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

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Executive Summary on the Economic Impact of Health Care Sector

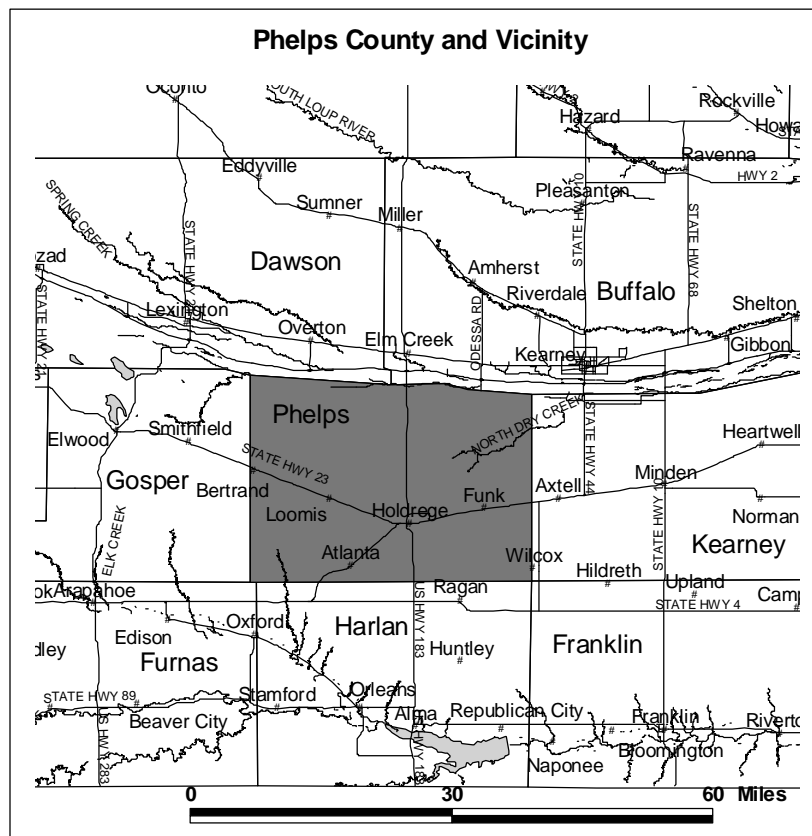
- ◆ One job created in the health care sector of Phelps County would lead to the creation of another 0.52 job in other sectors of the county's economy.
- ◆ One dollar of income earned in the health care sector of Phelps County would lead to another \$0.38 of income earned in other sectors of the county's economy.
- ◆ One dollar spent in the health care sector of Phelps County would lead to another \$0.60 spent in other sectors of the county's economy.
- ◆ The overall job creation due to health care (directly and indirectly) in Phelps County is estimated at 938 jobs, which accounts for 14% of the county's total employment.
- ◆ The overall income earned due to health care (directly and indirectly) in Phelps County is estimated at \$25.16 million, which accounts for 10% of the county's total income.
- ◆ The overall spending due to health care (directly and indirectly) in Phelps County is estimated at \$49.58 million, which accounts for 6% of the county's total economic output.

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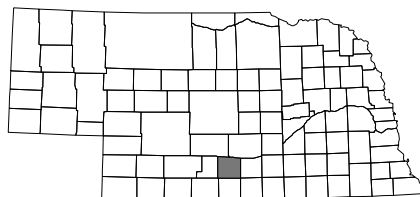
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PR02-2

I. GEOGRAPHY

Phelps County is located in south central Nebraska. The county has a total of 540 square miles with a population density of 18.1 people per square mile (Nebraska: 22.3 per square mile). The county seat of Phelps is Holdrege, Nebraska.



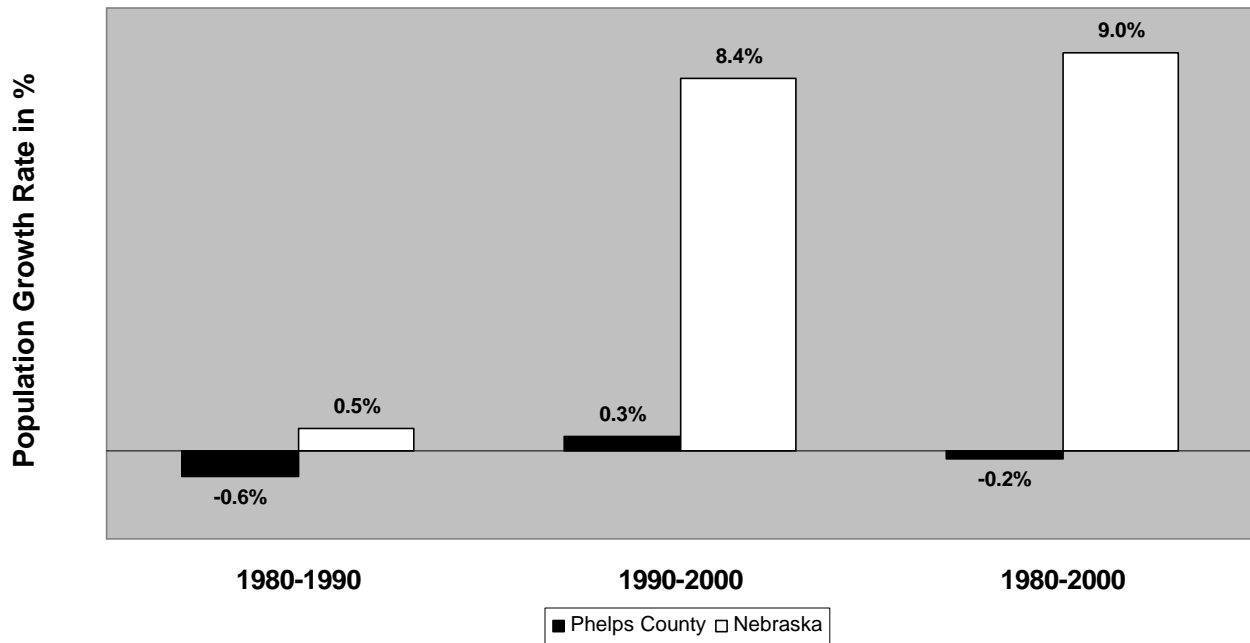
Phelps County, Nebraska



II. POPULATION

The population for Phelps County was 9,747 in 2000. The county has experienced a slightly negative population growth of -0.2% (compared to $+9\%$ statewide) during 1980-2000 (Figure 1). Although the county's minority population has increased during the last decade, white (non-Hispanic) people still represented the great majority of county population in 2000 (98.3% vs. 89.6% statewide; Table 1). In addition, the county's population is older than the State, with the elderly (aged 65+) representing 18.1% (compared to 13.5% statewide) of the population in 2000 (Table 2).

