Identifying and Addressing Chronic Disease Among American Indian Elders

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Prior Lake, MN
April 29, 2008
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

The National Native Elder Services Locator

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

**Funder:**
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**Individual Contributors:**
Title VI Directors and individuals from tribal entities who provided information during the phone interview. Also, Daniel Fasteen, Brian Barclay, Kim Ruliffson, Richard Ludtke, Twyla Baker-Demaray, Pam Ness, and Kaylee Compton, from the NRCNAA and the Center for Rural Health.

**Organizational Contributors:**
Administration on Aging, National Association of Area Agencies on Aging, specifically the Eldercare Locator, and Kauffman and Associates, Inc.

Overview

**The Native Elder Services Locator Project:**
- Serves as a resource to assist Native elders, families and service providers to locate services in specific communities.
- Provides a networking resource to tribes seeking a model for the provision of long-term care services.
Background

- Title VI Directors were contacted by phone (July- August 2007) regarding the following questions:
  - Senior services, tribal management of services, site contact information, and interest in sharing information with the Eldercare Locator, N4A (National Association on Area Agencies on Aging).
- Data was merged into useable tables to map the results.
- Interactive mapping was created using a FLASH component and inserted into the NRCNAA website.

Application

The Native Elder Service Locator can be used to:

- Find services in a tribal/village/homeland locations;
- Print the locations of all services located within each state;
- Print a list of information available at each tribal location;
- Print a list of all tribes participating in the project;
- Print a list of all tribes that have a specific service such as Emergency Medical Services; and
- Print a list of the service definitions as defined by the Administration on Aging
Where is it located?

Go to our website at:  
www.nrcnaa.org  
And click on the Service Locator on the Left!

We will show you how to use this....

How to view all services

- General map showing the number of service centers in each state.
- Roll the mouse over each state to see exact numbers.
- Click on a state to see where services are located.
- Click on the NRCNAA logo for more information pertaining to that service location.
- The contact information along with the list of services are displayed when the NRCNAA logo is clicked for each location.
How to view a service

- Select from the Service dropdown menu to display individual services on the map.
- The map updates to show just the states that have the service you selected.
- Click on a state to learn the tribal entities that have the selected service.

Future Updates

This is a new project and we invite your feedback! Please feel free to share any comments about the project at: 800-896-7628.
Heroes Project

What is the Heroes Project?

An opportunity to honor Title VI workers or any individuals who you feel have impacted the lives of elders in your community.
Background Information

- Collaborative Project with AoA’s 30th anniversary celebration year.
- Developed by our late Director, Dr. Alan Allery.

How to Nominate a Hero:

- Go to: www.nrcnaa.org
- Click on the box labeled Heroes Project
- Click to get to our website.
- Then scroll down on the Heroes Project box for a quick link.
What will we do with this information?

- Collect nominees by **September 30th, 2008.**
- Awardees (and those who nominated them) notified by October 2008.
- Awards sent to Community for local celebration in October-November, 2008.
- Create a booklet of Elder Heroes in Native committees that will be dispersed by the NRCNAA and AoA, and made available on the website.
- National Ceremony – April, 2009.

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**Bill Rossig**  
**Wiyot Tribe**

- World War II veteran.
- He coached youth football and baseball teams for 45 years,
- Built homes, children’s playgrounds
- Started his own Elder Wood Program
- Volunteering for the Blue Lake Rancheria Elder Nutrition Program (even while through cancer treatments).
Claire Hughes
Hawaii

• Dr. Hughes is a respected Native Hawaiian elder.
• She partnered in developing use of the traditional Native Hawaiian Diet (THD).
• After retirement, she has been working for American Cancer Society in the Hawaiian communities.

Gregorita Chavarria
Kha’p’oo Owinge (Santa Clara Pueblo)

• Testified before the New Mexico Legislature for “Gregorita’s Dream”, a Regional Adult Day Care Facility which began construction this year.
• Her coherent mind and willingness to share her cultural knowledge was a blessing to us and left lasting momentous memories.
Do you have anyone in mind?

