



Center for Rural Health

The University of North Dakota
School of Medicine & Health Sciences

The Economic Importance of Mountrail County Health Center to Mountrail County, North Dakota



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*Connecting resources and knowledge to strengthen
the health of people in rural communities.*

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Introduction

Mountrail County Health Center (MCHC), located in Stanley, North Dakota, provides quality health care to Mountrail County and the surrounding area. Located on one campus are an 11-bed critical access hospital, clinic, 57 bed skilled nursing facility, independent living apartments, and an aquatic center. Mountrail County Medical Center and Mountrail Bethel Home together work to provide this area's residents with high quality care for their healthcare needs. Along with its focus on quality of care they focus on being an employer of choice and work hard to make the facility a great place to work.

Services offered by the hospital include: acute care and observation services; 24 hour emergency services; swing bed; cardiac rehabilitation; laboratory and X-ray; occupational, physical, aquatic and speech therapy, diet instruction; home health/hospice referral; social services; and specific surgical procedures. The clinic and hospital offers a variety of outpatient services which includes visiting physicians for specialty care such as podiatry scheduled surgeries, endoscopy procedures, ultrasounds, CT, MRI and sleep studies.

Mountrail County Medical Center has a mission to:

Provide quality health care services to Mountrail County and the surrounding area including: Primary medical care, emergency care, swing bed, and clinic services.

The Mountrail Bethel Home is an ELCA Social Ministry Organization, which has a mission to:

Provide skilled nursing care to chronically ill individuals, of all religions. In doing so, the Home realizes it has a mandate from our Lord Jesus, Himself to minister to His people by providing a 24 hour a day, seven day a week skilled nursing facility.

Objective

The purpose of this study is to illustrate the economic impact that Mountrail County Health Center (MCHC) has on the economy of Mountrail County. The objective is to show how MCHC positively affects its local economy by quantifying its effects on employment levels and labor income. This report will also address the important role that MCHC has in offering services to the residents of Mountrail County.

Health Care Overview

In rural America, the local hospital exists to meet the emergent and non-emergent needs of the community. That commitment is to the patients and their families by striving to provide the highest degree of health care for all needs. Rural Americans are guided by hometown values-committed to quality services, continuity of care, assurance of qualified staff, and family involvement.

While the hospital is vital in that it provides medical services to all residents, it typically is also one of the largest employers in the county. Health care facilities are a source of external dollars, because most of their funding comes from sources outside the community such as the federal and state government. For many communities, the hospital is a source of millions of dollars in outside revenue.

In 2010 the North Dakota Hospital Association commissioned a research study to determine the contribution of hospitals and health systems to North Dakota's economy as a whole. According to the 2010 Pulse Survey, community hospitals contribute an estimated \$2.5 billion in direct impacts to North Dakota's economy, an increase of about \$756 million from its previous study completed in 2008. The study explains that the vast majority of dollars spent by community hospitals remain in North Dakota. On average, 77% of the dollars remain in the state, while the remaining 23% go to out-of-state sources for equipment, supplies and other resources.

In addition, hospitals are a significant employer, hiring both professional and nonprofessional staff in order to provide the care needed in the community. Those employees, in turn, buy goods and services from local businesses. Over 22,000 people were employed by community hospitals in 2010 as either part-time or full-time employees, according to the North Dakota Hospital Association study. This is the equivalent of an estimated 19,941 full-time jobs. North Dakota has 38 rural hospitals: 36 Critical Access Hospitals and two Indian Health Services hospitals. The payroll and benefit dollars that these hospitals expend cycle through the local economy to generate additional dollars of income in other industries. Thus the healthcare

system is a vital component of the county's fiscal well-being, providing not only much needed medical services but also a significant contribution to the county's economy. A strong case exists for the economic benefits that rural hospitals bring to the cities and counties where they exist.

Approach and Methods

This report will first define the area of study and corresponding statistics. Next, an input-output analysis will be used to show the influence of the health sector on this area and its population. An input-output analysis models the interrelationship among all sectors – industry, households, government, health care, retail, faith, etc. – within an economy. It uses a multiplier effect to estimate the secondary impacts within an entire economy attributable to a change in a single sector. In other words, the multiplier effect refers to the way impacts from a primary source multiply to create secondary impacts throughout the rest of the economy.

