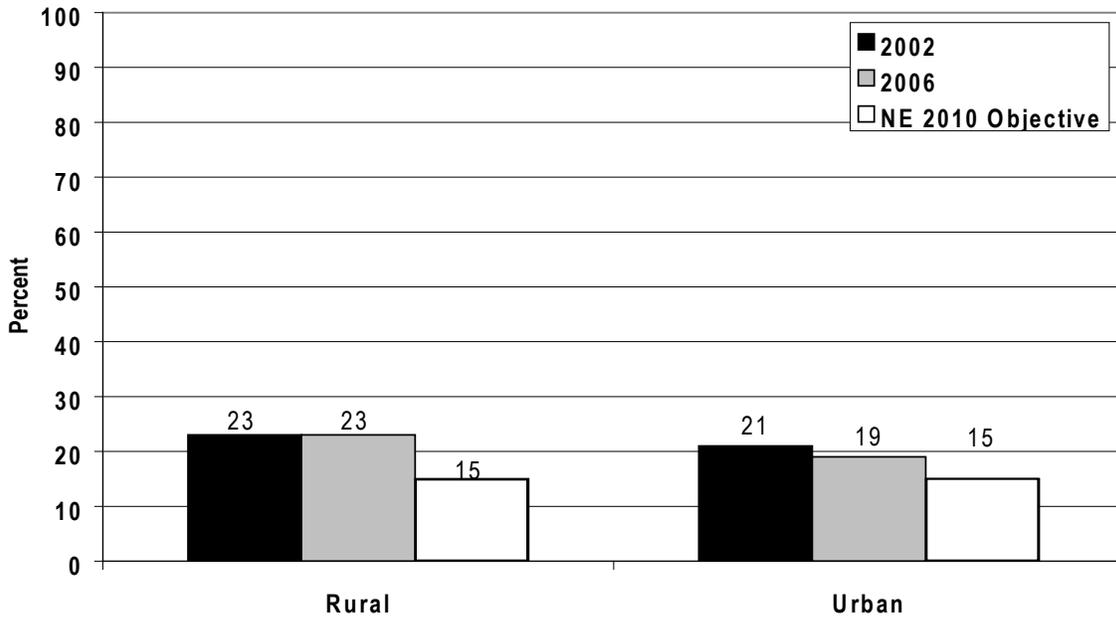
Nebraska DHHS: BRFSS

Physical Inactivity

One of Nebraska's 2010 objectives is to reduce the proportion of adults who do not engage in any leisure-time physical activity to no more than 15 percent.

According to the 2002 Nebraska BRFSS, 23 percent of rural adults participated in no physical activity outside of work in the month preceding the survey (**Figure 38**). Among urban adults, the proportion was slightly smaller (21 percent). Little improvement was noted in 2006, with rural adults (23 percent) still more likely than urban adults (19 percent) to be physically inactive in their leisure hours.

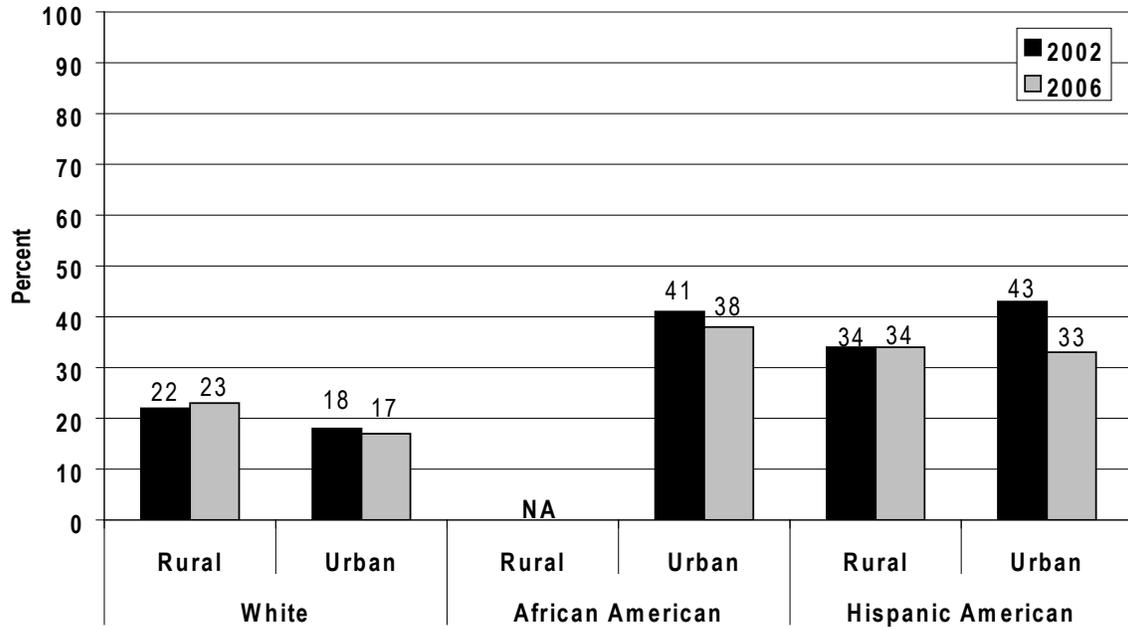
Figure 38
Prevalence of Physical Inactivity Among Adults
in Rural and Urban Areas (2002 vs. 2006)



Nebraska DHHS: BRFSS

Although data for some racial/ethnic groups were insufficient for analysis, overall prevalence of physical inactivity was greater among Hispanic Americans (34 percent), African Americans (33 percent), and Native Americans (31 percent) in Nebraska than it was for white residents (20 percent) in 2006 (**Figure 39**). However, progress was made in reducing rates for African Americans and Hispanic Americans from their 2002 baselines of 40 percent and 38 percent, respectively.

Figure 39
Prevalence of Physical Inactivity Among Adults
in Rural and Urban Areas by Race/Ethnicity (2002 vs. 2006)



Nebraska DHHS: BRFSS

ORAL HEALTH

Health Impact

Millions of people nationwide experience tooth decay or periodontal diseases and many more have lost all their teeth. Early tooth loss caused by dental decay in children can result in failure to thrive, impaired speech development, absence from and inability to concentrate in school, and reduced self-esteem. Children may also develop permanent disabilities that affect their ability to learn and grow.

Untreated tooth decay in older persons can lead to pain, abscesses, and eventual loss of teeth. Periodontal disease (an inflammation of the gums) is a leading cause of bleeding, pain, infection, tooth mobility, and tooth loss. Even when missing teeth are replaced with dentures, there may be limitations in speech, ability to chew, and overall quality of life. In addition, recent research suggests that bacteria associated with periodontal disease may also be linked with increased risk of heart disease and stroke, premature birth in some women, and respiratory infections in certain individuals.

Dental disease is one of the most preventable of health problems. Proper dental hygiene and good eating habits, combined with regular professional dental care, decrease the risk of developing cavities and periodontal disease.

Healthy People 2010 Goal

The goal of the national Healthy People 2010 oral health focus area is to prevent and control oral and craniofacial disease, conditions, and injuries, and improve access to related services.

Progress Toward Nebraska Rural 2010 Objectives

In rural areas of Nebraska, progress was made in reducing the proportion of adults aged 65 to 74 years who have had all their permanent teeth extracted (**Table 13**). On the other hand, the proportion of adults aged 35 to 44 who had never lost a tooth due to decay or periodontal disease decreased. Fewer children aged 6 to 16 years who were Medicaid recipients had dental sealants applied to their molar teeth to prevent cavities. In rural counties, there was no change in the proportion of residents receiving optimally-fluoridated drinking water.

In urban areas of the state, the proportion of residents with optimal levels of fluoride in their drinking water met and exceeded the Healthy People objective. However, compared to the baseline, more urban residents aged 65 to 74 reported having all their permanent teeth extracted. In addition, a smaller proportion of urban adults aged 35 to 44 stated they never had a tooth pulled because of periodontal disease or tooth decay. Among children participating in the Medicaid program in urban counties, the proportion that had dental sealants put on their molar teeth remained steady.

TABLE 13
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Oral Health

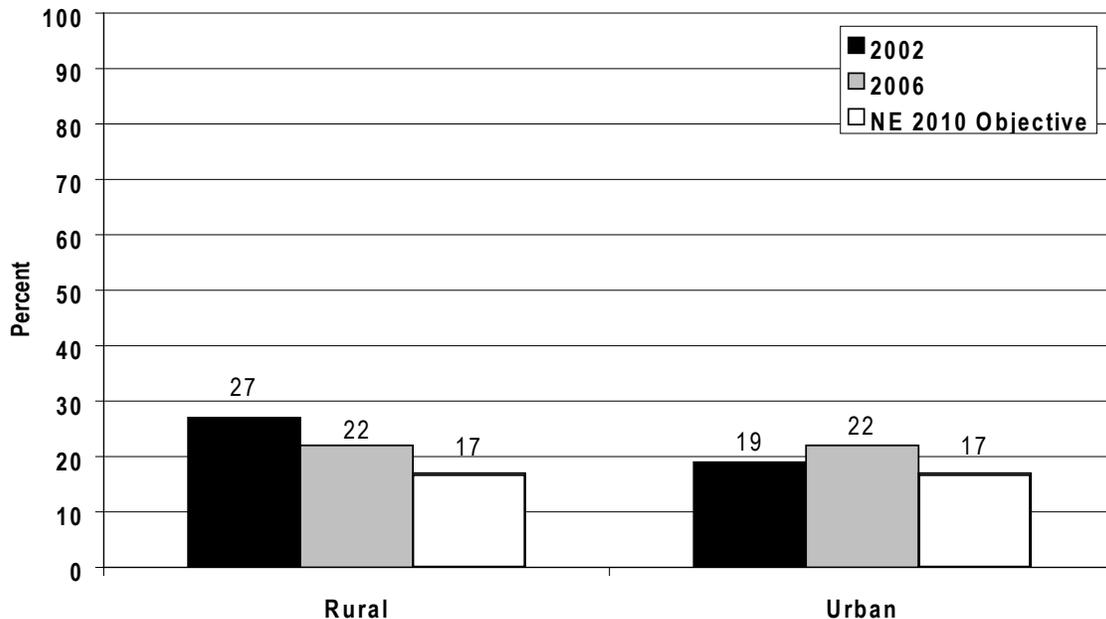
Objective	RURAL				URBAN				TOTAL				OBJECTIVES	
	Baseline		Current		Baseline		Current		Baseline		Current		NE 2010 Objective	US 2010 Objective
	Data Year	Rate												
#21-3 Percent of adults aged 35-44 years who have never had a permanent tooth extracted because of dental caries or periodontal disease Data unavailable by race/ethnicity	2002	62	2006	58	2002	71	2006	65	2002	67	2006	61	75	40
#21-4 Percent of adults aged 65-74 years who have had all their permanent teeth extracted Data unavailable by race/ethnicity	2002	27	2006	22	2002	19	2006	22	2002	23	2006	22	17	22
#21-8 Percent of children who have received dental sealants on their molar teeth - Medicaid recipients aged 6-16 years	2002	14.0	2005	11.5	2002	13.3	2005	13.1	2002	13.5	2005	12.4	50	50
#21-9 Percent of population served by community water systems with optimally fluoridated water.	2003	32	2005	31	2003	95	2005	95	2003	68	2005	68	80	75

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.