Figure 1. Population Growth Rate, Phelps County and Nebraska, 1980-2000



Sources: U.S. Bureau of the Census. Census of Population and Housing, 1990 and 2000, Summary Tape File 1. <http://factfinder.census.gov>. Nebraska Department of Health and Human Services Vital Statistics, 1960-2001 Population by County. <http://www.hhs.state.ne.us/ced/tbl2.htm>.

Table 1. Population by Race for Phelps County and Nebraska, 1990 and 2000

	Phelps County 1990	Nebraska 1990	Phelps County 2000	Nebraska 2000
White	99.0% (9,653)	93.8% (1,480,558)	98.3% (9,591)	89.6% (1,533,261)
Black	<0.1% (5)	3.6% (57,404)	0.3% (30)	4.0% (68,541)
Asian or Pacific Islander	0.2% (16)	0.8% (12,422)	0.6% (63)	1.3% (22,767)
American Indian or Alaska Native	0.2% (15)	0.8% (12,410)	0.5% (46)	0.9% (14,896)
Other Race	0.3% (26)	1.0% (15,591)	1.0% (95)	2.8% (47,845)
Hispanic*	0.9% (91)	2.3% (36,969)	2.0% (220)	5.5% (94,425)

* Hispanic individuals were allowed to identify race alone or in combination with one or more other races, therefore the totals will be more than 100%.
Sources: U.S. Bureau of the Census. Census of Population and Housing, 1990 and 2000, Summary Tape File 1. <http://factfinder.census.gov>

Table 2. Population by Age for Phelps County and Nebraska, 1990 and 2000

Age	Phelps County 1990	Nebraska 1990	Phelps County 2000	Nebraska 2000
0-4	7.2% (705)	7.6% (119,606)	6.2% (606)	6.8% (117,048)
5-24	26.7% (2,596)	29.5% (465,293)	26.4% (2,569)	29.7% (507,619)
25-64	48.2% (4,683)	48.8% (770,418)	49.3% (4,808)	49.9% (854,401)
65-84	14.8% (1,444)	12.3% (193,866)	14.8% (1,444)	11.6% (198,242)
85+	2.9% (287)	1.9% (29,202)	3.3% (320)	2.0% (33,953)
TOTAL	100% (9,715)	100% (1,578,825)	100% (9,747)	100% (1,711,263)

Sources: U.S. Bureau of the Census. Census of Population and Housing, 1990 and 2000, Summary Tape File 1. <http://factfinder.census.gov>

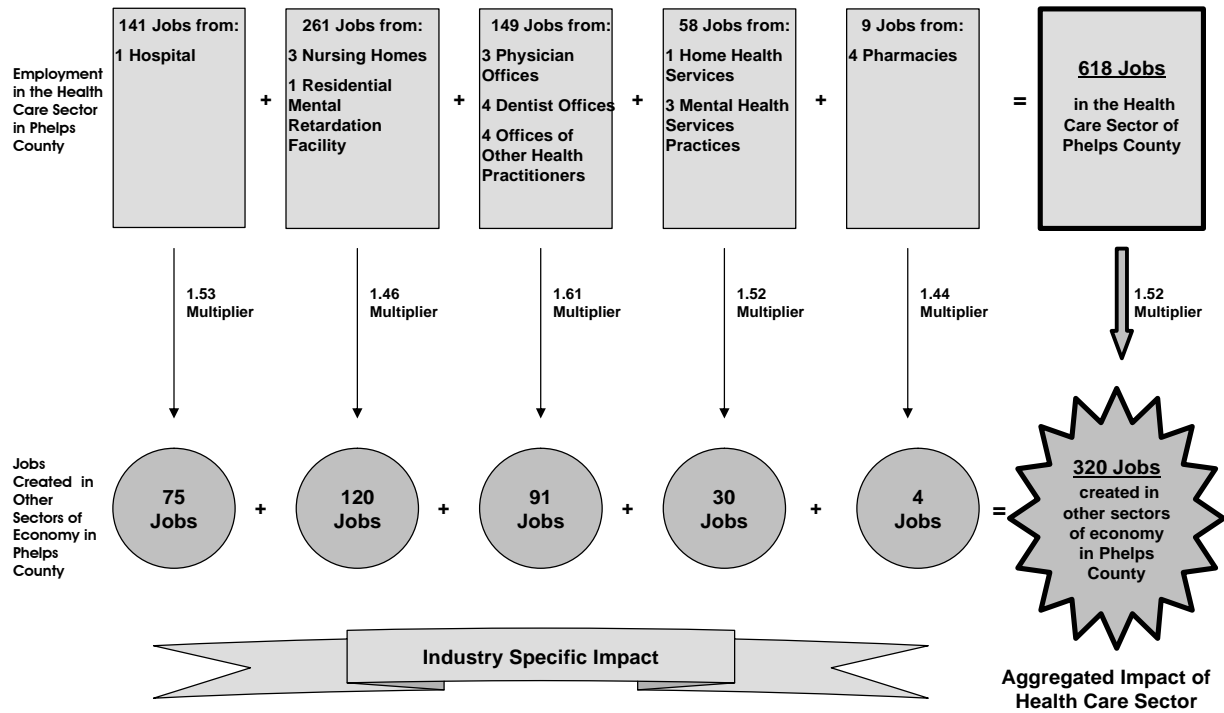
III. ECONOMIC IMPACT OF THE HEALTH CARE SECTOR

The Health Care and Social Assistance industry is the second largest employer within Phelps County, preceded only by the Manufacturing industry. Other major employers within the county are: Retail Trade, Construction, and Wholesale Trade.

