



Nebraska
Center
For
Rural
Health
Research

Nebraska Rural Health Works Health Economic Profile for Logan County, Nebraska

Prepared by
Li-Wu Chen, Ph.D., Project Director
Michelle Lampman, M.A., Health Data Analyst
Liyan Xu, M.S., Health Data Analyst
Celeste Pierce, Project Assistant

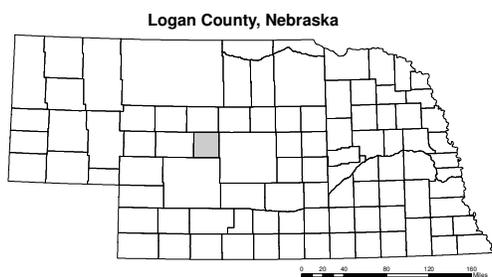
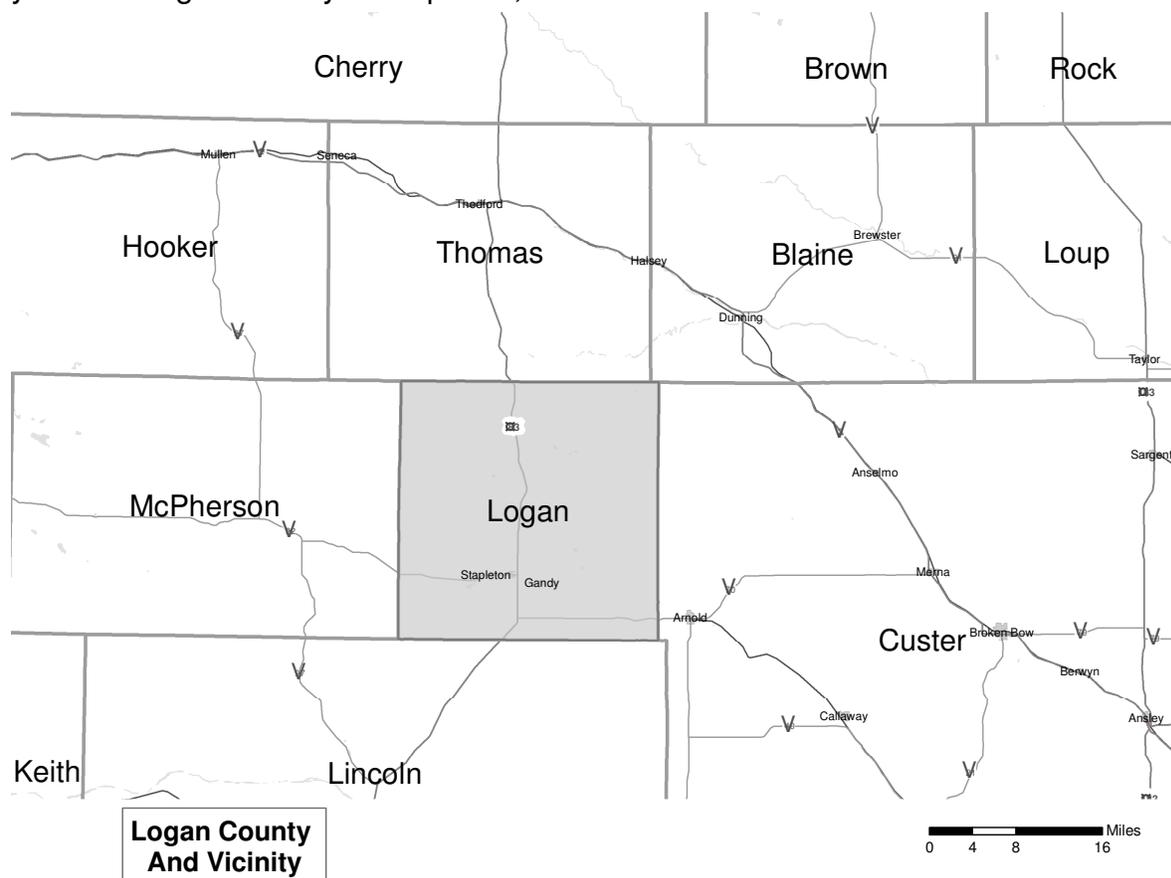
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I. GEOGRAPHY