Tooth Loss Among Adults

One Nebraska 2010 objective is to reduce to no more than 17 percent the proportion of adults aged 65 to 74 who have lost all their permanent teeth due to decay or periodontal disease. In rural areas of Nebraska, improvement was seen in this proportion. In 2006, 22 percent of these older adults had lost all of their teeth, compared to 27 percent in 2002 (**Figure 40**). In urban counties, the proportion of 65- to 74-year-olds who had all their permanent teeth pulled increased from 19 percent in 2002 to 22 percent in 2006. Thus, the current prevalence of complete tooth loss among older Nebraskans was the same in urban and rural areas.

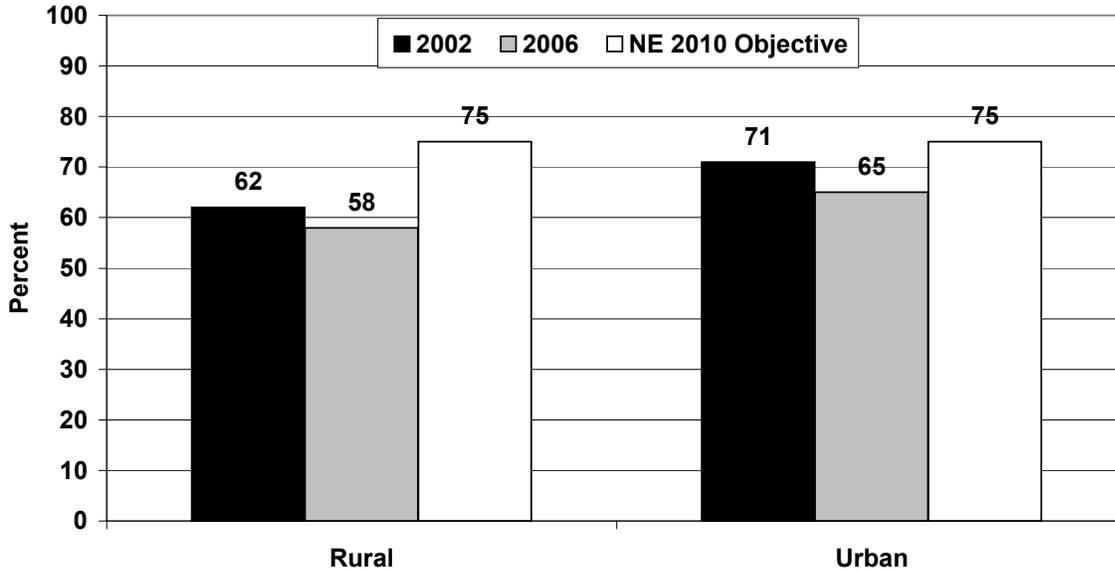
Figure 40
Proportion of Adults Aged 65-74 in Rural/Urban Areas
Who Had All Their Permanent Teeth Extracted (2002 vs. 2006)



Nebraska DHHS: BRFSS

A second Nebraska oral health objective is to increase to at least 75 percent the proportion of adults aged 35 to 44 years who have never had a permanent tooth extracted because of decay or periodontal disease. In 2006, fewer adults in this age group stated they had never had a permanent tooth extracted for either of these reasons, compared to the 2002 baseline. This worsening trend was evident in both rural and urban areas of the state. In rural Nebraska, this rate decreased from 62 percent in 2002 to 58 percent in 2006 (**Figure 41**). In urban counties, the rate moved downward from 71 percent to 65 percent. Thus, despite declines in both rural and urban populations, rural residents in this age bracket remained more likely to report tooth loss.

Figure 41
Proportion of Adults Aged 35-44 in Rural/Urban Areas
Who Never Lost a Tooth to Decay or Periodontal Disease
(2002 vs. 2006)



Nebraska DHHS: BRFSS

Use of Dental Sealants

Another oral health objective seeks to increase to at least 50 percent the proportion of children who have received dental sealants on their molar teeth. In Nebraska, available data on use of dental sealants are incomplete. For Medicaid recipients aged 6 to 16 years, the proportion who have received this preventive care was small (12 percent statewide in 2005).

In urban areas of the state, the proportion of Medicaid participants in this age group who had dental sealants applied to their molar teeth remained steady at about 13 percent. For rural children who received Medicaid benefits, the proportion decreased from 14.0 percent in 2002 to 11.5 percent in 2005. Thus, children who are Medicaid recipients in rural areas were slightly less likely to have sealants applied to their teeth than those residing in urban counties.

Fluoridated Water Systems

The final oral health objective for Nebraska is to increase to 80 percent the proportion of people served by community water systems with optimal levels of fluoride. Water fluoridation is the process of adjusting the natural fluoride concentration in a water supply to a level that will provide the best protection against tooth decay. In the six Nebraska counties classified as urban, 95 percent of the population served by community water systems receive optimally fluoridated water, thus achieving the 2010 target rate.

In contrast, only about one-third of the people living in rural areas and served by community water systems (31 percent in 2005) receive drinking water that is optimally fluoridated. These Nebraskans who are not receiving optimally fluoridated drinking water are at greater risk for developing dental cavities.

Shortages of Dentists

Shortages of dentists in rural areas also have a major impact on the dental health of these Nebraskans. Eighteen of 93 Nebraska counties have no dentists in practice. In 2005, 54 counties (or areas) were designated dental shortage areas by the State and two counties contain federally-designated HPSA's.

SUBSTANCE ABUSE

Health Impact

The annual toll of deaths, illnesses, and injuries due to the use and abuse of alcohol and illicit drugs is a serious and preventable public health problem in the United States. Nationwide, there are approximately 75,000 deaths attributable to excessive alcohol use each year, making this the third-leading lifestyle-related cause of death for the nation. In 2003, there were more than 2 million hospitalizations and over 4 million emergency room visits for alcohol-related conditions. According to the National Institute on Alcohol Abuse and Alcoholism, the total economic costs of alcohol abuse in the U.S. were estimated at \$184.6 billion in 1998.

The abuse of illicit drugs has also had a profound effect on the health of Americans, accounting for at least 20,000 deaths annually. Drug abuse also contributed to deaths reported for causes such as suicide, homicide, child abuse, motor vehicle injuries, pneumonia, HIV/AIDS, and hepatitis. In 2002, the total economic cost of drug abuse (illicit drugs only) in the U.S. was an estimated \$180.9 billion.

Healthy People 2010 Goal

The national Healthy People 2010 goal is to reduce substance abuse in order to protect the health, safety and quality of life for all, especially children.

Progress Toward Nebraska Rural 2010 Objectives

Although no Healthy People 2010 objectives were achieved for the rural population in Nebraska, progress was made toward six objectives (**Table 14**). The death rate due to alcohol-related motor vehicle crashes declined in rural areas of the state, as did the cirrhosis death rate. As of 2005, progress was made toward decreasing binge drinking and “drinking and driving” rates among rural adolescents. Compared to 2002, fewer teens reported using marijuana in the past 30 days. In addition, they were more likely to say they had not used alcohol or any illicit drug in the last month.

On the other hand, movement away from the 2010 target rates was noted for binge drinking and “drinking and driving” rates among adults.

In urban areas, one Nebraska 2010 objective was already achieved. The death rate due to alcohol-related motor vehicle crashes declined enough to reach the target rate by 2004.

Two substance abuse objectives showed improvement from the baseline. The death rate due to cirrhosis was down in the urban population and the proportion of adults who engaged in binge drinking decreased slightly between 2002 and 2006. However, prevalence of drinking and driving among urban residents was up slightly in 2006.

TABLE 14
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Substance Abuse

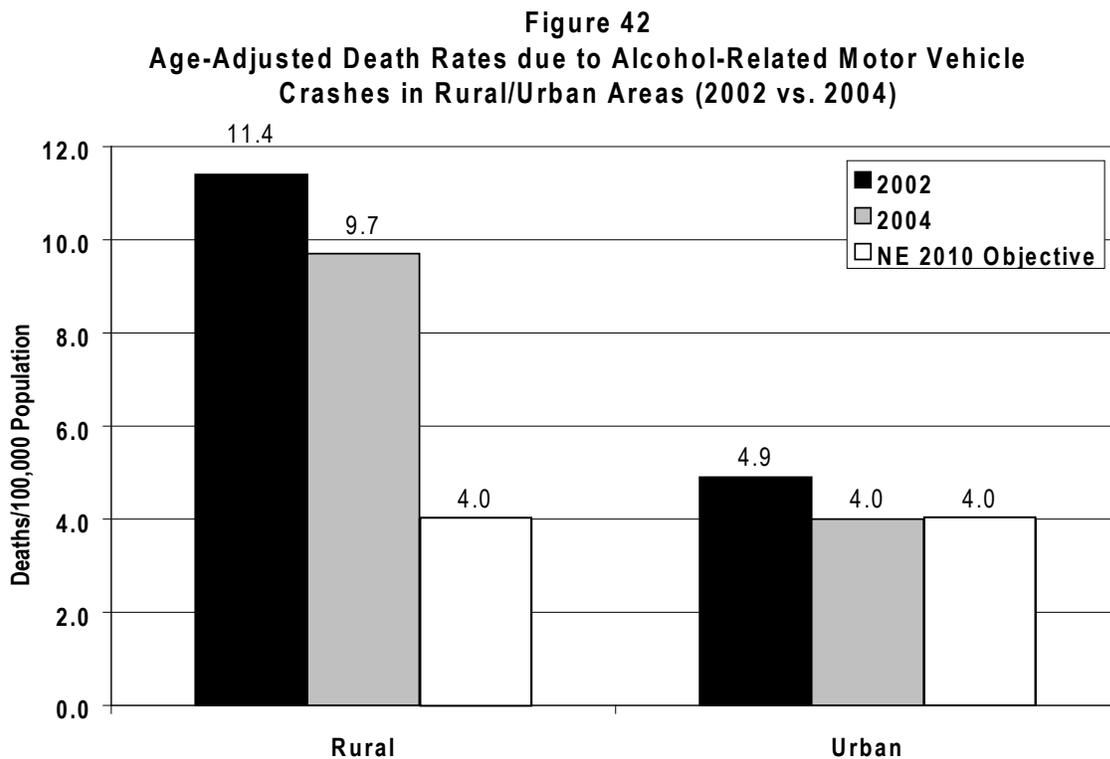
Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline		Current		Baseline		Current		Baseline		Current		Baseline		Current		NE 2010 Objective	US 2010 Objective		
	Data Year	Rate																		
#26-1a Death rate due to alcohol-related motor vehicle crashes/100,000 White African American Native American Asian American Hispanic American	2002	11.4	2004	9.7	2002	4.9	2004	4.0	2002	7.9	2004	6.6	2002	7.7	2004	6.6	4.0	4.8		
	1998-2002	10.7	2004	9.7	1998-2002	4.8	2004	4.0	1998-2002	7.7	2004	6.7	1998-2002	4.5	2000-2004	6.7	4.0	4.8		
	2000-2004	*	2000-2004	*	2000-2004	4.3	2000-2004	3.8	2000-2004	4.5	2000-2004	4.1	2000-2004	18.3	2000-2004	18.4	4.0	4.8		
	2000-2004	26.1	2000-2004	22.9	1998-2002	7.2	2000-2004	*	1998-2002	6.9	2000-2004	6.1	1998-2002	8.0	2000-2004	7.3	4.0	4.8		
	2000-2004	10.8	2000-2004	8.3	1998-2002	5.5	2000-2004	6.2	1998-2002	8.0	2000-2004	7.3	1998-2002	7.3	2000-2004	7.3	4.0	4.8		
#26-2 Death rate due to cirrhosis per 100,000 population White African American Native American Asian American Hispanic American	2002	6.5	2004	5.8	2002	8.3	2004	7.2	2002	7.3	2004	6.4	2002	6.0	2004	5.9	3.0	3.2		
	1998-2002	5.2	2004	5.1	1998-2002	6.8	2004	7.0	1998-2002	6.0	2004	6.4	1998-2002	6.1	2000-2004	6.4	3.0	3.2		
	2000-2004	*	2000-2004	*	2000-2004	5.5	2000-2004	47.4	2000-2004	81.8	2000-2004	80.5	2000-2004	*	2000-2004	*	1.2	3.2		
	2000-2004	93.1	2000-2004	98.0	1998-2002	62.8	2000-2004	11.8	1998-2002	15.0	2000-2004	14.3	1998-2002	15.0	2000-2004	14.3	3.0	3.2		
	2000-2004	15.7	2000-2004	16.6	1998-2002	14.9	2000-2004	11.8	1998-2002	15.0	2000-2004	14.3	1998-2002	15.0	2000-2004	14.3	3.0	3.2		
#28-10a Percent of adolescents in grades 9-12 who had not used alcohol or any illicit drug in the past 30 days Data not available by race or ethnicity.	2001	42	2005	56	2001	NA	2005	49	2001	NA	2005	53	2001	NA	2005	60	60	91		
#28-10b Percent of adolescents in grades 9-12 reporting use of marijuana in the past 30 days Data not available by race or ethnicity.	2001	16	2005	11	2001	NA	2005	26	2001	19	2005	18	2001	19	2005	5	5	0.7		
#28-11c Percent of adults aged 18+ who engaged in binge drinking of alcoholic beverages in the past month White African American Hispanic American	2002	16	2006	18	2002	19	2006	18	2002	18	2006	18	2002	18	2006	18	6	13.4		
	2002	15	2006	17	2002	20	2006	19	2002	18	2006	18	2002	18	2006	18	6	13.4		
	2002	NA	2006	NA	2002	9	2006	8	2002	11	2006	14	2002	11	2006	14	6	13.4		
	2002	20	2006	15	2002	18	2006	11	2002	19	2006	13	2002	19	2006	13	6	13.4		
#28-11d Percent of adolescents in grades 9-12 who engaged in binge drinking during the past 30 days Data not available by race or ethnicity.	2001	41	2005	28	2001	NA	2005	32	2001	39	2005	30	2001	39	2005	25	25	3.1		
	2002	5	2006	8	2002	5	2006	6	2002	5	2006	7	2002	5	2006	7	1	--		
#26-xx Percent of adults aged 18+ who engaged in "drinking and driving" in the past month White African American Hispanic American	2002	6	2006	8	2002	5	2006	6	2002	5	2006	7	2002	5	2006	7	1	--		
	2002	NA	2006	NA	2002	2	2006	NA	2002	4	2006	10	2002	4	2006	10	1	--		
	2002	1	2006	11	2002	4	2006	11	2002	2	2006	13	2002	2	2006	13	1	--		
	2001	30	2005	18	2001	NA	2005	17	2001	25	2005	17	2001	25	2005	17	10	--		
#26-xxx Percent of adolescents in grades 9-12 who reported "drinking and driving" in the past 30 days Data not available by race or ethnicity.	2001	30	2005	18	2001	NA	2005	17	2001	25	2005	17	2001	25	2005	17	10	--		

