



Center for  
Rural Health

<http://ruralhealth.und.edu>

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

Leander R. McDonald, PhD  
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>



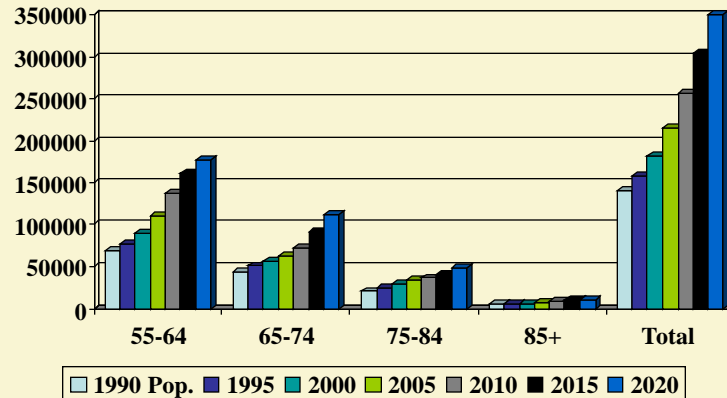
## National Resource Center on Native American Aging

- 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](http://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

## Native Elder Population Projections 1990- 2020



## 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

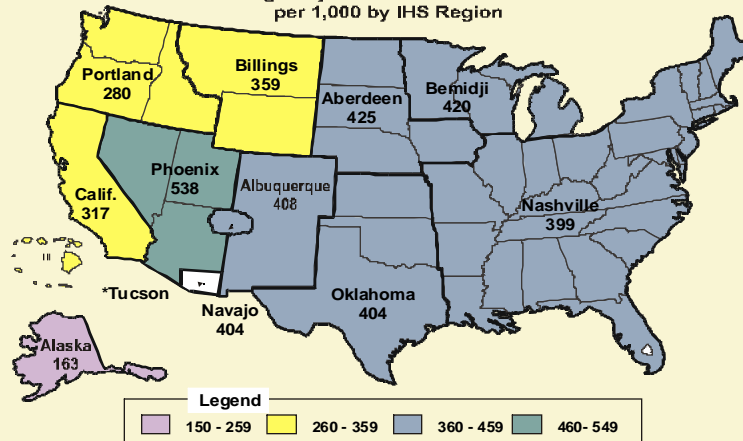
## Life Expectancy at Birth, ages 55, 65 and 75 by IHS Area

IHS Area	At Birth	At Age 55	At Age 65	At Age 75
Aberdeen	64.3	189	132	85
Benidji	65.7	187	127	10.1
Billings	67.0	202	139	89
Alaska	68.0	213	147	92
Tucson	68.4	222	158	100
Phoenix	69.8	226	161	106
Portland	71.7	231	160	101
Navajo	71.9	249	177	117
Nashville	72.2	228	163	105
Albuquerque	72.7	254	196	122
Oklahoma	74.2	257	182	13.1
California	76.3	269	194	13.3
All Indians	71.1	235	167	11.2
**U.S. All Races	76.8			


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

## Diabetes Rates by Region


Native Elders 55 and Over  
Age Adjusted Diabetes Rates  
per 1,000 by IHS Region



Source: NRCNAA Needs Assessment Data, UND Center for Rural Health.  
\* No data are available.

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## Identifying our Needs III: A Native Elders Needs Assessment



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the health of people in rural communities.*

## 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, 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.

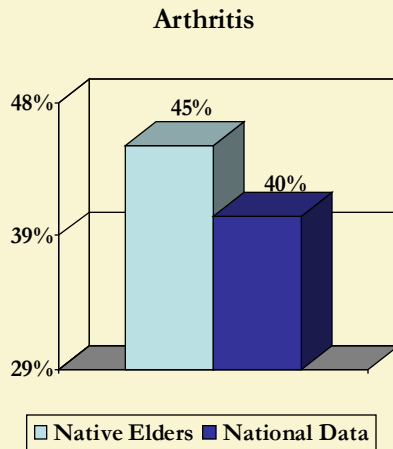
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## The Health of America's Indian Elders: Chronic Diseases



