



Center for
Rural Health

The University of North Dakota
School of Medicine & Health Sciences

**The Economic Importance of
Mercy Hospital
to Barnes County, North Dakota**



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

Table of Contents

Introduction.....	3
Objective.....	3
Health Care Overview	3
Approach and Methods.....	4
Defining the Study Area	5
Study Area Statistics	5
Results	6
The Fiscal Status of North Dakota Hospitals.....	7
Conclusion.....	8
References.....	9

Introduction

Mercy Hospital is a 25-bed Critical Access Hospital located in Valley City, ND. It offers a wide range of health care including inpatient and outpatient surgical and medical services, occupational therapy, physical therapy, cardiac rehabilitation, radiology, and laboratory. Mercy also provides a number home health services, hospice care and counseling. The swing bed program provides 24 hour care from a quality nursing staff. The Emergency Department is staffed 24 hours a day with professionals trained in advanced cardiac life support, trauma nursing and pediatric/neonatal resuscitation. The Emergency Department is certified as a level IV trauma facility by the State Department of Health.

The hospital utilizes physicians, physician assistants, registered nurses, licensed practical nurses and nursing assistants to provide a team approach in providing a comprehensive level of care to all patients.

Mercy Hospital is guided in their mission and ministry by their core values of reverence, integrity, compassion and excellence. St. Joseph's mission is as follows:

Nurture the healing ministry of the Church by bringing it new life, energy and viability in the 21st century. Fidelity to the Gospel urges us to emphasize human dignity and social justice as we move toward the creation of healthier communities.

Objective

The purpose of this study is to illustrate the economic impact that Mercy Hospital has on the economy of Barnes County. The objective is to show how the hospital positively affects its local economy by quantifying its effects on employment levels and labor income. This report will also address the important role that Mercy Hospital has in offering services to the residents of Barnes 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. On the state level, the North Dakota Healthcare Association states that, “community hospitals contribute an estimated \$1.8 billion dollars in direct impacts to North Dakota’s economy,” in 2008 alone.

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 18,800 people were employed by community hospitals in 2008 as either part-time or full-time employees, according to the North Dakota Healthcare Association. 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.

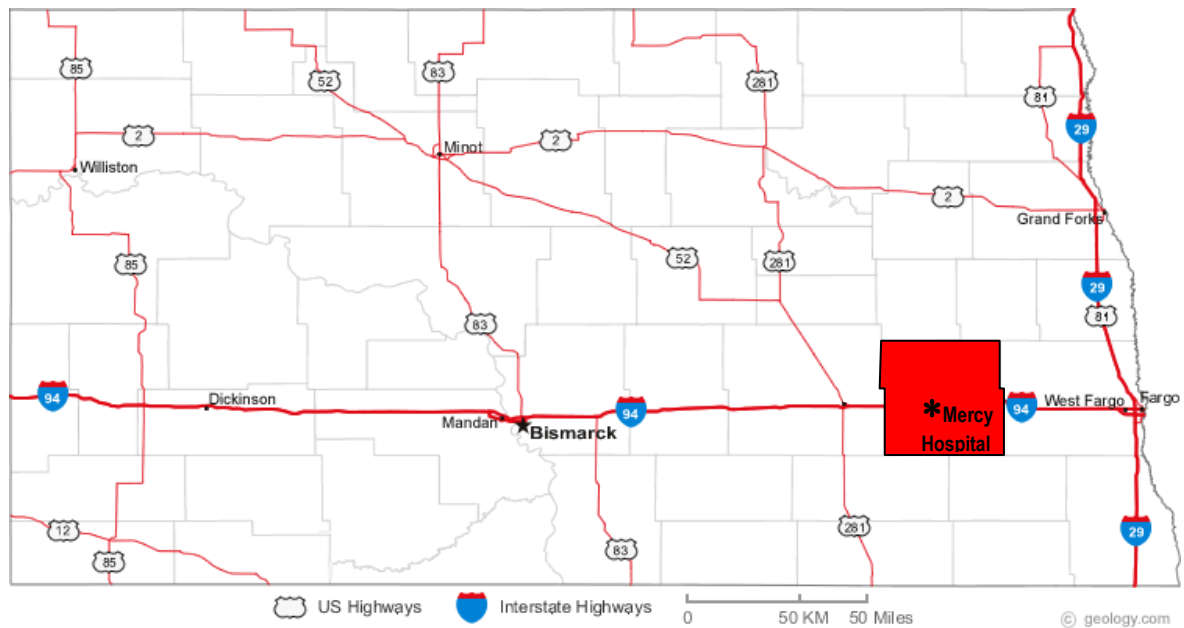
A type-II multiplier will be used in this report to derive secondary effects in two areas of Mercy Hospital: employment and labor income. The multipliers for employment and labor income have been calculated using the IMPLAN economic impact modeling software and data from The Minnesota IMPLAN Group, Inc. 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 Barnes County to derive the economic impact of all of Mercy Hospital’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 Barnes County.