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
*Mortality rate based on fewer than 5 deaths.
NA = Not Available

Assessment of progress was not possible for four substance abuse objectives in urban areas, due to insufficient participation in the Youth Risk Behavior Survey in 2001.

Alcohol-Related Motor Vehicle Deaths

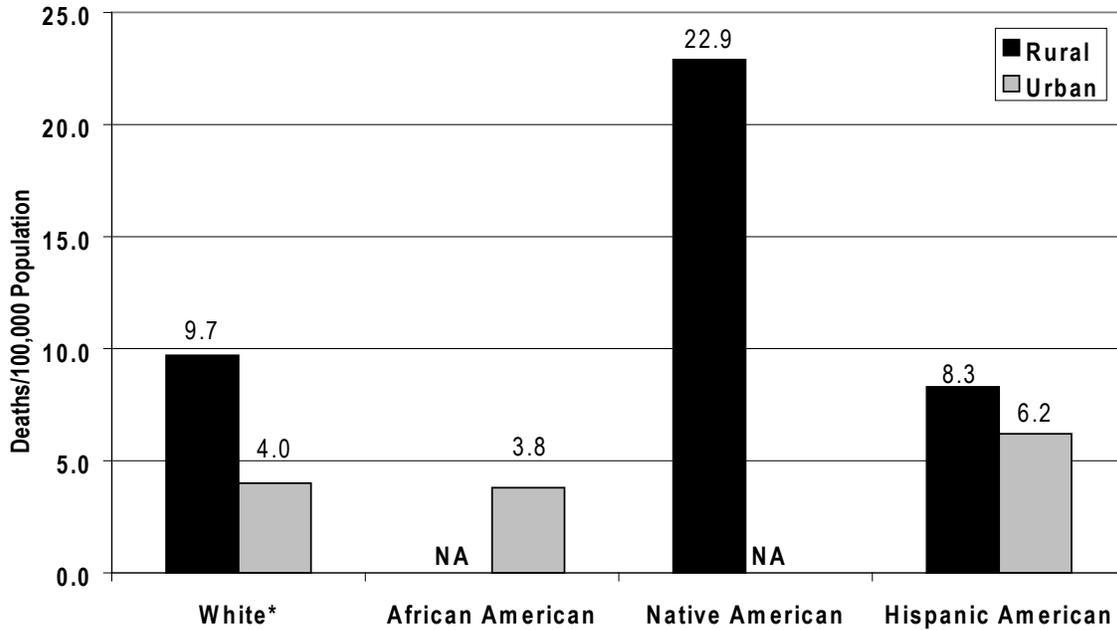
The alcohol-related motor vehicle fatality rate for rural counties in Nebraska declined from 11.4 deaths per 100,000 population in 2002 to 9.7 in 2004 (**Figure 42**). However, the rural death rate from this cause was more than double the rate in urban counties (4.0 per 100,000) in 2004. The current urban rate meets the Nebraska 2010 objective of no more than 4.0 of these deaths per 100,000 people.



Nebraska DHHS: Vital Statistics. Nebraska Office of Highway Safety.

In rural Nebraska, the rate of alcohol-related motor vehicle fatalities was much higher among Native Americans in 2000-2004 (22.9 deaths per 100,000) than among Hispanic Americans (8.3) or whites (9.7 in 2004) (**Figure 43**). Rates for African Americans and Asian Americans are not reported here due to small number of deaths.

Figure 43
Age-Adjusted Alcohol-Related Motor Vehicle Crash Death Rates in Rural/Urban Areas by Race/Ethnicity (2000-2004)

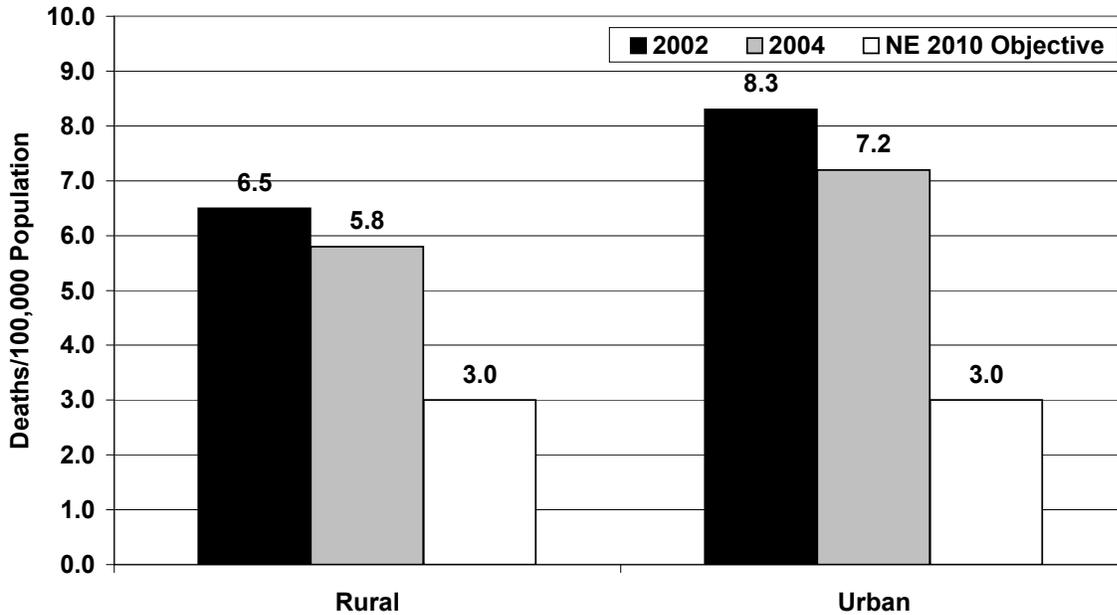


*White rates are for 2004.
 Nebraska DHHS: Vital Statistics. Nebraska Office of Highway Safety.

Cirrhosis Deaths

Mortality rates due to cirrhosis of the liver decreased somewhat in Nebraska to 6.4 deaths per 100,000 in 2004. Compared to the baseline rates, deaths were down in both rural (5.8) and urban (7.2) populations in 2004 (**Figure 44**). Still, these current rates were much higher than the Nebraska 2010 target rate of no more than 3.0 deaths per 100,000 people.

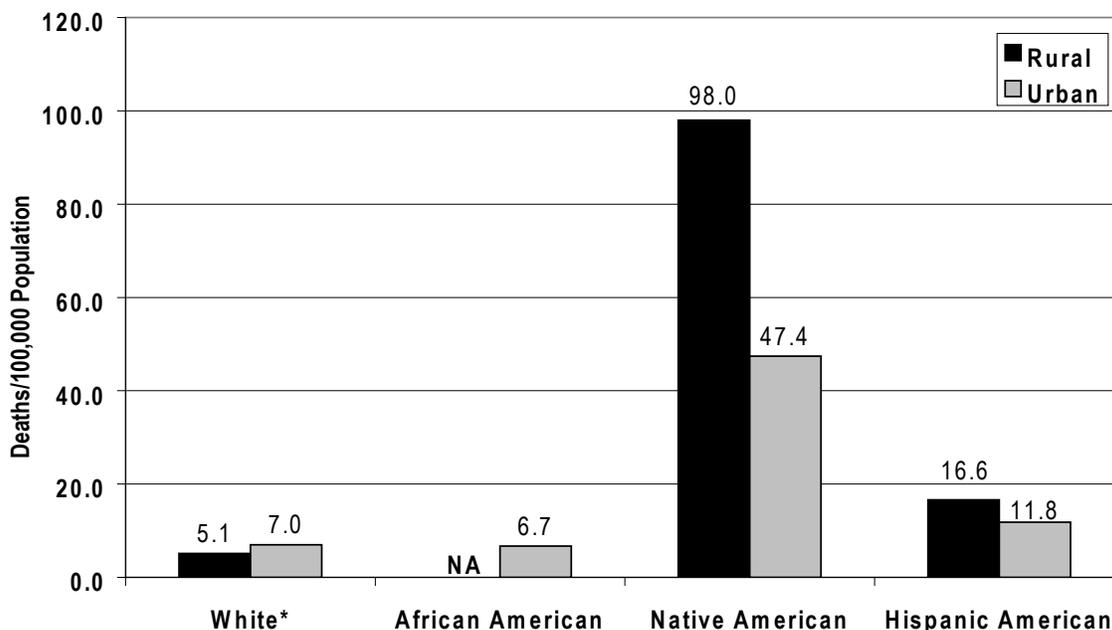
Figure 44
Age-Adjusted Cirrhosis Death Rates
in Rural/Urban Areas (2002 vs. 2004)



Nebraska DHHS: Vital Statistics

The cirrhosis death rate was by far the highest among Native Americans in rural Nebraska (98.0 in 2000-2004), although the urban rate for this population group was also very high (47.4 in 2000-2004) (**Figure 45**). The rate for rural Native Americans was 19.2 times as high as the rate for rural white residents. Among urban Native Americans, the death rate due to cirrhosis was 6.8 times that for urban white Nebraskans.

