Native American Research, A Researcher Perspective: Connecting with Native Communities

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Memorial Union, Arikara
Native American Heritage Events
North Dakota State University
November 20, 2008, 1:15-2:15pm

Funded by the Administration on Aging

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
National Resource Center on Native American Aging

- Established in 1994, at the Center for Rural Health, University of North Dakota School of Medicine and Health Sciences
- Focuses on:
  - Education, Training, and Research
  - Community Development & Technical Assistance
  - Native Elder Health, Workforce, & Policy
- Web site: www.nrcnaa.org

Native Elder Issues

- Growing elder population with Boom generation
- Lower life expectancy
- Higher chronic disease rates
- Higher health risk factors
- Lack of screening
- Lack of long-term care services in Indian Country
- Changing family structure
Regional Variances

• One size does not fit all
• Variation in regard to life expectancy and chronic disease
  – Ex. California Indian Health Service Area life expectancy is close to the nations; however, Aberdeen Area is 64.3, a difference of 12.5 years.
  – Ex. Alaska Area (16%) has diabetes rate close to the general population at 14%; whereas, the majority of other regions are at 37% or higher.
• Once you seen one tribe you’ve only seen one tribe
Life Expectancy at Birth, ages 55, 65 and 75 by IHS Area

<table>
<thead>
<tr>
<th>IHS Area</th>
<th>At Birth</th>
<th>At Age 55</th>
<th>At Age 65</th>
<th>At Age 75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aberdeen</td>
<td>64.3</td>
<td>18.9</td>
<td>13.2</td>
<td>8.5</td>
</tr>
<tr>
<td>Bemidji</td>
<td>65.7</td>
<td>18.7</td>
<td>12.7</td>
<td>10.1</td>
</tr>
<tr>
<td>Billings</td>
<td>67.0</td>
<td>20.2</td>
<td>13.9</td>
<td>8.9</td>
</tr>
<tr>
<td>Alaska</td>
<td>68.0</td>
<td>21.3</td>
<td>14.7</td>
<td>9.2</td>
</tr>
<tr>
<td>Tucson</td>
<td>68.4</td>
<td>22.2</td>
<td>15.8</td>
<td>10.0</td>
</tr>
<tr>
<td>Phoenix</td>
<td>69.8</td>
<td>22.6</td>
<td>16.1</td>
<td>10.6</td>
</tr>
<tr>
<td>Portland</td>
<td>71.7</td>
<td>23.1</td>
<td>16.0</td>
<td>10.1</td>
</tr>
<tr>
<td>Navajo</td>
<td>71.9</td>
<td>24.9</td>
<td>17.7</td>
<td>11.7</td>
</tr>
<tr>
<td>Nashville</td>
<td>72.2</td>
<td>22.8</td>
<td>16.3</td>
<td>10.5</td>
</tr>
<tr>
<td>Albuquerque</td>
<td>72.7</td>
<td>25.4</td>
<td>19.6</td>
<td>12.2</td>
</tr>
<tr>
<td>Oklahoma</td>
<td>74.2</td>
<td>25.7</td>
<td>18.2</td>
<td>13.1</td>
</tr>
<tr>
<td>California</td>
<td>75.3</td>
<td>26.9</td>
<td>19.4</td>
<td>13.3</td>
</tr>
<tr>
<td>All Indians</td>
<td>71.1</td>
<td>23.5</td>
<td>16.7</td>
<td>11.2</td>
</tr>
<tr>
<td><strong>U.S. All Races</strong></td>
<td>76.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: I.H.S. Division of Statistics (1998); **National Center for Health Statistics (2000)

Diabetes Rates by Region

Source: NRCNAA Needs Assessment Data, UND Center for Rural Health.
* No data are available.
Identifying our Needs III: A Native Elders Needs Assessment

The Needs Assessment Team

- Leander “Russ” McDonald, Ph.D – Director
- Richard Ludtke, Ph.D.
- Kyle Muus, Ph.D.
- Twyla Baker-Demaray, Research Analyst
- Kim Rulifson, Project Assistant
- Joelle Ruthig, PhD, Research Associate
- Mary Gattis, Graduate Research Assistant
- Pam Ness, Graduate Research Assistant
  - Kaylee Compton, Student Assistant
  - C.W. Hall, Student Assistant
Purpose of the Project

• Assist tribes in collecting data useful for building infrastructure in their communities.
• Multiple methods are used throughout the study, primary method of data collection is the survey instrument (administered face-to-face with the elders).
• Fulfills requirements for tribes’ Title VI Elder Nutrition program grant applications.

