



Center for
Rural Health

University of North Dakota
School of Medicine & Health Sciences

<http://medicine.nodak.edu/crh>

Analysis of Native Elder Data: What are the Possibilities?

May 3, 2007

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



Project Purpose

- Assist tribes in collecting data they can use to build infrastructure in their communities.





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 norm



3



Local Communities Provide:

- A list of all area elders
- Interviewers and a mechanism for collecting completed questionnaires
- Resources for reviewing and disseminating survey results
- Local implementation and coordination
- Additional Data Analyses (as needed)

4



Different Ways to Slice It

- Within Tribe - One Point in Time
- Within Tribe - Multiple Points in Time
- Tribe vs. National Comparisons
- Regional Comparisons
- National Studies

5



Topics of Study

- Health Risk Factors
 - Overweight and obesity
 - Tobacco use
 - Alcohol use
- Nutritional Health
- Social Support and Housing
- Health Service Use
 - Cancer screenings
 - Dental, vision
 - Barriers

6



Topics of Study (cont.)

- Health Care Access
 - Insurance
 - Regular health care provider
 - Barriers to care
- Health Status
 - Self-perceived health
 - Chronic Diseases – which and how many?
 - Activities of Daily Living – which and how many?

7



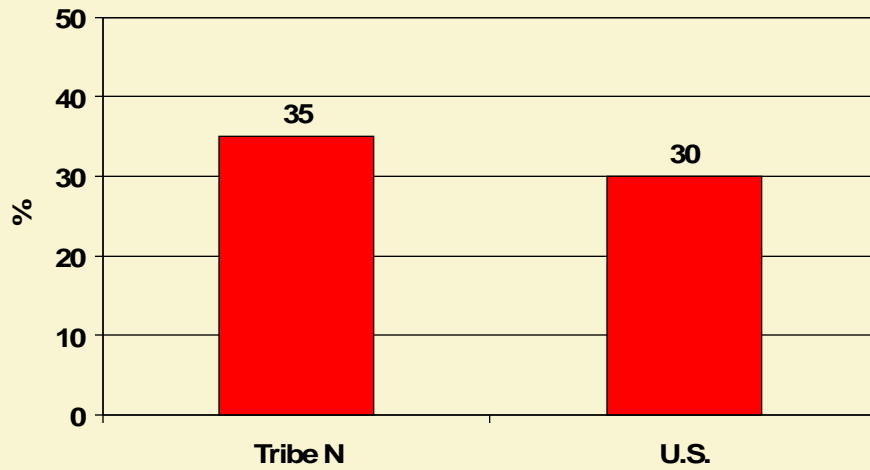
Uses of Local Data Analysis

- Grant-writing (ex: Title VI applications)
- Generating ideas for local health promotion and prevention programs
- Planning for addressing current and future long-term care needs
- Public Awareness & Education

8



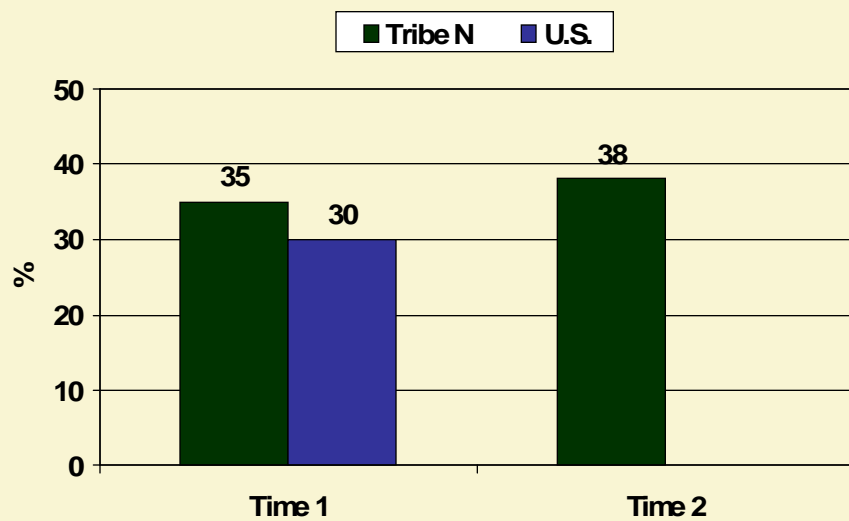
Example: Diabetes Prevalence among AI Elders