The health care sector of Phelps County includes one hospital, three nursing homes, one residential mental retardation facility, one home health agency, three physician offices, four dentist offices, one health clinic led by a Nurse Practitioner, two chiropractor offices, one optometrist office, three mental health services practices, and four pharmacies.

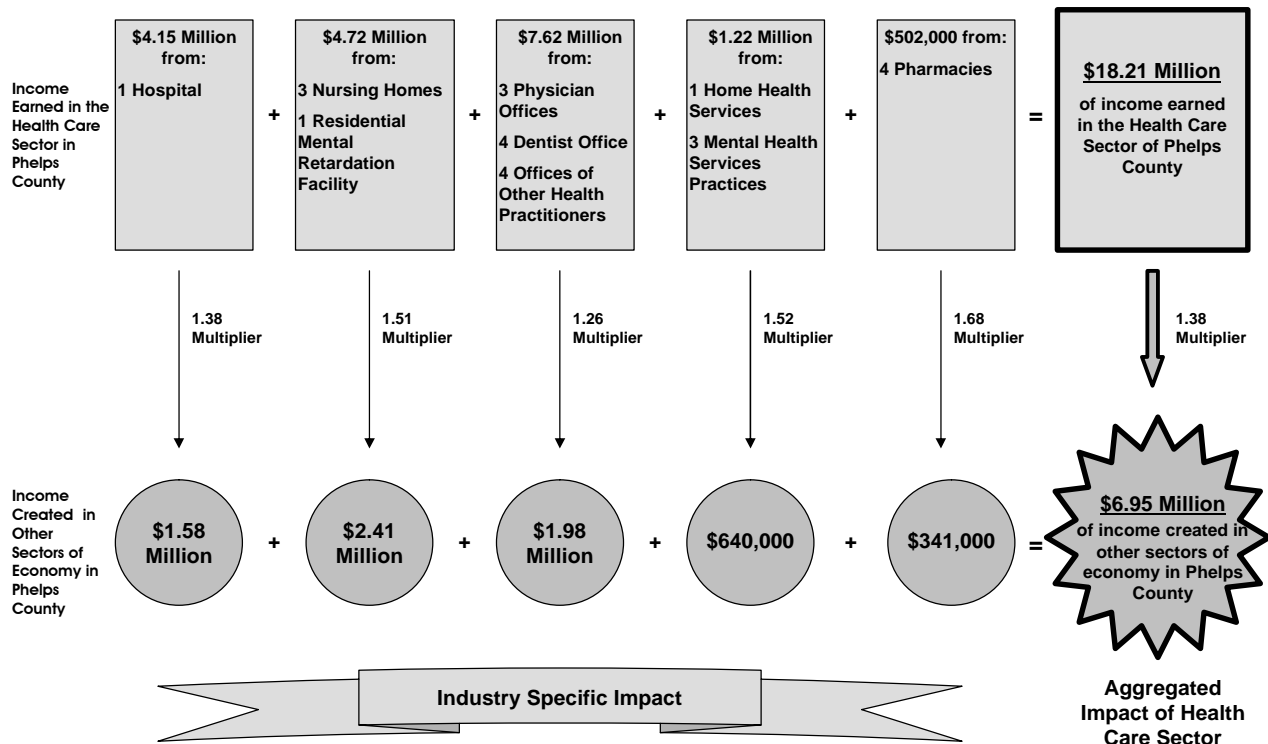
- ◆ The 618 jobs in the health care sector of Phelps County have created (through a 1.52 multiplier) another 320 jobs in other sectors of the county's economy (Figure 2). Therefore, the combined effect represents 14% of the county's total employment (i.e., 938 out of 6,741 jobs).
- ◆ The \$18.21 million of income earned in the health care sector of Phelps County has created (through a 1.38 multiplier) another \$6.95 million of income in other sectors of the county's economy (Figure 3). Therefore, the combined effect represents 10% of the county's total income (i.e., \$25.16 million out of \$262.56 million).
- ◆ The \$30.96 million spent in the health care sector of Phelps County has created (through a 1.60 multiplier) another \$18.62 million of spending in other sectors of the county's economy (Figure 4). Therefore, the combined effect represents 6% of the county's total economic output (i.e., \$49.58 million out of \$763.12 million).

Figure 2. The Economic Impact of the Health Care Sector on Employment in Phelps County, Nebraska



