Issues and Opportunities
In Rural Health

Presented to:
Department Managers
West River Health Services
Hettinger, ND

Brad Gibbens, MPA
Associate Director
bgibbens@medicine.nodak.edu

Website: http://medicine.nodak.edu/crh

Where: Grand Forks, ND
When: Established 1980

Focused on Access, Financing and Quality Through:
➢ Health services research
➢ Health policy
➢ Education
➢ State and community health services development
➢ Information Resource

How: Through partnerships
Demographics

Demographic Issues

• Revised population – 633,176
  (2002 Revised 2000 Census)

• 1990-2000  47 of 53 counties lost population

• 1990-2000  48 of 53 counties saw a decline
  in number of youth

• Median age  1960 was 26.2 and in 2000 it was
  36.2
Demographic Issues

- People 65 and older accounted for 12.3% of ND population in 1980 but 14.7% in 2000

- Elderly growth is not ubiquitous
  - 1990-2000, 39 counties saw a decline in the number of county residents 65 and older
  - Counties that equal or exceed state average (14.7%), 35 experienced a decline in the number of people 65 and older

- The state’s birth rate has declined every year since 1982
### Combined Rural Counties that Equal Cass County 1990-2000

The combined population of the 35 pink counties (122,065) approximately equals the population of Cass County (123,138).

---

<table>
<thead>
<tr>
<th>COUNTY</th>
<th>% Change 1990-2000 Total Population</th>
<th>%Change 1990-2000 Kids 0-17 years</th>
<th>% Change 1990-2000 65 years and up</th>
<th>% of Population &gt; 65 years</th>
<th>Actual Number of Births 2003</th>
<th>% Change 1993-2003 Number of Births</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>-18.30</td>
<td>-27.33</td>
<td>-8.40</td>
<td>24.00</td>
<td>18</td>
<td>-51</td>
</tr>
<tr>
<td>Billings</td>
<td>-19.86</td>
<td>-39.29</td>
<td>12.70</td>
<td>15.90</td>
<td>7</td>
<td>-22</td>
</tr>
<tr>
<td>Bowman</td>
<td>-9.84</td>
<td>-22.70</td>
<td>6.50</td>
<td>21.80</td>
<td>26</td>
<td>-30</td>
</tr>
<tr>
<td>Golden Valley</td>
<td>-8.73</td>
<td>-16.28</td>
<td>-5.70</td>
<td>21.30</td>
<td>13</td>
<td>-60</td>
</tr>
<tr>
<td>Grant</td>
<td>-19.95</td>
<td>-29.30</td>
<td>-6.80</td>
<td>24.70</td>
<td>10</td>
<td>-71</td>
</tr>
<tr>
<td>Hettinger</td>
<td>-21.19</td>
<td>-29.56</td>
<td>-11.60</td>
<td>25.10</td>
<td>17</td>
<td>-41</td>
</tr>
<tr>
<td>Slope</td>
<td>-15.44</td>
<td>-26.68</td>
<td>21.20</td>
<td>17.80</td>
<td>7</td>
<td>-41</td>
</tr>
<tr>
<td>Stark</td>
<td>-0.86</td>
<td>-14.65</td>
<td>16.50</td>
<td>15.50</td>
<td>269</td>
<td>+1</td>
</tr>
<tr>
<td>COUNTY</td>
<td>Person Below Poverty 2000</td>
<td>Children Below Poverty 2000</td>
<td>Unemployment Rate Aug. 2004</td>
<td>Frontier County</td>
<td>Health Professional Shortage Area</td>
<td>Medically Underserved Areas</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
<td>-----------------</td>
<td>-----------------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Adams</td>
<td>11.2</td>
<td>13.9</td>
<td>1.5</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Billings</td>
<td>13.8</td>
<td>20.0</td>
<td>2.2</td>
<td>Yes</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Bowman</td>
<td>9.9</td>
<td>13.6</td>
<td>1.3</td>
<td>Yes</td>
<td>No</td>
<td>Full</td>
</tr>
<tr>
<td>Golden Valley</td>
<td>14.3</td>
<td>21.6</td>
<td>3.5</td>
<td>Yes</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Grant</td>
<td>17.3</td>
<td>27.5</td>
<td>2.0</td>
<td>Yes</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Hettinger</td>
<td>11.6</td>
<td>18.1</td>
<td>1.9</td>
<td>Yes</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Slope</td>
<td>13.7</td>
<td>20.2</td>
<td>1.9</td>
<td>Yes</td>
<td>Full</td>
<td>Full</td>
</tr>
<tr>
<td>Stark</td>
<td>10.8</td>
<td>11.8</td>
<td>2.5</td>
<td>No</td>
<td>Part</td>
<td>Part</td>
</tr>
</tbody>
</table>