Figure 45
Age-Adjusted Cirrhosis Death Rates in Rural/Urban Areas
by Race/Ethnicity (2000-2004)



*White rates are for 2004.
 Nebraska DHHS: Vital Statistics

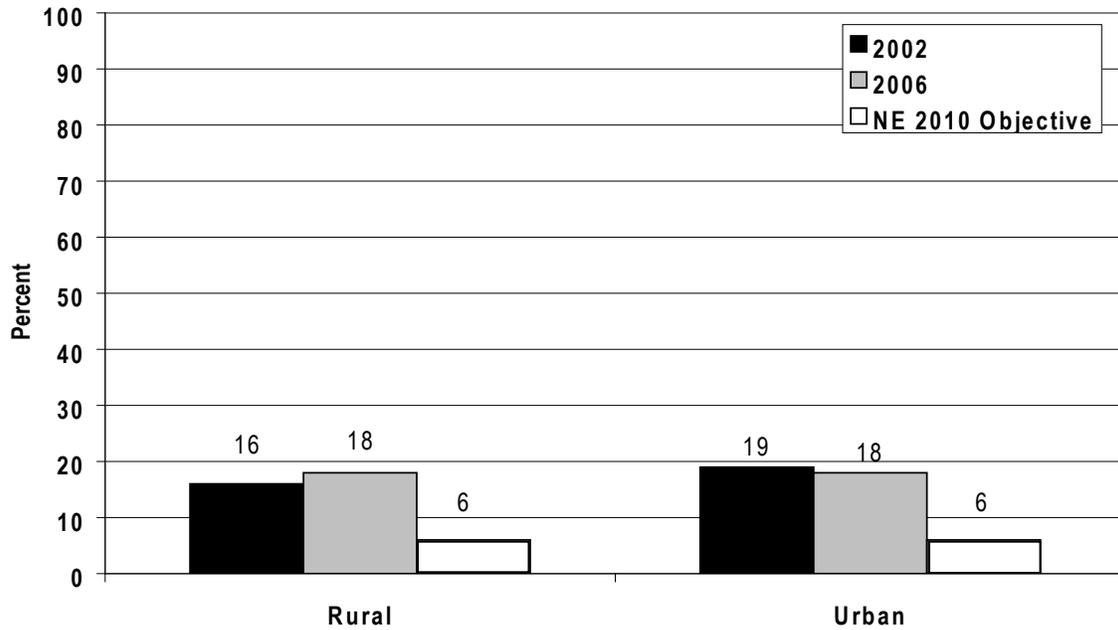
Hispanic Americans experienced a cirrhosis death rate (16.6 in 2000-2004) that was 3.3 times the rate for whites (5.1) in rural areas. In urban counties, the current rate for Hispanic Nebraskans (11.8) was lower than in rural areas, but was still 1.7 times as high as the rate for white urban residents (7.0).

Alcohol Abuse Among Adults

Prior to 2006, “binge drinking” was defined as drinking five or more alcoholic beverages at the same time or within a couple of hours of each other during the past 30 days. In 2006, the definition remained the same for male BRFSS respondents but changed for female adults in the survey. For females, beginning in 2006, drinking four or more alcoholic beverages in these circumstances qualifies as “binge drinking.” Thus, it is possible that the binge drinking rate may have risen (to an unknown extent) due to this change in 2006.

In Nebraska, a 2010 objective was adopted to reduce the prevalence of binge drinking to no more than 6 percent. In 2006, prevalence of binge drinking among adults living in rural areas rose slightly to 18 percent, from a baseline of 16 percent in 2002 (**Figure 46**). Among urban adults, prevalence fell slightly from 19 percent in 2002 to 18 percent in 2006. Thus, adult binge drinking rates were the same in rural and urban populations, with the current rate of 18 percent triple the Nebraska 2010 objective for this risk behavior.

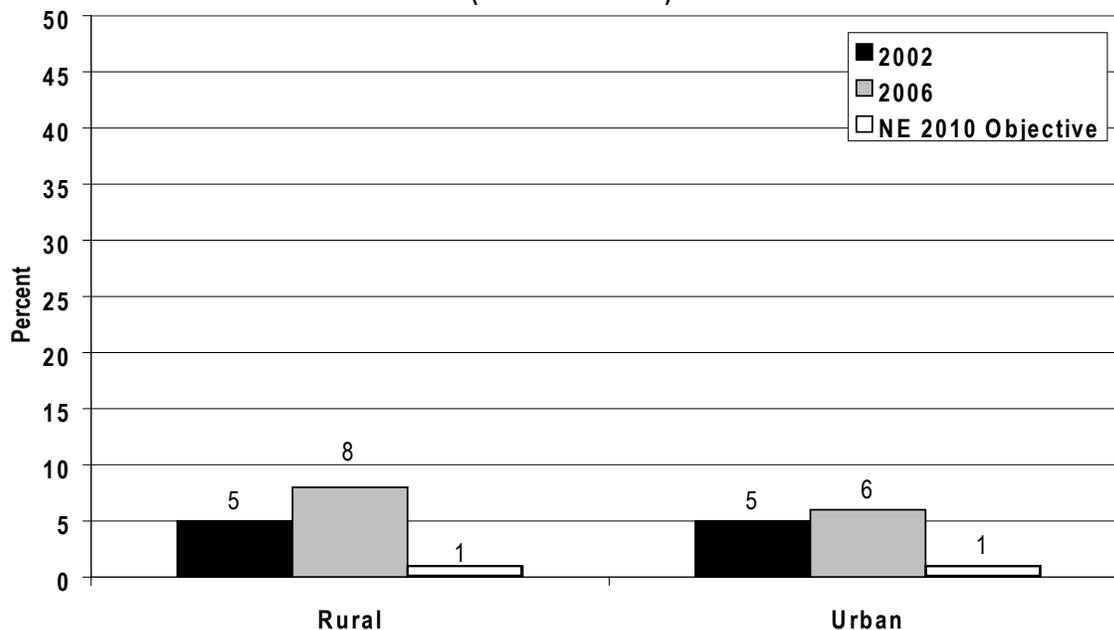
Figure 46
Prevalence of Adult Binge Drinking in Past Month
(2002 vs. 2006)



Nebraska DHHS: BRFSS

A related 2010 objective established in Nebraska, but not nationwide, seeks to reduce the prevalence of drinking and driving in the past 30 days to no more than 1 percent. In rural Nebraska, the self-reported rate of drinking and driving increased from 5 percent in 2002 to 8 percent in 2006 (**Figure 47**). In urban areas, this rate edged upward from 5 percent to 6 percent in 2006.

Figure 47
Prevalence of Adult Drinking and Driving in Past Month
(2002 vs. 2006)



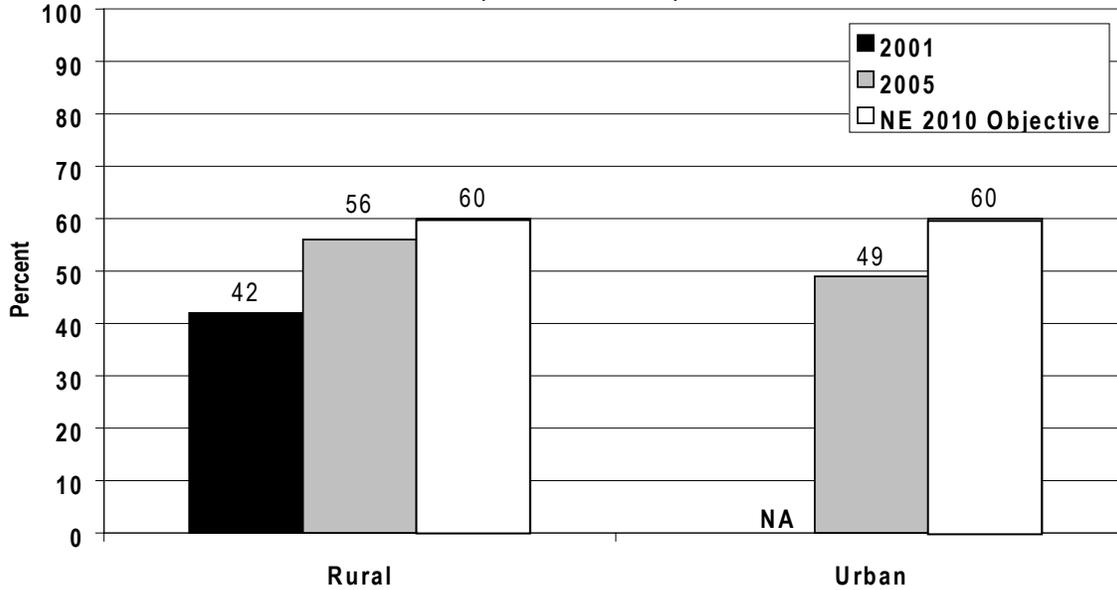
Nebraska DHHS: BRFSS

Adolescent Use of Alcohol and Drugs

Nebraska data on adolescent use of alcohol and drugs is collected through the Youth Risk Behavior Survey (YRBS). In 2001 (the baseline year for this data source), urban YRBS data were unavailable for use due to incomplete participation by some urban high schools. Thus, although baseline and current data are available for rural teens, no comparisons of current to baseline data can be made for urban youth.

One of the substance abuse objectives adopted for Nebraska youth is to increase to at least 60 percent the proportion of adolescents in grades 9 through 12 who have not used alcohol or any illicit drug in the past 30 days. Among rural adolescents, the proportion who had not used either of these substances in the past month rose from 42 percent in 2001 to 56 percent in 2005 (an increase of 33 percent) (**Figure 48**). In comparison, 49 percent of urban teens reported not using alcohol or illicit drugs during this time period.

