

The Weight of Our Children

New Mexico Childhood Obesity 2023 Update

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2023

Introduction: Childhood Obesity in Context

Obesity is a serious health issue in New Mexico, particularly in children. Childhood obesity increases the risk of developing chronic conditions such as diabetes and heart disease later in life.¹ Childhood obesity is a complex and multifactorial disease that is influenced by socioeconomic status, food insecurity, and community infrastructure.² Nearly one-in-four (23.9%) school-aged children in New Mexico live in poverty, compared to 16.9% nationally in 2022,³ making New Mexican children more at risk for obesity than children in other states.

In New Mexico, 33.3% of adults and 38.3% of elderly adults have obesity.¹ Studies have shown children who have obesity are more likely to have obesity as adults. Children who have obesity are twice as likely to be obese as adults.⁴ Children who have obesity are more likely to develop diabetes, hypertension, heart disease, and stroke later in life.⁵ Childhood obesity and overweight are a primary public health concern. Increasing opportunities for healthy eating and physical activity are key to creating healthy habits that can help reduce obesity and related chronic disease.



PC: Maxwell Municipal Schools pumpkin seed baking

Summary

This report provides the prevalence of childhood obesity and overweight in New Mexico in Fall 2023. Reduced participation in the metro area is a limitation of this data. This report includes data from 4,793 students measured at 48 schools across 16 counties in Fall 2023.

Key findings:

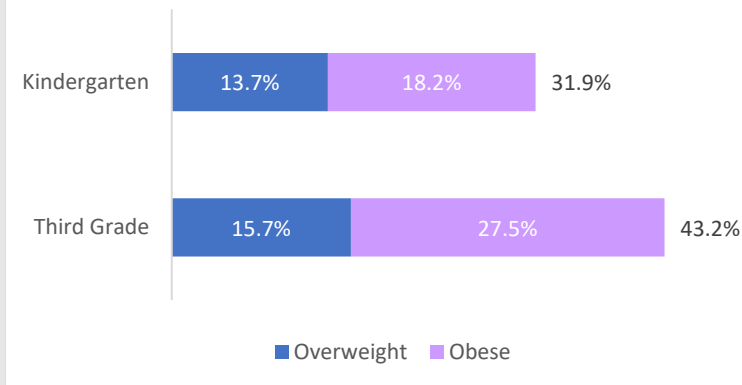
- Rates of overweight are stable while obesity continues to rise in kindergarten students post-pandemic. Obesity has decreased post-pandemic in third grade students. However, with the continued lack of participation from the largest metro school district conclusions from these data need to be compared only to post-pandemic datasets.
- As in previous years, obesity significantly increased between kindergarten and third grade, suggesting the years between kindergarten and third grade may be a key intervention point in the development of obesity.
- Boys are more likely to have obesity than girls in third grade. In 2023, the difference between boys and girls is 1.9%.
- American Indian students continue to have the highest obesity prevalence compared to their Hispanic, White, Asian, and African American counterparts. In 2023 the percent of American Indian students with obesity was 35.9% (Fig.2).

The New Mexico Department of Health (NMHealth) established its Statewide Childhood Obesity Surveillance System in 2010 to understand the extent of obesity among the elementary school-age population in New Mexico. The system uses Body Mass Index (BMI) percentile and a standardized measurement protocol to monitor childhood obesity over time, identify at-risk groups, guide state and local prevention efforts, and inform appropriate resource allocation. NMHealth collects and reports childhood obesity data on kindergarten and third grade students annually

across the state with the support from many schools, nursing programs, and volunteers. Public elementary schools are selected randomly for data collection. BMI surveillance is used simply to look at overall trends and changes across years. The COVID-19 pandemic reduced school participation and for data collection there are lasting effects in the largest metro school district. Studies comparing weight status found that rural areas had higher rates of obesity than urban areas and our data are missing a large portion of urban data.⁶ This limits how representative 2023 data is of the whole state.