Population

• Native American elders residing primarily on reservations

• Individuals age 55 and over living on or around Indian areas.
  – Age 55 is considered comparable to 65 and over in the general population
Data is collected on

- General health status
- Activities of Daily Living (ADL’s)
- Instrumental Activities of Daily Living (IADL’s)
- Indicators of chronic disease
- Cancer screenings
- Access to healthcare
- Indicators of vision and hearing
- Tobacco and alcohol use
- Nutrition and exercise
- Weight and weight control
- Social supports

National Resource Center Provides:

- Survey instruments – a standardized tool
- Assistance with sampling
- Training on data collection
- Technical support
- Data entry
- Data analysis
- Statistical profiles of your elders
- Comparisons with national norms
Local Communities Provide:

• A resolution from their tribal councils
• A list of names/subjects for the sample
• Data collection
• Local implementation and coordination

Current Status of Project

• **Cycle I**
  - 190 tribes from 87 different sites are represented in national file
  - 9,403 Native elder participants have filled out the survey
  - At least one tribe from 11 of the 12 I.H.S. Regional Areas were represented in the national file

• **Cycle II**
  - 342 tribes from 145 sites representing 10,743 Native elders have completed Cycle II
  - All 12 I.H.S. Regional Areas were represented in the national file
**Current Status of Project**

- **Cycle III**
  - 298 Tribes/Alaska Native Villages/Hawaiian Homelands from 127 different sites
  - 15,565 AIANNH elders completed the NRCNAA or NSAIE survey
  - All 12 I.H.S. Regional Areas are represented in the national file.

- **Cycle IV**
  - Ongoing resources are available to tribes wishing to conduct a needs assessment
  - Needs assessments conducted from April 1, 2008 to January, 2011 are valid for Title VI nutrition and caregiving grant application.

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**The Health of America’s Indian Elders: Chronic Diseases**

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

[http://ruralhealth.unl.edu](http://ruralhealth.unl.edu)
Chronic Diseases – Arthritis (N=14,751)

- Native elders were 13% more likely to experience arthritis than the U.S. general population.

Chronic Diseases – Congestive Heart Failure (N=14,751)

- Native elders were 25% more likely to experience congestive heart failure than the general U.S. population.
Chronic Diseases – Stroke
(N=14,751)

- Native elders were 29% more likely to experience a stroke than the general population.

Chronic Diseases – Asthma
(N=14,751)

- Native elders were 57% more likely to experience asthma than the U.S. general population.
**Chronic Diseases – Cataracts**  
(N=14,751)

- Native elders were 25% less likely to experience cataracts than the general population.

![Cataracts chart](image)

**Chronic Diseases – Cervical Cancer**  
(N=14,751)

- Native elder women were 85% more likely to experience cervical cancer than the U.S. general population.

![Cervical Cancer chart](image)
Chronic Diseases – Breast Cancer
(N=14,751)

- Native elder women were 22% more likely to experience breast cancer than the U.S. general population.

Chronic Diseases – Prostate Cancer
(N=14,751)

- Native elder men were 40% less likely to experience prostate cancer than the U.S. general population.
**Chronic Diseases – Colon/Rectal Cancer (N=14,751)**

- Native elders were 50% less likely to experience colon/rectal cancer than the U.S. general population.

**Chronic Diseases – Other Cancer (N=14,751)**

- Native elders were less likely to experience other cancer than the U.S. general population.
Chronic Diseases – High Blood Pressure (N=14,751)

High Blood Pressure

- Native elders were equally as likely to experience high blood pressure as the U.S. general population.

Chronic Diseases – Diabetes (N=14,751)

Diabetes

- Native elders were 141% more likely to experience diabetes than the U.S. general population.
Chronic Diseases – Osteoporosis (N=14,751)

- Native elders were 44% more likely to experience osteoporosis than the U.S. general population.

Chronic Diseases – Depression (N=14,751)

- Native elders indicated 33% less depression than the U.S. general population.
Functional Limitations
<table>
<thead>
<tr>
<th>Functional Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>• The majority of definitions concerning functional limitations or disability refer to activities of daily living (ADL’s) and instrumental activities of daily living (IADL’s) as indicators of functionality.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activities of Daily Living (ADL’s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Eating</td>
</tr>
<tr>
<td>• Walking</td>
</tr>
<tr>
<td>• Using the toilet</td>
</tr>
<tr>
<td>• Dressing</td>
</tr>
<tr>
<td>• Bathing</td>
</tr>
<tr>
<td>• Getting in/out of bed</td>
</tr>
</tbody>
</table>
**Instrumental Activities of Daily Living (IADL’s)**

- Cooking
- Shopping
- Managing money
- Using a telephone
- Light housework
- Heavy housework
- Getting outside

**ADLs by Cycles I-III**
IADLs by Cycles I-III

LTC Measure by Cycles I-III
### Functional Limitation Categories

<table>
<thead>
<tr>
<th>Categories</th>
<th>Limitations</th>
<th>Recommended Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little or none</td>
<td>No ADL limitations, up to one IADL limitation</td>
<td>Health Promotion</td>
</tr>
<tr>
<td>Moderate</td>
<td>One ADL limitation with fewer than 2 IADLs</td>
<td>Home and Community Based Services</td>
</tr>
<tr>
<td>Moderately Severe</td>
<td>2 ADL limitations</td>
<td>Assisted Living</td>
</tr>
<tr>
<td>Severe</td>
<td>3 or more ADL limitations</td>
<td>Skilled Nursing Facility</td>
</tr>
</tbody>
</table>