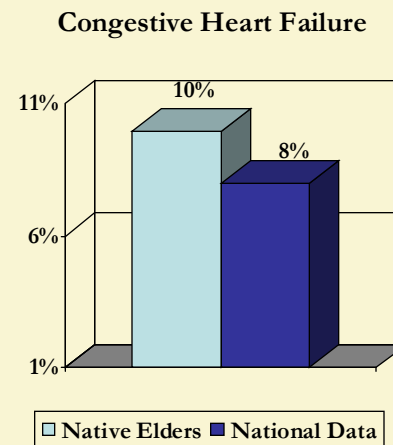
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## Chronic Diseases – Arthritis (N=14,751)



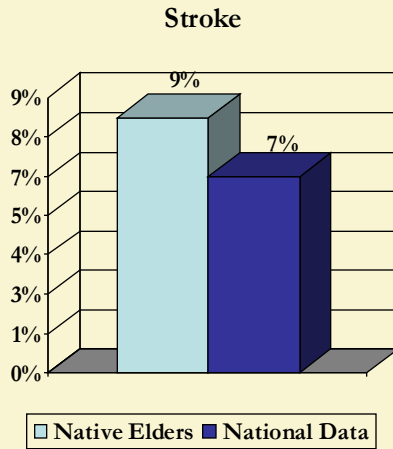
- Native elders were 13% more likely to experience arthritis than the U.S. general population.

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



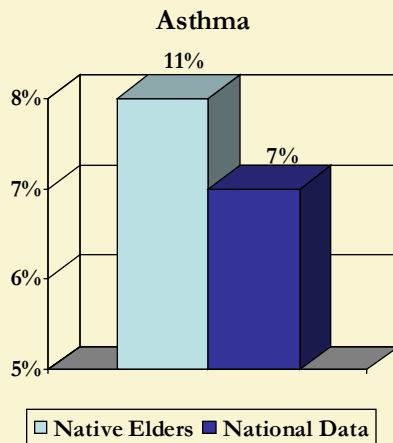
- Native elders were 25% more likely to experience congestive heart failure than the general U.S. population.

## Chronic Diseases – Stroke (N=14,751)



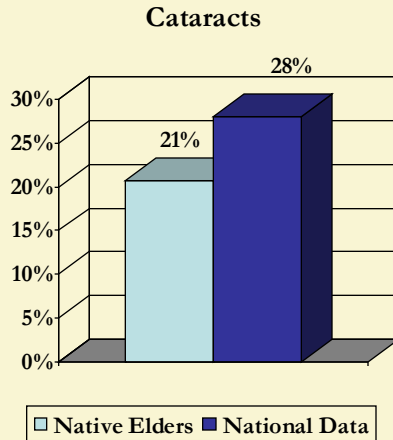
- Native elders were 29% more likely to experience a stroke than the general population.

## Chronic Diseases – Asthma (N=14,751)



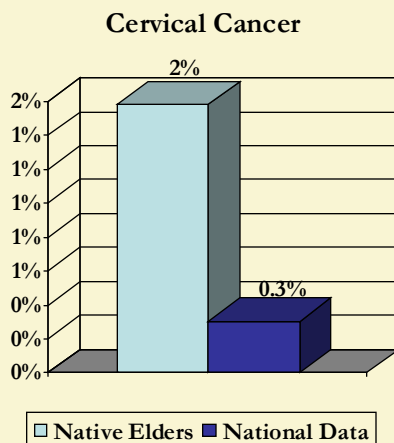
- Native elders were 57% more likely to experience asthma than the U.S. general population.

