Rural Health: A Time for Reflection

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MedChi, The Maryland State Medical Society

10th Annual Maryland Rural Summit
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Memory Lane
My personal history in rural America
Medical School
Post Residency

Keams Canyon, Arizona
State Health Departments

Cumberland, Maryland
Ashland, Oregon

Ashland, Oregon
...but the story is healthcare

Rural Health Care in MD
Choptank Community Health System

Federalsburg, MD, Medical/Dental Center
Session Objective

An overview of the major health problems in rural communities; Demographic differences; Specific concerns regarding health care practitioner availability; and Potential solutions
Outline of Presentation

- Overview of health care costs
- Rural health care problems
- Health care and the rural economy
- Maryland issues
- Physician shortages
- Some solutions-IT, NHSC, and AHEC
Overview of Health Care Costs

- The amount of money
- Where the money goes; How it is spent.
National health expenditures as a percentage of gross domestic product (GDP)

Health Care Expenditures

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Causes of Health Care Disparities in Rural America

- Obstacles facing providers and patients
- A combination of unique factors:
  - Economic factors
  - Cultural and social differences
  - Education
  - Isolation
  - Job opportunities
  - [ ]
Rural Poverty

- Rural residents tend to be poorer and more likely to live at the poverty level.
- On the average, per capita income is $7,417 lower than in urban areas.
- The disparity in incomes is even greater for minorities living in rural areas.
- Nearly 24% of rural children live in poverty.
- People who live in rural America rely more heavily on the federal Food Stamp Program.

Alcohol and Substance Abuse

- Alcohol abuse and use of smokeless tobacco are significant problems among rural youth.
- DUI arrests are significantly greater in rural communities.
Anhydrous ammonia, a fertilizer used to grow corn and other crops, stolen from tanks in fields and farm sites.

• Preference for labs in isolated areas (less likely detection)
• Community disproportionately affected by addiction and the costs associated with drug use and crime.
General Health Problems in Rural America

- Hypertension is higher in rural than urban areas
- Mental Health services are seriously lacking
- Suicide rates among rural men and women are significantly higher than urban areas
- Cerebrovascular disease is 1.5 times higher in rural areas than in urban areas
- Dental service/care are sorely lacking in rural America; especially for low income populations
- There are 40 dentists per 100,000 population in rural areas versus 60 in urban communities

Unique Health Problems: Agricultural Injuries

Chart 1 - NY State Farm Fatalities by Mechanism
1996-2000  n= 171

- Tractor 48%
- Machine/vehicle 18%
- Mobile/vehicle 16%
- Tree 4%
- Animal 2%
- Structure 6%
- Unknown 1%
- Electrical 2%
- Fall 1%
- other 2%
- Suicide 2%
Other Rural Injuries

- Although only one-third of all motor vehicle accidents occur in rural areas, two-thirds of the deaths attributed to these accidents occur on rural roads.
- Rural residents die more often from unintentional injuries, and are significantly at higher risk of death by gunshot.
- Anywhere from 57 to 90 percent of first responders in rural areas are volunteers.
Health Care and the Rural Economy

Health Care as a Component of the Rural Economy

- In rural America, health care is critical to the economic well-being of the community
- Health care services provide opportunities for skilled employment
- If local health care should disappear, as much as 20 percent of a local economy could go with it
- In many rural communities, the health sector is one of the largest employers, and growing...
Health Care as a Component of the Rural Economy

- Health care plays a significant ancillary economic impact in rural America
- A typical rural hospital may employ 15 to 20 percent of the local workforce and possess a multimillion dollar payroll
- Money paid to health sector employees is spent in the community generating additional local jobs and revenue

Health Care as a Component of the Rural Economy

- Health care occupations are an important source of income in the community
- Indirect support for housing and construction, retail establishments, restaurants and other local services
- Hospitals and other health care institutions are important purchasers of local products such as laundry services, and waste management
Health Care as a Component of the Rural Economy

- Business relocation decisions: Importance of available health care services
- Retirees and workers will choose a location that provides access to quality health care
Maryland’s Rural Health Issues

Legend
- Maryland
- Non-rural
- State-designated rural
- State-designated rural and Federally-designated rural

Maryland Rural Health Plan:
Improving Access to Services

- Primary and specialty services
- Oral health
- Behavioral health
- Pharmaceuticals
Maryland Rural Health Plan: Improving Access to Services

- Personal responsibility
- Behavioral change
- Chronic disease improvement

Maryland Rural Issues

- Poverty and demographics
- Oral health
- Health care professional shortages
Maryland Poverty Rates

2000

Maryland Household Income

2004
MD Aging Population: The "Silver Sunami"

- 14% of Maryland population is elderly
- Maryland residents will live 78 years on average
- Elderly are moving to rural areas
- Need for geriatric trained primary care physicians
- Need for in home services

MD Aging Population: The "Silver Sunami"

- Rural jurisdictions have 40% more elderly citizens than urban populations
- Elderly population projected to grow to 25% of the population by 2030 in rural Maryland
### Oral Health Improvement
#### Garrett County