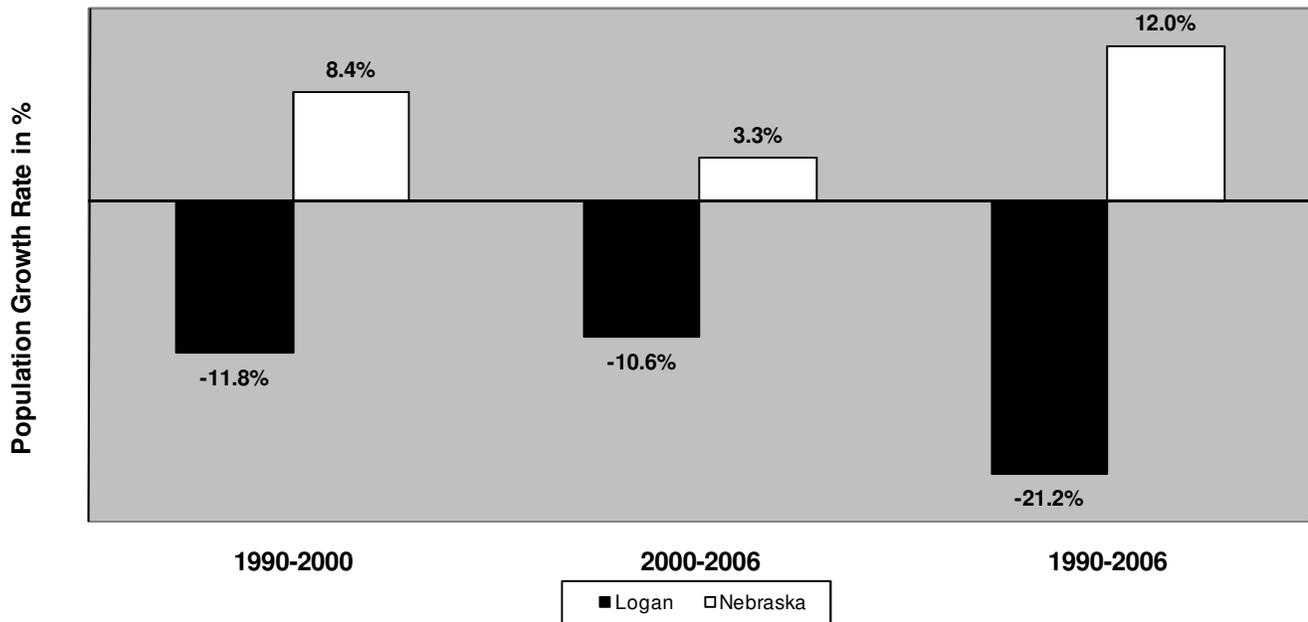
Logan County is located in the West Central region of Nebraska. The county has a total of 570.68 square miles with a population density of 1.4 people per square mile (Nebraska: 22.3 per square mile). The county seat of Logan County is Stapleton, Nebraska.



II. POPULATION

The population for Logan County was 692 in 2006. The county experienced a negative population change of 21.2% (compared to +12.0% statewide) during 1990-2006 (Figure 1). The white population represented the majority of county's population in 2006 (98.3% vs. 91.8% statewide, Table 1). In addition, the county's population is slightly older than the state's, with the elderly (aged 65+) representing 14.7% (compared to 13.9% statewide) of the population in 2006 (Table 2).

**Figure 1. Population Growth Rate,
Logan County and Nebraska, 1990-2006**



Sources: U.S. Bureau of the Census. Census 1990 and Census 2000, Summary Tape File 1. <http://factfinder.census.gov>. 2006 population: 2006 Estimates 2011 project by Geolytics Inc.

Table 1. Population by Race for Logan County and Nebraska, 2000 and 2006

	Logan County 2000	Nebraska 2000	Logan County 2006	Nebraska 2006
White	98.6% (763)	89.6% (1,533,261)	98.3% (680)	91.8% (1,624,120)
Black	0.1% (1)	4.0% (68,541)	0.1% (1)	4.4% (77,379)
American Indian Eskimo and Aleut	1.0% (8)	0.9% (14,896)	1.3% (9)	1.0% (17,276)
Asian or Pacific Islander	0.0% (0)	1.3% (22,204)	0.0% (0)	1.7% (30,454)
Other Race	0.0% (0)	2.8% (47,845)	0.3% (2)	1.1% (20,321)
Hispanic*	0.9% (7)	5.5% (94,425)	1.0% (7)	7.5% (131,904)

* Hispanic individuals were allowed to identify race alone or in combination with one or more other races, therefore totals will be more than 100
Source: U.S. Bureau of the Census, 2000 Census of Population and Housing, Summary Tape File 1. <http://factfinder.census.gov>. 2006 population: 2006 Estimates 2011 project by Geolytics Inc.

Table 2. Population by Age for Logan County and Nebraska, 2000 and 2006

Age	Logan County 2000	Nebraska 2000	Logan County 2006	Nebraska 2006
0-4	5.2% (40)	6.8% (117,048)	7.5% (52)	7.1% (125,258)
5-24	26.5% (205)	29.7% (507,619)	27.9% (193)	28.0% (495,930)
25-64	50.8% (393)	49.9% (854,401)	49.9% (345)	51.1% (903,564)
65-84	15.8% (122)	11.6% (198,242)	13.3% (92)	11.5% (202,653)
85+	1.8% (14)	2.0% (33,953)	1.4% (10)	2.4% (42,308)
TOTAL	100.0% (774)	100.0% (1,711,263)	100.0% (692)	100.0% (1,768,331)

Source: U.S. Bureau of the Census, Census 2000, Summary Tape File 1. <http://factfinder.census.gov>. 2006 population: 2006 Estimates 2011 project by Geolytics Inc.