Defining the Study Area

Barnes County, North Dakota makes up the economy for this impact study. The county is located in southeast North Dakota along US Interstate 94. It is made up of 1,492 square land miles and houses 8 people per square mile (U.S. Census Bureau). Mercy Hospital is located in the county seat, and largest city, Valley City. Valley City is located approximately 60 miles west of Fargo, ND and had a population of 6,826 in the 2000 census. Figure 1 highlights the location of Barnes County and Mercy Hospital.

Figure 1 - Barnes County, North Dakota



Study Area Statistics

According to 2009 fiscal year records, Mercy Hospital employed a total of 156 employees and provided \$6,756,467 in labor income to these workers. Employment includes both part-time and full-time workers and the labor income consists of a combination of wages, salaries and benefits to these employees. Figure 1 displays the direct impacts that Mercy Hospital contributed to the Barnes County economy throughout the year.

Figure 2 - Direct Impact Data

Direct Impact Data	
Direct Economic Impact of Mercy Hospital on Barnes County	
Mercy Hospital - Valley City	Direct Economic Impact
Employment	
Full Time and Part Time Employees	156
Labor Income	
Total wages, salaries and Benefits	\$6,756,467

SOURCE: Local data received from Mercy Hospital - FY 2009

In addition to directly providing the county with employment and labor income, Mercy Hospital also provides services for an aging population. According to 2008 population estimates by the U.S. Census Bureau, Barnes County has a population of 10,682 people, which is down 9.3% from the 2000 census. The 2008 estimate also shows 19.6% of the residents of Barnes County to be over the age of 65. This is a significant 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 Barnes County is 40.6 years (2000). This number is a 4 year increase from the previous census. All of this data shows that *while the total population in Barnes County is decreasing, the number of residents most likely to Mercy Hospital's services is growing*. If this trend continues, adults requiring care, especially those aged 65 years and older, will increase. Mercy Hospital 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 Mercy Hospital 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 Mercy Hospital 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 Barnes County. These multipliers were applied to Mercy Hospital’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 Mercy Hospital on the Barnes County Economy				
Area of Impact	Direct Impact	Multiplier	Secondary Impact	Total Impacts
Employment	156	1.4408	69	<u>225</u>
Labor Income	\$6,756,467	1.2500	\$1,688,901	<u>\$8,445,368</u>

SOURCE: Direct data received from Mercy Hospital - FY 2009
Multipliers from Minnesota IMPLAN Group, Inc - 2007 data

The total economic impact on employment and labor income by Mercy Hospital is the sum of the direct impact that the facility provides and the secondary impact that the facility creates through demand. The 156 jobs that Mercy Hospital provides directly, creates another 69 jobs in the county outside of the health sector, making a *total economic impact of 225 jobs*. Likewise, the \$6,756,467 that Mercy Hospital provides its employees generates another \$1,688,901 of income in the county, providing Barnes County with a *total impact of \$8,445,368 in labor income* for the year.

The Fiscal Status of North Dakota Hospitals

Mercy Hospital 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 -3.1% (Blue Cross Blue Shield Reimbursement Workgroup, 2009). For some critical access hospitals in North Dakota this amounts to a loss of more than \$500,000 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 +3.64% (Flex Monitoring Team, 2009). More importantly, the losses sustained by rural hospitals are not recent in origin and, for several facilities, have existed four or more years.

Conclusion

Mercy Hospital greatly affects the Barnes County economy by generating 225 jobs and over \$8.45 million in labor income both inside and outside the health sector. In addition, the demand for medical services will grow as the senior population of Barnes County continues to increase. Mercy Hospital positively impacts Barnes 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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