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<tr>
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<tbody>
<tr>
<td>Percentage of children registering for kindergarten with untreated dental decay</td>
<td>41%</td>
<td>18%</td>
</tr>
<tr>
<td>DMF (decayed, missing, filled) Ratio</td>
<td>3.5/child</td>
<td>1.4/child</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Community Water Fluoridation (SOURCE: Garrett County Sanitary District)</th>
<th>1998</th>
<th>2005</th>
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<tbody>
<tr>
<td>Percent of families on public water system with fluoridated water</td>
<td>29%</td>
<td>68%</td>
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<tr>
<th>MCHP Encounter Data (SOURCE: CMS)</th>
<th>CY 2000</th>
<th>CY 2005</th>
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<tr>
<td>Dental utilization rate for children 4-20</td>
<td>47.2%</td>
<td>72.4%</td>
</tr>
<tr>
<td>Number of children receiving services</td>
<td>517</td>
<td>1626</td>
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</tbody>
</table>
Maryland Medically Underserved Areas

The Rural Physician Where is (S)he?
Rural Health Care is Underserved

- Rural doctors are a dying breed
- Rural communities of <10,000 residents have 90 physicians per 100,000 residents
- Metropolitan areas have 300 physicians per 100,000 residents
- Medical school graduates planning to practice in rural areas -- 3%
- Small, rural town without economic promise—an unlikely choice for students with $100,000 to $150,000 of debt

Health Care Professional Shortages

- There are 2,157 Health Professional Shortage Areas (HPSA’s) in rural and frontier areas of all states and US territories compared to 910 in urban areas.
HPSA Trends

Maryland Physician Supply

Physician Supply (All Physicians: Maryland, 2004)

Physicians per 100,000 Population

State: 137.5
State Rural: 109.4

Ricketts, 2007
Maryland Primary Care Physicians

Primary Care Shortage Areas
Maryland Psychiatrist Supply

Mental Health Shortage Areas
Health Care Solutions

- Technology
- Health care professional and community development
A Rural Health Care Solution: Information Technology

- Increase access to care
- Provide remote diagnostic services
- Provide education and training for health care workers
- Assure professional continuing education

Rural Health Technologies
Health Professional Rural Solutions
National Health Service Corps

“Building a community of dedicated health professionals who continue to work with the underserved even after their NHSC commitment has been fulfilled”
Directors of the NHSC
1972-Current

H. McDonald Rimple, M.D.
Martin P. Wasserman, M.D.
Edward D. Martin, M.D.
Howard Hilton
George Tolbert, M.D. (Deceased)
Fitzhugh Mullan, M.D.
Billy M. Sandlin
Kenneth P. Moritsugu, M.D.
Jeffrey Human, Acting
Audrey F. Manley, M.D.
John Hisle, Acting
Donald L. Weaver, M.D.
Jennifer Burks, Acting
Richard J. Smith, III

Emergency Health Personnel Act
Public Law 91-623
Last bill signed by President Nixon
First 20 Commissioned Officers
14 Physicians
4 Dentists
2 Nurses

Field Strength 181 to 1,826 persons
Budget $11.3 to $138 million
27,000 Primary Care Professionals
4,600 clinicians serve 5 million

Scholarships
Loan Repayment

“An ideal partnership between the government and local communities, providing federal funding for necessary health programs. The Corps is a proven program with an impressive track record. Its expansion will do much to address the health disparities in the country today.”

American Medical Student Association
Area Health Education Centers

AHEC: Mission

To enhance access to quality primary and preventive health care, by improving the supply and distribution of health care professionals through community and academic educational partnerships
AHEC: Programs

- Health Careers-Recruitment
- Training Health Professions Students
- Supporting Health Professionals
- Health and Community Development

AHEC: Recruitment

- Evaluate and address the health needs of communities
- Provide innovative, collaborative, multi-disciplinary responses to those needs.
- Develop community health education and health provider training programs
**AHEC: Training**

- **Provide** students the opportunity to experience health care in a real world setting removed from the health science centers.
- **Create direct interaction with their future patient population in community primary care sites:**
  - Community health centers
  - County health departments,
  - Homeless clinics,
  - Local practitioner offices

**AHEC: Support**

- **Provide accredited, high quality continuing education offerings and professional support**
- **Enhance clinical skills and help maintain professional certifications.**
- **Focus on retention activities to address community and state health care workforce needs**
AHEC: Community Development

- Evaluate and address the regional health needs of communities
- Provide innovative, collaborative, multi-disciplinary responses to those needs.

Maryland Area Health Education Centers

- 422 Students participated in AHEC clinical education
- 6562 K-12 students exposed participated in health career programs
- 1695 professionals participated in training in rural Maryland
In Conclusion... Imagine
IMAGINE: A HEALTHY MARYLAND

- Wellness and chronic disease management
- Affordable
- Quality services
- Access for all
- Technology infrastructure
- Full health professional workforce

St. Mary's Hospital
Leonardtown, MD