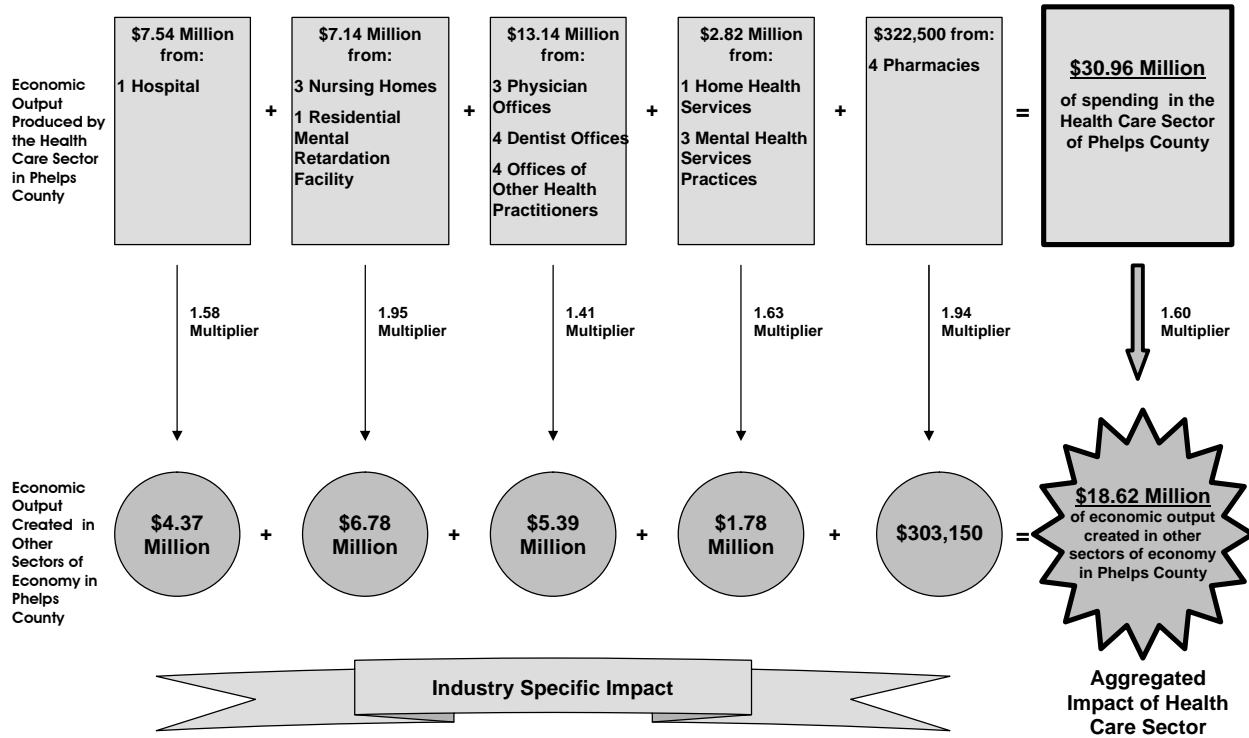
Sources: IMPLAN Data 1999, Minnesota IMPLAN Group, Inc. 2000. U.S. Census Bureau County Business Patterns, 2000. <http://www.census.gov/prod/www/abs/cbptotal.html>. Community Health System Assessment Survey, Nebraska Center for Rural Health Research, UNMC, July, 2002.

Figure 3. The Economic Impact of the Health Care Sector on Income in Phelps County, Nebraska



Sources: IMPLAN Data 1999, Minnesota IMPLAN Group, Inc. 2000. U.S. Census Bureau County Business Patterns, 2000. <http://www.census.gov/prod/www/abs/cbptotal.html>. Community Health System Assessment Survey, Nebraska Center for Rural Health Research, UNMC, July, 2002.

Figure 4. The Impact of the Health Care Sector on Economic Output in Phelps County, Nebraska

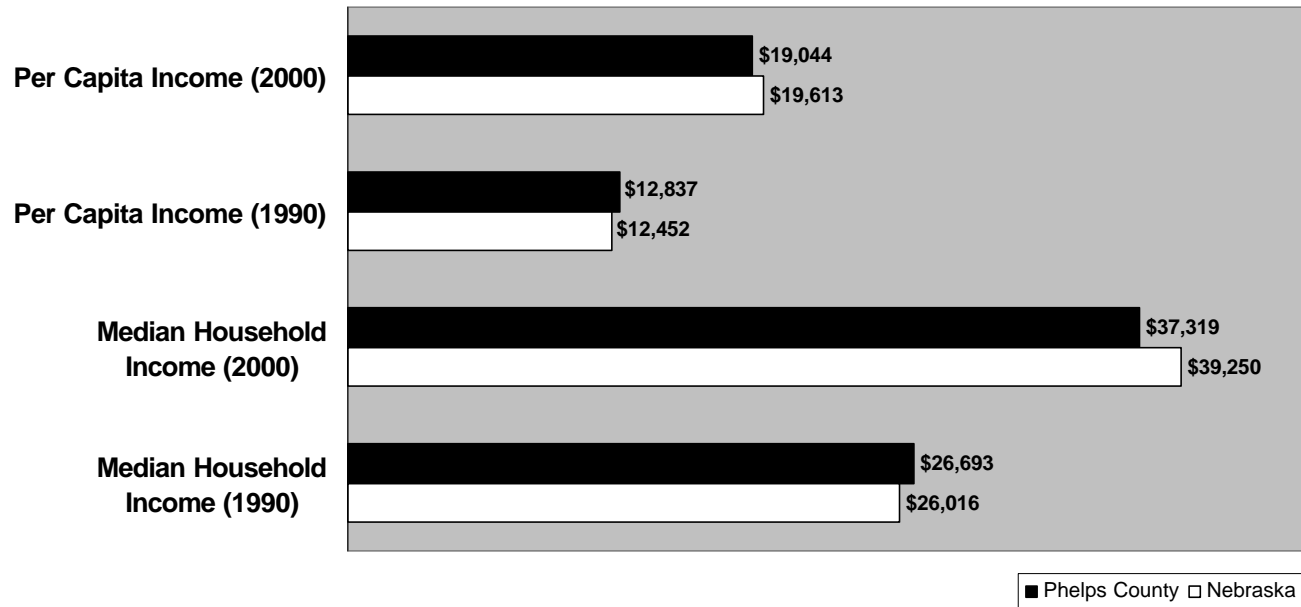


Sources: IMPLAN Data 1999, Minnesota IMPLAN Group, Inc. 2000, U.S. Census Bureau County Business Patterns, 2000. <http://www.census.gov/prod/www/abs/cbptotal.html>. Community Health System Assessment Survey, Nebraska Center for Rural Health Research, UNMC, July, 2002.