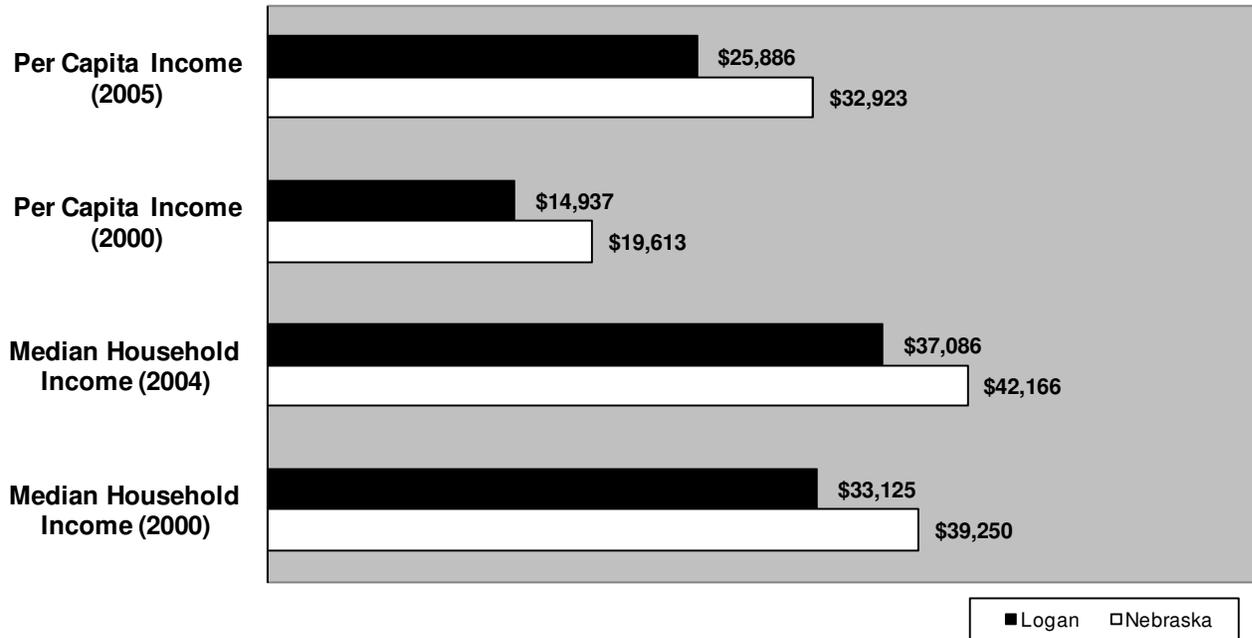
III. ECONOMIC IMPACT OF THE HEALTH CARE SECTOR

Construction and retail trade are the largest employers within Logan County, followed by other services (except public administration). According to the sources used to determine the number of health care facilities within Logan County, there does not appear to be any health care facilities located within the county; therefore, we are unable to conduct an IMPLAN analysis of economic impact of the health care sector for Logan County.