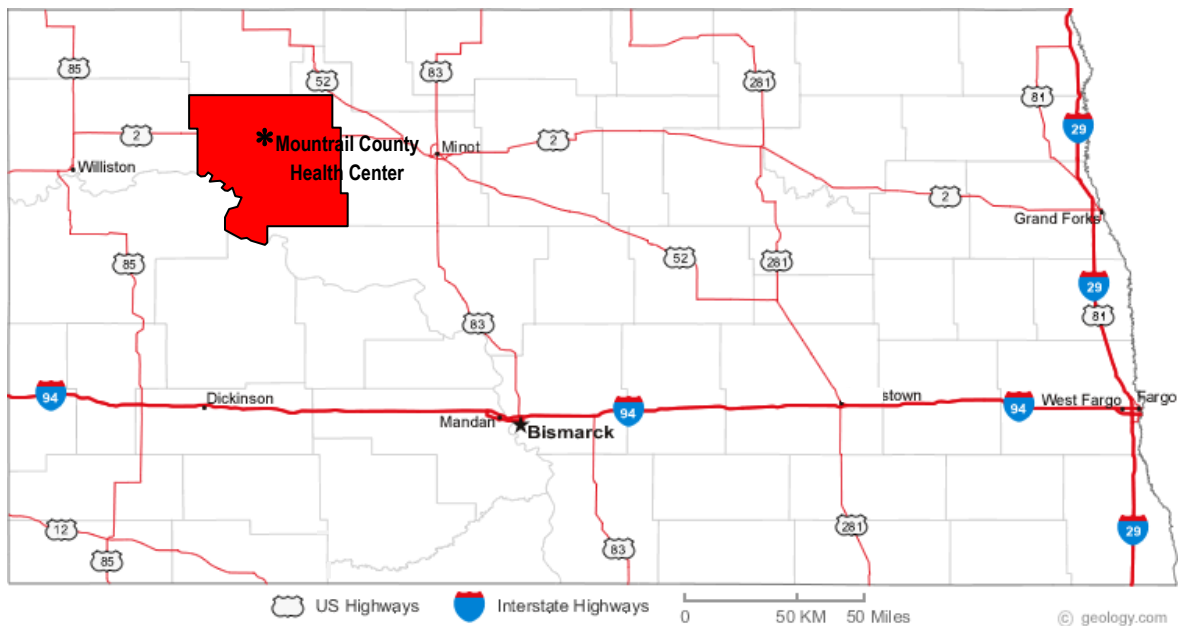
A type-II multiplier will be used in this report to derive secondary effects in two areas of Mountrail County Health Center: employment and labor income. The multipliers for employment and labor income have been calculated using the IMPLAN economic impact modeling software and data from The Minnesota IMPLAN Group, Inc. IMPLAN uses existing economic data in an input-output model. It uses a geographical database for model construction and impact analysis. IMPLAN was used to develop a countywide model of Mountrail County to derive the economic impact of all of MCHC's services.

In addition to the economic multipliers, population data will be used to display the potential growth of demand for health care services in Mountrail County.

Defining the Study Area

Mountrail County, North Dakota makes up the economy for this impact study. The county is located in northwest North Dakota along U.S. Highway 2. It is made up of 1,824 square land miles and houses 3.6 people per square mile (U.S. Census Bureau). MCHC is located in the county seat, Stanley. Stanley is located approximately 55 miles west of Minot, ND and had a population of 1,279 in the 2000 census; Mountrail County had a population of 6,481). Figure 1 highlights the location of Mountrail County and MCHC. Population estimates (NDSU Data Center) based on the 2010 census indicate a population change of +2.4% for Mountrail County from 6,629 population in 2000 to 6,791 in 2009.

Figure 1 - Mountrail County, North Dakota



Study Area Statistics

According to 2010 fiscal year records, MCHC employed a total of 143 full-time and part-time workers and provided \$5,000,292 in income and benefits to these employees. A breakdown of employment and labor income can be seen in figure 2. These values are direct impacts that MCHC contributed to the Mountrail County economy throughout the year.