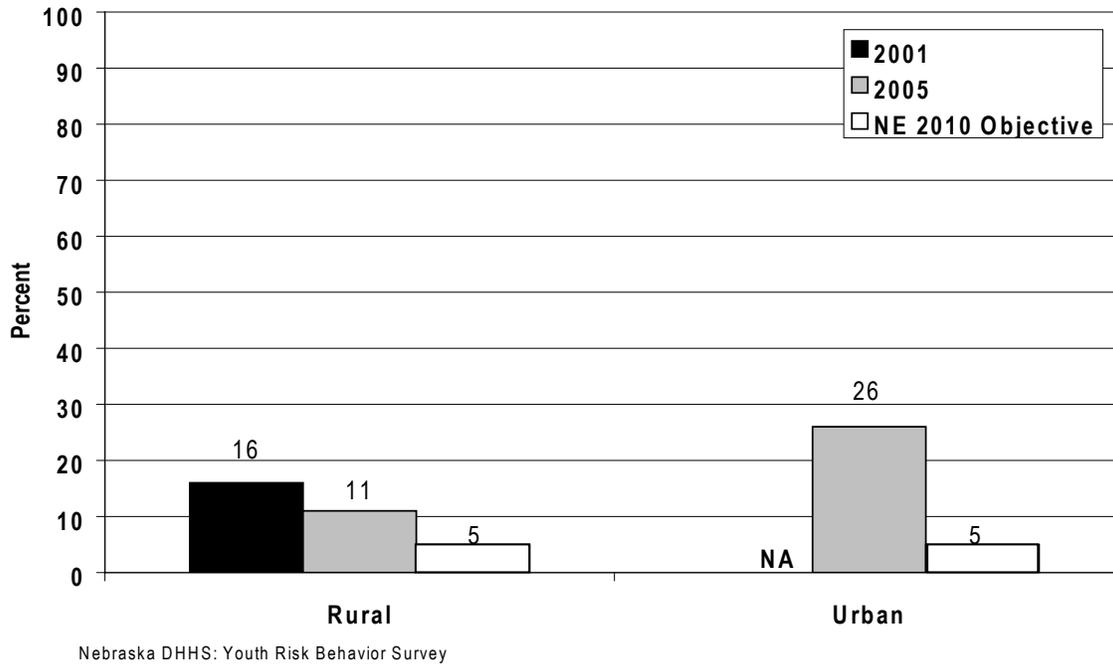
Figure 48
Proportion of Rural/Urban Adolescents in Grades 9-12
Who Had Not Used Alcohol/Any Illicit Drug in Past Month
(2001 vs. 2005)



Nebraska DHHS: Youth Risk Behavior Survey

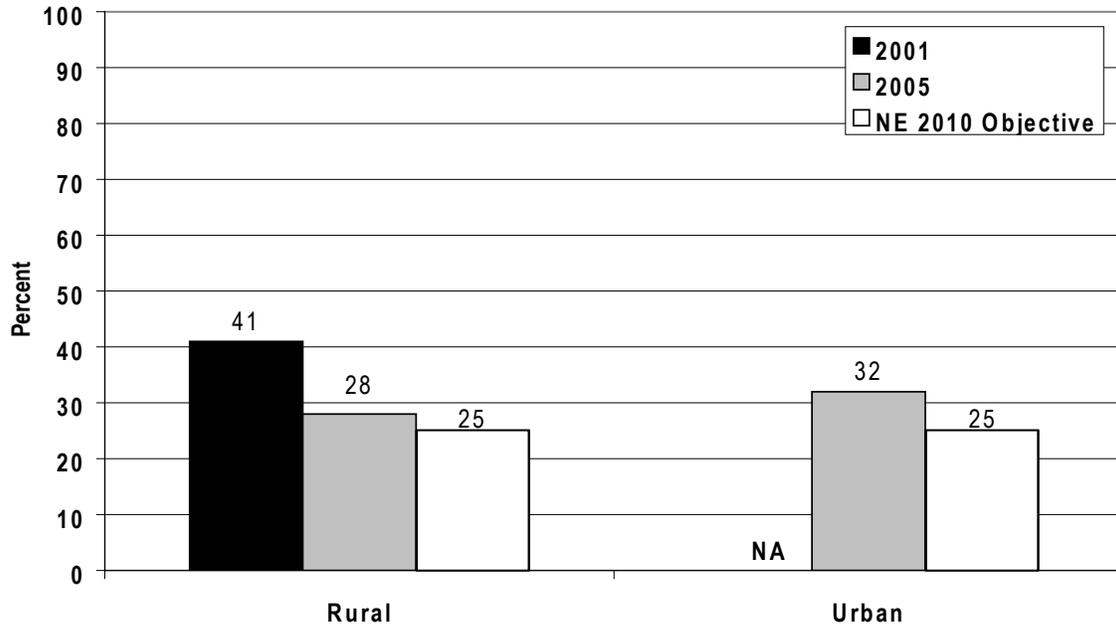
Rural teens also reported a decrease in the prevalence of current marijuana use. In 2001, 16 percent of rural students in grades 9 through 12 stated that they had used marijuana in the past month. In 2005, only 11 percent reported current use of this drug (**Figure 49**). Among urban high school students, prevalence of marijuana use was more than twice as high (26 percent in 2005). The Nebraska 2010 objective is to reduce prevalence of current marijuana use among adolescents to no more than 5 percent.

Figure 49
Marijuana Use in Past Month Among Rural/Urban Adolescents in
Grades 9-12 (2001 vs. 2005)



Binge drinking in the YRBS is defined as having five or more alcoholic drinks on at least one occasion in the past 30 days. Prevalence of binge drinking among adolescents in rural areas of the state declined from 41 percent in 2001 to 28 percent in 2005 (**Figure 50**). The rate for rural high school students in Nebraska is lower than the rate reported for urban students in 2005 (32 percent). The Nebraska 2010 objective seeks to reduce the rate of current binge drinking among teenagers in grades 9 through 12 to no more than 25 percent.

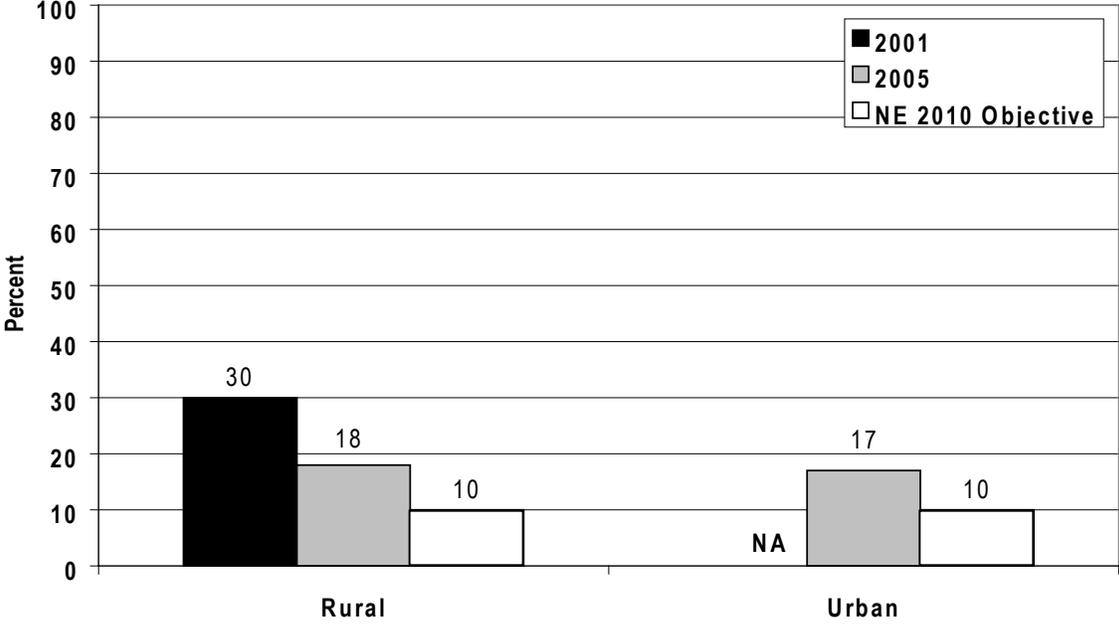
Figure 50
Binge Drinking in Past Month Among Rural/Urban Adolescents in
Grades 9-12 (2001 vs. 2005)



Nebraska DHHS: Youth Risk Behavior Survey

The 2005 Nebraska YRBS also found that 18 percent of rural high school students reported drinking and driving in the past 30 days (**Figure 51**). This rate is one percentage point higher than the 17 percent recorded for urban adolescents in 2005, but represents a substantial decrease from 30 percent in 2001 for rural teens. In Nebraska, a 2010 objective has been adopted that seeks to reduce the proportion of these teens who “drink and drive” to no more than 10 percent.

Figure 51
Drinking and Driving in the Past Month Among Rural/Urban
Adolescents in Grades 9-12 (2001 vs. 2005)



Nebraska DHHS: Youth Risk Behavior Survey

TOBACCO USE

Health Impact

Tobacco use remains the single most preventable cause of disease and death in the United States today. Cigarette smoking is responsible for approximately 438,000 deaths annually—about 20 percent of all deaths in this country. Most of these deaths are due to cancer, cardiovascular disease, or respiratory disease. On average, adults who smoke cigarettes die 14 years earlier than nonsmokers.

Other forms of tobacco are not safe alternatives to smoking cigarettes. Cigar smoking and pipe smoking increase the risk of dying from cancers of the lung, esophagus, larynx, and oral cavity. Smokeless (“spit”) tobacco use is the single most important risk factor for oral cancers (cancers of the lip, mouth, tongue and throat).

Secondhand smoke is responsible for an estimated 3,000 lung cancer deaths annually in nonsmokers and an estimated 35,000 deaths due to cardiovascular disease.

For 1997-2001, cigarette smoking was estimated to be responsible for \$167 billion in total annual health-related economic losses in the United States, or about \$3,702 per adult smoker. In Nebraska, cigarette smoking cost approximately \$858 million for medical care of people with smoking-related illness and for lost wages and productivity in 2002.

Healthy People 2010 Goals

The goal of the Tobacco Use objectives is to reduce the illness, disability, and death that are related to tobacco use and to exposure to environmental tobacco smoke.

Progress Toward Nebraska Rural 2010 Objectives

Of the seven Healthy People 2010 objectives selected for the Tobacco Use priority area, five showed improvement among rural Nebraskans (**Table 15**). Prevalence of cigarette smoking among Nebraska adults declined somewhat in rural areas, as did the prevalence of smokeless tobacco use among males. Among rural adolescents, the proportion who used tobacco products (cigarettes, cigars or smokeless tobacco) was down from the baseline. Prevalence of cigarette smoking and use of “spit” tobacco among rural teens also decreased from 2001 rates.

However, in rural areas, the proportion of adolescents who reported smoking cigars in the past month edged upward from the baseline. In addition, a greater percentage of rural adults with children in their household reported having no “smoking rules” or said that smoking was allowed some or all of the time in their homes.

TABLE 15
NEBRASKA RURAL HEALTHY PEOPLE 2010 OBJECTIVES
Tobacco Use

Objective	RURAL						URBAN						TOTAL						OBJECTIVES	
	Baseline			Current			Baseline			Current			Baseline			Current			NE 2010 Objective	US 2010 Objective
	Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate		Data Year	Rate			
#27-1a Percent of adults aged 18+ who currently smoke cigarettes White African American Native American Hispanic American	2002	21		2006	18		2002	24		2006	19		2002	23		2006	19		12	12
	2002	22		2006	17		2002	23		2006	19		2002	22		2006	18		12	12
	2002	NA		2006	NA		2002	29		2006	23		2002	30		2006	23		12	12
	2002	NA		2006	NA		2002	NA		2006	NA		2002	NA		2006	57		12	12
#27-1b Percent of males aged 18+ who currently use smokeless tobacco White Hispanic American	2002	13		2004	11		2002	6		2004	7		2002	9		2004	9		4	0.4
	2002	14		2004	12		2002	5		2004	7		2002	10		2004	9		4	0.4
	2002	NA		2004	2		2002	NA		2004	NA		2002	2		2004	1		0.4	0.4
#27-2a Percent of adolescents in grades 9-12 who used tobacco products (cigarettes, spit tobacco, or cigars) in the past month Data not available by race or ethnicity	2001	38		2005	33		2001	NA		2005	34		2001	35		2005	33		21	21
#27-2b Percent of adolescents in grades 9-12 who smoked cigarettes in the past month Data not available by race or ethnicity	2001	30		2005	20		2001	NA		2005	24		2001	31		2005	22		15	16
#27-2c Percent of adolescents in grades 9-12 who used spit tobacco in the past month Data not available by race or ethnicity	2001	12		2005	11		2001	NA		2005	6		2001	10		2005	9		6	1
#27-2d Percent of adolescents in grades 9-12 who smoked cigars in the past month Data not available by race or ethnicity	2001	13		2005	15		2001	NA		2005	20		2001	15		2005	17		10	8
#27-9 Percent of households with children under five years of age where someone had smoked during the past month NEW Definition: Percent of households with children under age 18 where no smoking rules or smoking allowed some or all of time White Hispanic American	2001	25		2006			2001	20		2006			2001	23		2006			-	10
	2002	20		2006	23		2002	27		2006	14		2002	25		2006	18		10	-
	2002	20		2006	23		2002	28		2006	15		2002	25		2006	19		10	-
	2002	24		2006	15		2002	8		2006	NA		2002	13		2006	12		10	-