### Functional Limitation Levels Applied to Services and Personnel

<table>
<thead>
<tr>
<th>Level Functional Limitation</th>
<th>Service Goals</th>
<th>Services with best fit</th>
<th>Personnel required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Little or none (59%)</td>
<td>Health promotion, preventive care, maintaining vitality</td>
<td>No caregiver services required Health Promotion/Prevention</td>
<td>Health educators, physical trainers, therapists</td>
</tr>
<tr>
<td>Moderate (21%) Requires assistance usually consistent with remaining in one’s home.</td>
<td>Train and support informal providers and buffer them with respite and contact services for a range of possible tasks.</td>
<td>Informal care – w/supportsExamples:• Day/night care*• Physical therapy• Transportation * * Require local providers</td>
<td>Family and friends, Facility staff – LPN/CAN, Rental source RN, LPN, PT, or institutional site</td>
</tr>
</tbody>
</table>
### Functional Limitation Levels Applied to Services and Personnel Cont…

<table>
<thead>
<tr>
<th>Level Functional Limitation</th>
<th>Service Goals</th>
<th>Services with best fit</th>
<th>Personnel required</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moderately Severe (7%)</td>
<td>The goal is to provide housekeeping and meals along with a modest level of oversight. People may contact for services from the home and community based services.</td>
<td>Congregate care, Basic care facilities, Assisted Living</td>
<td>Institutional staff as required by state regulations</td>
</tr>
<tr>
<td>Severe (13%)</td>
<td>Skilled nursing care is the most fully institutional and is reserved for those with medical needs necessitating this level of care.</td>
<td>Skilled Nursing Care</td>
<td>Institutional staff as required by state regulations</td>
</tr>
<tr>
<td>Terminal as special category</td>
<td>End of life care occurs at all points on the above continuum, but is concentrated at the higher levels of limitation. The goal is physical and emotional comfort.</td>
<td>Hospice Care</td>
<td>*Hospice volunteers and coordinator, Requires local providers</td>
</tr>
</tbody>
</table>

### Five or more drinks in the past 30 days by Cycles I-III

<table>
<thead>
<tr>
<th>Cycle</th>
<th>0%</th>
<th>10%</th>
<th>20%</th>
<th>30%</th>
<th>40%</th>
<th>50%</th>
<th>60%</th>
<th>70%</th>
<th>80%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cycle I</td>
<td>0%</td>
<td>6%</td>
<td>7%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Cycle II</td>
<td>0%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Cycle III</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>3%</td>
<td>2%</td>
</tr>
</tbody>
</table>
**Smoking by Cycles I-III**

![Bar chart showing smoking prevalence by cycles I-III]

**Last Drank Alcohol by Cycles I-III**

![Bar chart showing last drank alcohol by cycles I-III]
Problems Affecting Nutrition by Cycles I-III

Nutritional Score by Cycles II-III
Exercises by Cycles I-III

- Walking: Cycle I 61%, Cycle II 63%, Cycle III 36%
- Gardening: Cycle I 12%, Cycle II 10%, Cycle III 2%
- Yard Work: Cycle I 6%, Cycle II 7%, Cycle III 6%
- Dancing: Cycle I 7%, Cycle II 5%, Cycle III 5%
- Bicycling: Cycle I 4%, Cycle II 3%, Cycle III 3%
- Weights: Cycle I 3%, Cycle II 3%, Cycle III 2%
- Aerobics: Cycle I 2%, Cycle II 2%, Cycle III 2%
- Swimming: Cycle I 1%, Cycle II 1%, Cycle III 1%
- Jogging: Cycle I 0%, Cycle II 10%, Cycle III 20%
- Running: Cycle I 20%, Cycle II 30%, Cycle III 40%

Community Level Data Uses

- Renewal of Title VI Native Elder Nutrition and Caregiving Grants
- Strengthening of grant proposals
- Documentation of health disparities
- Documentation of need for health promotion, home and community based services, and assisted living
State & National Data Uses

- South Dakota State Legislative Research Committee
- Senate Committee on Indian Affairs
- National Indian Council on Aging
- National Congress of American Indians
- White House Conference on Aging

Regional and National Data Use Recommendations

- Training for increasing skills for Native elder service providers
- Advocating for resources at the state, regional, and national level
- Developing policy for informing national Native elder organizations
- Filling the research gap for Native elder related publication
- Training Native researchers in the aging field
Conclusions

- Native elder populations are dramatically growing.
- Tribal recognition of age 55 for elder status includes those elders from the baby boom generation.
- Tribes may wish to consider increasing eligibility age for services to 62 years of age.

Conclusions cont.

- Chronic diseases prevalence is mixed with several increasing and others steady.
- Increases may well relate to risk factors.
  - Exercise – Walking increased dramatically in Cycles I to II and leveled off in Cycle III.
  - Nearly all other exercises decreased.
  - Weight issues increased – young old are heaviest.
- Lifestyle modification continues to merit attention.
  - Positive results for walking provide a major source of encouragement.
- Chronic disease self management will be essential to avoiding future functional limitations as this population grows older.
For more information contact:

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School of Medicine and Health Sciences
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