• Is there anyone in your community who has or continues to dedicate their time, talent, and energy to help our elders, to solve local problems, and to build stronger communities?

A tribal council member, a volunteer, a Title VI Director, a CHR????

Contact Information:

Project Contact:  Ann Miller

Toll Free: (800) 896-7628

e-mail: annmiller@medicine.nodak.edu
URL: www.nrcnaa.org
Questions??

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 Ruliffson, NRCNAA Project Coord.
• Joelle Ruthig, PhD, Research Associate
• Mary Gattis, Graduate Research Assistant
  – Kaylee Compton, Student Assistant
  – C.W. Hall, Student Assistant
  – Danny Fasteen, Student Assistant/GIS Coord.

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
- A repository for the findings and are responsible for getting them to the right people
- Local implementation and coordination
Regional Variances

• One size does not fit all
• Variation in regard to life expectancy and chronic disease
  – Ex. California Area life expectancy is close to the nations; however, Aberdeen Area is 64.3, a difference of 12.5 years.
  – Ex. Alaska Area 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.

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
The Framework

• *Identifying Our Needs: A Survey of Elders I-III*, funded by the Administration on Aging, provides technical assistance and training opportunities to conduct a needs assessment using an established model.

• The NRCNAA model uses:
  – Academically accepted design and methodology
  – Random sampling ensures fair subject selection
  – The results are independent from political influence
  – Informed consent, tribal approval, and tribal ownership ensure tribal sovereignty is protected
  – The model developed with input from Native elders and Native elder providers ensures respect for Native elders.

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 is represented in the national file

• **Cycle II**
  – 254 tribes from 75 sites representing 10,521 Native elders have completed Cycle II
  – 17 tribes have resolutions on file and are now collecting data
  – All 12 I.H.S. Regional Areas are represented in the national file
Current Status of Project

- **Cycle III**
  - 298 Tribes/Alaska Native Villages/Hawaiian Homelands from 127 different sites are represented in national file
  - 14,751 Native elder participants have filled out the NRCNAA survey, 774 have filled out the NSAIE survey, for a total of 15,565 AIANNH elders.
  - All 12 I.H.S. Regional Areas are represented in the national file.

Demographic Change, Indian Aging, & Life Expectancy
Life Expectancy at Birth: U.S., All Indians, and IHS Areas 2000

Change in Years of Life Expectancy @ Birth 1990-2000
Remaining Life Expectancy @ Age 65

Change in Remaining Life Expectancy at Age 65
AoA Region I

Includes:

- Maine,
- Massachusetts,
- Connecticut,
- New Hampshire
- Rhode Island
- Vermont
AoA Region I

Region I Population by Age: 2000

AoA Region II and III

Includes:
- New York,
- New Jersey,
- Puerto Rico,
- Virgin Islands,
- District of Columbia,
- Delaware,
- Maryland,
- Pennsylvania,
- Virginia, &
- West Virginia

Regions II & III
Regions II and III:

Regions II and III Population by Age: 2000

<table>
<thead>
<tr>
<th>Age Group</th>
<th>0.00%</th>
<th>1.00%</th>
<th>2.00%</th>
<th>3.00%</th>
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AoA Region IV

Includes:
- Alabama,
- Florida,
- Georgia,
- Kentucky,
- Mississippi,
- North Carolina,
- South Carolina, &
- Tennessee
Region IV

Region IV Population by Age: 2000

- 90 & over
- 80 to 84
- 70 to 74
- 60 to 64
- 50 to 54
- 40 to 44
- 30 to 34
- 20 to 24
- 10 to 14
- under 5

AoA Region V

Includes:
- Illinois,
- Indiana,
- Michigan,
- Minnesota,
- Ohio, &
- Wisconsin
AoA Region VI