## Chronic Diseases – Cataracts (N=14,751)



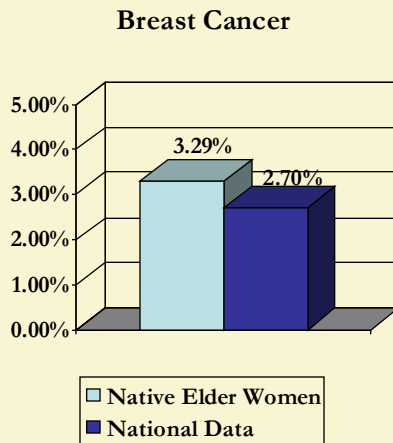
- Native elders were 25% less likely to experience cataracts than the general population.

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



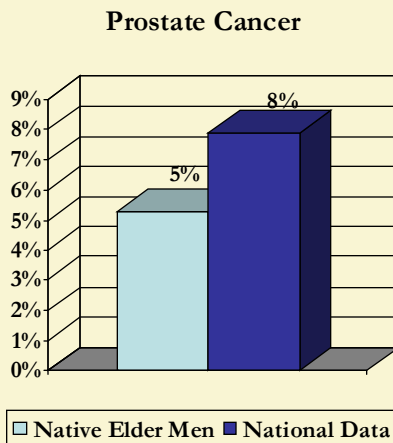
- Native elder women were 85% more likely to experience cervical cancer than the U.S. general population.

## Chronic Diseases – Breast Cancer (N=14,751)



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

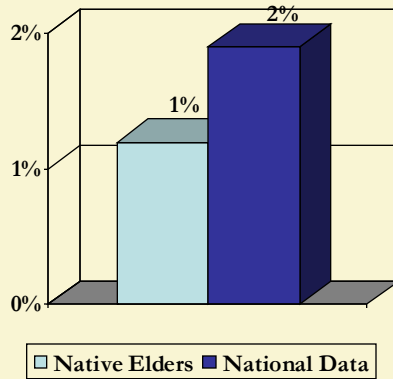
## Chronic Diseases – Prostate Cancer (N=14,751)



- 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)

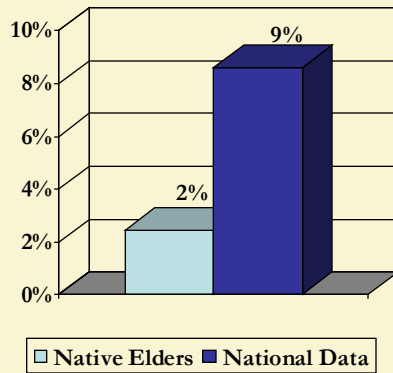
Colon/Rectal Cancer



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

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

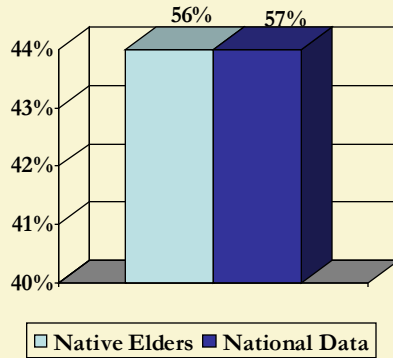
Other Cancer



- Native elders were less likely to experience other cancer than the U.S. general population.

## Chronic Diseases – High Blood Pressure (N=14,751)

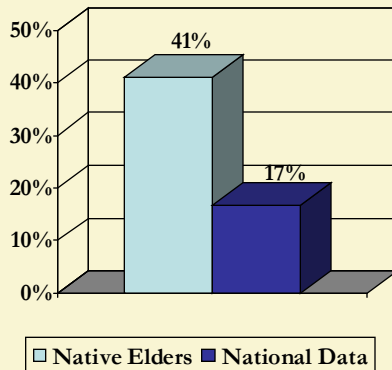
High Blood Pressure



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

## Chronic Diseases – Diabetes (N=14,751)

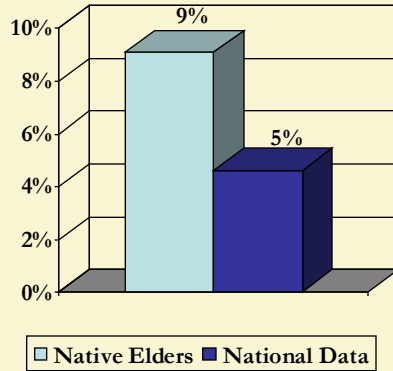
Diabetes



- Native elders were 141% more likely to experience diabetes than the U.S. general population.