IV. SOCIO-ECONOMIC INDICATORS

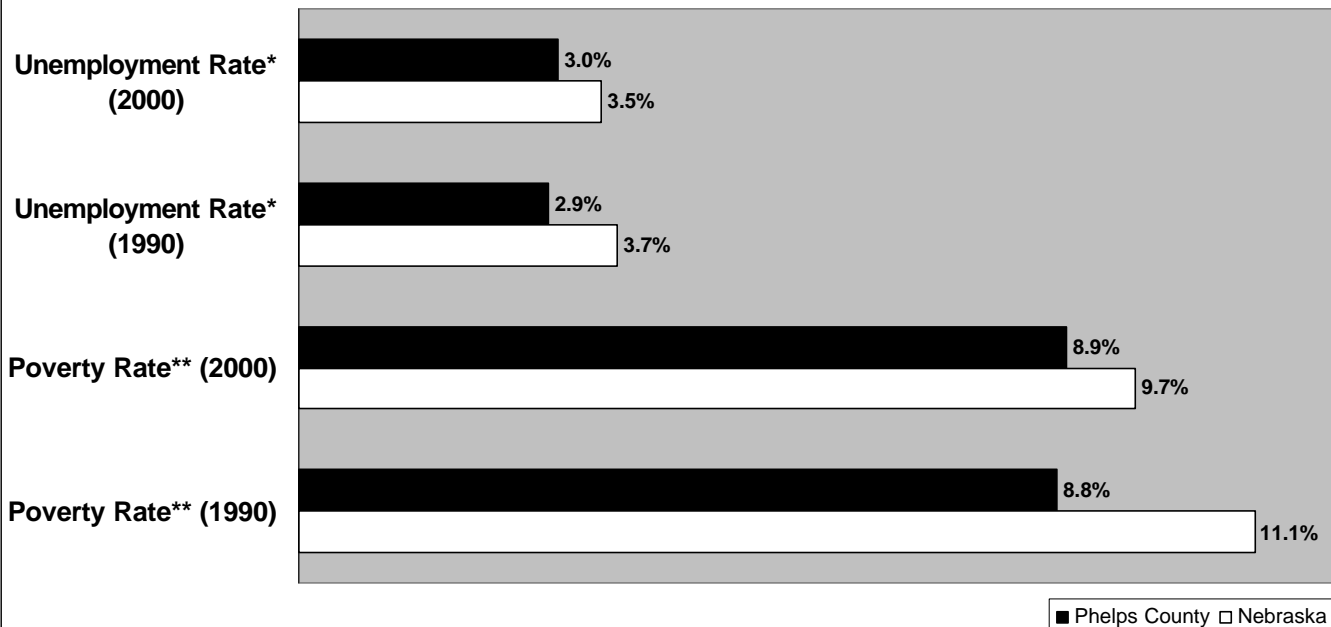
The median household income of the county has increased since 1990 by 40% to \$37,319 in 2000 (compared to \$39,250 statewide), and the per capita income of the county has increased since 1990 by 48% to \$19,044 in 2000 (compared to \$19,613 statewide) (Figure 5). In addition, the county experienced both a lower unemployment rate (3.0% vs. 3.5% statewide) and a lower poverty rate (8.9% vs. 9.7% statewide) than the State in 2000 (Figure 6). Moreover, the county out-performed the State in all of the four social indicators shown in Table 3.

Figure 5. Income for Phelps County and Nebraska, 1990 and 2000



Sources: U.S. Bureau of the Census. Census 1990, 2000, Summary File 3. <http://factfinder.census.gov>

Figure 6. Economic Indicators for Phelps County and Nebraska, 1990 and 2000



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

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

Sources: U.S. Bureau of the Census. Census 1990 and 2000, Summary File 3. <http://factfinder.census.gov>

Table 3. Selected Social Indicators for Phelps County and Nebraska

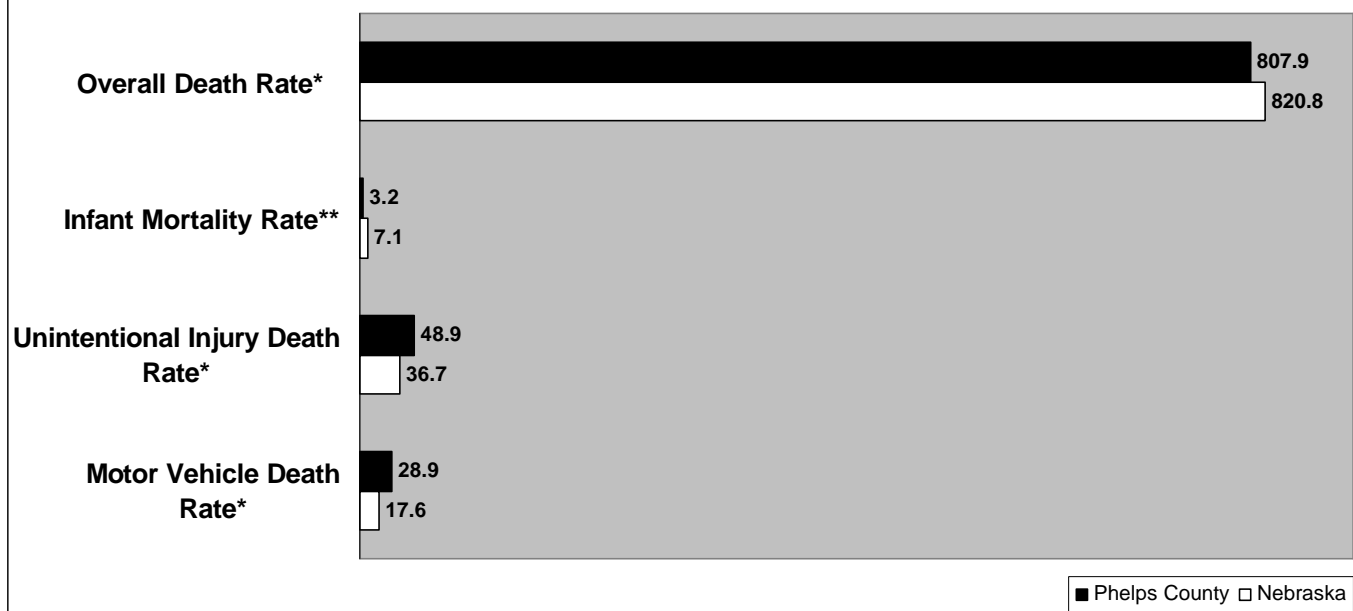
	Phelps County	Nebraska
Percent of residents aged 25 and older who did not graduate from high school (2000)	10.9%	13.4%
Percent of 7-12th graders who dropped out of school (2000-2001)	1.7%	2.5%
Percent of first births born to unmarried women, younger than 20, with less than a high school education (1997-2001)	8.7%	10.1%
Crime arrest rate per 1,000 population (1999)	28.1	59.2

Sources: U.S. Bureau of the Census. Census 2000, Summary File 3. <http://factfinder.census.gov>. Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles0802/phelps/profiles.htm>.