NOTE: Urban counties include: Cass, Dakota, Douglas, Lancaster, Sarpy, and Washington. All other counties are considered rural.
NA = Not Available

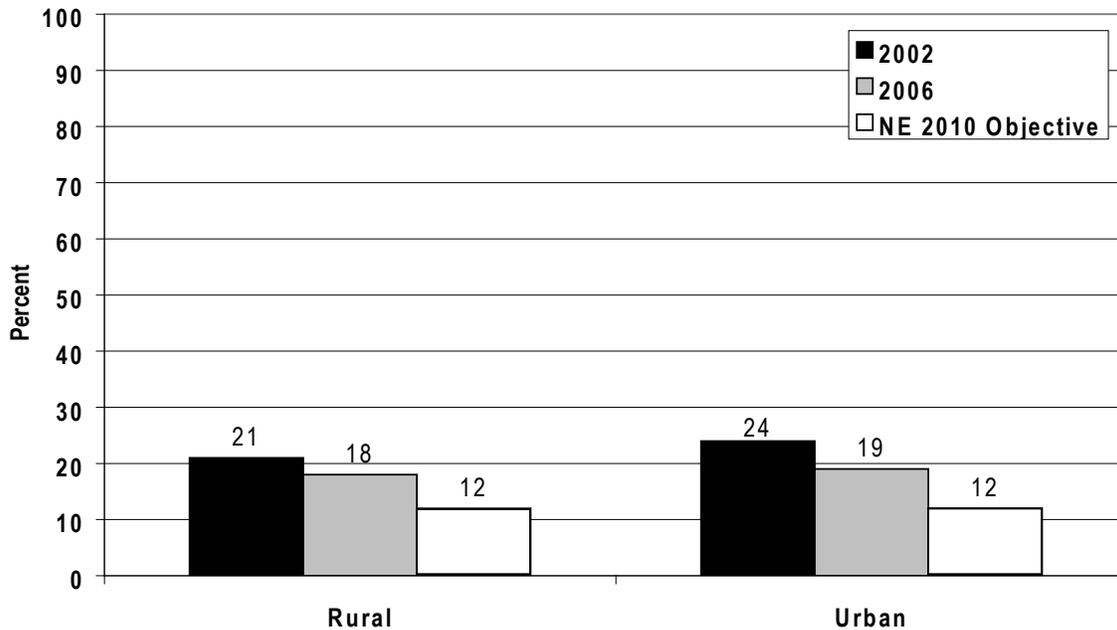
In the urban population, one Nebraska 2010 objective was achieved. The proportion of teenagers who used spit tobacco in the past month reached the target rate of 6 percent in 2005. Progress was also made for two other Tobacco Use objectives. The cigarette smoking rate was down among adults in urban areas and a smaller proportion of households with children reported have no “smoking rules” or allowing smoking in their homes, compared to the baseline.

On the other hand, prevalence of smokeless tobacco use among men edged upward by one percentage point in urban areas of the state. No assessment could be made for three objectives concerning tobacco use among adolescents in urban areas, due to lack of 2001 baseline data.

Cigarette Smoking Among Adults

Prevalence of cigarette smoking among Nebraska adults declined somewhat between 2002 and 2006. In rural areas, smoking rates dropped from 21 percent to 18 percent (**Figure 52**). In urban counties, prevalence declined even more (from 24 percent in 2002 to 19 percent in 2006). So, adults living in rural areas (18 percent) were nearly as likely as urban adults (19 percent) to report they were current smokers in 2006. The Nebraska 2010 objective is to reduce prevalence of cigarette smoking among adults to no more than 12 percent.

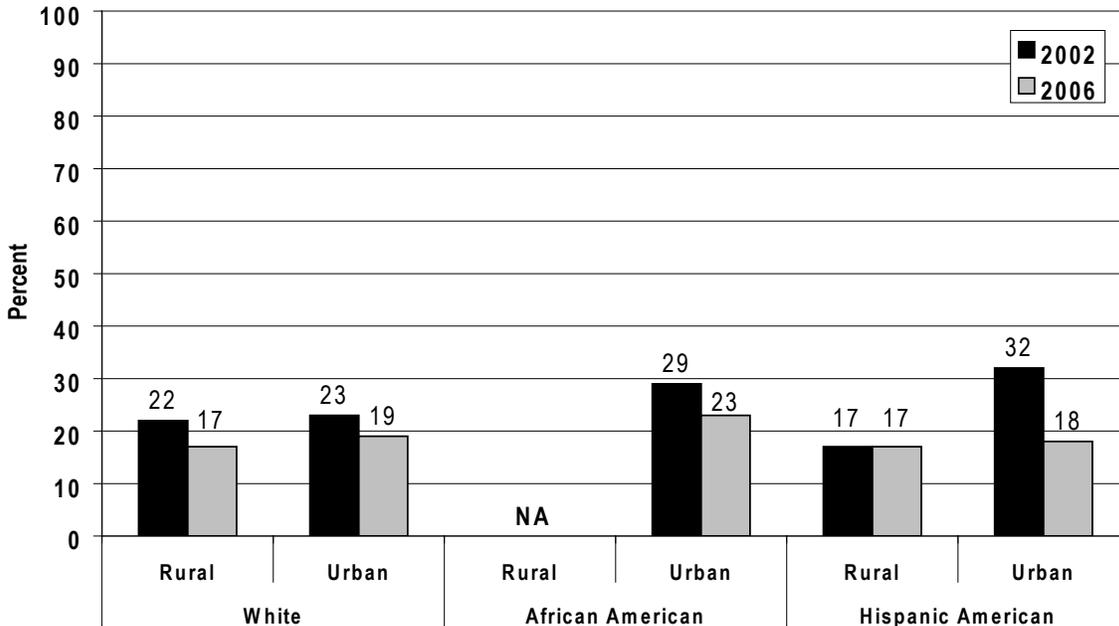
Figure 52
Prevalence of Current Cigarette Smoking
Among Rural/Urban Adults (2002 vs. 2006)



Nebraska DHHS: BRFSS

Among rural residents, smoking prevalence has declined among the white population (from 22 percent in 2002 to 17 percent in 2006), while no change in the smoking rate was seen for Hispanic adults (**Figure 53**). However, as of 2006, these two population groups were about equally likely to report currently smoking cigarettes (17 percent each).

Figure 53
Prevalence of Current Cigarette Smoking
Among Rural/Urban Adults by Race/Ethnicity (2002 vs. 2006)



Nebraska DHHS: BRFSS

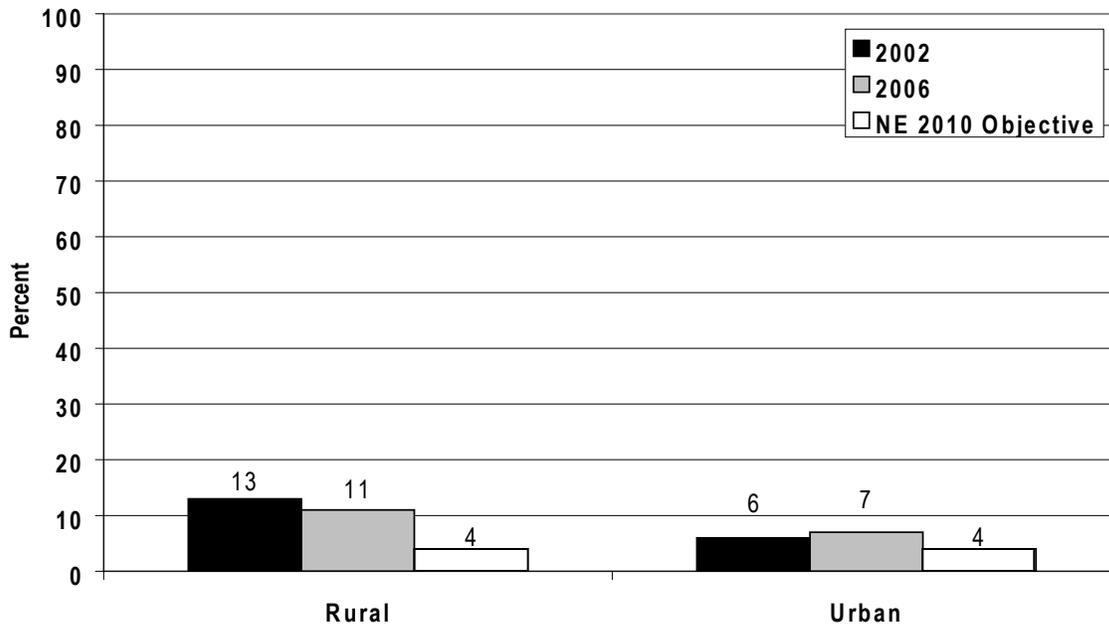
Smoking rates declined in urban areas for each of the racial/ethnic groups where data were available. In 2006, African Americans reported the highest smoking rate (23 percent), although prevalence was down from the 2002 rate of 29 percent.

Smokeless Tobacco Use Among Men

In Nebraska, the target rate for reduction of smokeless tobacco use among males aged 18 and older has been set at no more than 4 percent by 2010.

Use of smokeless tobacco is much more prevalent in rural areas of Nebraska than in the urban counties (**Figure 54**). Thirteen percent of rural adult males stated that they currently used chewing tobacco or other forms of smokeless tobacco in 2002, compared to only 6 percent of urban men. In 2004, 11 percent of rural men stated they currently use this form of tobacco, compared to 7 percent of urban males.

