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In 2006 the Community Service Council of Greater Tulsa became one of nearly fifty community, regional, and national organizations to sponsor a CIC.

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CIC of Eastern Oklahoma

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DIABETES AND CARDIOVASCULAR DISEASE

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Diabetes and Cardiovascular Disease

Incidence and Prevalence



What is this indicator?

Cardiovascular disease is defined as diseases affecting the heart or blood vessels. It includes related diseases and phenomena of arteriosclerosis, coronary artery disease, heart valve disease, arrhythmia, heart failure, hypertension, orthostatic hypotension, shock, endocarditis, diseases of the aorta, disorders of the peripheral vascular system and congenital heart disease (Medterms, 2008).

Diabetes is a disease of metabolism. The pancreas may not produce insulin or may not produce enough insulin to adequately use the glucose (sugar) produced during digestion of food and fluid intake. Diabetes is documented to increase risk for cardiovascular related disorders because of the impact of diabetes on other organs of the body including kidneys, heart, blood vessels, and brain (Medterms, 2008).

What are the key findings?

About 24% of Tulsa County is comprised of minorities. African-Americans account for half of all minorities. African-Americans, Hispanic Americans, and American Indians are disproportionately burdened by cardiovascular disease (US Census 2000). Cardiovascular disease is the number one cause of death in Oklahoma. The Native American, African American, and of Hispanic origin populations have higher prevalence rates of diabetes and cardiovascular disease and related disorders than the White population. They also have higher rates of a variety of the underlying causes for cardiovascular disease such as tobacco use, diabetes, high blood pressure, and obesity.

In 2003-2005, 22.3% of adults in Tulsa County were obese; 38.1% were overweight. 28.1% of American Indian adults in Tulsa County were obese, and 38.0% were overweight. During this same time period, 24.6% of adults in Tulsa County and 31.4% of American Indian adults in Tulsa County did not participate in leisure time physical activity.

Tulsa County Mortality Rate for Selected Diseases, 1999-2003

Disease or Risk Factor	American Indian	Hispanic of All Races	White
Diabetes	32.3	<i>Sample size too small</i>	21.6
Cardiovascular Disease	415.0	224.9	384.6
Ischemic Heart Disease	240.1	148.8	230.8
Stroke	63.1	<i>Sample size too small</i>	61.2

Mortality rate is deaths per 100,000 population.

Source: Behavioral Risk Factor Surveillance Survey (BRFSS), 2005.

Prevalence of Diseases and Risk Factors Among Tulsa County Adults, 2001-2005

Disease Prevalence/Risk Factor	American Indian	Hispanic of All Races	White	Total
Diabetes	7.4 (4.0-10.9)	5.3 (1.9-8.8)	6.6 (5.5-7.7)	6.9 (5.8-7.9)
High Blood Pressure*	28.7 (25.1-36.9)	14.2 (6.2-22.3)	27.5 (25.3-29.7)	26.8 (25.0-28.6)
Obese BMI (30+)	22.7 (14.7-30.7)	24.6 (17.2-32.0)	21.3 (19.5-23.0)	21.8 (20.2-23.4)
Overweight/Obese BMI (25+)	63.3 (55.0-71.8)	66.1 (54.2-72.7)	58.8 (56.7-61.0)	
Sedentary Lifestyle	34.7 (26.5-42.8)	47.1 (35.7-58.5)	24.6 (22.5-26.8)	27.2 (25.3-29.1)
Current Smoking	31.8 (21.9-41.7)	19.9 (7.5-32.4)	22.3 (20.2-24.4)	23.3 (21.3-25.4)
< 5 servings fruits/veg. daily**	88.6 (83.1-94.1)	91.2 (86.5-96.0)	83.7 (82.0-85.4)	84.6 (83.1-86.4)
Percent (95% Confidence Interval)	* 2001, 2003, 2004, 2005 BRFSS		**2002, 2003, 2005 BRFSS	

Tulsa County's Hispanic population is at a higher risk for obesity than both the population at large and the Hispanic population nationwide. The Oklahoma State Board of Health reports that 50% of Oklahoma's Hispanic adults are overweight, as compared to 37% of all Oklahoma adults, and 38% of Hispanic adults nationwide (State of the State's Health, 2002).

Obesity heightens the risk of a number of chronic health conditions, including diabetes and heart disease. According to the Centers for Disease Control, 6.4% of people of Hispanic origin in Oklahoma are living with diabetes, while 5.6% of Oklahomans in general are diabetic. According to the Indian Health Service, the lifetime risk for American Indian/Alaskan Natives for diabetes is 1 in 4 and rising.

Throughout the 1980s, Tulsa County, Oklahoma, and the nation as a whole experienced a drop in overall mortality rates, although the county rates tended to be higher. Beginning in the early 1990s, while the nation's premature death rates continued to drop, the overall premature death rates for Tulsa County and Oklahoma departed from this trend and began to rise again. A small drop for both the county and state occurred from 2003 to 2004. The overall mortality rate for Tulsa County, 935.4/100,000, remains well above the national rate of 800/100,000.

Census questions?

1-866-758-1060

What are the implications?

Nationally, the costs of acute and chronic disease are rising. Prevention and early intervention can increase life expectancy and reduce the costs of chronic disease management.

The human and financial costs of morbidity and mortality affiliated with cardiovascular disease and diabetes are tremendous. These diseases' incidence and prevalence are disproportionately higher in Oklahoma and Tulsa County than nationally.

The propensity for onset of cardiovascular disease and diabetes can be predicted by examining risk factors for development of these diseases. The risk factors of smoking, poor nutrition, and lack of exercise are prevalent in Tulsa County. Nationally and in Oklahoma, the minority population are at greatest risk for developing these diseases.

REFERENCES:

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