



Center for
Rural Health

The University of North Dakota
School of Medicine & Health Sciences

**The Economic Importance of
Jamestown Hospital
to Stutsman County, North Dakota**



Elizabeth Huso

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

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Introduction

Jamestown Hospital was opened in 1935 by community leaders dedicated to provide the finest possible care to Stutsman County. Today, Jamestown Hospital is a 25-bed Critical Access Hospital that operates a level IV certified trauma emergency room. It is fully equipped, professionally staffed, and nationally recognized as a Thomson Reuters Top 100 Hospital. Jamestown Hospital serves as the hub for a group of dedicated resident and visiting physicians and directly provides a number of services including the following:

- Audiology
- Bone Densitometry
- Cardiac Rehabilitation
- Department of Veterans Affairs
- Emergency Room
- Home Health
- Hospice Care
- Laboratory
- Lifeline
- Mammography Suite
- Nutritional Care
- Obstetrics and Gynecology
- Occupational Therapy
- Physical Therapy
- Podiatry
- Prenatal and Maternity Care
- Radiology
- Respiratory Care
- Social Services and Support Groups
- Speech Therapy
- Supervised Fitness Program
- Surgery Center
- Wellness Programs

Objective

The purpose of this study is to illustrate the economic impact that Jamestown Hospital has on the Stutsman County economy. The objective is to show how Jamestown Hospital positively affects its local economy by quantifying the hospital's effect on employment levels and labor income. This report will also address the important role that Jamestown Hospital has in offering services to the residents of Stutsman 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. In North Dakota, those Critical Access Hospitals have annual payrolls. For each payroll and benefit dollar expended, additional dollars of income are created 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.

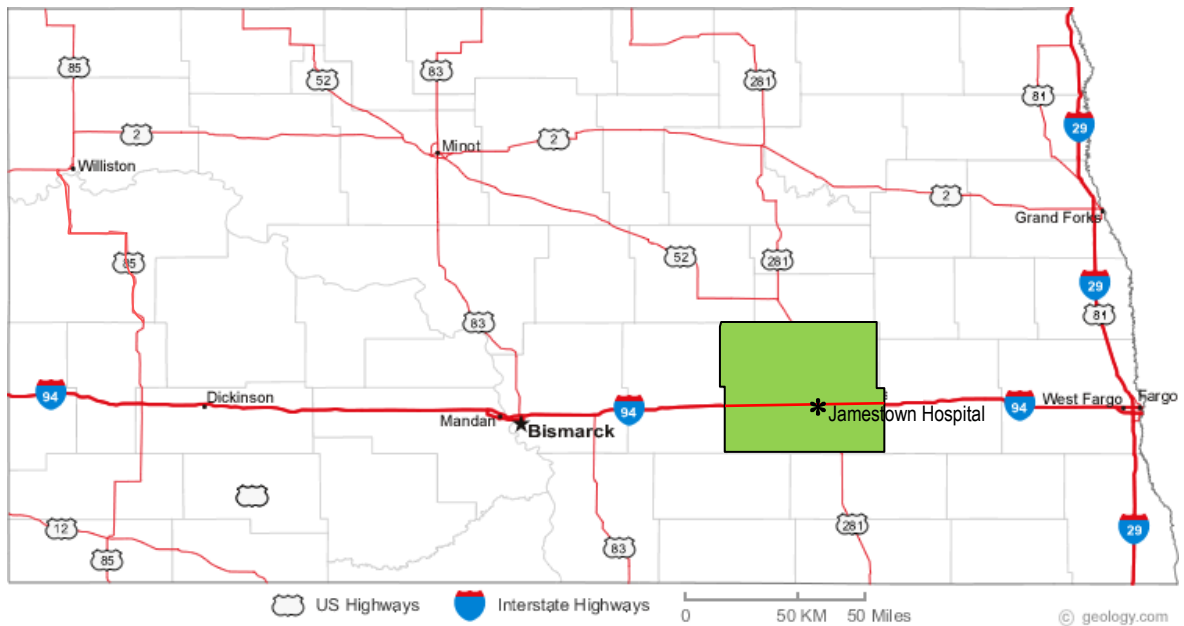
A type-II multiplier will be used in this report to derive secondary effects in two areas of Jamestown Hospital: employment and labor income. The multipliers for employment and labor income have been calculated using the IMPLAN economic impact modeling software and data from The Minnesota Implan Group,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

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

Defining the Study Area

Stutsman County, North Dakota makes up the economy for this impact study. It lies on Interstate 94, bisecting the distance between Burleigh and Cass Counties. It is made up of 2221 square miles and holds 9.9 people per each (U.S. Census Bureau). Located in Jamestown, the hospital is centrally located in Stutsman County. Figure 1 highlights the location of Stutsman County and Jamestown Hospital.