## Chronic Diseases – Osteoporosis (N=14,751)

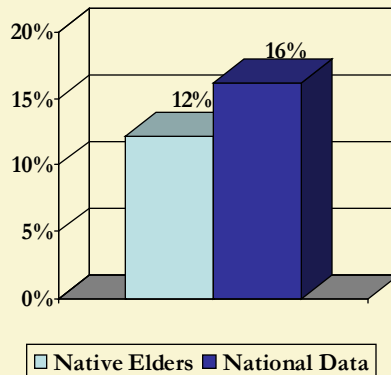
Osteoporosis



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

## Chronic Diseases – Depression (N=14,751)

Depression



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



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# Functional Limitations



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## 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.

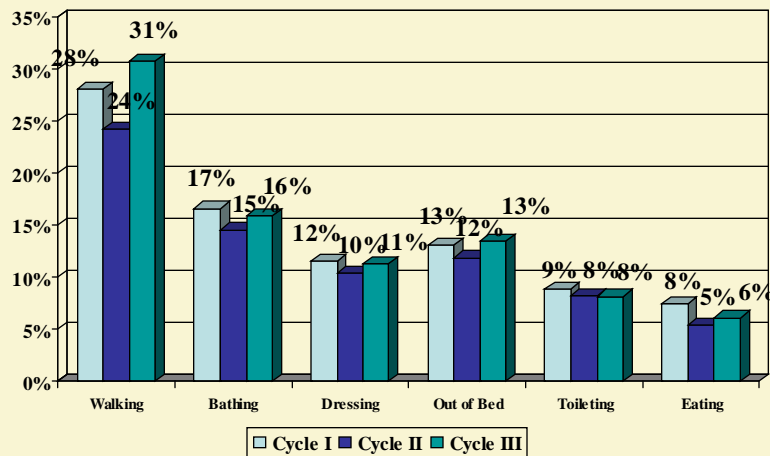
## Activities of Daily Living (ADL's)

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

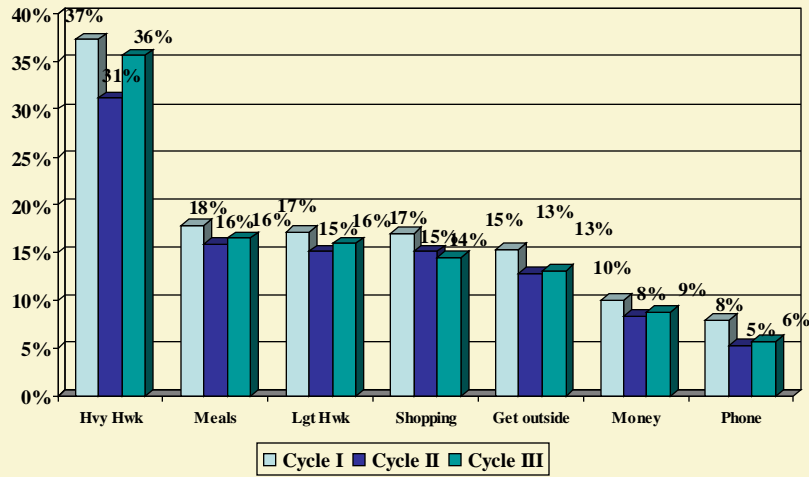
## Instrumental Activities of Daily Living (IADL's)