Includes:
- Arkansas,
- Louisiana,
- Oklahoma,
- New Mexico,
- & Texas
Region VI

Region VI Population by Age: 2000

AoA Region VII

Includes:
- Iowa,
- Kansas
- Missouri, &
- Nebraska
Region VII

Region VII Population by Age: 2000

- 90 & over
- 80 to 84
- 70 to 74
- 60 to 64
- 50 to 54
- 40 to 44
- 30 to 34
- 20 to 24
- 10 to 14
- under 5

AoA Region VIII

Includes:
- Colorado,
- Montana
- Utah,
- Wyoming,
- North Dakota, &
- South Dakota
Region VIII

Region VIII Population by Age: 2000

0.00% 1.00% 2.00% 3.00% 4.00% 5.00% 6.00% 7.00% 8.00% 9.00% 10.00 % 11.00 % 12.00 %

AoA Region IX

Includes:
- California,
- Nevada,
- Arizona,
- Hawaii,
- Guam, (no image)
- Commonwealth of the Northern Mariana Islands, (no image)
- American Samoa (no image)
Region IX

Region IX Population by Age: 2000

AoA Region X

Includes:
- Alaska
- Idaho
- Oregon
- Washington
Region X

Changing Demographics: Survey Results

Connecting resources and knowledge to strengthen the health of people in rural communities.
Age Distributions: Cycle I through Cycle III

Gender Distributions: Cycle I through Cycle III
Living Arrangements: Cycle I through Cycle III

Marital Status: Cycle I through Cycle III
Income: Cycle I through Cycle III

<table>
<thead>
<tr>
<th>Income Range</th>
<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 5,000</td>
<td>20%</td>
<td>11%</td>
<td>12%</td>
</tr>
<tr>
<td>5,000-6,999</td>
<td>17%</td>
<td>8%</td>
<td>11%</td>
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<tr>
<td>7,000-14,999</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
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<tr>
<td>15,000-19,999</td>
<td>25%</td>
<td>10%</td>
<td>13%</td>
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<td>20,000-24,999</td>
<td>6%</td>
<td>3%</td>
<td>6%</td>
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<tr>
<td>25,000-49,999</td>
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<td>9%</td>
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<td>50,000 &amp; up</td>
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<td>3%</td>
<td>4%</td>
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</table>

Education: Cycle I through Cycle III

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than High School</td>
<td>23%</td>
<td>22%</td>
<td>20%</td>
</tr>
<tr>
<td>High School</td>
<td>45%</td>
<td>44%</td>
<td>44%</td>
</tr>
<tr>
<td>College &amp; up</td>
<td>19%</td>
<td>16%</td>
<td>24%</td>
</tr>
</tbody>
</table>

NRCNAA 2008
Age Distributions: Cycle III and National

- 55-59: 14% (Cycle III), 23% (U.S. Gen.)
- 60-69: 40% (Cycle III), 36% (U.S. Gen.)
- 70-79: 27% (Cycle III), 26% (U.S. Gen.)
- 80+: 12% (Cycle III), 14% (U.S. Gen.)

Length of Current Residence: Cycle III

- Less than 5 years: 4%
- 5 years or more: 56%
Education: Cycle III and National

- College & up: Cycle III 53%, National 41%
- High School: Cycle III 47%, National 41%
- Elementary: Cycle III 19%, National 6%
- None: Cycle III 2%, National 0%

Marital Status: Cycle III and National

- Married W/partner: Cycle III 52%, National 35%
- Single: Cycle III 8%, National 5%
- Divorced/separated: Cycle III 14%, National 17%
- Widowed: Cycle III 23%, National 26%
Income Levels: Cycle III and National

<table>
<thead>
<tr>
<th>Income Level</th>
<th>Cycle III</th>
<th>National</th>
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</thead>
<tbody>
<tr>
<td>Under $10K</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>$10K-$14,999</td>
<td>16%</td>
<td>12%</td>
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<tr>
<td>$15K-$19,999</td>
<td>9%</td>
<td>7%</td>
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<tr>
<td>$20K-$24,999</td>
<td>8%</td>
<td>8%</td>
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<tr>
<td>$25K-$34,999</td>
<td>10%</td>
<td>7%</td>
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<tr>
<td>$35K+</td>
<td>9%</td>
<td>6%</td>
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</tbody>
</table>
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.

