Rural Health Systems: Understanding Rural Health

Medical Laboratory Science 515
Lecture 7

February 15, 2019

• Established in 1980, at The University of North Dakota (UND) School of Medicine and Health Sciences in Grand Forks, ND
• One of the country’s most experienced state rural health offices
• UND Center of Excellence in Research, Scholarship, and Creative Activity
• Home to seven national programs
• Recipient of the UND Award for Departmental Excellence in Research

Focus on
  – Educating and Informing
  – Policy
  – Research and Evaluation
  – Working with Communities
  – American Indians
  – Health Workforce
  – Hospitals and Facilities

ruralhealth.und.edu
What is Rural Health

• **Rural health focuses on population health and improving health status**
  - “Health outcomes of a group of individuals, including the distribution of such outcomes within the group” Dr. David Kindig, *What is Population Health?*
  - Rely on **social determinants of health** and their impact on the population (Health care system, Health Behaviors, Socio-Economic factors, Physical Environment) – “**drivers**” of **health policy** (Better Health, Better Care, and Lowered Cost – Three Aims)

• **Historically, rural health has focused more on infrastructure:** facilities, providers, services, and programs available to the public (all with quality, access, and cost implications) – In the ACA world more emphasis on population health, but infrastructure is still critical as it is the pathway to achieve better population health.
  - HRSA (ORHP, SORH, Flex, NHSC) – Federal bureaucracy orientation
  - Infrastructure improvement- health orgs, systems, payment structures
  - More and more health networks – independence with collaboration
  - Delivery systems: CAH, clinics, public health, EMS, nursing homes/aging services, home health, mental health, dental, pharmacy, and others

What is Rural Health?

• **Rural health is not urban health in a rural or frontier area**
  - Social determinants of health vary between urban and rural (economics/income, education, health systems, environmental conditions)
  - Rural is older, poorer, less insured, and has a higher level of morbidity for a number of conditions
  - Rural culture, relationships, how we do things are distinct

• **Rural health needs effective health policy, and health policy needs to rely on competent research**
  - Policy process that is reflective of rural health needs
  - Policy advocacy that tends to be bipartisan
  - Variety of advocacy groups
  - Vital rural health research community – understand issues to address problems
What is Rural Health?

**Philosophy:** rural people have the **same right** to expect healthy lives and access to care as do urban people – *fairness frame*

- Not more but not less either
- Access essential services locally or regionally
- Access to specialty services through network arrangements
- Health outcomes **should** be comparable
- Quality of care on par with urban
- Availability of technology

**Rural health is very community focused – *interdependence frame***

- Integral part of what a community is and how people see themselves – sense of identity
- Rural communities with limited resources gain resources through collaboration
- Community engagement – public input is fundamental
- Sectors: Economic/business, public/government, education, faith/church, and health/human services
- Direct services provided to the public and secondary impact for other sectors
- Major employer – health is significant part of local economy

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**Rural Community and Rural Health**

- **Communities are comprised of key sectors** that have economic, social, and cultural components – together they comprise the town
  - **Health** (with human services)
  - **Business** (can have one or two dominant business types – ag, oil – economic impact of health and health care)
  - **Education** (school consolidation and sport coop changing some of the community identity)
  - **Public Sector - Government** – city, county, special districts – role of park board with health care)
  - **Faith** (social and cultural connections – access to health)
- **Viable health systems need viable communities** – strong education, business, faith, government and business, like those sectors need a strong health system (e.g. health access for employees, general health improvement, health care is large employer adding to business and schools)
Rural and Urban Strengths and Weaknesses

**Rural**
- **Strengths**
  - Strong informal support network
  - Fundraising
  - Cohesive
  - Established interdependence
  - Collaboration
- **Weaknesses**
  - Skewed population demographics
  - Fluctuating economy
  - Resistance to change
  - Shortage of professionals
  - Lack of resources
  - Over-tapped staff

**Urban**
- **Strengths**
  - More stable/interest economy
  - Availability of resources
  - Availability of professionals
  - Growing and diverse population
  - Change is natural
- **Weaknesses**
  - Lack of cohesiveness
  - Limited informal support
  - Competition among providers
  - Competition for fundraising
  - More contentious-fractions
  - Less sense of "community"