All States In The Region Grew Faster In The 90s Than 80s

![Chart showing percent change over decades for various states]

- 70 to 80
- 80 to 90
- 90 to 00
MN, ND, SD Conditions

- Frontier Countries
  - MN 7% (6/87)
  - SD 52% (34/66)
  - ND 66% (35/53)

Source: US Census

MN, ND, SD Conditions

- During the 1990’s 70% of rural counties gained population
  - MN 71% of Counties (62/87)
  - SD 52% of Counties (34/66)
  - ND 12% of Counties (6/53)

Source: US Census
Distribution of the Elderly: 2000
Percentage of Persons 85 Years and Older

Persons Ages 85 and Older as a Percent of the Total Population in North Dakota by County: 2000
Source: U.S. Census Bureau, Census 2000
Persons Ages 85 and Older as a Percent of the Total Population in North Dakota by County: 2020


Economics
Gross State Product by Industry in North Dakota: 1979 and 2001
Source: U.S. Bureau of Economic Analysis

<table>
<thead>
<tr>
<th>Industry</th>
<th>1979</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>18%</td>
<td>4%</td>
</tr>
<tr>
<td>Mining</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Construction</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Transportation</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>9%</td>
<td>10%</td>
</tr>
<tr>
<td>Retail trade</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Finance, Real Estate</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>Services</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Government</td>
<td>14%</td>
<td>14%</td>
</tr>
</tbody>
</table>

Health care is a major contributor to the U.S. economy.

Chart 1: National Expenditures on Health Services and Supplies as a Percentage of Gross Domestic Product and Breakdown of National Expenditures on Health Services and Supplies, 2002

<table>
<thead>
<tr>
<th>Health Services and Supplies</th>
<th>14.3%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Sectors</td>
<td>85.7%</td>
</tr>
<tr>
<td>U.S. GDP 2002</td>
<td>$1.5 Trillion</td>
</tr>
<tr>
<td>Hospital Care</td>
<td>33%</td>
</tr>
<tr>
<td>Physician Services</td>
<td>23%</td>
</tr>
<tr>
<td>Nursing Home Care</td>
<td>7%</td>
</tr>
<tr>
<td>Prescription Drugs</td>
<td>11%</td>
</tr>
<tr>
<td>Other</td>
<td>26%</td>
</tr>
</tbody>
</table>
Health Care Economic Linkage

Employment Impacts

- Rural hospitals are often the 2nd or 3rd largest employer
- Rural health employment: 10 percent of direct employment and 15 percent of direct and secondary employment
- A single rural physician can generate more than five jobs and over $232,000 in additional income each year in a rural community (NHSC)
- Multiplier effect: Each rural health dollar rolls over in the rural community 1.5 times
- Insurance, Medicare, Medicaid: Stays local or leakage

Nationwide, community hospitals employ nearly 5 million people.

Chart 2: Number of Full Time and Part Time Hospital Employees, 1992 - 2002

![Bar chart showing the number of hospital employees from 1992 to 2002.](chart_image)
Workforce

Health Professions

• Primary Care
  ➢ 89% of ND counties are entirely or at least partially a HPSA/MUA for physicians.

  ➢ From 1992-2002, there was an average 16 physician vacancies per year for primary care physicians, particularly family practice.

  ➢ ND vacancy rate started dropping in 1994 and 1996 due to the Conrad 30 program.
Health Professions

• Primary Care
  ➢ Nationally, only 11% of U.S. Physicians practice in rural areas. In ND, 17% of physicians practice in rural (15,000 population or less)

  ➢ Of 125 Schools of Medicine, the UNDSMHS ranks 7th in the percentage of medical graduates selecting a family practice residency from 1991-2001.

Health Professions

• Nursing
  ➢ In 2002, 14 counties in ND had over 10 RNs per 1,000 people and 27 counties had less than 8 RNs per 1,000 people. National data indicate an average of 7.82 RNs per 1,000 people.

  ➢ Nationally, about 23% of nurses work part-time whereas in ND 44% work part-time.
Health Professions

• Nursing
  ➢ Nationally, RNs have an average salary of $48,240 and in ND the average salary is $41,760. Nationally, LPNs receive $31,490 and in ND they receive $26,540.

