

Obesity in American Indian and Alaska Native Elders

Kyle Muus, PhD, Leander McDonald, PhD, Richard Ludtke, PhD, Alan Allery, PhD, MHA
 National Resource Center on Native American Aging
 University of North Dakota School of Medicine & Health Sciences



Background

➤ Obesity is an increasingly prominent threat to good health among all Americans, contributing to an estimated 400,000 deaths annually¹ and costing about \$122.9 billion, a figure that is comparable to the economic costs of cigarette smoking.²

➤ Approximately 65 percent of adults in the United States were either overweight or obese in 1999-2002, up by 16 percent from 10 years ago.³

➤ Groups that have a high prevalence of obesity include Asian/Pacific Islanders and American Indians/Alaska Natives (AI/ANs).⁴

Research Questions

- What is the prevalence of obesity in AI/AN elders? By gender and age cohorts?
- Does the presence of obesity increase the likelihood of having co-morbid health conditions among AI/AN elders?

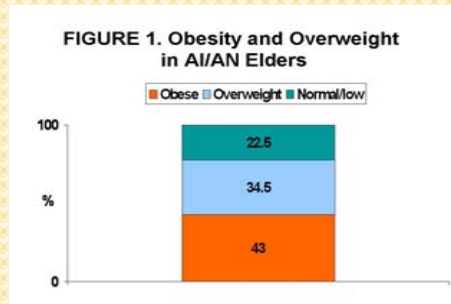


Methods

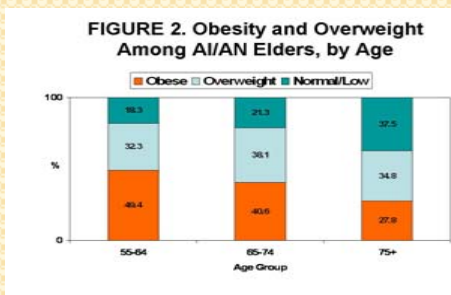
- Nationwide survey data collected in 2004-2005 by the University of North Dakota's National Resource Center on Native American Aging.
- These data contain a variety of health-related information on 8,305 AI/ANs aged 55 years and older; data were weighted to correspond with the U.S. Indian Health Service population aged 55 and older.
- Obesity and overweight is defined through the use of Body Mass Index (BMI), a calculation which categorizes weight relative to height.
- A low or normal body weight is defined as BMIs scores less than 25; overweight is BMIs of 25 to 29.9; obese is BMIs of 30 or greater⁵

Results

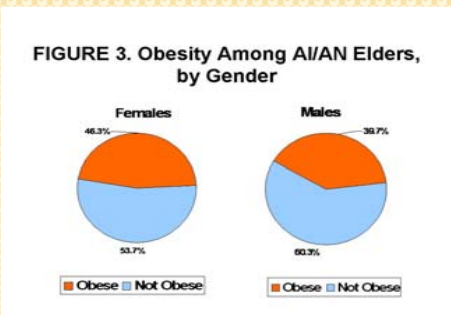
Forty-three percent were classified as obese, one-third (34.5%) were overweight, and about one-quarter (22.8%) had normal or low weight (Figure 1).



By age, the youngest elders were most likely to be obese (Figure 2); one-half (49.4%) of elders aged 55-64 years were obese, compared to 40.6 percent of those aged 65-74 years, and 27.8 percent of elders 75 and older.



By gender, females were more likely to be obese; 46.3 percent of females and 39.7 percent of males were classified as obese (Figure 3).



Obese AI/AN elders were more likely to have certain chronic health conditions, compared to their non-obese counterparts (Table 1). Obesity substantially increased the likelihood of having diabetes, asthma, hypertension, arthritis, and congestive heart failure.



Table 1. Comorbidities of Obese AI/AN Elders

	O.R. (C.I.)	Sig.
Diabetes	1.86 (1.67-2.07)	0.000
Asthma	1.70 (1.45-1.99)	0.000
Hypertension	1.52 (1.37-1.69)	0.000
Arthritis	1.25 (1.12-1.39)	0.000
Congestive heart failure	1.21 (1.03-1.43)	0.023

Logistic regression results; Dependent variable: obese (yes=1; no=0)
 Control variables: gender, age, education, income

Prevention

AI/AN elders can prevent obesity through concerted efforts to improve and maintain good nutritional and exercise regimens.

Elders who are obese should work with their health care providers to lose weight and increase physical activity, which has the following associated health benefits:⁶

- Decreased likelihood of stroke or diabetes
- Reduced blood pressure
- Improved cholesterol
- Reduced blood sugar
- Slowed progression of arthritis and reduction of joint damage/pain



References

- 1 Mokdad, A.H., Marks, J.S., Stroup, D.F., & Gerberding, J.L. (2004). Actual Causes of Death in the United States, 2000. *Journal of the American Medical Association*, 291:1238-1245.
- 2 National Institute of Diabetes, Digestive and Kidney Diseases. (2005). Statistics Related to Overweight and Obesity. <http://www.win.niddk.nih.gov/statistics/>
- 3 Centers for Disease Control and Prevention. (2004). Prevalence of Overweight and Obesity among Adults: United States, 1999-2002.
- 4 Kumanyika, S.K. Special issues regarding obesity in minority populations. (1993). *Annals of Internal Medicine*, 119:650-654.
- 5 Centers for Disease Control and Prevention. (2005). Body Mass Index for Adults: What does this all mean? <http://www.cdc.gov/nccdphp/dnpa/bmi/bmi-means.htm>
- 6 Office of the U.S. Surgeon General. (2005). *Overweight and Obesity: Health Consequences*.

The National Resource Center on Native American Aging was established in 1994 at the University of North Dakota in Grand Forks. The resource center is a collaboration between the UND Office of American Indian Student Services and the UND Center for Rural Health. With one of the nation's largest enrollments of Native American students, UND has a long-standing tradition of service to Native Americans. Governed by a culturally sensitive staff and national steering committee, the resource center continues this tradition of leadership and service to Native Americans and their communities.

National Resource Center on Native American Aging
 Center for Rural Health
 University of North Dakota
 PO Box 9037
 501 N. Columbia Road
 Grand Forks, ND 58202