IV. SOCIO-ECONOMIC INDICATORS

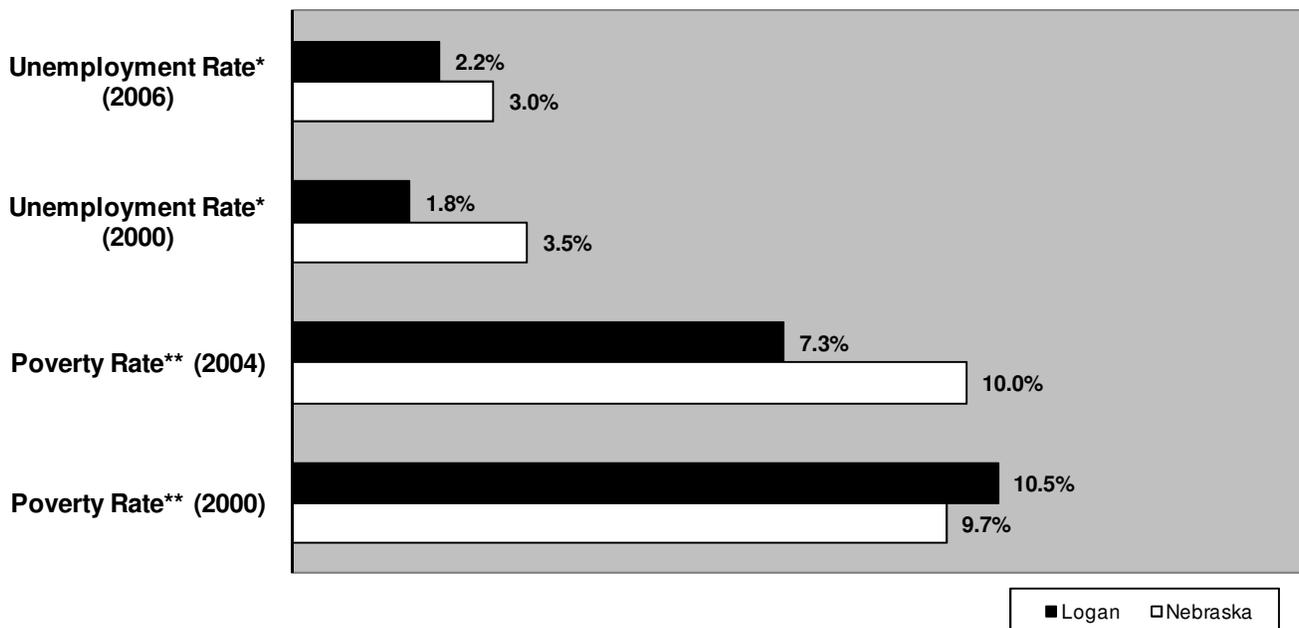
The median household income of the county increased since 2000 by 11.9% to \$37,086 in 2004 (compared to \$42,166 statewide), and the per capita income of the county increased since 2000 by 73.3%, to \$25,886 in 2005 (compared to \$32,923 statewide) (Figure 5). Logan County experienced a lower unemployment rate than the state in 2006 (2.2% vs. 3.0% statewide) and a lower poverty rate than the state in 2004 (7.3% vs. 10.0% statewide) (Figure 6). The county out-performed the state in three of the four social indicators shown in Table 3, with a lower percentage of residents aged 25 and older who did not graduate from high school, a lower percentage of 7-12th graders who dropped out of school, and a lower crime arrest rate per 1,000.

Figure 5. Income for Logan County and Nebraska, 2000, 2004 and 2005



Sources: U.S. Census Bureau, Census 1999, 2004, and 2005, Summary File 3. <http://factfinder.census.gov>. Per capita income: U.S. Department of Commerce Bureau of Economic Analysis. <http://www.bea.gov/bea/regional/reis/drill.cfm>.

Figure 6. Economic Indicators for Logan County and Nebraska, 2000, 2004, and 2006



* Percent of residents aged 16 and older in the labor force that are unemployed.

** Percent of total population living below 100% of the Federal poverty threshold.

Sources: U.S. Census Bureau, Census 2000, 2004, and 2006, Summary File 3. <http://factfinder.census.gov>; U.S. Department of Labor, <ftp://ftp.bls.gov/pub/special.requests/la/laucnty06.txt>.

Table 3. Selected Social Indicators for Logan County and Nebraska

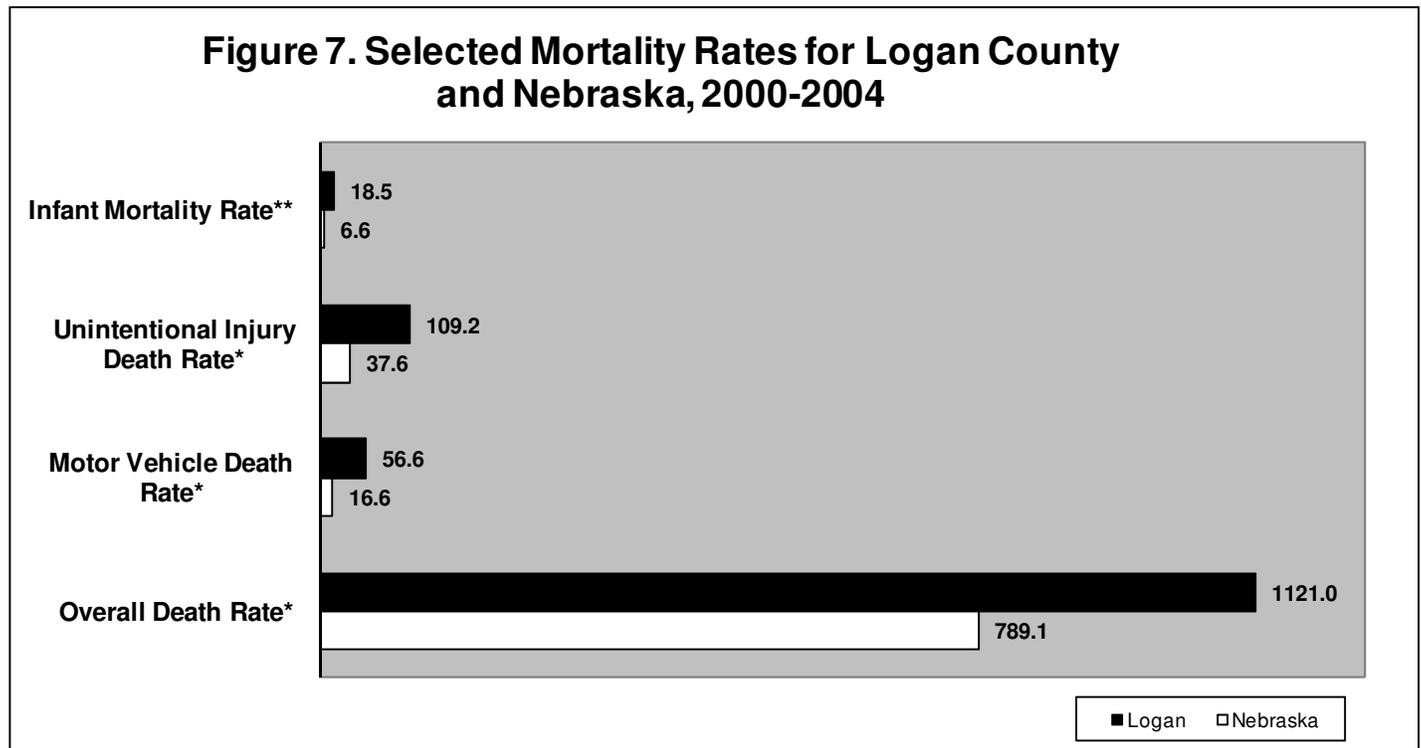
	Logan County	Nebraska
Percent of residents aged 25 and older who did not graduate from high school (2000)	9.2%	13.4%
Percent of 7-12th graders who dropped out of school (2003-2004)	0.0%	1.9%
Percent of first births born to unmarried women, younger than 20, with less than a high school education (2000-2004)	9.1%	9.0%
Crime arrest rate per 1,000 population (2004)	14.1	54.2