9



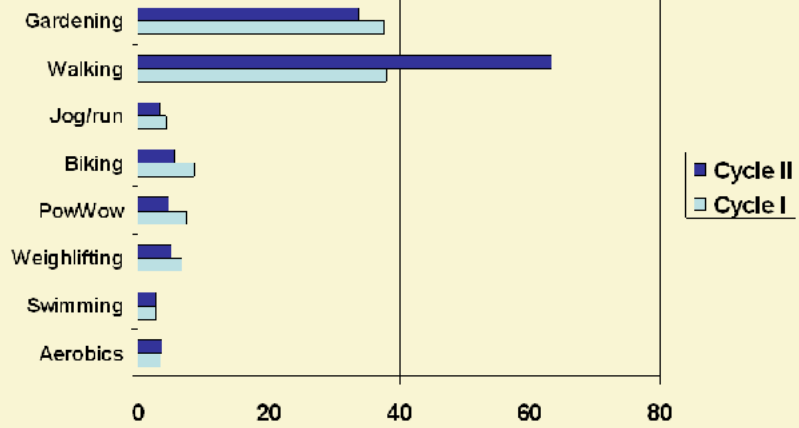
Example: Diabetes Prevalence among AI Elders, Multiple Surveys



10



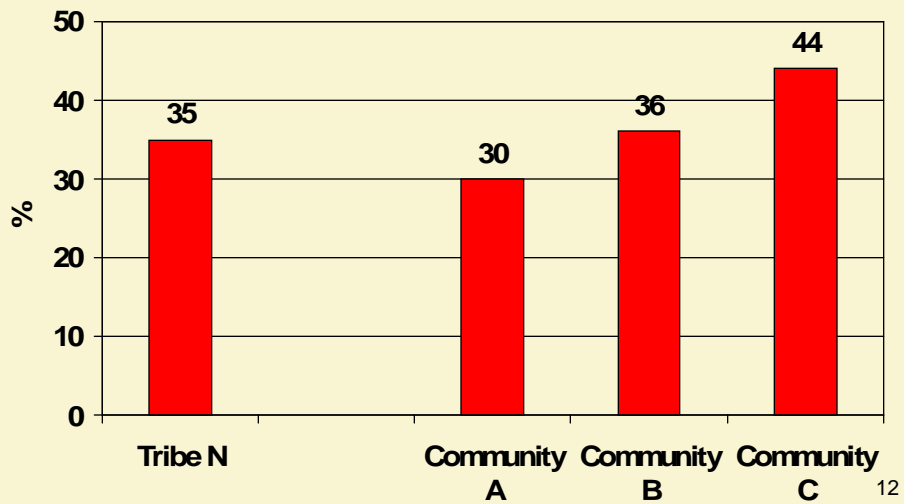
Exercise: Cycle I & Cycle II



11



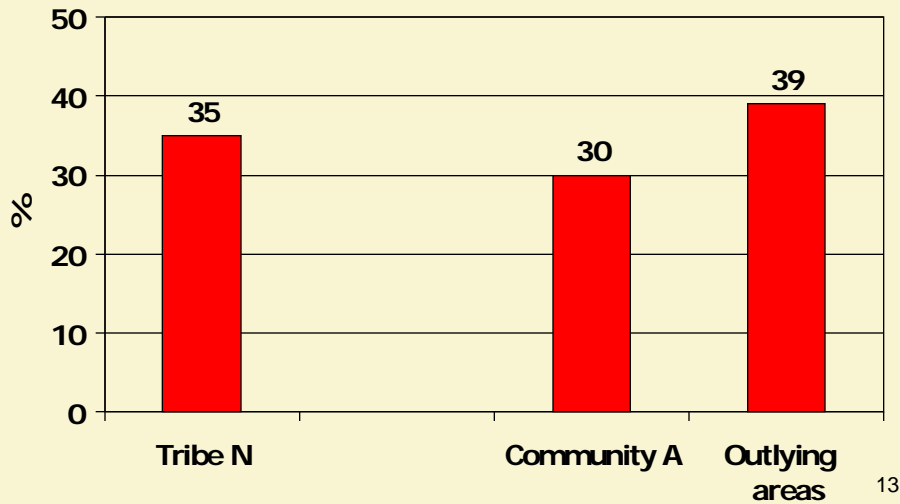
Example: Diabetes Prevalence among Tribe N Elders, by Community



12



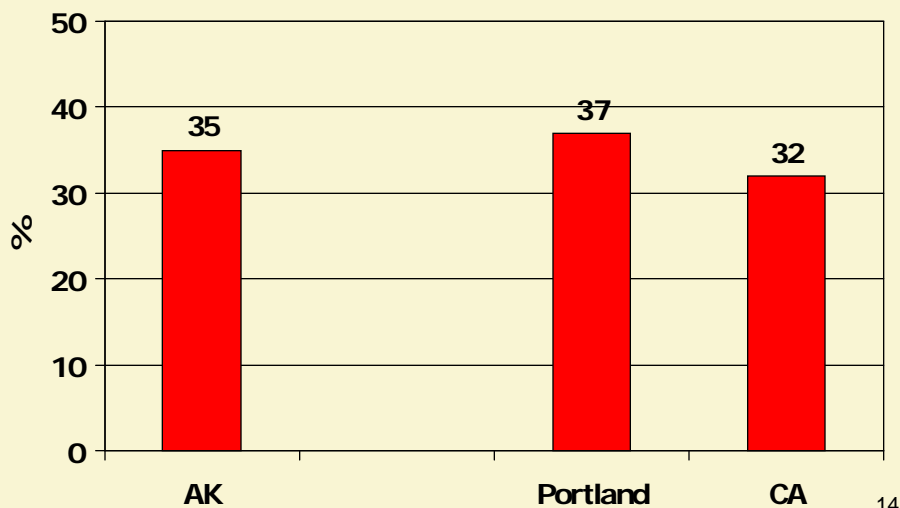
Example: Diabetes Prevalence among Tribe N Elders, by Region



13



Example: Diabetes Prevalence among Geographic Regions



14



Uses of *National* Data Analysis

- Assess whether there are health disparities by race (ex: arthritis prevalence)
- Assess whether health trends and relationships among whites hold true or are different among AI/ANs (ex: BMI and cancer screening)
- Educating others about AI/AN health and social issues
- Informing health policy (ex: IHS)

15



Three Key Needs to Address Long-Term Care Issues among AI/AN populations

- Reduce chronic diseases and functional limitations;
- Eliminate disparities across tribes, and between Native American elders and the general population, and to increase life expectancy; and
- Address the shortages or lack of long-term care options in Indian Country.

16



We Link AREA RESOURCE FILE (ARF) to the Aggregate Elder Data

ARF contains:

- 6,000 variables for each of the nation's counties.
- Information on:
 - health facilities;
 - health professions;
 - measures of resource scarcity;
 - health status;
 - economic activity; and
 - socioeconomic and environmental characteristics.
- Geographic codes and descriptors which enable it to be linked to many other files and to aggregate counties into various geographic groupings.



17



National Studies

- Extent of Health Insurance Coverage
- Chronic Diseases & Functional Limitations
- Body Mass Index and Cancer Screenings
- Social Integration and Cancer Screenings

18



National Studies (cont.)

- Nutrition and Social Support Networks
- Health Status: Subjective versus Objective
- Arthritis: Prevalence, Demographic Patterns, and Comorbidities

19



Arthritis among American Indian and Alaska Native Elders: Prevalence, Demographic Patterns, and Comorbidities

Journal of Native Aging and Health (2007). Forthcoming.