Figure 1 - Stutsman County, North Dakota



Study Area Statistics

Jamestown Hospital employs 315 full-time and part-time workers. For the fiscal year ended June 30, 2009, the hospital provided \$13,588,433 in income and benefits to these employees. A breakdown of employment and income/benefits can be seen in figure 2. These values are direct impacts that Jamestown Hospital contributes to the Stutsman County economy.

Figure 2 - Direct Impact Data

| Direct Impact Data | | |
|---|-------------------|--------------------------------|
| Direct Economic Impact of Jamestown Hospital on Stutsman County | | |
| Hospital | Employment | Income |
| Hospital Employment | | |
| Full Time | 173 | |
| Part Time | | |
| Benefit | 73 | |
| Non-benefit | 24 | |
| Casual | 45 | |
| Hospital Income and Benefits | | |
| Wages | | \$ 11,078,139.00 |
| Benefits | | \$ 1,766,455.00 |
| Fica | | \$ 743,839.00 |
| Total Direct Economic Impact | <u>315</u> | <u>\$ 13,588,433.00</u> |

SOURCE: Local data received from Jamestown Hospital - FYE June 30, 2009

In addition to directly providing the county with employment and labor income, Jamestown Hospital also provides services for an aging population. According to 2008 population estimates by the U.S. Census Bureau, Stutsman County has a population of 20,394 people, which is down 6.9% from the 2000 Census population of 21,904 people. The 2008 Census estimate also shows 18% of the people in Stutsman County to be 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 Stutsman County is 39.6 years (2001). This is a 4.6 year increase from the previous Decennial Census when the median age was 35. The bulletin also points out a significant increase in the median age since 1980. All this data shows that *while the total population in Stutsman County is decreasing, the number of residents most likely to use Jamestown Hospital's services is growing*. If this trend continues, adults requiring care, especially those aged 65 years and older, will increase. Jamestown 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 Jamestown 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 hospital 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 hospital, 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 Jamestown Hospital could include an employee of the hospital 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, the multipliers for Jamestown Hospital in Stutsman County were derived to be 1.5067 for employment and 1.3156 for income (figure 3).

Figure 3 - Total Economic Impact

| Total Economic Impact | | | | |
|---|---------------|------------|------------------|--------------|
| Total Impact of Jamestown Hospital on the Stutsman County Economy | | | | |
| Area of Impact | Direct Impact | Multiplier | Secondary Impact | Total Impact |
| Employment | 315 | 1.5067 | 160 | 475 |
| Income | \$13,588,433 | 1.3156 | \$4,289,067 | \$17,877,500 |

*SOURCE: Direct data received from Jamestown Hospital - FYE June 30, 2009
Multipliers from Minnesota IMPLAN Group, Inc - 2007 data*

The total economic impact on employment and labor income by Jamestown Hospital is the sum of the direct impact that the hospital provides and the secondary impact that the hospital creates through demand. The 315 jobs that Jamestown Hospital provides directly, creates another 160 jobs in the county outside of the hospital, making a *total economic impact of 475 jobs*. Likewise, the \$13,588,433 that Jamestown Hospital provides its employees generates another \$4,289,067 of income in the county, providing Stutsman County with a *total impact of \$17,877,500 in labor income* for the 2009 fiscal year.

The Fiscal Status of North Dakota Hospitals

Jamestown Hospital is a vital component of the county's fiscal well-being. In North Dakota, in general, this vital resource is in trouble. If the local hospital took on the persona of the patients served, the North Dakota rural hospital would be listed as being in critical condition. 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

Jamestown Hospital greatly affects the Stutsman County economy by generating 475 jobs and over \$17 million in labor income both inside and outside the health sector. In addition, the demand for the hospital's services will grow as the senior population of Stutsman County continues to increase. Jamestown Hospital positively impacts Stutsman 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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