V. HEALTH STATUS INDICATORS

The residents of Phelps County have a lower overall death rate and a lower infant mortality rate than the State, but a higher mortality rate for motor vehicle death and unintentional injury death (Figure 7). In addition, Phelps County out-performed the State in all of the four maternal and child health related indicators shown in Figure 8. Among the top 5 leading causes of death of Phelps County's residents, the county has a higher mortality rate than the State for heart diseases, cerebrovascular diseases, and unintentional injuries (Figure 9). For all of the top 5 leading causes of hospitalization of Phelps County's residents, the county has a higher hospitalization rate than the State (Figure 10).

Figure 7. Selected Mortality Rates for Phelps County and Nebraska, 1997-2001

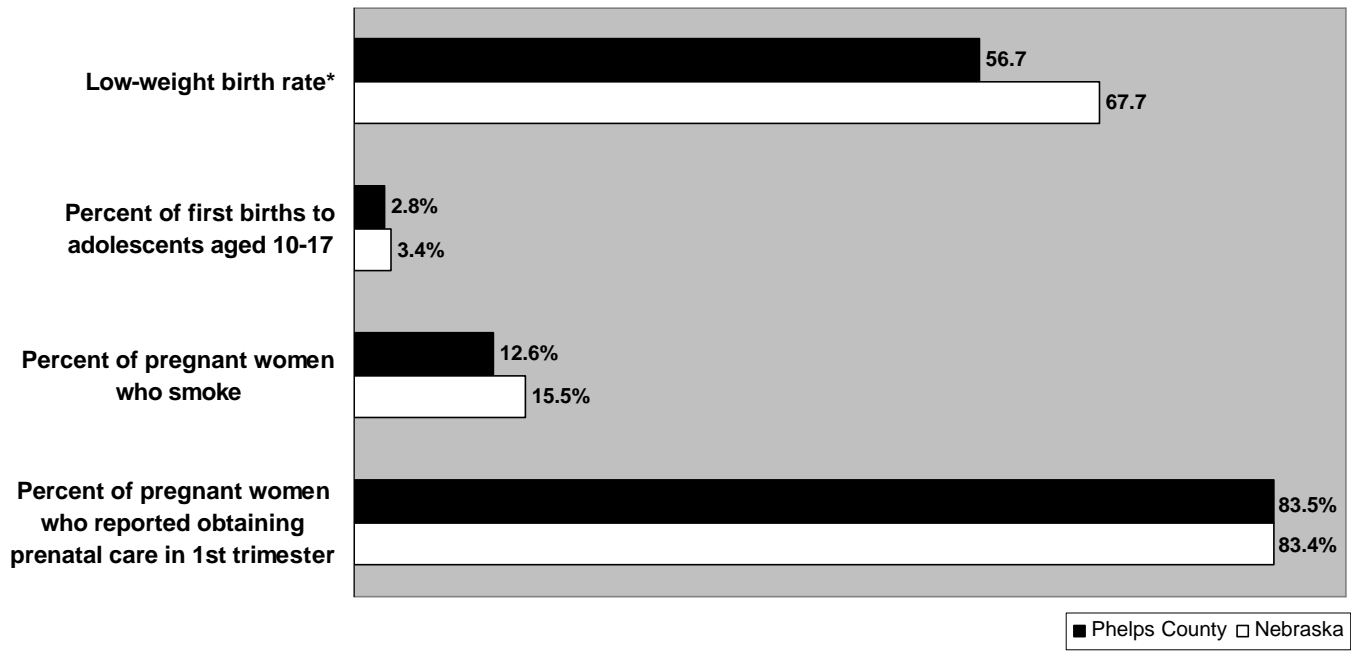


* Number of deaths per 100,000 population (age adjusted).

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

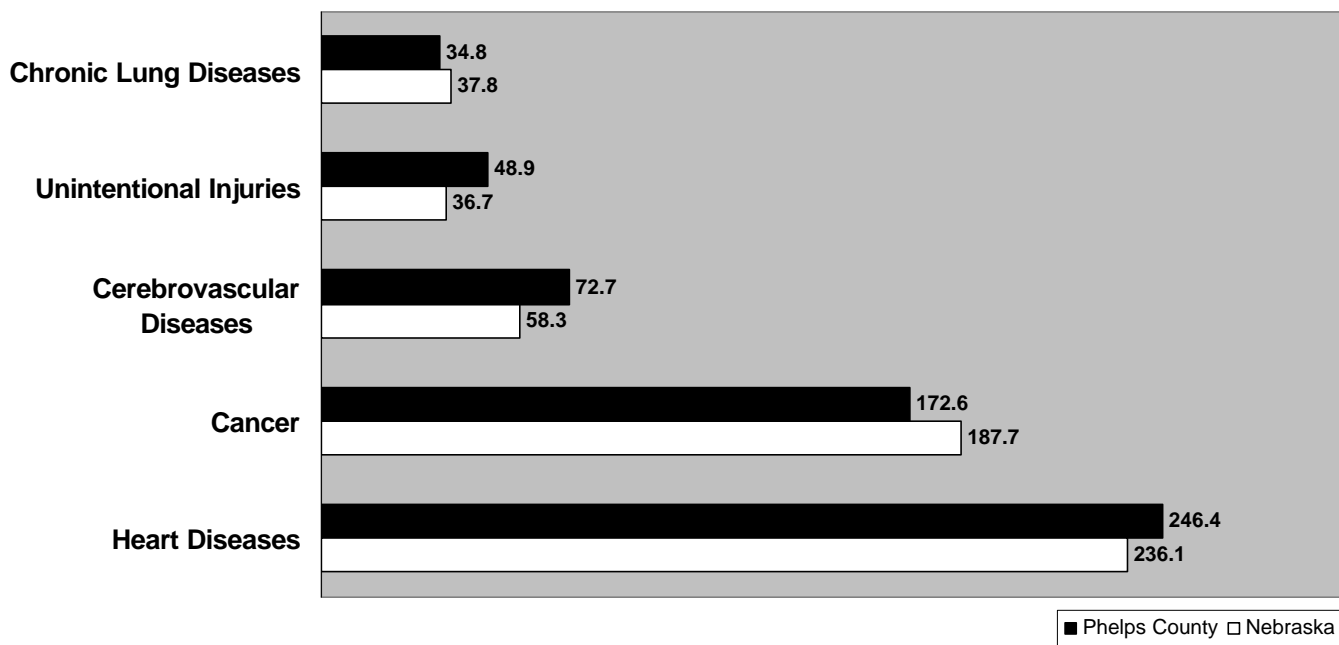
Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles0802/phelps/profiles.htm>.