Sources: U.S. Census Bureau, Census 2000. <http://factfinder.census.gov>; Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles/index.htm#County>.

V. HEALTH STATUS INDICATORS

Logan County under-performed the state on the selected mortality rates with higher rates for all indicators listed here (Figure 7). The county out-performed the state in all of the four selected maternal and child health indicators with a lower low-weight birth rate, a lower percentage of births to adolescents aged 10-17, a lower percentage of pregnant women who smoke and a higher percentage of pregnant women who reported obtaining prenatal care in the 1st trimester (Figure 8). Among the top 5 leading causes of death of Logan County residents, the county had a higher rate of death due to all causes listed here (Figure 9). Among the top 5 leading causes of hospitalization of Logan County residents between 2003 and 2004, the county had a higher hospitalization rate for all injuries, diabetes related diseases, fractures, and digestive diseases than the state (Figure 10).

Figure 7. Selected Mortality Rates for Logan County and Nebraska, 2000-2004

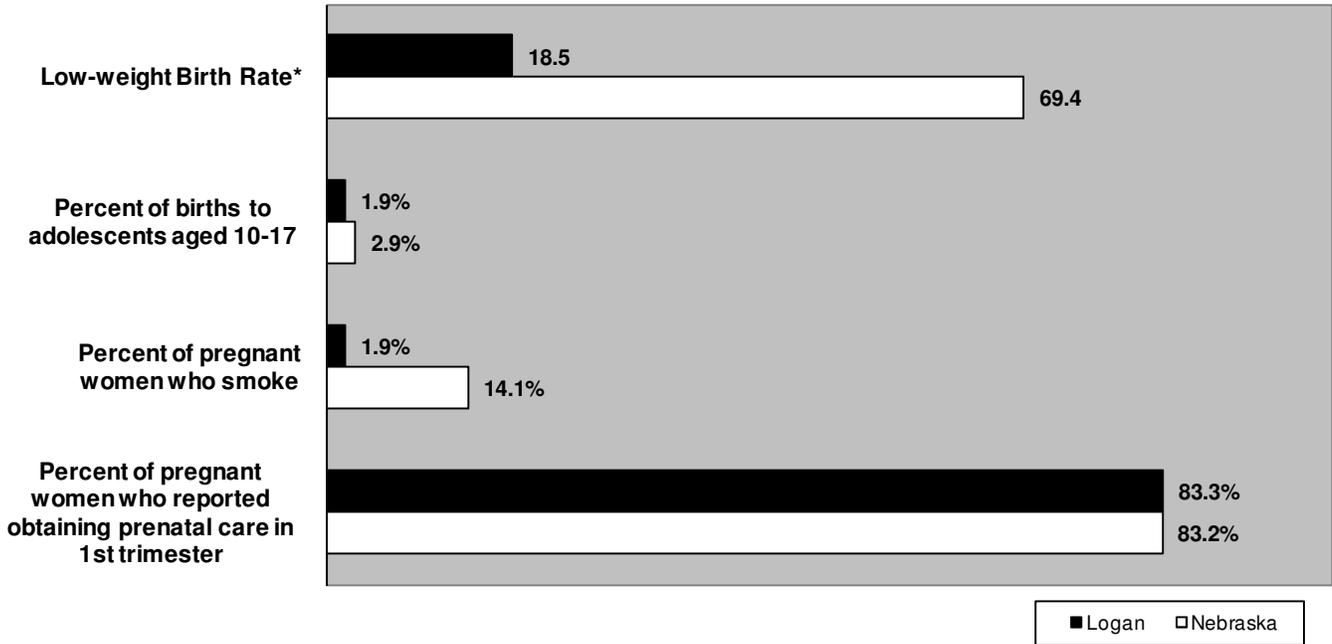


*Number of deaths per 100,000 populations (age-adjusted).