Childhood Overweight and Obesity Prevalence

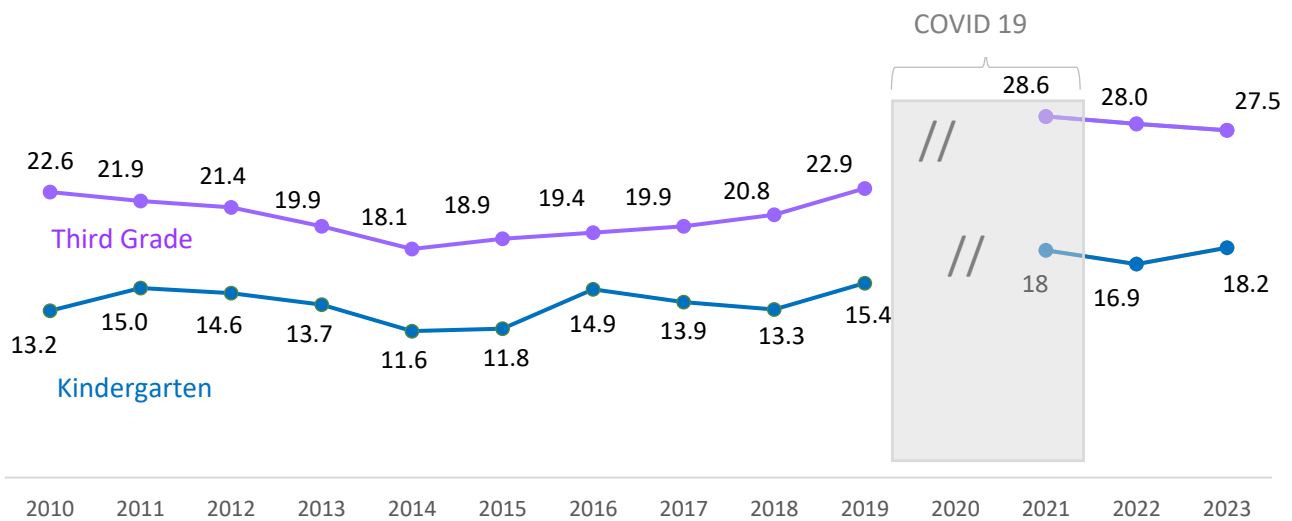
Fig. 1: Percent of Students Overweight and Obese by Grade, New Mexico, 2023



By Grade

In 2023, 31.9% of kindergarten students and 43.2% of third grade students had BMIs that met criteria for overweight or obesity, respectively (Fig. 1). The prevalence of obesity in 2023 was higher among third graders than kindergarteners, which was statistically significant, indicating that participating third graders were more obese than participating kindergarteners (Fig. 2). This upward shift suggests a time-sensitive window for shaping healthy eating and physical activity habits between kindergarten and third grade.

Fig. 2 Percent of Students Obese by Grade, New Mexico, 2010-2023*



*Due to the pandemic and school closures, data was not collected in 2020 and participation rates in the metro area were greatly reduced in 2021 (2021 – 2023 estimates only represent non-metro areas). For 2022 – 2023, participation rates in the metro region were still reduced, making these data consistent across years.

Fig. 3 Percent of Students Overweight & Obese by Gender, New Mexico, 2023

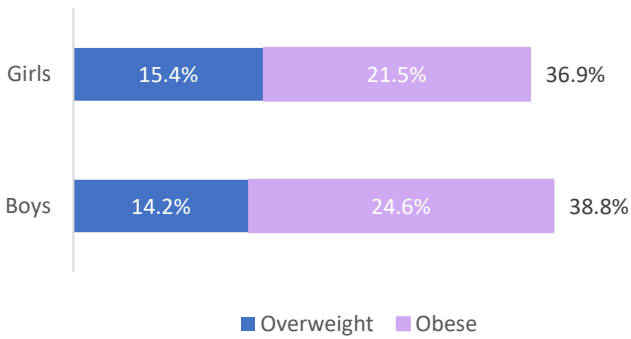
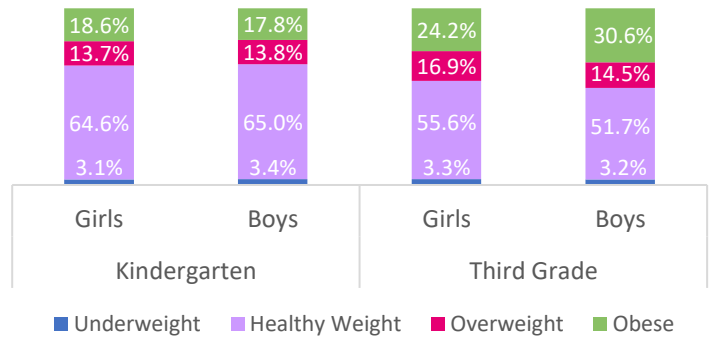


