A Rural Health System in Change
Presented to:
OT511 Service Delivery System

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Brad Gibbens – Associate Director for Community Development and Policy

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

Center for Rural Health

• Established in 1980, at the University of North Dakota School of Medicine and Health Sciences in Grand Forks, ND
• Focuses on:
  – Education, Training, & Resource Awareness
  – Community Development & Technical Assistance
  – Native American Health
  – Rural Health Workforce
  – Rural Health Research
  – Rural Health Policy
• Web site: http://ruralhealth.und.edu
Rural Health Issues

- Social culture
- Demographics
- Economics
- Workforce
- Hospitals
- Quality
- Technology

Social Culture
### Comparative Rural and Urban Strengths and Weaknesses

<table>
<thead>
<tr>
<th>Rural Strengths:</th>
<th>Urban</th>
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<tbody>
<tr>
<td>Strong informal support network</td>
<td>More stable economy</td>
</tr>
<tr>
<td>Fundraising</td>
<td>Availability of resources</td>
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<tr>
<td>Cohesive</td>
<td>Availability of professionals</td>
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<tr>
<td>Established interdependence</td>
<td>Growing and diverse population</td>
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<tr>
<td>Collaboration</td>
<td>Change is natural</td>
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<table>
<thead>
<tr>
<th>Weaknesses:</th>
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<tbody>
<tr>
<td>Skewed population demographics</td>
<td>Lack of cohesiveness</td>
</tr>
<tr>
<td>Fluctuating economy</td>
<td>Limited informal support</td>
</tr>
<tr>
<td>Resistance to change providers</td>
<td>Competition among</td>
</tr>
<tr>
<td>Shortage of professionals</td>
<td>Competition for fundraising</td>
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<tr>
<td>Lack of resources</td>
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</table>

### Change in the Rural Environment

#### Environmental Impacts
- Demographics
- Economic Conditions
- Political Process
- Workforce
- Finance
- Health Organizations
- Culture and Attitude

#### Action
- Planning and Assessment
- Community Forums
- Education
- Task Force Development
- Collaboration
- Advocacy
- Program Development
- Integration of Health Care with Community and Economic Development
- Hospital Diversification

Source: Brad Gibbens, Associate Director
UND Center for Rural Health
Change Isn’t Easy

“Everything that can be invented, has been invented”

“Who the hell wants to hear actors talk”
~ Harry Warner of Warner Brothers

“That little black box will never amount to anything”
~ Louie B. Meyer, MGM

“Americans can always be relied upon to do the right thing, after they have exhausted all the other possibilities”
~ Sir Winston Churchill

Jonathan Swift once said:

“Vision is the art of seeing things invisible”
Rural Culture: Attitudes Towards Change

1. Change is natural
2. Resistance to change
   a. Threat to established order, way of life
   b. Better an old problem than a new opportunity
   c. Demographics and economic base
   d. Community rivalry
3. Agrarian Fatalism

4. Overcoming our Natural Resistance
   a. Accept yet gently challenge rural attitude toward change
      ✓ rural school consolidation
      ✓ humor
   b. Change Agents
   c. Education of Community
   d. Education of Providers
   e. Experience – seeing is believing
Community Cooperation

“We are seeing greater cooperation between communities in the education field and in healthcare. The times are forcing those of us in small towns to work together, to find common ground.” We’ve competed for years in basketball and football but now people are realizing what is good for one town can be good for its neighbor. This started to evolve first in education with school consolidation – painful at times, but necessary because we now see the benefit of sharing classes, sharing teachers. We’re seeing this in healthcare now. Sharing and cooperative effort is banding together for the common good.”

Les Wietstock
CFO, West River Regional Medical Center
Hettinger, ND
Phone interview, February - 1996

28 Factors for Successful Community Building

- Characteristics of the Community
  - Community awareness of an issue
  - Motivation from within the community
  - Small geographical area
  - Flexibility and adaptability
  - Pre-existing social cohesion
  - Ability to discuss, reach consensus, and cooperate
  - Existing identifiable leadership
  - Prior success with community building
28 Factors for Successful Community Building

- **Characteristics of the Community Building Process**
  - Widespread participation
  - Good system of communication
  - Minimal competition in pursuit of goals
  - Develop self-understanding
  - Benefits to many residents
  - Focus on product and process concurrently
  - Linkage to organizations outside the community
  - Progression from simple to complex activities
  - Systematic gathering of information and analysis of community issues
  - Training to gain community building skills
  - Early involvement and support from existing, indigenous organizations