Figure 54
Current Smokeless Tobacco Use
Among Rural/Urban Adult Males (2002 vs. 2006)

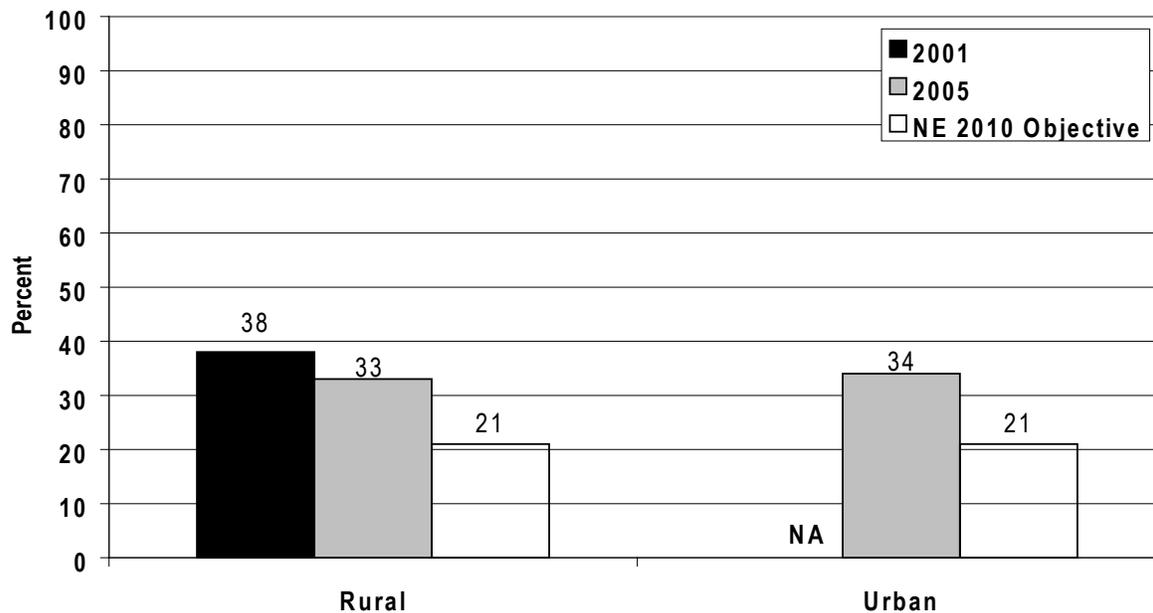


Nebraska DHHS: BRFSS

Tobacco Use by Adolescents

Although use of tobacco by rural teens was down somewhat in Nebraska in 2005, it remains a major concern. In 2001, 38 percent of rural high school students used tobacco products (i.e., cigarettes, smokeless tobacco, or cigars) in the past month (**Figure 55**). In 2005, prevalence declined to 33 percent, nearly matching the current tobacco use rate for urban high school students (34 percent). The Nebraska 2010 objective is to reduce the proportion of adolescents in grades 9 through 12 who currently use these products to no more than 21 percent.

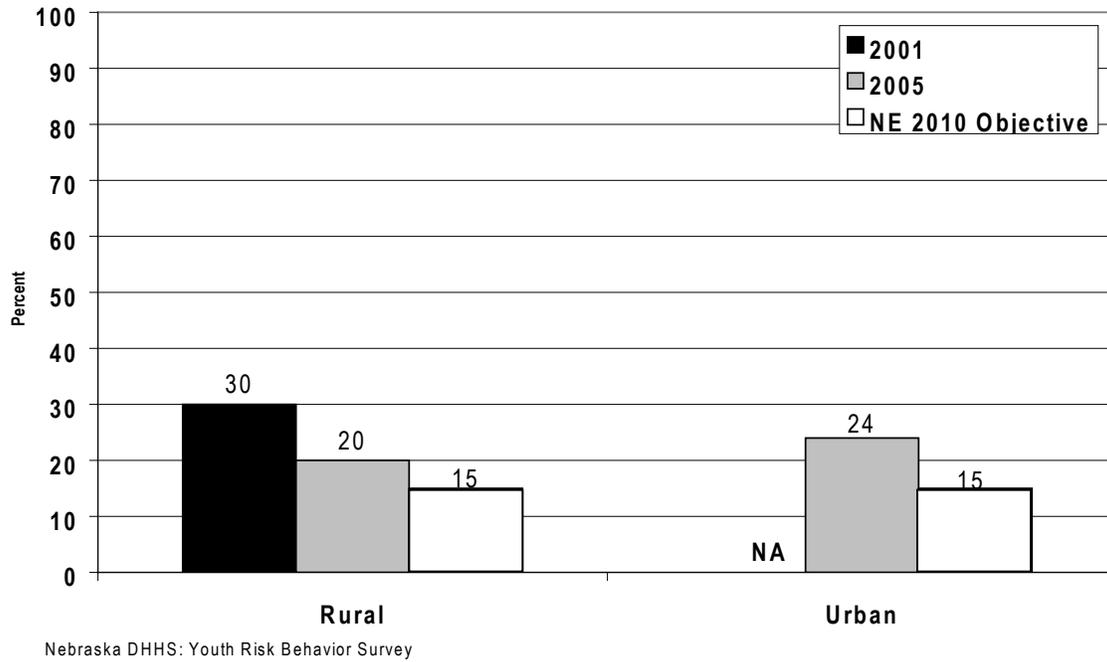
Figure 55
Use of Tobacco Products (Cigarettes, Spit Tobacco, Cigars)
by Rural/Urban Adolescents in Grades 9-12 in Past Month
(2001 vs. 2005)



Nebraska DHHS: Youth Risk Behavior Survey

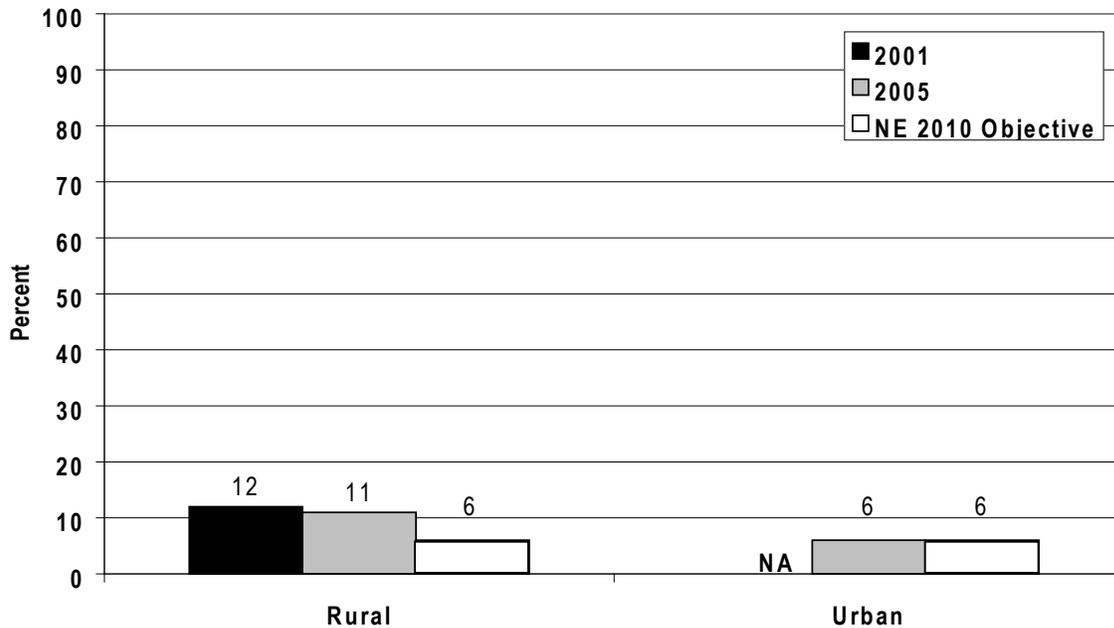
Current prevalence of cigarette smoking among rural adolescents decreased considerably between 2001 (30 percent) and 2005 (20 percent) (**Figure 56**). In comparison, 24 percent of urban teens reported smoking cigarettes in the past 30 days in 2005. Nebraska's objective for this risk behavior is to reduce the proportion of high school students who currently smoke cigarettes to no more than 15 percent by 2010.

Figure 56
Cigarette Smoking Among Rural/Urban Adolescents
in Grades 9-12 in Past Month (2001 vs. 2005)



In 2005, the proportion of urban adolescents who currently used smokeless (“spit”) tobacco was 6 percent, achieving the State’s 2010 objective of no more than 6 percent prevalence (**Figure 57**). Among rural students, the rate was nearly twice as high (11 percent). The current rural rate is one percentage point lower than the 2001 baseline of 12 percent.

Figure 57
Smokeless ("Spit") Tobacco Use Among Rural/Urban Adolescents in
Grades 9-12 in Past Month (2001 vs. 2005)



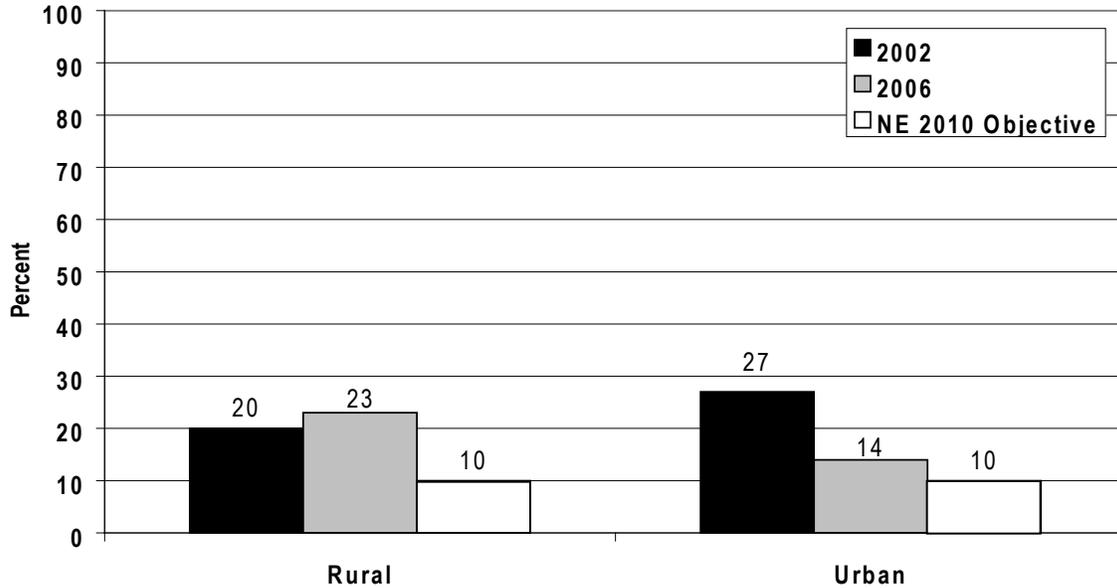
Nebraska DHHS: Youth Risk Behavior Survey

The proportion of rural high school students who stated that they had smoked cigars in the past month increased from 13 percent in 2001 to 15 percent in 2005. Among urban teens, the rate was even higher with 20 percent reporting they currently smoke cigars in 2005. In Nebraska, the 2010 objective is to reduce prevalence of cigar smoking among adolescents in grades 9 through 12 to no more than 10 percent.

Smoking Rules in Households with Children

Second-hand smoke is associated with a number of adverse health effects in non-smokers. A recent national study found that rural residents were more accepting than urban residents of tobacco in the household, in the car, and around children. Results of the 2006 Nebraska BRFSS also found that rural respondents (23 percent) with children under age 18 in their household were more likely than those from urban areas (14 percent) to report that they either had no rules regarding smoking or smoking was allowed some or all of the time in their homes (**Figure 58**). In Nebraska, an objective has been established that seeks to reduce the proportion of these households to no more than 10 percent of all households with children by 2010.