**Number of deaths per 1,000 live births.

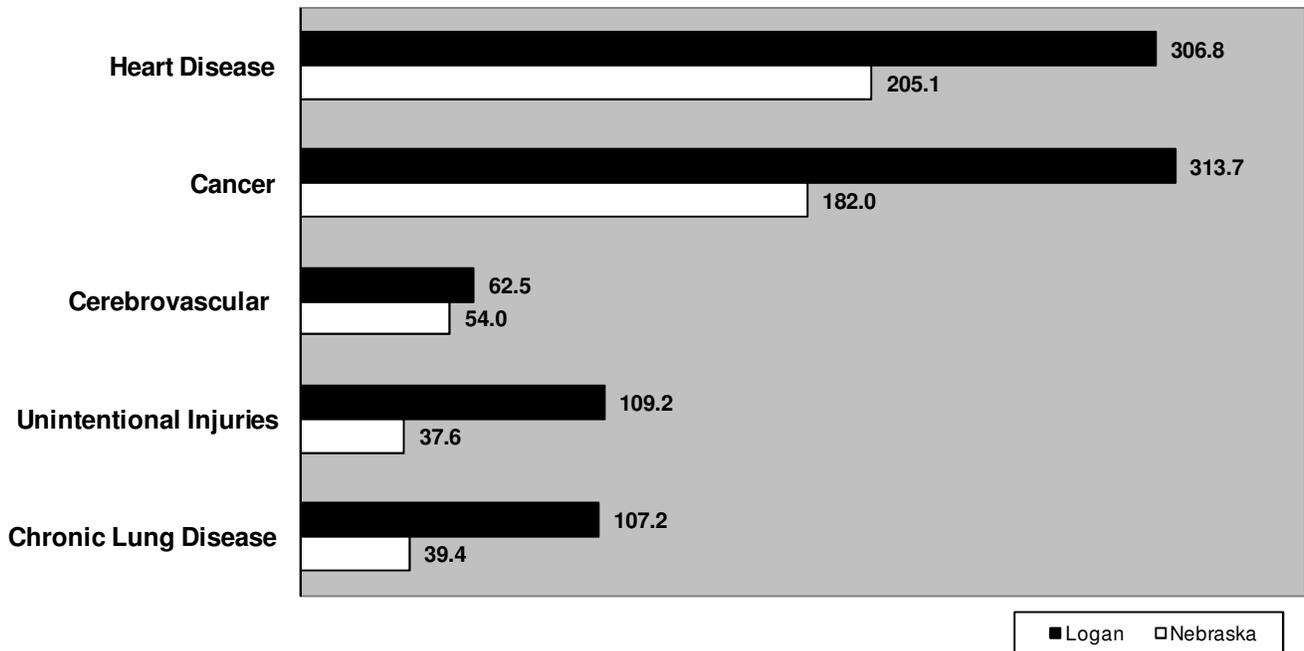
Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles/index.htm#County>.

Figure 8. Selected Maternal and Child Health Indicators, Logan County and Nebraska, 2000-2004