- **Characteristics of Community Building Organizers**
  - Use of technical assistance
  - Continual emergence of leaders, as needed
  - Community control over decision making
  - The right mix of resources
  - Understanding the community
  - Sincerity of commitment
  - Relationship of trust
  - Level of organizational experience
  - Able to be flexible and adaptable

*Source: Vince Hyman, Publishing Director, Fieldstone Alliance*
Demographics

Demographic Issues

• Revised population – 639,715  (July, 2007 Estimate)

• 1990-2000  47 of 53 counties lost population

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

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

• 2000-2004  47 lost population; however, only 2 lost over 10 percent loss
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

Economic and Demographic Impacts

A population that is:
- Smaller
- Older
- Poorer

Rural Health Impacts:
- Smaller markets
- Greater dependence on Medicare population
- Greater difficulty in recruiting and retaining health professionals
- Smaller tax base
- Greater number of people without health insurance or with limited insurance
- More chronic health conditions
National Conditions
A glance at rural and urban America

- Percentage of U.S. population: Rural 20% Urban 80%
- Population aged 65 and older: Rural 18% Urban 15%
- Population that is white: Rural 83% Urban 69%
- Private insurance: Rural 64% Urban 69%
- Medicare beneficiaries: Rural 23% Urban 20%
- Medicare hospital payment to cost ratio: Rural 90% Urban 100%

Source: NRHA web page
National Conditions

The 1990’s witnessed certain population shifts.

- From 1990-2000, 70% of rural counties increased population.
- About 87% of these counties derived some or all of their increase from in-migration of metro residents.
- From 1990-2000, 2.2 million more people moved from the city to the county, than the reverse.
- Significant rural decline continues in the Great Plains and other disadvantaged rural areas (mining and agriculture counties had the greatest relative declines in the pace of growth).

Source: Charles Fluharty - RUPRI

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
High School Graduates
North Dakota, 1980-2010

Children Under 18 in North Dakota
1910 to 2000
Economics
The Healthcare Economic Linkage

1. Employment Impacts
2. Attracting/Retaining Local Residents
3. Attracting/Retaining Business
4. Generating Investment Funds
5. Enhancing Local Leadership Capacity

Source: Cordes, 1996

Healthcare Economic Linkage

1. 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
Healthcare Economic Linkage

2. Attracting/Retaining Local Residents
   • Jobs attract people – people attract jobs.
     • Health services act as economic anchor
     • Retirees

Healthcare Economic Linkage

3. Attracting/Retaining Business
   • Educated workforce
   • Employable spouse
   • Health care provides services to businesses (screenings, occupational health programs)
   • Adds to quality of life
Healthcare Economic Linkage

4. Generating Investment Funds
   • Labor intensive: Wages and salaries (ND- rural hospitals, 86 employees and $2.2 million in payroll)
   • Cash and short-term investment in local banks
   • Local investment: Loans for businesses

5. Enhancing Local Leadership Capacity
   • Local government
   • Faith sector
   • Civic organizations
   • Economic development
   • Source of new knowledge and resources
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.

- **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

Hospitals
Hospital Demographics: How would you characterize your organization?

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

Hospital Demographics
Number of Beds

- <10: 66%
- 11 to 15: 15%
- 16 to 20: 15%
- 21 to 25: 4%
Hospital Demographics
Affiliate With More Than One Hospital/Health System

- Yes: 50%
- No: 42%
- No Response: 8%

Hospital Demographics
Affiliation Partners

- Urban: 52%
- Rural: 8%
- Both: 28%
CAH and Flex Program

Hospital Demographics (CAH Provider Composition)
The average CAH has the following (based on median scores):
- 2 - Primary Care Physicians
- 1 - Physician Assistant
- 1 - Nurse Practitioner
- 1 - Certified Nurse Anesthetist
- 9.5 - RN
- 6 - LPN
- 2 - Laboratory Services
- 2.97 - Radiology
- 1 - Occupational Therapy
- 1.93 - Physical Therapy
- 2.4 - Other therapy
- 0.8 - Pharmacy
- 1 - Paramedic
- 1 - Mental/Social Health
- 3 - Administration
- 3 - Health Information