20



Background



- Arthritis is a leading cause of disability in the United States.
- As the older AI/AN population increases due to increased longevity, arthritis prevalence and disability are also expected to rise.
- However, studies addressing its prevalence and impact among American Indian and Alaska Native (AI/AN) populations, especially the elderly, are very limited.

21



Objectives

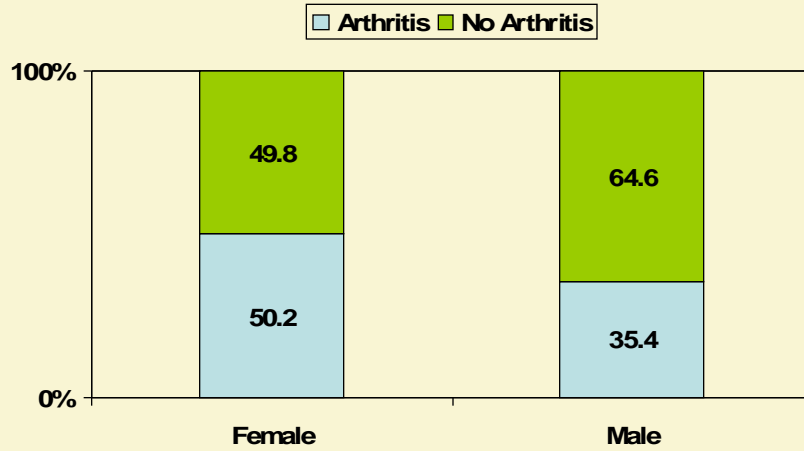


- Assess the prevalence of arthritis among AI/AN elders.
- Determine the presence and extent of demographic patterns for elders with arthritis.
- Delineate the predominant comorbidities among elders with arthritis.

22



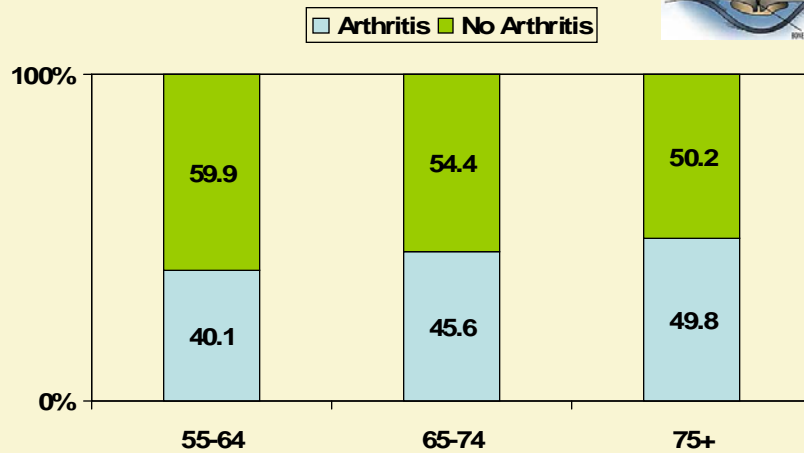
Arthritis Prevalence among AI/AN Elders by Gender



23



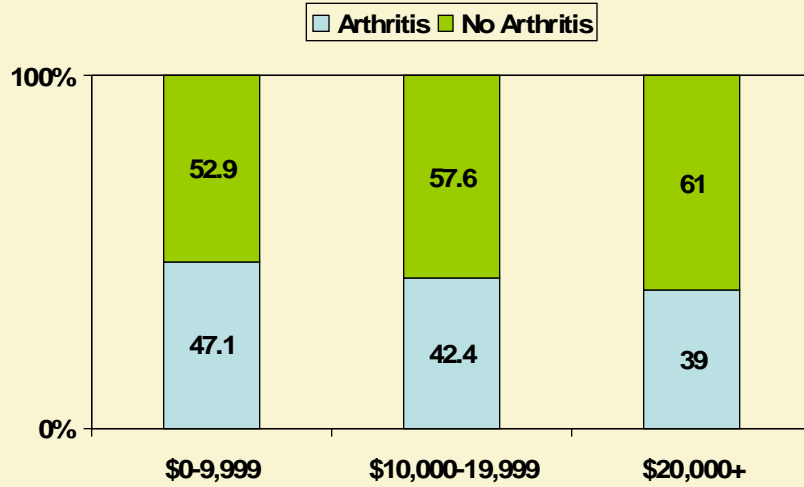
Arthritis Prevalence among AI/AN Elders by Age