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**Center for Rural Health**

**Why is Community Engagement Important to Rural Health**

- Health care providers and organizations cannot operate in isolation.
- Even more important as we implement health reform – new payment models – movement from volume payments to value based payments as more and more providers are assessed and reimbursed on outcomes and patient satisfaction.
- Community members input on needs, issues, and solutions more critical than ever – community involvement in finding solutions (CHNA) that reflect their needs – community ownership not just the health providers – hospitals must address “community benefit”
- Building local leadership and local capacity – think of the next generation of community leadership.
- Communication – listening to the community – educating the community.
- Simple answer: You need to be engaged because you need to survive.
10 Key Factors to Understanding Rural Health in North Dakota

1. Demographics drive health conditions, services, demand, and supply.
2. Rural health providers (hospitals, clinics, LTC, EMS) are vulnerable.
3. Rural health is more than just rural hospitals and infrastructure, it is the health of the population too.
4. Health workforce may be even more problematic in rural areas.
5. Rural health providers are up to date with technology and tele-health.
6. Healthy policy is critical to rural health.
7. Quality of care is high.
8. Networking, collaboration, and partnerships are fundamental –hard to stand alone.
9. Equity and interdependence are ways to think about rural communities and rural health.
10. You cannot focus on rural health without focusing on the community.

What are Critical Access Hospitals (CAHs)?

- Designation from CMS developed in Balanced Budget Act of 1997 for a class of rural hospitals.
- Created to provide better financial viability for hospitals in rural areas and to maintain access to essential services. Significant rural hospital closure rate in late ‘80s into ‘90s. Contrast with PPS hospitals (how paid).
- Must have 25 or fewer acute care beds. Can have swing beds.
- Be located more than 35 miles from another hospital (or 15 by secondary roads).
- Maintain an annual average length of stay of 96 hours or less for acute care.
- Provider 24/7 emergency care.
- Communications and transfer agreements.
- Can have physicians, NP, and/or PAs.
- Paid on an allowable cost basis (not DRGs) up to 101% of allowable costs.
- About 1,350 CAHs (36 in ND). About 72% of rural community hospitals are CAHs (25% of all acute care hospitals).
- Nationally, 41% (2017 data) of CAHs had negative operating margins. 47% in ND.
- Nationally, since 2010 almost 100 rural hospitals closed (about 70% in non-Medicaid Expansion state).

The Rural Health Clinic Services Act of 1977 (Public Law 95-210) was enacted to address an inadequate supply of physicians serving Medicare patients in rural areas and to increase the use of non-physician practitioners such as nurse practitioners (NPs) and physician assistants (PAs) in rural areas.

Sources: HRSA Data Warehouse, November, 2016
Center for Rural Health, 2016

Critical Access Hospital
Rural Health Clinic

North Dakota Health Professional Shortage Areas
Rural Hospitals, Clinics, CHCs, and RHs

Designated Geographic HPSAs
Proposed for Withdrawal HPSAs
Designated Facility HPSAs
HPSA Sites Used to Assist in Prioritizing Resources

Minot
Bismarck
Fargo

Note: Rural Health Clinics are offset to the northwest to reduce overlap distortion.
Population Health

“Health outcomes of a group of individuals, including the distribution of such outcomes within the group.” (Kindig, What is Population Health?)

• Groups can be based on geography, race, ethnicity, age, language, or other arrangements of people
• Focus – Health Outcomes (what is changed, what are the impacts, what results?)
• What determines the outcomes (determinants of health)?
• What are the public policies and the interventions that can improve the outcomes?
Social Determinants

World Health Organization definition:

"the circumstances in which people are born, grow up, live, work and age, and the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."
# Social Determinants of Health