Figure 58
Proportion of Rural/Urban Households with Children
Where There Are No Smoking Rules or Smoking Is Allowed Some or
All of the Time (2002 vs. 2006)



Nebraska DHHS: BRFSS

According to 2006 Nebraska BRFSS results, Hispanic Americans with children in their household (12 percent) were less likely than their white counterparts (19 percent) to say they had no smoking rules or allowed smoking in their homes

APPENDIX

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Nebraska 2010 Health Goals and Objectives
Rural Health Objectives Only
Data Sources and Notes

ACCESS TO QUALITY HEALTH SERVICES		
Data Sources:	Additional Notes:	
#1-1	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	Percent of persons under age 65 years who report coverage by any type of public or private health insurance. (Includes children under age 18 years). Percent of persons age 18-64 years who report coverage by any type of public or private health insurance
#1-4c	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	Percent of persons aged 18 years and older who report having a source of ongoing primary care. Same as U.S.
#1-8	U.S.--AAMC Data Book, Association of American Medical Colleges Nebraska--Health Professions Tracking Center, University of Nebraska Medical Center. U.S. Census Bureau.	Number of medical degrees awarded by accredited allopathic medical schools by race or ethnicity as a percent of all medical degrees awarded. Percent of all primary care physicians (General/Family Practice, Internal Medicine, Pediatrics, Obstetrics/Gynecology, General Surgery, and Psychiatry) who are members of each racial or ethnic group.
#1-9a	U.S.--Healthcare Cost and Utilization Project (HCUP), AHRQ. Nebraska -- Nebraska Hospital Discharge Data, DHHS.	Number of hospitalizations among persons under age 18 years with asthma (ICD-9 code 493) as principal diagnosis per 10,000 persons under age 18 years. Same as U.S.
#1-9b	U.S.--Healthcare Cost and Utilization Project (HCUP), AHRQ. Nebraska -- Nebraska Hospital Discharge Data, DHHS.	Number of hospitalizations among persons aged 18 to 64 years with uncontrolled diabetes (ICD-9 codes 250.02-250.03, 250-10-250.13, 250.20-250.23, 250.30-250.33) as principal diagnosis per 10,000 persons aged 18 to 64 years. Same as U.S.
#1-9c	U.S.--Healthcare Cost and Utilization Project (HCUP), AHRQ. Nebraska -- Nebraska Hospital Discharge Data, DHHS.	Number of hospitalizations among persons aged 65 years and older with preventable pneumonia or influenza (ICD-9 codes 481, 487) as principal diagnosis per 10,000 persons aged 65 and older. Same as U.S.
CANCER		
#3-1	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	Age-adjusted to 2000 standard population. ICD-9 codes 140-208. Same as U.S.
#3-11a,b	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	Includes women with or without a uterine cervix. Same as U.S.
#3-12a	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	A fecal occult blood test is referred to as a blood stool test in the NHIS.
#3-12b	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	A sigmoidoscopy is referred to as a proctoscopic examination in the NHIS
#3-13	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	

Data Sources:		Additional Notes:
DIABETES		
#5-3	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	All ages. Adults aged 18 and older interviewed. Ever been told by a doctor/health professional that they (or child) have diabetes or sugar diabetes. For females, does not include those for whom diabetes was diagnosed only during pregnancy (gestational diabetes). Adults aged 18 and older. Ever been told by a doctor or health professional that they have diabetes.
#5-5	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	Deaths due to diabetes (ICD-9 code 250) reported as the underlying or multiple cause of death (i.e., all mentions of diabetes on the death certificate). Age-adjusted to 2000 standard population. Same as U.S.
HEART DISEASE AND STROKE		
#12-1	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 codes 402,410-414,429.2. Age-adjusted to 2000 standard. Same as U.S.
#12-7	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 codes 430-438. Age-adjusted to 2000 standard. Same as U.S.
#12-9	U.S.--National Health and Nutrition Examination Survey (NHANES), CDC. Nebraska--BRFSS, DHHS.	Adults aged 20 and older. Definition of high blood pressure: either (a) have a measurement of systolic blood pressure >140 mmHg or diastolic blood pressure >90 mmHg or (b) report they are taking high blood pressure medicine. Self-reported.
#12-12	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	An adult was considered able to state their blood pressure level if they responded high, low, normal or borderline when asked. Self-reported.
#12-15	U.S.--NHIS, CDC. Nebraska--BRFSS, DHHS.	Self-reported. Self-reported.
IMMUNIZATION AND INFECTIOUS DISEASES		
#14-29	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	
INJURY AND VIOLENCE PREVENTION		
#15-13	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 codes E800-869, E880-E929. Age-adjusted to 2000 standard. Same as U.S.
#15-15a	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 codes E810-E819. Age-adjusted to 2000 standard. Same as U.S.
#15-19	U.S.--National Occupant Protection Use Survey, DOT, NHTSA. Nebraska--BRFSS, DHHS.	Observational data collected at intersections, highway ramps, and parking lots. Self-reported use of seatbelts (always, nearly always, sometimes, seldom, never wear safety belts when driving or riding in a motor vehicle).
MATERNAL, INFANT AND CHILD HEALTH		
#16-1c	U.S.--National Vital Statistics System (NVSS), CDC. Nebraska--Vital Statistics, DHHS.	Deaths of infants under age one year. Same as U.S.
#16-1d,e	U.S.--National Vital Statistics System (NVSS), CDC. Nebraska--Vital Statistics, DHHS.	
#16-6a,b	U.S.--National Vital Statistics System (NVSS), CDC. Nebraska--Vital Statistics, DHHS.	Using the Adequacy of Prenatal Care Utilization Index (APNCU), i.e., Kotelchuck Index. Combines the month of pregnancy when prenatal care began with number of prenatal visits. Rates can be classified as intensive adequate, intermediate, or less than adequate. For this objective, adequate prenatal care is defined as a score of either "adequate" or "intensive use". Same as U.S.
#16-17c	U.S.--National Vital Statistics System (NVSS), CDC. Nebraska--Vital Statistics, DHHS.	Percent of women having live births reporting cigarette smoking during pregnancy. Percent of women having live births reporting cigarette smoking during the third trimester of pregnancy.

Data Sources:		Additional Notes:
MENTAL HEALTH AND MENTAL DISORDERS		
#18-1	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 codes E950-E959. Age-adjusted to 2000 standard. Suicides may be undercounted due to difficulty in determining suicidal intent by coroner or medical examiner. Same as U.S.
#18-2	U.S.--Youth Risk Behavior Surveillance System (YRBS), CDC. Nebraska--YRBS, DHHS.	
NUTRITION AND OVERWEIGHT		
#19-2	U.S.--National Health and Nutrition Examination Survey (NHANES), CDC. Nebraska--BRFSS, DHHS.	Adults aged 20 and older. Body Mass Index (BMI) = 30 or greater. Adults aged 18 and older. Body Mass Index (BMI) = 30 or greater.
ORAL HEALTH		
#21-3	U.S.--National Health and Nutrition Examination Survey (NHANES), CDC; Oral Health Survey of Native Americans, 1999, Indian Health Service. Nebraska--BRFSS, DHHS.	Clinical confirmation of at least 28 natural teeth, exclusive of third molars, is used as a proxy measure. Self-reported. BRFSS respondents were asked how many of their permanent teeth have been removed because of tooth decay or gum disease.
#21-4	U.S.--National Health Interview Survey (NHIS), CDC; Oral Health Survey of Native Americans, 1999, Indian Health Service. Nebraska--BRFSS, DHHS.	Self-reported.
#21-8	U.S.--National Health and Nutrition Examination Survey (NHANES), CDC; Oral Health Survey of Native Americans, 1999, Indian Health Service; Hawaii Children's Oral Health Assessment, 1999, State of Hawaii Department of Health. Nebraska--Nebraska Medicaid Program, DHHS.	Percent of children with a clinical confirmation of dental sealants applied to one or more permanent molars. Percent of children aged 6 to 16 years who are Medicaid recipients who have had dental sealants applied to one or more permanent molars.
#21-9	U.S.--CDC Fluoridation Census, CDC. Nebraska--Nebraska Dental Health Program, DHHS.	Optimal water concentration of fluoride is specific for geographic areas, based on their mean daily temperature. Percent is based on information from local water systems on the number of people served by the fluoridated water system. Same as U.S.
PHYSICAL ACTIVITY AND FITNESS		
#22-1	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--BRFSS, DHHS.	Adults are classified as not engaging in leisure time physical activity if they answer "never" or "unable to do this type of activity" to both the vigorous and moderate physical activity questions. National and state estimates are not comparable due to difference in questions and in interview method. Neither survey accounts for physical activity that is required for their jobs.
SUBSTANCE ABUSE		
#26-1a	U.S.--Fatality Analysis Reporting System (FARS), Dept. of Transportation (DOT), National Highway Traffic Safety Administration (NHTSA); General Estimates System (GES), DOT. Nebraska--Vital Statistics, DHHS; Office of Highway Safety, Dept. of Motor Vehicles.	A fatal crash is alcohol-related if either a driver or non-motorist has a measurable or estimated blood alcohol concentration (BAC) of 0.01 g/dL or above. Only deaths that occur within 30 days of the motor vehicle crash are included. FARS data are obtained from state documents, including police crash reports, death certificates (ICD-9 E810-E819), vehicle registration files, and hospital medical reports. Age-adjusted to 2000 standard. ICD-9 E810-E819. Age-adjusted to 2000 standard.
#26-2	U.S.--National Vital Statistics System, CDC. Nebraska--Vital Statistics, DHHS.	ICD-9 code 571. Age-adjusted to 2000 standard. ICD-9 code 571. Age-adjusted to 2000 standard.
#26-10a	U.S.--National Survey on Drug Use and Health, SAMHSA.	Alcohol or illicit drug use by adolescents aged 12 to 17 years is defined as using at least one of the following substances in the past month: alcohol, marijuana or hashish, cocaine (including "crack"), inhalants, hallucinogens (including PCP and LSD), heroin, or any nonmedical use of analgesics, tranquilizers, stimulants or sedatives.

Data Sources:		Additional Notes:
	Nebraska--Youth Risk Behavior Surveillance System, DHHS.	Self-reported. High school students grades 9-12.
#26-10b	U.S.--National Survey on Drug Use and Health, SAMHSA. Nebraska--Youth Risk Behavior Surveillance System, DHHS.	Self-reported. Adolescents aged 12 to 17. Self-reported. High school students grades 9-12.
#26-11c	U.S.--National Survey on Drug Use and Health, SAMHSA. Nebraska--BRFSS, DHHS.	Self-reported. Binge drinking is defined as drinking 5 or more alcoholic beverages at the same time or within a couple of hours of each other during the past 30 days. Same as U.S.
#26-11d	U.S.--National Survey on Drug Use and Health, SAMHSA. Nebraska--Youth Risk Behavior Surveillance System, DHHS.	Self-reported. Binge drinking is defined as drinking 5 or more alcoholic beverages at the same time or within a couple of hours of each other during the past 30 days. Adolescents aged 12 to 17 years. Same as U.S., except for high school students grades 9-12.
#26-xx	U.S.--Behavioral Risk Factor Surveillance System (BRFSS), CDC. Nebraska--BRFSS, DHHS.	Self-reported. Self-reported.
#26-xx	U.S.--Youth Risk Behavior Surveillance System, CDC. Nebraska--Youth Risk Behavior Surveillance System, BRFSS, DHHS.	Self-reported. Self-reported.
TOBACCO USE		
#27-1a	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	Percent of adults aged 18 and older who have smoked at least 100 cigarettes in their lifetime and who now report smoking cigarettes everyday or some days. Same as U.S.
#27-1b	U.S.--National Health Interview Survey (NHIS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	Percent of males aged 18 and older who have used snuff or chewing tobacco at least 20 times in their lifetime and who now use it everyday or some days. Percent of males aged 18 and older who report that they "currently use any smokeless tobacco products such as chewing tobacco or snuff."
#27-2	U.S.--Youth Risk Behavior Surveillance System (YRBS), CDC. Nebraska--Youth Risk Behavior Survey, DHHS.	Self-reported. Self-reported.
#27-9	U.S.--Behavioral Risk Factor Surveillance System (BRFSS), CDC. Nebraska--Behavioral Risk Factor Surveillance System (BRFSS), DHHS.	(NEW DEFINITION) Percent of households with children under age 18 where no smoking rules or where smoking is allowed some or all of the Same as U.S.



**Nebraska Department of Health
and Human Services**

EOE/AA/ADA