The median number of employees in a CAH is 67.2

Issues Facing Rural Hospitals

<table>
<thead>
<tr>
<th>Problem</th>
<th>Minor Problem</th>
<th>No Problem</th>
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<tbody>
<tr>
<td>Bidg Issues</td>
<td>88</td>
<td>6</td>
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<tr>
<td>Demographics</td>
<td>88.5</td>
<td>7.7</td>
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<tr>
<td>Ancillary Workforce</td>
<td>88.5</td>
<td>11.5</td>
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<tr>
<td>BCBSND</td>
<td>95.9</td>
<td>4.2</td>
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<tr>
<td>Economy</td>
<td>96</td>
<td>4</td>
</tr>
<tr>
<td>Under-Insured</td>
<td>96.3</td>
<td>3.8</td>
</tr>
<tr>
<td>Uninsured</td>
<td>96.2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

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

- **Technology**: 69.3% Problem, 23.1% Minor, 7.7% No Problem
- **Physician Workforce**: 72% Problem, 19.2% Minor, 8.8% No Problem
- **Mental Health**: 73% Problem, 19.2% Minor, 7.7% No Problem
- **Life Safety Code**: 73.1% Problem, 19.2% Minor, 7.7% No Problem
- **Access to Capital**: 73.1% Problem, 19.2% Minor, 7.7% No Problem
- **Regulation Non-HIPAA**: 76% Problem, 20% Minor, 4% No Problem
- **Nsg. Workforce**: 80.8% Problem, 19.2% Minor, 7.7% No Problem
- **Medicare**: 84.6% Problem, 11.6% Minor, 4% No Problem

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

- **Reimbursement**: 47%
- **Workforce**: 27%
- **Community Support**: 7%
- **Clinic Relations**: 7%
- **Population**: 3%
- **Rules/Regs**: 3%
- **Aging Plan**: 3%
- **Technology**: 3%
Impact of CAH Conversion and Flex Program

- Access to Flex Grants: 88.4% Positive, 11.6% Negative
- Impact of Flex Grants: 88.4% Positive, 11.6% Negative
- Financial Reimbursement: 76.9% Positive, 19.2% Negative
- Network with rural hospitals: 69.2% Positive, 30.8% Negative
- Address Quality: 65.4% Positive, 30.8% Negative

Impact of CAH Conversion and Flex Program

- Hospital Stability: 65.3% Positive, 26.9% Neutral, 7.7% Negative
- Access to other grants: 53.9% Positive, 46.2% Neutral
- Service Diversification: 53.9% Positive, 42.3% Neutral, 4% Negative
- Network with Tertiary Partners: 53.8% Positive, 34.6% Neutral, 7.7% Negative
- Outpt. Services: 48% Positive, 52% Neutral
Quality of Care

- IOM “Quality through Collaboration”
  - Health and Healthcare in Rural Communities
  - Quality Improvement
  - Human Resources
  - Finance
  - Information and Communication Technology
Technology

- Increase in medical knowledge
- Life expectancy
- Chronic conditions
- ICT in a rural setting
  - Home and community
  - Healthcare settings
  - Population health
Rural Health Outreach Grants

• Federal – ORHP (1991)
• Network of 3 independent organizations
• Up to $150,000 (yr 1), $125,000 (yr 2), and $104,000 (yr 3)
• Focus on service development
Rural Health Outreach Grants

- 21 Funded Grants in North Dakota
  - EMS
  - Mental Health
  - Wellness
  - Chronic disease management
  - Mobile health clinic
  - Discount medication access
  - Elder and Alzheimer's care, education, and training
  - Diabetes education and training
  - Distance learning for nursing education
  - School nursing

Network Development Grants

- Formal network of 3 or more entities
- Up to $200,000/yr for up to 3 years
- Focus is on developing the formal organizational operations of the network
Strategies

Strategies for Rural Health System Survival

1. Community Involvement and Support
2. Strategic Planning and Marketing
3. Diversification and Redefinition of Services
4. Progressive Healthcare Leadership
5. Collaboration – Provider to Provider, Community to Community
6. Emphasis on Quality
7. Advocacy and Involvement
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


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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

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

For more information contact:
Center for Rural Health
University of North Dakota
School of Medicine and Health Sciences
Grand Forks, ND 58202-9037
Tel: (701) 777-3848
Fax: (701) 777-6779
http://ruralhealth.und.edu