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

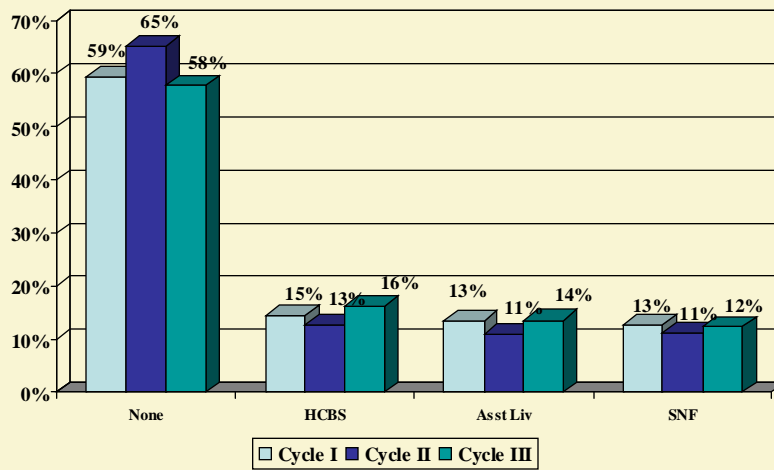
## ADLs by Cycles I-III



## IADLs by Cycles I-III



## LTC Measure by Cycles I-III



## Functional Limitation Categories

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

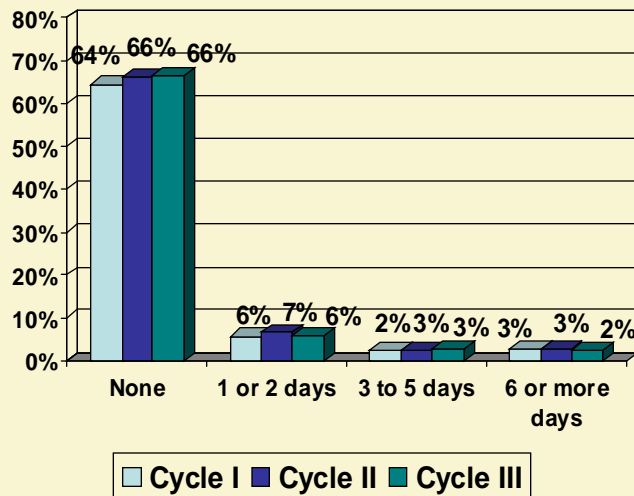
## Functional Limitation Levels Applied to Services and Personnel

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

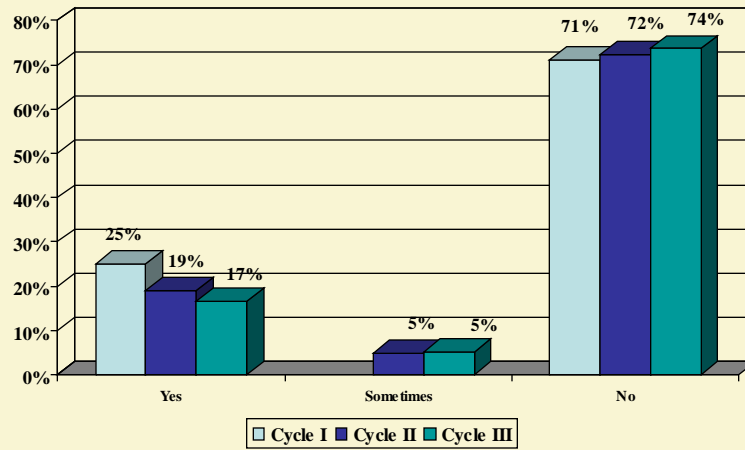
## Functional Limitation Levels Applied to Services and Personnel Cont...