Figure 8. Maternal and Child Health Indicators, Phelps County and Nebraska, 1997-2001



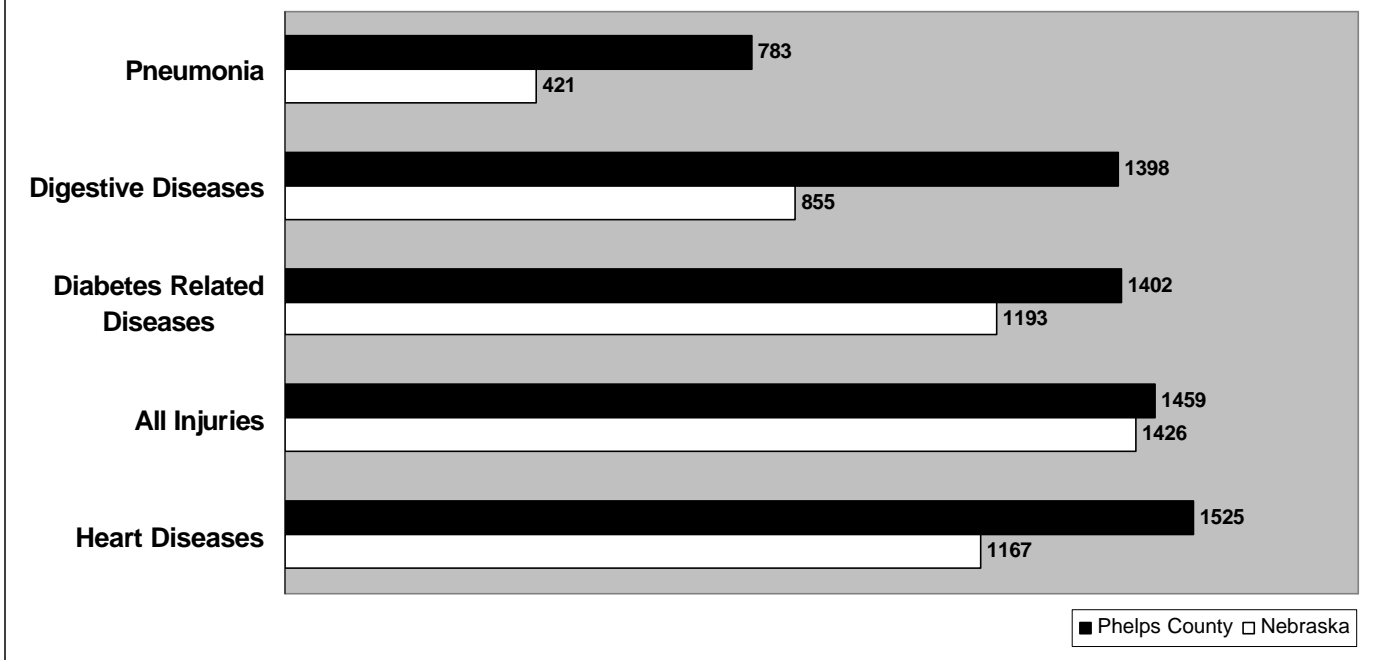
* Number of babies born weighing less than 2500 grams (per 1,000 births).
 Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles0802/phelps/profiles.htm>

Figure 9. Top 5 Leading Causes of Death for Phelps County and the Corresponding Mortality Rates* for the County and Nebraska, 1997-2001



* Number of deaths per 100,000 population (age adjusted).
 Source: Nebraska Department of Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles0802/phelps/profiles.htm>

Figure 10. Top 5 Leading Causes of Hospitalization* for Phelps County and the Corresponding Hospitalization Rates for the County and Nebraska, 1999-2000**



* 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.