24



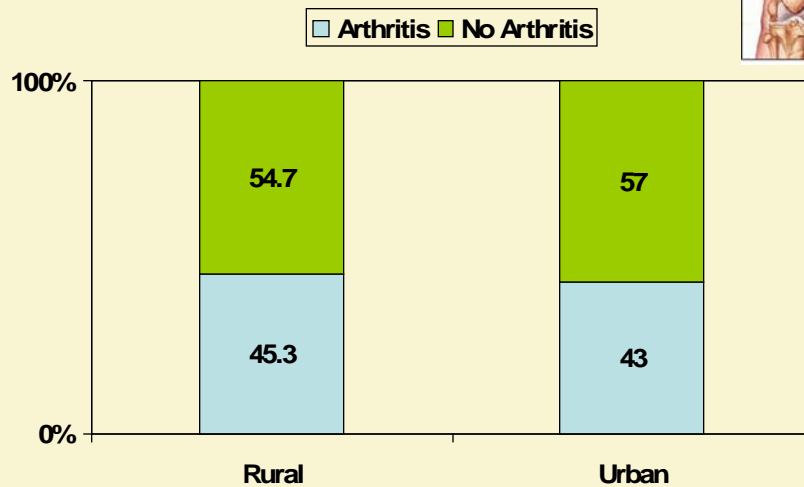
Arthritis Prevalence among AI/AN Elders by Annual Income



25



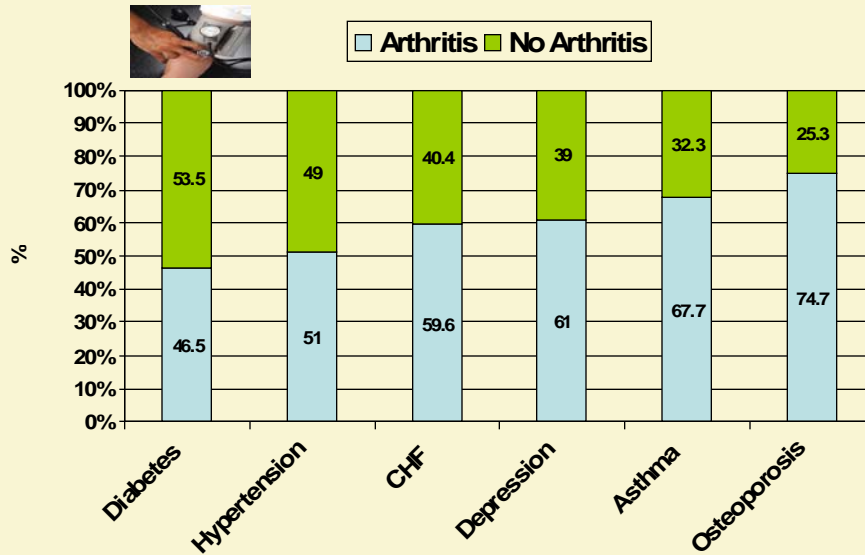
Arthritis Prevalence among AI/AN Elders by Rurality of Residence



