Nearly 20% of US 4-year-olds are obese, data analysis finds

By Lindsey Tanner

CHICAGO - A striking new study says almost one in five American 4-year-olds is obese, and the rate is alarmingly higher among American Indian children, with nearly one-third of them obese.

Researchers were surprised to see differences by race at such an early age.

Overall, more than 500,000 4-year-olds are obese, the study suggests. Obesity is more common in Hispanic and black youngsters, too, but the disparity is most startling in American Indians, whose rate is almost double that of whites.

The lead author said rate is worrisome among children so young, even in a population at higher risk for obesity because of other health problems and economic disadvantages.

"The magnitude of these differences was larger than we expected, and it is surprising to see differences by racial groups present so early in childhood," said Sarah Anderson, an Ohio State University public health researcher. She conducted the research with Temple University's Dr. Robert Whitaker.

Dr. Glenn Flores, a professor of pediatrics and public health at University of Texas Southwestern Medical School in Dallas, said "the cumulative evidence is alarming." Without intervention, the next generation "will be at very high risk" for heart disease, high blood pressure, cancers, joint diseases, and other problems connected with obesity, said Flores, who was not involved in the new research.

The study analyzed nationally representative height and weight data on 8,550 preschoolers born in 2001. Children were measured in their homes and were part of a study conducted by the government's National Center on Education Statistics.


Almost 13 percent of Asian children were obese, along with 16 percent of whites, almost 21 percent of blacks, 22 percent of Hispanics, and 31 percent of American Indians.

Children were considered obese if their body-mass index, a height-weight ratio, was in the 95th percentile or higher based on government BMI growth charts. For 4-year-olds, that would be a BMI of about 18.

For example, a girl who is 4 1/2 years old, 40 inches tall, and 42 pounds would have a BMI of about 18, weighing 4 pounds more than the government's upper limit for that age, height, and gender.

The researchers did not examine reasons for the disparities, but others offered several theories.

Flores cited higher rates of diabetes in American Indians and also in Hispanics which scientists believe may be due to genetic differences.

Other factors that can increase obesity risk tend to be more common among minorities, including poverty, less educated parents, and diets high in fat and calories, Flores said.