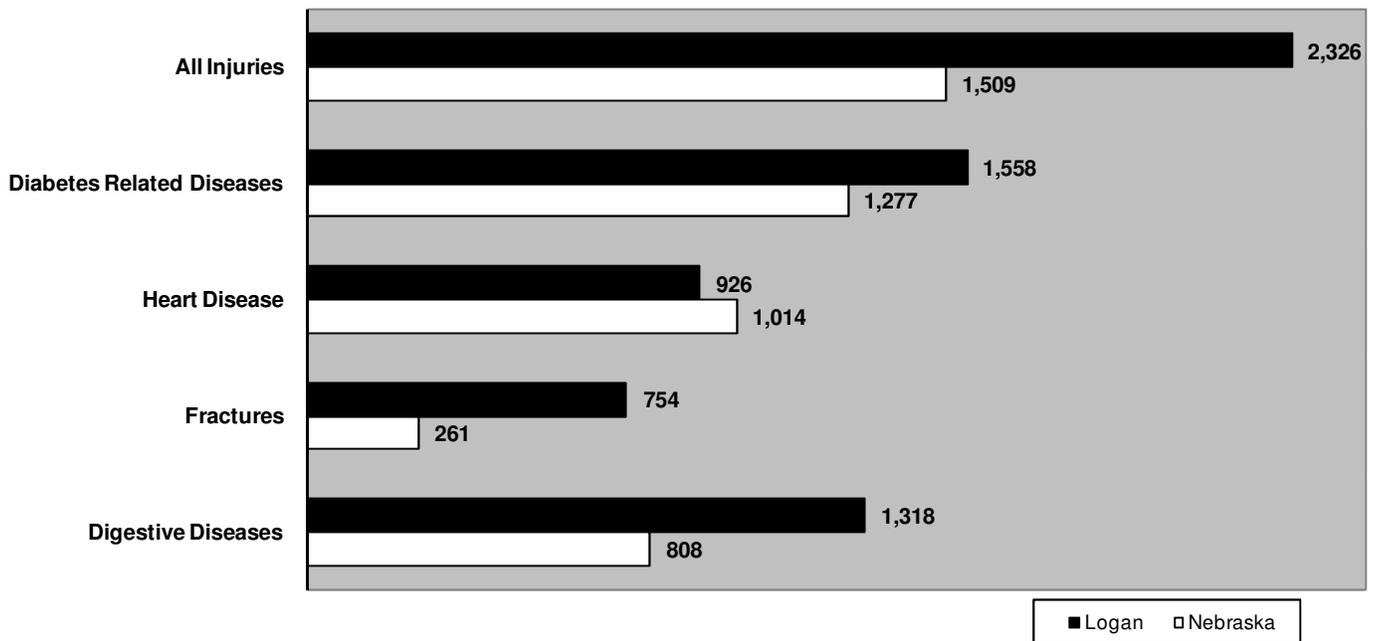
* Number of babies born weighing less than 2500 grams (per 1,000 births).
 Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles/index.htm#County>.

Figure 9. Top 5 Leading Causes of Death for Logan County and the Corresponding Mortality Rates* for the County and Nebraska, 2000-2004



*Number of deaths per 100,000 population (age adjusted).
 Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles/index.htm#County>.

Figure 10. Top 5 Leading Causes of Hospitalization* for Logan County and the Corresponding Hospitalization Rates for the County and Nebraska, 2003-2004**



*Hospitalizations for pregnancy and childbirth were excluded from this analysis.

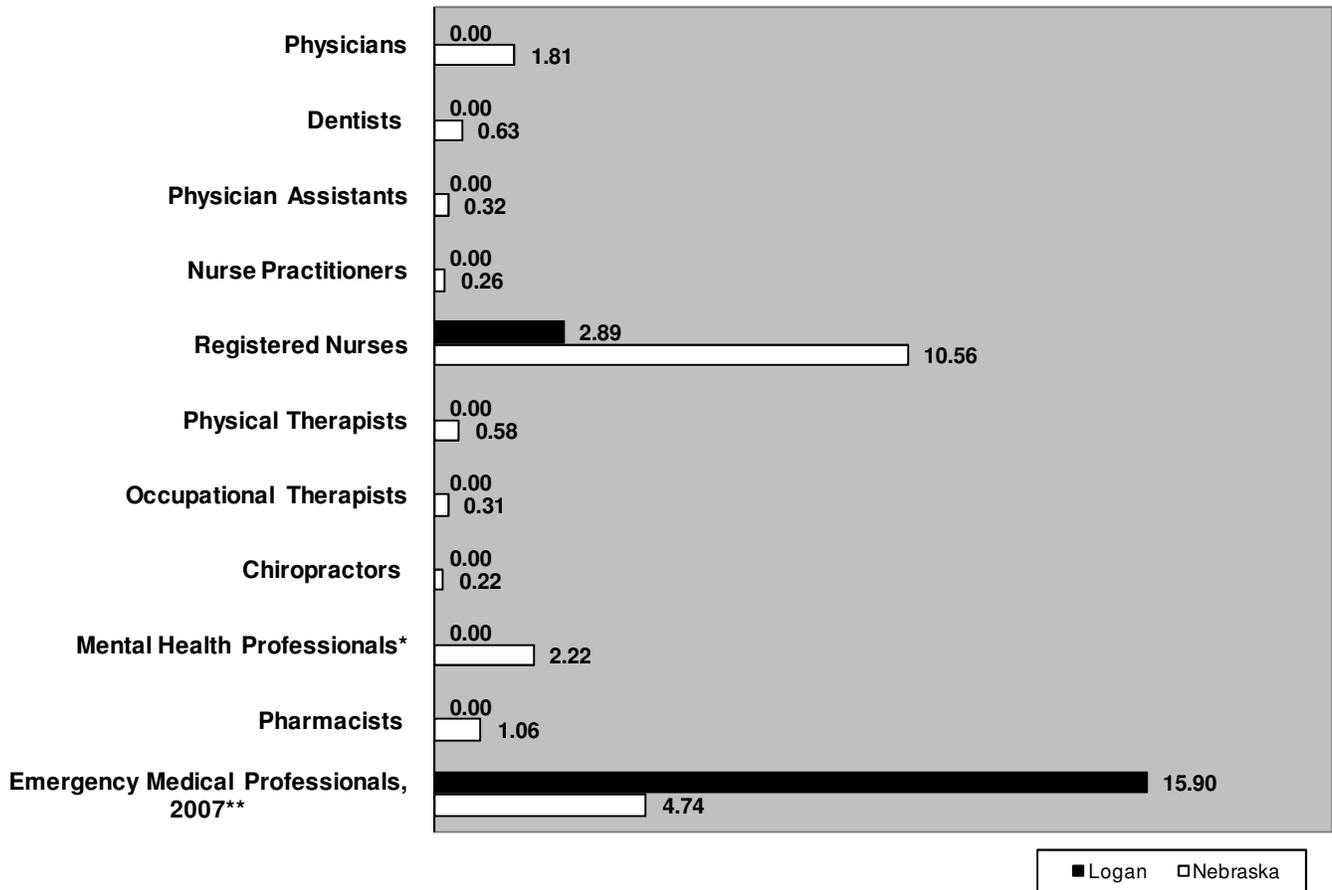
**Defined as the proportion of inpatient hospital discharges to a population within clearly specified geographic boundaries, age adjusted per 100,000 population.

Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles/index.htm#County>.

VI. HEALTH CARE PROFESSIONALS

Logan County is federally designated as a partial primary care and mental health professional shortage area. In addition, the Logan Service Area is a federally designated Medically Underserved Area. The state government has designated Logan County as a health professional shortage area in the specialties of family practice, general surgery, internal medicine, pediatrics, OB/GYN, dental/oral surgery, pharmacy, physical and occupational therapy, and mental health. Logan County has a higher professional-to-population ratio than the state for EMS professionals and a lower professional-to-population ratio than the state for all other health professional areas shown in Figure 11.

Figure 11. Number of Practicing Health Professionals Per 1,000 Population, Logan County and Nebraska, 2005



*Mental Health Professionals include Psychiatrists, Licensed Psychologists, Master Social Workers, Certified Professional Counselors, Licensed Mental Health Practitioners, and Marriage and Family Therapists.

** Emergency Medical Professionals include Emergency Medical Technician (EMT) Paramedic, EMT-Intermediate, EMT-Basic, and First Responders.

Source: *The Nebraska Health Information Project: 2006 Databook*. (2007) Nebraska Center for Rural Health Research, University of Nebraska Medical Center

Data Notes

Using IMPLAN software and IMPLAN data for Nebraska's five health-related economic subsectors, we predict changes in overall economic activity as a result of change in health care subsectors. The IMPLAN software is based on an economic input-output model. To improve the accuracy of the dataset in order to better estimate health sector impact, we also use information from the U.S. Census Bureau's *County Business Patterns 2006* and the *American Hospital Association Annual Survey Database: Fiscal Year 2006*. Analysis is only performed at the county level.

Acknowledgments

We would like to thank Dennis Berens, at the Nebraska Office of Rural Health, for his enthusiastic support of the Nebraska Rural Health Works Project. We would also like to thank Nicole Van Osdel at the Nebraska Center for Rural Health Research for making the maps.

About the Nebraska Rural Health Works Project

The Nebraska Rural Health Works Project is made possible with the financial support of the Nebraska Office of Rural Health and through additional personnel and resources provided by the College of Public Health at the University of Nebraska Medical Center. The brief reports are designed to inform opinion leaders (from general business, health care, and government) in rural communities about the contribution health care makes to the county economy, both directly and indirectly. We use IMPLAN software, which uses an economic input-output model, to predict changes in overall economic activity as a result of change in the health care sector. In addition to the analysis of the economic impact of the health sector on a specific county, other information, such as demographics, socio-economic and health status indicators, health care professionals and facility bed capacity, are reported for a county.

If you would like to view additional County Profiles for Nebraska, please visit our Nebraska Rural Health Works website: <http://www.unmc.edu/rural/NeRHW>.

If you would like additional information regarding Nebraska's health care financing, health professionals, health status and health care delivery systems, visit the Nebraska Health Information Project website: <http://www.unmc.edu/nebraska>.

County Health Economic Profiles can be prepared upon request. At this time, we only perform analysis at the county level. If you are interested in this project, you can request a profile by contacting the Project Director, Li-Wu Chen, Ph.D. (liwuchen@unmc.edu), or Michelle Lampman, M.A. (mlampman@unmc.edu) at the Nebraska Center for Rural Health Research, College of Public Health, University of Nebraska Medical Center, (402)559-5260.

The Nebraska Center for Rural Health Research

College of Public Health
University of Nebraska Medical Center
984350 Nebraska Medical Center
Omaha, NE 68198-4350