<table>
<thead>
<tr>
<th>Economic Stability</th>
<th>Neighborhood and Physical Environment</th>
<th>Education</th>
<th>Food</th>
<th>Community and Social Context</th>
<th>Health Care System</th>
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<tbody>
<tr>
<td>Employment</td>
<td>Housing</td>
<td>Literacy</td>
<td>Hunger</td>
<td>Social integration</td>
<td>Health coverage</td>
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<td>Income</td>
<td>Transportation</td>
<td>Language</td>
<td>Access to healthy options</td>
<td>Support systems</td>
<td>Provider availability</td>
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<td>Expenses</td>
<td>Safety</td>
<td>Early childhood education</td>
<td>Community engagement</td>
<td>Provider linguistic and cultural competency</td>
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<tr>
<td>Debt</td>
<td>Parks</td>
<td>Vocational training</td>
<td>Discrimination</td>
<td>Quality of care</td>
<td></td>
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<tr>
<td>Medical bills</td>
<td>Playgrounds</td>
<td>Higher education</td>
<td>Stress</td>
<td></td>
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<td>Support</td>
<td>Walkability</td>
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<td>Zip code / geography</td>
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## Health Outcomes
- Mortality
- Morbidity
- Life Expectancy
- Health Care Expenditures
- Health Status
- Functional Limitations

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**Social Determinants of Health**

### Population Health

- **Physical Environment:**
  - Environmental quality
  - Built environment

- **Socio-Economic Factors:**
  - Education
  - Employment
  - Income
  - Family/social support
  - Community safety

- **Health Behaviors:**
  - Tobacco use
  - Diet & exercise
  - Alcohol use
  - Unsafe sex

Source: Authors’ analysis and adaptation from the University of Wisconsin Population Health Institute's County Health Rankings model ©2010, http://www.countyhealthrankings.org/about-project/background
Rural Hospital Environmental Considerations

• ND CAHs are complex and serve as a “Hub” service system for health and some human service functions for rural communities

• ND CAHs serve a more vulnerable population – population health is a major concern for rural North Dakota

• ND CAHs make a significant economic contribution to their communities and service areas

• ND CAHs face many financial concerns

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CAHs Serve a More Vulnerable Population

• 63% of people 65 and older live in rural ND (about 38% of CAH inpatient base is Medicare)
• About 374,669 ND are rural or 49.5% (outside the MSAs) –about 380,724 are urban or 50.5%– (USDA Economic Resource Service) State population 755,393.
• 46% of ND veterans are rural compared to about 30% nationwide
• 11.1% of rural ND live in poverty; 11.2% of urban ND (rural much higher in 1999, 1989, and 1979)
• 9.5% of rural ND not completed HS; 6.3% of urban ND.
• 2.9% of rural ND is unemployed; 2.3% of urban ND.
• Per capita income in rural ND is slightly higher than urban (oil counties).
• 58% of people receiving Medicaid Expansion are rural ND.
• Health disparities
  o Rural ND higher rates for health behaviors: smoking, binge drinking, drinking and driving, not wearing a seat belt, not exercising
  o Rural ND higher rates for general health conditions: disability, overweight/obesity, having only fair or poor health, and number of days with poor health
  o Rural ND higher rates for specific health conditions: high cholesterol, high blood pressure, arthritis, cardiovascular disease, and diabetes (2010 CDC BRFSS)
• Policy makers – stress the equity frame
CAH CEOs Perceptions of Issues – 2017 Survey

• 22 Issues, Top 12
  o Access to mental health inpatient services (94.5% problem, moderate problem, severe problem)
  o Access to substance use disorder inpatient treatment services (92.7%)
  o Access to substance use disorder outpatient treatment services (91.4%)
  o Access to mental health outpatient services (86.2%)
  o Transportation of patients with mental health/substance use disorders to treatment services (80.5%)
  o Hospital reimbursement – Medicaid (69.4%)
  o Impact of the under-insured (69.4%)
  o Impact of the uninsured (68.6%)
  o Service area economic change (66.7%)
  o Hospital reimbursement – 3rd Party Payer (63.9%)
  o Service area population change (61.1%)
  o Hospital reimbursement – Medicare (50%)

CHNA Issues (2014-2016) North Dakota

• 41 CHNA analyzed out of 45
• 182 ranked needs (range 2 to 9 ranked needs per CHNA, most 4-5)
• Issues
  o Behavioral Health 23 out of 41
  o Mental Health 20
  o Health Workforce (physician/provider R&R, specialists) 17
  o Obesity and Overweight 13
  o Elderly Services (availability of resources) 10
  o Wellness (Lifestyle, exercise, physical activity) 10
  o Costs (healthcare, insurance, prescriptions) 9
  o Childcare/daycare 9
  o Jobs with Living Wages 8
  o Ability to Recruit and Retain Young Families 8
  o Illness and disease (heart disease, cancer, diabetes) 6
  o Housing 4
  o Poverty 2
North Dakota CAHs and Community Benefit

