The Environmental Context of Rural and Tribal Health in the U.S.

Presentation to the Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion

Division of Community Health

Presented by: Brad Gibbens, MPA, Deputy Director and Assistant Professor

October 27, 2015
Center for Rural Health

- 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
Complex Issues Surround Rural and Tribal Communities

- Center for Rural Health takes a systems approach – environment, access to care, availability of care, health delivery systems, organizational dynamics, and population health with an emphasis on COMMUNITY.

- Rural Community Health Equity Model – environmental issues and impact, community response, change in the environment.

- Rural health issues:
  - Access to care
  - Health disparities
  - Population health

- Health reform and rural and tribal

Rural Community Health Equity Model

Environmental Conditions:
- Demographics
- Economics
- Policy
- Health Status
- Workforce
- Finance
- Technology
- Health System Change
- Rural Community Culture & Dynamics

Impact on Community or Health Organization:
- Threat to survival
- Growth/Decline
- Identity
- Perception towards change
- Perception towards opportunity
- How we respond

Community Action:
- What do people think, want, or need?
  - Assessments
  - Forums-Discussions
  - Interviews
- Community Ownership (not health system ownership)
  - Collaboration
  - Inclusion
  - Participation
  - Interdependence
- Community Capacity
  - Skills and knowledge
  - Leadership development
  - Planning and advocacy
  - Manage change – non reactive

Source: Brad Gibbens, Deputy Director
UND Center for Rural Health
Rural Health Issues

• Access to Care
  o Healthcare system and organizational structure
  o Financial constraints
  o Health workforce – shortages and/or mal-distribution
  o *In order to impact the health of the population need an infrastructure – viable and stable*

• Health Disparities (Serious Problem in rural and exacerbated in “Indian Country”)
  o Geographic isolation
  o Lower socio-economic status
  o Higher rates of health risk behaviors
  o Demographic shifts and constraints
  o Variable economies
  o Higher rates of chronic illness
### Rural Mortality Rates Compared to Urban Rates per 100,000 population

<table>
<thead>
<tr>
<th>Measure</th>
<th>Non-Metro Counties</th>
<th>Metro Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With a city &gt; 10,000</td>
<td>Without a city &gt; 10,000</td>
</tr>
<tr>
<td>Infant Mortality</td>
<td>6.8</td>
<td>7.0</td>
</tr>
<tr>
<td>COPD (20 years/older)</td>
<td>79.9</td>
<td>81.9</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>197.2</td>
<td>206.5</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>58.9</td>
<td>52.7</td>
</tr>
<tr>
<td>Motor Vehicle Traffic Related</td>
<td>23.3</td>
<td>19.5</td>
</tr>
<tr>
<td>Suicide</td>
<td>18.2</td>
<td>20.0</td>
</tr>
</tbody>
</table>


### Rural Health Status Compared to Urban Rates

<table>
<thead>
<tr>
<th>Measure</th>
<th>Non-metro Counties</th>
<th>Metro Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Birth Rate</td>
<td>8.3%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Teen Birth Rate</td>
<td>49.5%</td>
<td>39.2%</td>
</tr>
<tr>
<td>Children Overweight</td>
<td>25.0%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Preventable Hos. Stays</td>
<td>84.0%</td>
<td>69.3%</td>
</tr>
<tr>
<td>Diabetes Incidence</td>
<td>10.6%</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

Stutsman County

Figure 9a. Obesity among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011

<table>
<thead>
<tr>
<th>All Regions</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>E</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9b. Obesity among persons 18 years of age and older by sex and urbanization level: United States, 2010-2011

<table>
<thead>
<tr>
<th>Metropolitan counties</th>
<th>Non-metropolitan counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>E</td>
<td>Non-metropolitan counties</td>
</tr>
</tbody>
</table>

14
2.5 times as many AI/ANs as whites live below poverty level

![Bar chart showing percentage of adults living below federal poverty level by race/ethnicity and year.](chart.png)

Source: CDC Health Disparities and Inequalities Report 2011, MMWR, Vo. 60
### American Indian Health Disparities

#### Life Expectancy in Years:

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>74.1</td>
<td>79.5</td>
<td>76.9</td>
</tr>
<tr>
<td>AAIHS</td>
<td>63.5</td>
<td>71.0</td>
<td>67.3</td>
</tr>
<tr>
<td>Disparity</td>
<td>10.6</td>
<td>8.5</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*Average age at death in North Dakota (2005 – 2010):*

- **75.7** White Population
- **54.7** AI Population
## AI/AN and U.S. All Races Mortality Per 100,000 (2008-2009)

<table>
<thead>
<tr>
<th>Measure</th>
<th>AI/AN Rate</th>
<th>U.S. All Races</th>
<th>Ratio: AI/AN to U.S</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Causes</td>
<td>943.0</td>
<td>774.9</td>
<td>1.2</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>182.4</td>
<td>192.1</td>
<td>0.9</td>
</tr>
<tr>
<td>Diabetes</td>
<td>61.0</td>
<td>22.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>94.5</td>
<td>39.2</td>
<td>2.4</td>
</tr>
<tr>
<td>Chronic liver disease</td>
<td>43.1</td>
<td>9.2</td>
<td>4.7</td>
</tr>
<tr>
<td>Suicide</td>
<td>18.5</td>
<td>11.6</td>
<td>1.6</td>
</tr>
<tr>
<td>Assault (homicide)</td>
<td>11.0</td>
<td>5.9</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Source: USDHHS, Indian Health Service. Disparities, January 2015

## American Indian Health Disparities

Death rates from preventable diseases among AIs are significantly higher than among non-Indians:

- Diabetes 208% greater
- Alcoholism 526% greater
- Accidents 150% greater
- Suicide 60% greater
- Infant Mortality Rates

Indian Health Service. Regional Differences in Indian Health 2002-2003
What does Health Reform mean for Rural and Indian Country

• Health workforce

• Increase insurance coverage – financial viability of health organizations

• Health System Reform – volume to value

• ACA permanently reauthorized the Indian Health Care Improvement Act
Contact us for more information!

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