Fig. 4 Percent of Students in Weight Categories by Grade and Gender, New Mexico, 2023



By Gender

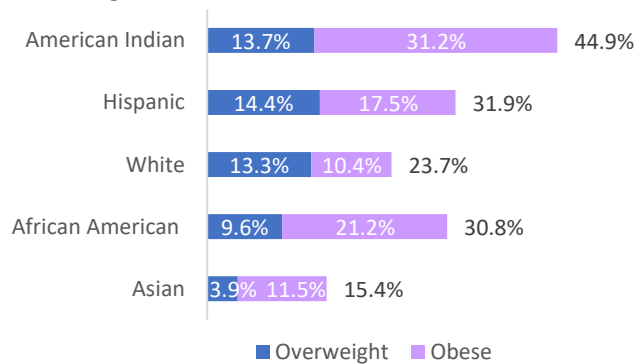
The combined group of kindergarten and third grade boys had a higher obesity prevalence than the combined group of kindergarten and third grade girls (Fig. 3); obesity was 24.6% among boys and 21.5% among girls. However, when breaking the data out by grade and gender, kindergarten girls (18.6%) had higher rates of obesity than boys (17.8%), and third grade boys (30.6%) had higher rates of obesity than girls (24.2%) (Fig. 4).

By Race/Ethnicity

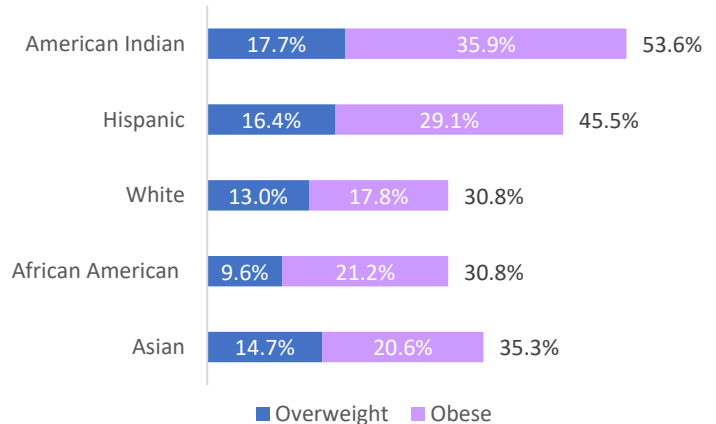
For kindergarten and third grade students, American Indian and Hispanic students had higher levels of obesity than African Americans, White, and Asian students in 2023 (Fig. 5). In 2023, 44.9% of American Indian kindergarten students and 53.6% of American Indian third grade students had overweight or obesity, which is significantly more than any other group in either grade. Hispanic students have the second highest rate of overweight and obesity at 31.9% for kindergarten and 45.5% for third grade students. African American students in kindergarten had higher obesity rates than Asian or White students. 30.8% of African American kindergarten and third grade students had overweight or obesity. Interestingly, Asian third graders had higher rates of overweight and obesity at 35.3%, compared to African American and White students (each at 30.8%). This is an increase from the 2022 data. This is the first year where we have seen this increase in students who have obesity in Asian third graders.

Fig. 5 Percent of Students Overweight and Obese by Race/Ethnicity, New Mexico, 2023

A. Kindergarten



B. Third Grade



What the State is Doing to Address Childhood Obesity

NMHealth's Obesity, Nutrition, and Physical Activity Program (ONAPA) partners with state and local organizations and community coalitions in nine counties and one tribal community across New Mexico to expand healthy eating and physical activity opportunities where children and adults live, learn, play, work, eat, and shop.

ONAPA and its partners implement long-term and sustainable policy, systems, and environmental change based on the Centers for Disease Control and Prevention's (CDC) best practices for preventing obesity. Despite successes and community transformation at the local level, more resources and increased collaboration among state agencies are needed to have a meaningful impact on childhood obesity in New Mexico.