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

- Native elders were 85% more likely to experience cervical cancer than the U.S. general population.
Chronic Diseases – Breast Cancer (N=14,751)

Breast Cancer

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

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

Prostate Cancer

- 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)

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

Chronic Diseases – Diabetes (N=14,751)

- 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 diabetes than the U.S. general population.

Chronic Diseases – Depression (N=14,751)

- Native elders indicated 33% less depression than the U.S. general population.
Changes Over Time

Functional Limitations

- 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.
Activities of Daily Living (ADL’s)

- Eating
- Walking
- Using the toilet
- Dressing
- Bathing
- Getting in/out of bed

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

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cycle I</th>
<th>Cycle II</th>
<th>Cycle III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Walking</td>
<td>30%</td>
<td>27%</td>
<td>30%</td>
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<tr>
<td>Bathing</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Dressing</td>
<td>22%</td>
<td>19%</td>
<td>22%</td>
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<tr>
<td>Out of Bed</td>
<td>12%</td>
<td>10%</td>
<td>12%</td>
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<tr>
<td>Toileting</td>
<td>13%</td>
<td>10%</td>
<td>13%</td>
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<tr>
<td>Eating</td>
<td>11%</td>
<td>9%</td>
<td>11%</td>
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IADLs by Cycles I-III

<table>
<thead>
<tr>
<th>Activity</th>
<th>Cycle I</th>
<th>Cycle II</th>
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<tbody>
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<td>35%</td>
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<tr>
<td>Meals</td>
<td>15%</td>
<td>12%</td>
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<tr>
<td>Lgt Hwk</td>
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<tr>
<td>Shopping</td>
<td>14%</td>
<td>10%</td>
<td>14%</td>
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<tr>
<td>Get outside</td>
<td>13%</td>
<td>10%</td>
<td>13%</td>
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<tr>
<td>Money</td>
<td>10%</td>
<td>8%</td>
<td>10%</td>
</tr>
<tr>
<td>Phone</td>
<td>8%</td>
<td>6%</td>
<td>8%</td>
</tr>
</tbody>
</table>
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>No Services Required</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</td>
<td>Health educators, physical trainers, therapists</td>
</tr>
<tr>
<td>Moderate (21%)</td>
<td>Supportive services to aid persons in remaining in own domicile. Train and support informal providers and buffer them with respite and contact services for a range of possible tasks.</td>
<td>Informal care – w/supports Chronic Disease Management Home &amp; community based Day/night care* Durable medical* equipment Home health care* Homemaker services* Physical therapy Occupational therapy Medication assistance* Speech therapy Mental health services Transportation services* Nutritional services* Personal care* Respite care*</td>
<td>Family and friends Trainer for skills Facility staff - LPN/CNA Rental source RN, LPN, CNA, PT, OT… Cleaning and chore assts. PT, PT aides, tele-health OT, OT aids, tele-health Medication aide Speech therapist Psychologist, Psychiatrist, Psych. Social Worker, Van driver Dietician, aide Trained attendants Trained respite providers or institutional site</td>
</tr>
<tr>
<td>Moderately Severe (7%)</td>
<td>The goal for this level of care 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 in addition to the basic services found in these settings. Assisted living establishes the goal for this cluster in that it seeks to maintain resident control over 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</td>
</tr>
</tbody>
</table>
Five or more drinks in the past 30 days by Cycles I-III

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

Chronic Disease by Cycles I-III
Body Mass Index by Cycles I-III

Problems Affecting Nutrition by Cycles I-III
Nutritional Score by Cycles II-III

Exercises by Cycles I-III
Conclusions

- Native elder populations are dramatically growing.
- Tribal recognition of age 55 for elder status includes those elders from the baby boom generation.

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, but nearly all other exercises decreased. The same trend is hinted at in Cycle III preliminary study.
  - Weight issues increased – young old are heaviest.
Recommendations

• 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.

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