Figure 2 - Direct Impact Data

<h3>Direct Impact Data</h3>		
Direct Economic Impact of Mountrail County Medical Center on Mountrail County		
Mountrail County Medical Center	Employment (Full Time & Part Time)	Income (Wages & Benefits)
Facility Employment		
Hospital	16	
Long Term Care	127*	
Labor Income		
Hospital		\$1,006,732
Long Term Care		\$3,993,560
Total Direct Economic Impact	143	\$5,000,292

SOURCE: Local data received from Mountrail County Medical Center - FYE 10

***NOTE:** Long term care employees also contribute to the hospital through contractual agreements for service including nursing, business office, environmental services.

In addition to directly providing the county with employment and labor income, MCHC also provides services for an aging population. According to 2009 population estimates by the U.S. Census Bureau, Mountrail County has a population of 6,791 people with 15.3 % of these residents over the age of 65. This is a large percent of people who may have increased needs for health care services. The Population Bulletin from The North Dakota State Data Center shows that the median age for Mountrail County is 39.6 years (2000). This number is a 3.7 year increase from the previous census and a 10.9 increase over 50 years. This data shows us that *the population in Mountrail County has an increasing number of residents who are most likely to use MCHC's services.* If this trend continues, adults requiring care, especially those aged 65 years and older, will increase. MCHC can provide these residents a better quality of life, while at the same time retaining financial activity in the local economy. State level data also greatly supports

this argument as the U.S. Census Bureau, Interim State Population Projections predict the state population of residents 65 and older to increase 61.3% between 2000 and 2030 (2005).

Results

The economic impact of Mountrail County Health Center is not limited to the direct effect of employment and income it provides for the county. This direct impact also generates a secondary impact. The secondary impact looks at the relationship of the facility and its employees with other sectors in the county; it is the sum of all labor income and jobs that are created outside of the health sector. When the facility, or its employees, does commerce with other businesses in the county, it is demanding services and creating income for employees from those other businesses. For example, a secondary impact from MCHC could include an employee buying groceries at the local grocery store or the hospital purchasing cleaning supplies from a local retail store.

Using the IMPLAN data, as discussed above, employment and labor income multipliers were derived for health care services in Mountrail County. These multipliers were applied to MCHC's direct data. A breakout of the multipliers and their effects can be seen in figure 3.

Figure 3 - Total Economic Impact

Total Economic Impact				
Total Impact of Mountrail County Medical Center on the Mountrail County Economy				
Area of Impact	Direct Impact	Multiplier	Secondary Impact	Total Impacts
Employment				
Hospital	16	1.32	5	21
Long Term Care	127	1.30	38	165
Total Employment Impact	143		43	186
Labor Income				
Hospital	\$1,006,732	1.14	\$ 140,942	\$1,147,674
Long Term Care	\$3,993,560	1.29	\$1,158,132	\$5,151,692
Total Labor Income Impact	\$5,000,292		\$1,299,075	\$6,299,367

SOURCE: Direct data received from Mountrail County Medical Center - FYE 2010
Multipliers from Minnesota IMPLAN Group, Inc - 2007 data

The total economic impact on employment and labor income by MCHC is the sum of the direct impact that the facility provides and the secondary impact that the facility creates through demand. The 143 jobs that MCHC provides directly, creates another 43 jobs in the county outside of the health sector, making a *total economic impact of 186 jobs*. Likewise, the \$5,000,292 that MCHC provides its employees generates another \$1,299,075 of income in the county, providing Mountrail County with a *total impact of \$6,299,367 in labor income* for the year.

The Fiscal Status of North Dakota Hospitals

Mountrail County Health Center is a vital component of the county's fiscal well-being. In North Dakota, rural hospitals are an essential resource for their local communities; however, many are unfortunately in difficult financial situations. A recent assessment of the financial performance of 34 Critical Access Hospitals in North Dakota reflects that those hospitals are experiencing a mean operating margin of -.7% (Blue Cross Blue Shield Reimbursement Workgroup, 2010). For some critical access hospitals in North Dakota this amounts to a loss of more than \$110,000 a year. Compare this -3.1% operating margin to a national study of Critical Access Hospital Financial Indicators that shows the average total margin of Critical Access Hospitals nationally is +2.4% (Flex Monitoring Team, 2010). More importantly, the losses sustained by rural hospitals are not recent in origin and, for several facilities, have existed four or more years.