Key Strategies

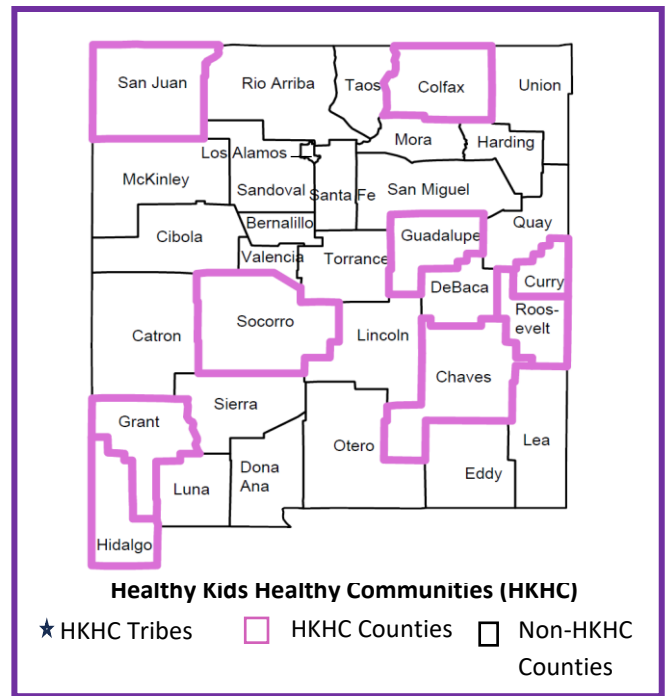
School Environment

Increasing opportunities for healthy eating and physical activity before, during, and after school.

Strategies include establishing salad bars, edible gardens, and walking programs; integrating locally grown produce into snacks and meals; opening school yards for community use during non-school hours; and strengthening wellness policies to include language on healthy eating, physical activity, and staff wellness.

Food and Built Environment

Increasing access to healthy, affordable food and places to be physically active in low-income, rural, and Tribal communities.



Strategies include establishing community gardens and farmers' markets; expanding healthy options and nutrition education in food distribution sites and senior centers; creating active outdoor spaces for community use; and establishing safe walking and biking routes that connect neighborhoods to everyday destinations.

For more information about ONAPA's programs, please visit the website ([Healthy Kids Healthy Communities \(nmhealth.org\)](https://www.nmhealth.org)) or contact Rita Condon, ONAPA Program Manager, at rita.condon@doh.nm.gov.



PC: Del Norte color run



PC: Raton Inter. School garden



PC: Hidalgo county stick horse rodeo

Methods

What Was Done and Why

Each year, NMHealth's Statewide Childhood Obesity Surveillance System uses stratified cluster sampling to select 70 public elementary schools from across the state to collect height and weight measurements from kindergarten and third grade students. Measurements are collected from August to November using a standard protocol and trained nursing students and volunteers.

BMI is calculated from height and weight measurements and categorized based on sex-specific CDC BMI-for-age percentiles, which are defined as underweight (<5th percentile), healthy weight (≥5th to <85th percentile), overweight (≥85th to <95th percentile), and obese (≥95th percentile).⁷ In a typical year, survey weights are used to produce estimates of weight status that are representative of all kindergarteners and third graders statewide. Data is analyzed using R (Version 4.3.3). Statistical significance is defined as $p < 0.05$.

The COVID-19 pandemic has had a lasting impact on BMI data collection despite the fact that schools have been fully operational since 2021. There has been an overall increase in obesity rates since 2021. Obesity rates for third graders have been generally trending downward, however, they have not dropped to their pre-pandemic levels. Kindergarten obesity rates have fluctuated post-pandemic, going down in 2022 and then rising slightly in 2023.

There were 48 total schools measured in 2023. Participation from the largest metro school district since 2021 has lagged. The metro region represents 28% of kindergarten and third grade public school students in the state. The low metro participation rate is a limitation of this dataset, making our estimates less representative of the state's true obesity and overweight prevalences. This limitation prevents us from full statewide representation, and also limits how these data are interpreted and the comparisons between pre- and post-pandemic data collection.



PC: Zuni Head Start Halloween tasting



Tips to Help Kids Eat Healthy & Stay Active



Every day is a new chance to improve your kids' health habits. Try out the Healthy Kids 5-2-1-0 Challenge and live healthier day by day!

- 5 **Eat 5 or more fruits and vegetables a day.** Keep cut-up fruits and veggies in the fridge for handy, healthy snacks.
- 2 **Trim screen time to 2 hours a day.** Select TV shows or computer games ahead of time so children have a plan for how they will use their screen time.
- 1 **Be active at least 1 hour a day.** Where can you go today? Plan a safe walking route to a school, park, or another place in your neighborhood with your child – then walk!
- 0 **Drink lots of H₂O every day.** Make water your first drink of choice! Give your child a water bottle to carry with them so it's always handy when they are thirsty.

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