  ➢ Nationally the average age of an RN is 45 and in ND it is 44. Only 15% of ND RNs are 30 or younger.

  ➢ 12 ND counties have a nurse vacancy rate of 6% or more indicating some level of shortage.

Health Professions

• What Is Working
  ➢ Community/health facility leadership
    ✓ R/R Task Force
    ✓ Grow Your Own
    ✓ Meetings with Health Education Programs

  ➢ Federal Policy
    ✓ Conrad State 30 Program
    ✓ NHSC
    ✓ Rural Health Clinic Act
    ✓ Title VII and Title VIII
Health Professions

- **What Is Working**
  - State Policy
    - State Loan Repayment
  - Interdisciplinary Training
    - CRISTAL
    - SEARCH

---

**CAH and Flex Program**

**Purpose:** CAH CEO attitudes toward rural health issues and the role of CAH designation and the Flex Program in addressing issues.

**Process:** Mailed survey to 30 CAHs.

**Focus:** Hospital demographics, hospital infrastructure, rural health issues facing hospitals, impact of CAH and Flex, network relationships.
Hospital Demographics:

“Over the next 24 months my hospital will…”

- Stand alone acute care: 19% (1998), 21% (2005)
- Acute care w/LTC: 8% (1998), 8% (2005)
- Acute care, primary care & LTC: 50% (2005)

Number of Beds:

- <10: 4%
- 11 to 15: 15%
- 16 to 20: 15%
- 21 to 25: 66%
Hospital Demographics:
Affiliation Partners

- Both: 28%
- Urban: 52%
- Rural: 8%

"Over the next 24 months my hospital will..."

<table>
<thead>
<tr>
<th>Option</th>
<th>1998</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>De-certify as CAH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Add LTC</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eliminate acute care</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Close</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affiliate w/another hospital</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Stay the way we are</td>
<td>54</td>
<td>85</td>
</tr>
</tbody>
</table>
Hospital Demographics:
Local Citizens are Aware of our Financial Situation

- Yes: 85%
- No: 11%
- Unsure: 4%

Hospital Demographics:
Hospital Receives County and/or City Tax Support

- Yes: 81%
- No: 15%
- No Response: 4%
Hospital Demographics:
Likelihood of Receiving Local Tax Support
Over Next 5 Years

Issues Facing Rural Hospitals

Highest "Severe Problem" score was
BCBSND reimbursement at 54.2%
Issues Facing Rural Hospitals

Asked: “What is your number one concern today?”
Strategies

Principles of Rural Health Adaptation

1. Changes must fit with local conditions
   a. No one solution fits every community
   b. Consider unique circumstances
   c. Local citizens must be involved in the planning process
   d. Local control is essential for community pride and support of the new system

2. Providers must consider regionalization
   a. Cooperation over competition

3. Need a macro not micro focus
   a. Look at entire health system not just the hospital
   b. Cooperative arrangement of human and health services
   c. Move beyond acute care needs: long-term, out-patient, preventative, and rehabilitation

Principles of Rural Health Adaptation

4. Providers must consider alternative configurations for offering access to physician services
   a. Physician shortages means physicians simply cannot be available in all communities that seek such services
   b. Regionalization of physician services
   c. Greater use of mid-level practitioners

5. Greater emphasis on transportation and telecommunication
   a. Facilitate greater access to care during a period of threatened access


Rural Community Survival
20 Factors

1. Participatory approach to community decision making
2. Cooperative community spirit
3. Conviction that, in the long run, you have to do it yourself
4. Willingness to seek help from the outside
5. Active economic development program
6. Deliberate transition of power to a younger generation of leaders
7. Acceptance of women in leadership roles
8. Strong presence of traditional institutions that are integral to community life
9. Evidence of community pride
10. Strong belief in and support for education
11. Emphasis on quality in business and community life
12. Willingness to invest in the future
13. Realistic appraisal of future opportunities
14. Awareness of community positioning
15. Knowledge of physical environment
16. Problem solving approach to providing health care
17. Strong multi-generational family orientation
18. Sound and well-maintained infrastructure
19. Careful use of fiscal resources
20. Sophisticated use of information resources


The Future of Rural Health

1. Continued Struggles with Demographics and Economics
2. Continued Provider Integration
3. Continued Work Force Issues but Greater Collaboration between Provider Groups
4. Continued Technological Revolution
5. Regional Approach to Health Care
6. Federal Health Policy will Continue to Help and Hinder Rural Health