The Oil Industry's Impact and Health Care Delivery

The oil industry is having a significant effect on North Dakota in many ways. Prairie Biz Magazine featured this topic in March 2011, in its article titled "ENERGY: More oil could mean less outmigration" by Alan Van Ormer. The article highlighted the state's oil producing history and explained that North Dakota is now the fourth largest oil producing state. The state's average production was more than 218,455 barrels of oil per day in 2009, totaling nearly 80 million barrels for the year, up more than 17 million from 2008. The Bismarck Tribune (January 26, 2011) recently reported that the ND oil impact has tripled from 2005 to 2009 from \$4.2 billion to \$12.7, according to a study from North Dakota State University study released Tuesday. The study paid for by the North Dakota Petroleum Council looked at the gross business volume of oil and gas production, exploration, refining, payroll and other activity. Gross business volume accounts for "dollars circulated and re-circulated in the economy," said research scientist Dean Bangsund, one of the study's authors.

The Bakken, a formation of dense, oil-rich rocks that stretches into Montana and Saskatchewan, was discovered in the 1950s. Prior to the discovery of oil in 1951, 64 wells had been drilled in the state dating back to 1910. Since 1951, another 16,228 wells have been drilled in North Dakota. The oil industry accounted for 18,328 full-time jobs in North Dakota in 2009, more than

triple the jobs in 2005, the UND report said. The number of active oil wells increased from 3,391 in 2005 to 4,190 in 2009. Each new well adds an estimated \$3 million impact on the state's economy, the study said.

There were 17 counties in North Dakota in 2009 with commercial oil production. Oil and gas exploration has occurred, at some point, in every county in the state except Traill County. Production tax revenues for 2009 were more than \$392.9 million, representing a 25 percent decrease from 2008. All-time oil tax revenues to the state are approximately \$3 billion. There are also projections of 2,000 wells per year with a final total of 21,000 to 49,000 wells.

Ron Ness, President, North Dakota Petroleum Council, explains that “The number one need for the state and counties is to rebuild and maintain infrastructure,” he explains. “Oil production growth can’t happen without roads, bridges, water, and housing.” In addition, job opportunities and changing educational requirements and opportunities are being created because of what is happening in the Bakken. Governor Jack Dalrymple said the study confirms that the oil industry's contribution to North Dakota's economy has grown rapidly. But with it has come greater costs for road repairs and other infrastructure improvements in oil-producing counties in western North Dakota, he said. He has recommended that the Legislature spend \$229 million repairing and improving state roads in the oil-producing region during the next two years. Dalrymple's plan includes \$142 million in road aid for counties and townships.

What the article fails to recognize is the health care delivery system and how it plays into the local, regional and state infrastructure. In fact a review of existing literature does not reveal any studies that quantify the impact that this profitable industry is having on health care. Critical access hospitals such as Mountrail County Medical Center have witnessed significant changes to the care they provide and the types of patients that they see. Other infrastructure issues such as road conditions and lack of housing impact health care delivery. For example the ND EMS Association explains that ambulances are reportedly having difficulty accessing patients due to road conditions; delayed response times for emergency medical services have an impact on the care provided once a patient reaches the hospital's emergency department.

Workforce issues faced by the oil industry have exasperated an already fragile rural health care infrastructure in North Dakota. In 2010 two-thirds of North Dakota's critical access hospitals were in need of a primary care physician and many other health care professionals such as nurses, coders, administrative assistance, CNAs, and other. Anecdotal information from rural hospitals in western North Dakota explains that the needs have increased since the most recent “oil boom”. The oil industry pays higher wages than health care in some positions; healthcare workers have left their profession due to higher wages in the oil industry, others have refused to commute from larger communities (e.g. Minot to Stanley) to serve rural communities due to dangerous road conditions; and others have benefited from payouts from the oil industry due to land that they own. North Dakota mineral rights owners received \$559 million in lease and royalty payments in 2009, up from \$302 million in 2007, the UND study said. The study said that

every dollar spent in the state by the oil industry in 2009 generated \$1.58 in additional business activity.

Conclusion

Local health systems play a significant role in their communities. They are often the largest employer in the county and serve as a link to other industries. Job development and economic development rely heavily on the existence of a community's ability to provide high quality accessible care for its residents. Mountrail County Health Center greatly affects the Mountrail County economy by generating 43 jobs and approximately \$6.299 million in labor income both inside and outside the health sector. The demand for medical services will grow as the population ages and increases. MCHC positively impacts Mountrail County as it generates jobs and labor income, improves the quality of life for county residents, and keeps commerce active within the county.

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