Level Functional Limitation	Service Goals	Services with best fit	Personnel required
Moderately Severe (7%)	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.	Congregate care Basic care facilities Assisted Living	Institutional staff as required by state regulations
Severe (13%) With 3 or more ADLs, this level tends to become prime candidates for skilled nursing care.	Skilled nursing care is the most fully institutional and is reserved for those with medical needs necessitating this level of care.	Skilled Nursing Care	Institutional staff as required by state regulations
Terminal as special category	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.	Hospice Care	*Hospice volunteers and coordinator  * Requires local providers

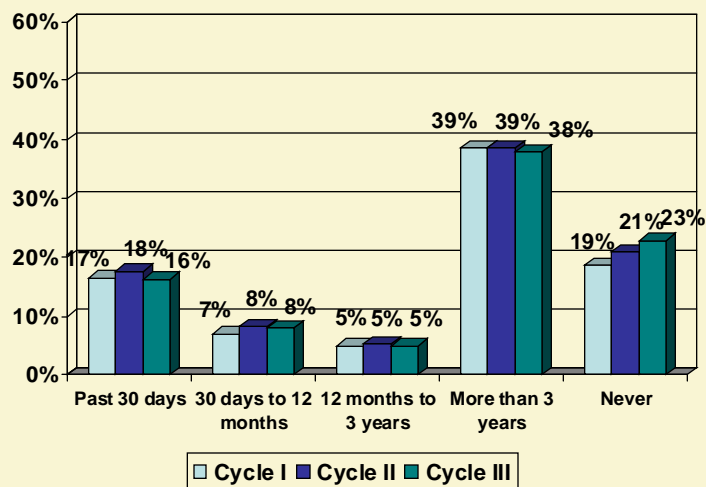
## Five or more drinks in the past 30 days by Cycles I-III