26



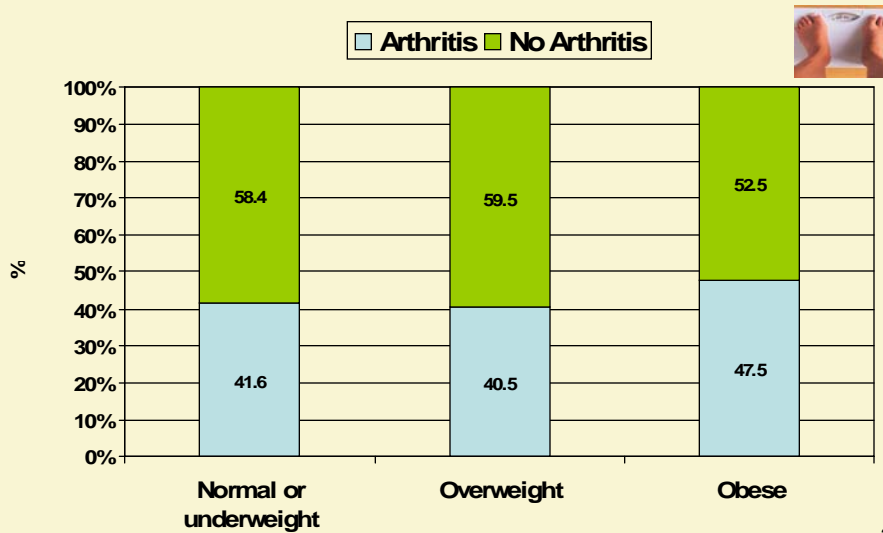
Co-Morbidities among AI/AN Elders with and without Arthritis



27



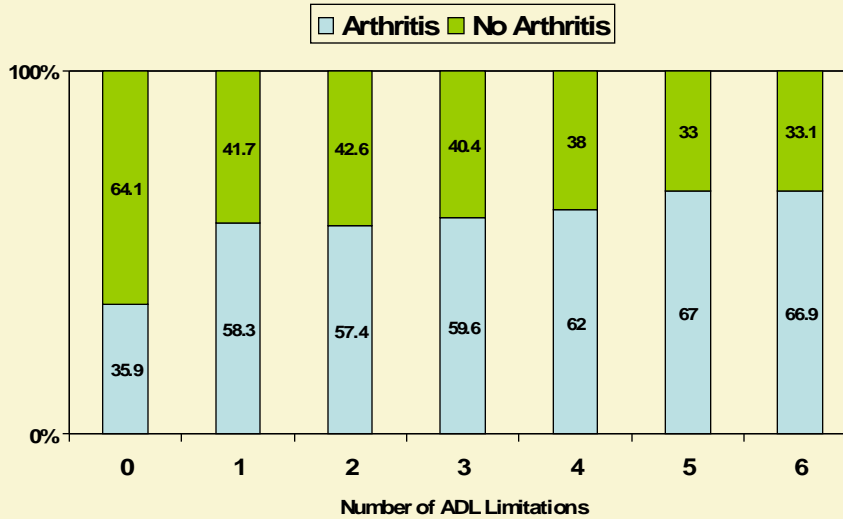
Body Mass Index of AI/AN Elders with and without Arthritis



28



ADL Limitations among AI/AN Elders with and without Arthritis



29



Results

- Overall prevalence of arthritis was 43.5%.
- Demographic characteristics which increased the likelihood of arthritis prevalence included:
 - being female;
 - older;
 - obese;
 - residing in urban areas.
- Chronic conditions found to commonly co-exist with arthritis included:
 - osteoporosis;
 - asthma;
 - high blood pressure;
 - congestive heart failure;
 - depression.



30



Conclusion



- Arthritis prevalence was estimated to be slightly higher among AI/AN elders when compared to similar estimates for U.S. elders.
- The majority of AI/AN elders with arthritis had one or more other chronic conditions.
- Arthritis and its comorbidities appear to represent serious challenges to the health and mobility of AI/AN elders.

31



Conclusion (cont.)



- Future studies are needed to examine the types and characteristics of disease management and other health care programs that could be modified to mesh with AI/AN cultures and be useful for AI/AN people, including the elderly.
- These needed improvements in chronic care management stand to improve AI/AN elders' health status, quality of life, and life expectancy.

32



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Questions or Comments?

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