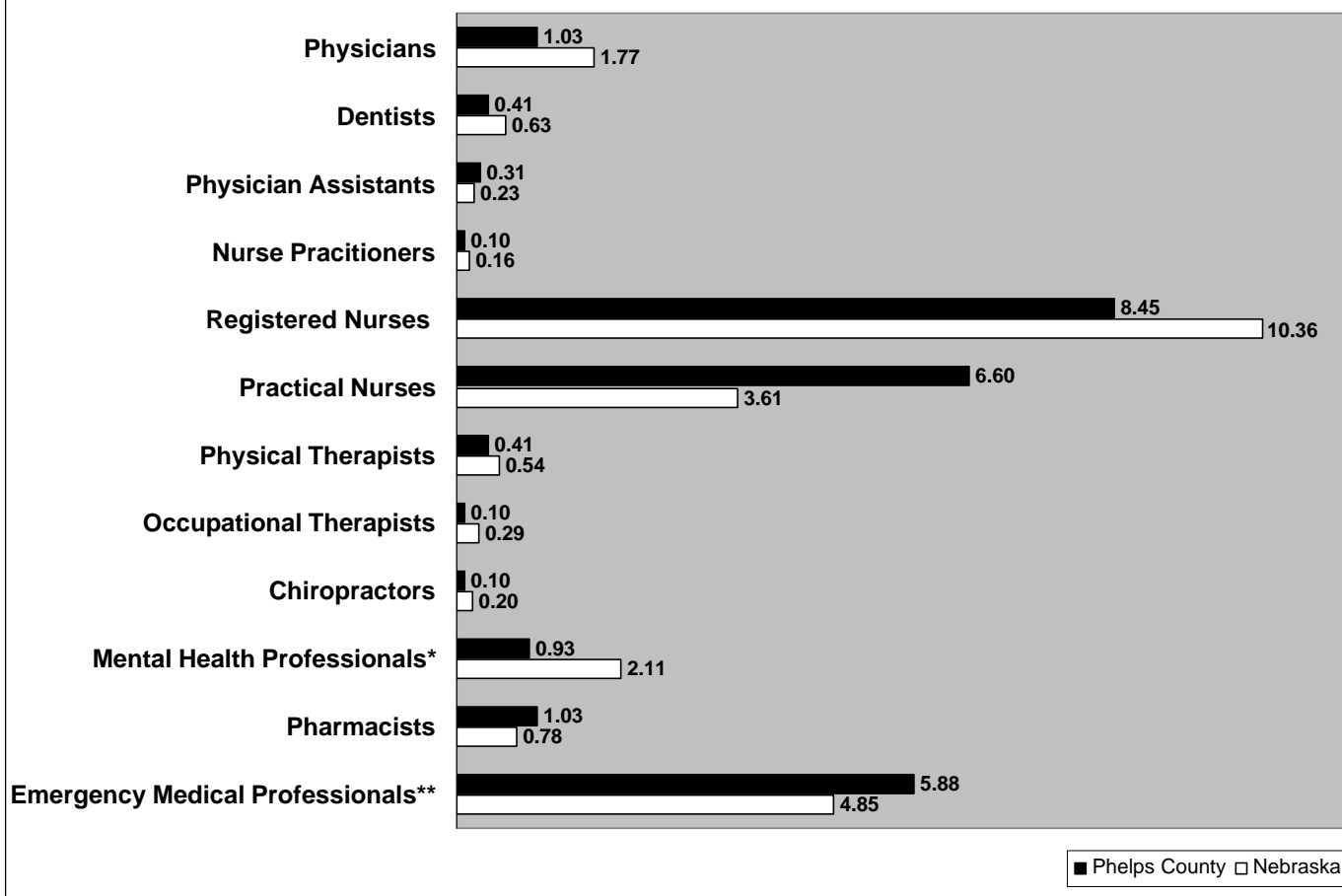
Source: Nebraska Health and Human Services County Profiles. <http://www.hhs.state.ne.us/profiles0802/phelps/profiles.htm>.

VI. HEALTH CARE PROFESSIONALS

Phelps County is designated by the State as a health professional shortage area in: internal medicine, pediatrics, OB/GYN, psychiatry, occupational therapy, and physical therapy.

Phelps County has a higher professional-to-population ratio (than the State) for physician assistants, licensed practical nurses, pharmacists, and EMS professionals, but a lower ratio for other health professionals shown in Figure 11.

Figure 11. Number of Practicing Health Professionals Per 1,000 Population, Phelps County and Nebraska, 2001



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

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

Source: *The Nebraska Health Information Project: 2001 Databook*. (2001) Nebraska Center for Rural Health Research, University of Nebraska Medical Center.

VII. HOSPITAL AND LONG-TERM CARE BEDS

Table 4 shows that Phelps County has a higher bed-to-population ratio than the State in both hospital and long-term care industries. As a result, the need for hospital inpatient care (of general public) and for long-term care (of the elderly) may be better met in the county.

Table 4. Selected Health Care Facility Bed-to-Population Ratios for Phelps County and Nebraska

	Phelps County	Nebraska
Number of hospital beds per 1,000 population (2002)	6.4**	5.6*
Number of Long Term Care beds per 1,000 elderly population (65+) (2000)	104.3*	80.6*

* Source: *The Nebraska Health Information Project: 2001 Databook*. (2001) Nebraska Center for Rural Health Research, University of Nebraska Medical Center.

** Source: Hospital Roster (4/11/03), Nebraska Department of Health and Human Services.

Data Notes

The economic impact results presented in this report were obtained from a compilation of secondary data derived from the IMPLAN database, the U.S. Census Bureau's County Business Patterns 2000, and primary data from a Community Health Systems Assessment Survey. The IMPLAN software analyzes county level data using an economic input-output model. However, certain information required for running the model (e.g., total payroll of employees in a county owned nursing home) cannot be obtained from the IMPLAN database. When this happened, we used the information from the U.S. Census Bureau's County Business Patterns 2000 and the Community Health System Assessment Survey that we conducted to calculate estimates and used them to report county specific health sector data.

Acknowledgments

We would like to thank Dennis Berens, at the Nebraska Office of Rural Health, for his enthusiastic support to the Nebraska Rural Health Works Project. We would also like to thank Donna McElvain, of Phelps Memorial Hospital, for helping us with collecting data from Phelps County. Our appreciation is also extended to several people who provided valuable consultation throughout the creation of this report: Don Macke and Taina Radenslaben, of the Nebraska Community Foundation; Dr. Gerald Doeksen and Cheryl St. Clair, from Operation Rural Health Works of the Rural Policy and Research Institute. Finally, we would like to thank Michael Shambaugh-Miller, at the Nebraska Center for Rural Health Research, for his help with making the maps, and to the members of this project's advisory committee for their insightful comments on this report.

About the Nebraska Rural Health Works Project

The Nebraska Rural Health Works Project is a partnership made possible with the financial support of the Nebraska Office of Rural Health and the Nebraska Hospital Association, and through additional personnel and resources provided by 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 local economy, both directly and indirectly. We used the 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 community, other information such as: demographics, socio-economic and health status indicators, health care professionals and facility bed capacity are reported for a community. The Nebraska Rural Health Works website is: <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>.

Community Health Economic Profiles will be prepared upon request. Those communities interested in this project can request a profile by contacting the Project Director, Li-Wu Chen, Ph.D. (liwuchen@unmc.edu), or Donadea Rasmussen (drasmuss@unmc.edu) at the Nebraska Center for Rural Health Research, University of Nebraska Medical Center, (402) 559-5260.

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