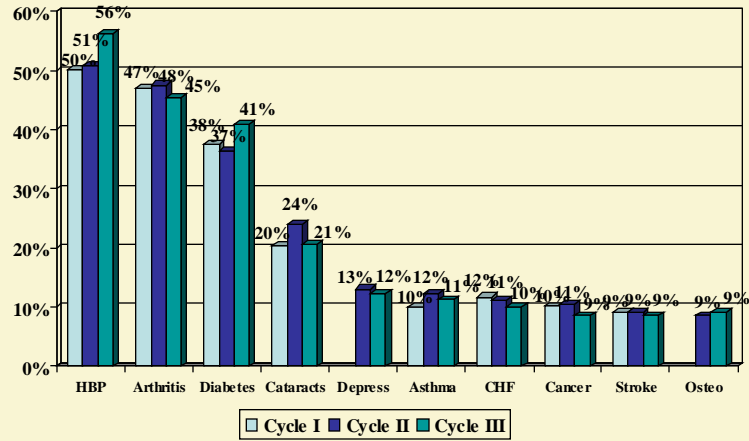
## Smoking by Cycles I-III



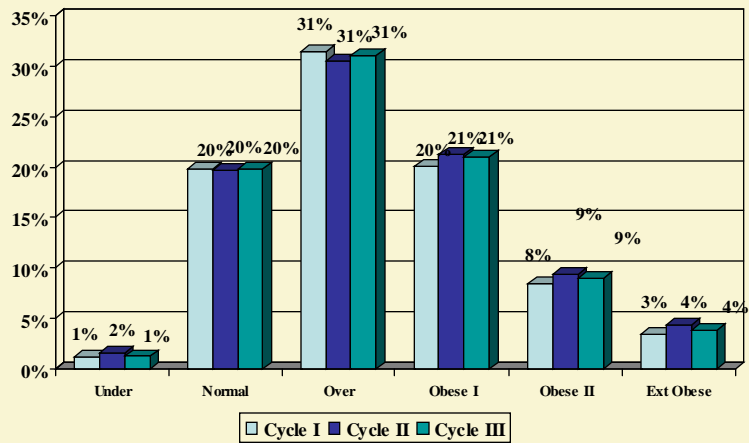
## Last Drink Alcohol by Cycles I-III



## Chronic Disease by Cycles I-III

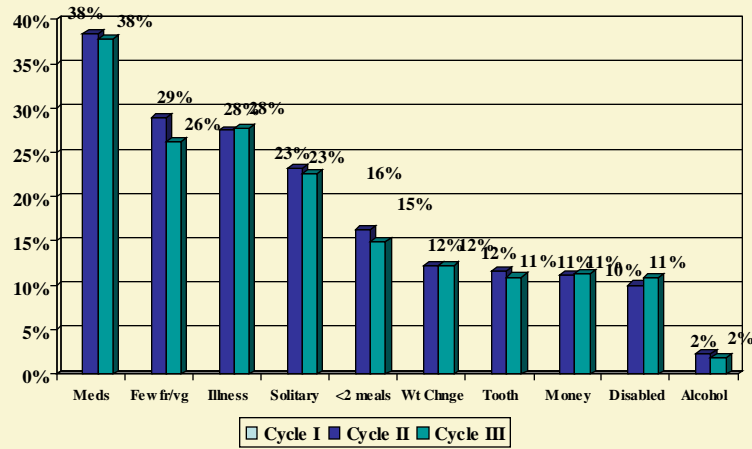


## BMI by Cycles I-III

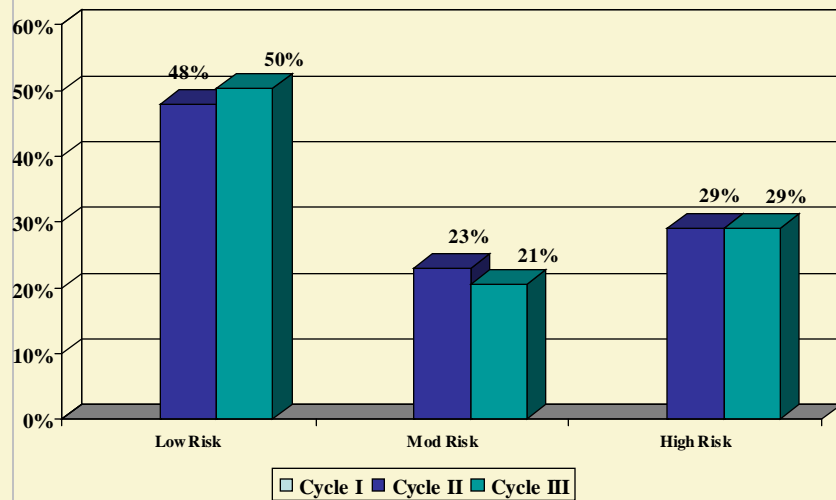




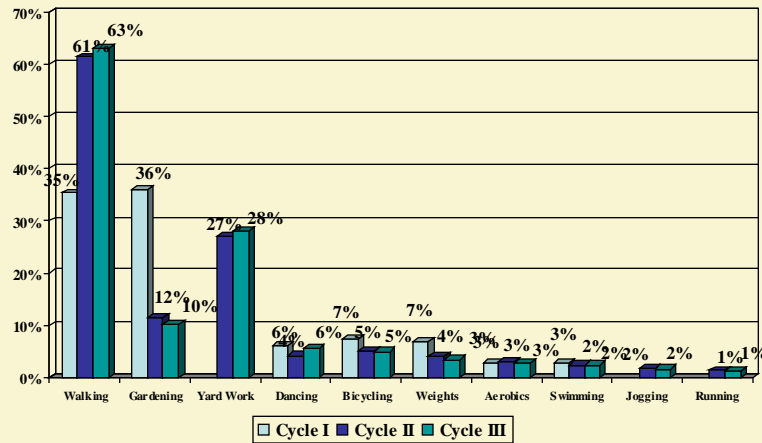
## Problems Affecting Nutrition by Cycles I-III



## Nutritional Score by Cycles II-III



## Exercises by Cycles I-III



## 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.



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For more information contact:

**National Resource Center on Native American  
Aging**

Center for Rural Health  
University of North Dakota  
School of Medicine and Health Sciences  
Grand Forks, ND 58202-9037



Tel: (800) 896-7628  
Fax: (701) 777-6779

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