• Obesity and physical activity
  o Community farmer’s market
  o Pilot wellness programs with hospital staff
  o Monthly cooking classes
  o 12 week weight management program
  o Community run and/or walk
  o Community access to school fitness center
  o Chronic Disease Mgmt. monitor program
  o Target fitness and exercise to elderly (stretching and movement)
  o Step competitions (pedometers)

• Healthcare workforce
  o Increase use of social media
  o Create community marketing group – hospital, economic development, chamber of commerce
  o Support local students, financial support for nursing and medicine, and other health professions
  o Create local Recruitment & Retention committee with representatives from community – school, bank, business, realtor, church, local govt., younger people
  o Create a promotional video
  o Work with Center for Rural Health workforce specialist and AHEC
North Dakota CAHs and Community Benefit

• Mental health
  o Develop mental health screenings in schools
  o Support groups
  o Work with UND MSW, counseling, and psychology programs for student interns
  o Tele-mental health
  o Mental health consortium (e.g., Bottineau, Harvey, Kenmare and Rolla)

CRH Assistance to Rural Communities

• Community Engagement Tool Kit
• Community Assessments
  o Community Health Needs Assessment
  o Special Focus (e.g., assisted living, wellness centers, other)
• Focus groups
• Key informant interviews (one-on-one)
• Strategic planning (organizational planning and community health planning)
• Grant writing workshops
• Grant proposal critiques and background searches
  o Rural Assistance Center (www.raonline.org)
• Community forum and/or meeting facilitation
• Program Evaluation
• Speakers Bureau – annual meetings or special presentations (rural health, health policy, Native American, aging, community development/engagement, evaluation/program sustainability, HIT, quality improvement, TBI, network and system development, veterans, and other subjects – just ask!)
• CAH Quality Network
• Internal Personnel Audit (staff satisfaction with work environment)
• Education – statewide assessments (hospital and public health), presentations, research
Rural Health Options

• Capacity Building – equity and interdependence
  o Community Engagement Tool Kit (January 2015)
    ➢ Skill development to build local coalitions to address local health issues
    ➢ Building partnerships and networks
    ➢ Assessment and planning
    ➢ Resource identification
    ➢ How to write a grant
    ➢ Evaluation and sustainability

• Grant Development – equity and interdependence
  o Grant writing workshops and proposal critiques
  o Medicare Rural Hospital Flexibility Grants and SHIP grants
  o Rural Health Outreach grants
  o Rural Network Development grants
  o Rural Network Planning grants

• Community Health Needs Assessment – equity and interdependence
  o NEW instrument – address hospital and public health needs

Rural Health Options

• Medicare Rural Hospital Flexibility Program
  o Since 1999, Flex has provided over $5 million in direct grants to ND CAHs (and another $3.5 million in Small Hospital Improvement Program-SHIP grants)
  o Impacted over 125 communities
  o 348 separate subcontracts with hospitals (about 9.6 contracts per CAH)
  o Help CAHs develop services, networks, staff and community education and/or training, board education, improve financial viability (Charge master review), quality improvement
  o Created CAH Quality Network – all 36 CAHs are members and work with the big 6 (regional CAH meetings)
  o Direct assistance:
    ➢ 267 community and/or hospital meetings
    ➢ 58 community needs assessments
    ➢ 30 strategic planning sessions
    ➢ 16 economic impact assessments
    ➢ 11 Internal Personnel Audits
    ➢ 34 Statewide workshops
Rate of Physicians by OMB Category

Rate of PC Physicians by OMB Category
Conclusions

• Rural health is a significant sector in rural communities
• Rural health is unique or different from urban-based health
• Rural health organizations, including rural hospitals, are complex organizations
• ND recognize a wide variety of community health needs, some related to population health, and some more organizational and structural
• Center for Rural Health works closely with rural communities, particularly to build local capacity
• Rural health providers have used a number of grants to start local/regional initiatives
• Health workforce is a significant issue