

2019



The Weight of Our Children

New Mexico Childhood Obesity 2019 Update

The New Mexico Department of Health (NMDOH) 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. NMDOH collects and reports childhood obesity prevalence data on kindergarten and third grade students annually with support from numerous schools, nursing programs, and volunteers across the state. In the Fall of 2019, BMI data was collected on 7,346 students in 59 randomly selected public elementary schools across New Mexico.

Childhood Obesity in Context

Childhood obesity is a serious health issue in New Mexico and across the nation. It can affect children of all ages, ethnicities, and socioeconomic backgrounds. Obese children are more likely to become obese adults and develop chronic conditions such as diabetes and heart disease. Over one-in-four New Mexico adults 45 years and older have been diagnosed with two or more chronic diseases.

Many external factors influence childhood obesity, such as socioeconomic status, food insecurity, and community infrastructure. In 2017, a quarter of New Mexico school-aged children were living in poverty, compared to 17.3% nationally. Research has shown children living in low-income families and neighborhoods are more likely to be obese. Additionally, one-in-four New Mexico residents (461,000) receive Supplemental Nutrition Assistance Program (SNAP) benefits, 70% of which are families with children.

Hunger and obesity often occur jointly within the same populations and even the same families; both can be consequences of living in under-resourced communities with limited access to fresh, nutritious, and affordable foods. In New Mexico, over 24% of children under age 18 are food insecure, compared to 17% nationally, and nearly 70% of New Mexico students receive free or reduced-price lunch at school. Studies indicate children living under these conditions are more likely to have poorer academic and health outcomes.

Key Findings

- As in previous years, obesity prevalence increases significantly in the three years between kindergarten and third grade. This upward shift suggests a time-sensitive window for preventing excessive weight gain at an early age, particularly among children who are already overweight in kindergarten.
- Boys are more likely to be obese than girls in both kindergarten and third grade.
- American Indian students continue to have the highest obesity prevalence compared to their Hispanic and White counterparts. In 2019, 29.3% of American Indian third graders were obese compared to 24.5% of Hispanic and 15.8% of White students.
- Obesity among Hispanic third graders has remained relatively unchanged over time, increasing slightly from 22.6% in 2010 to 24.5% in 2019. This is troubling since Hispanic students comprise the majority of elementary school-age children in New Mexico.
- Rates of overweight and obesity continue to remain high across grades, genders, and race/ethnicities in New Mexico, highlighting the continuing need for: 1) more resources and increased collaboration across state and local agencies to implement sustainable obesity prevention initiatives that reach at-risk populations; and 2) increased opportunities for healthy eating and physical activity among pre-school and elementary school-age children and their families.

Overweight & Obesity by Grade

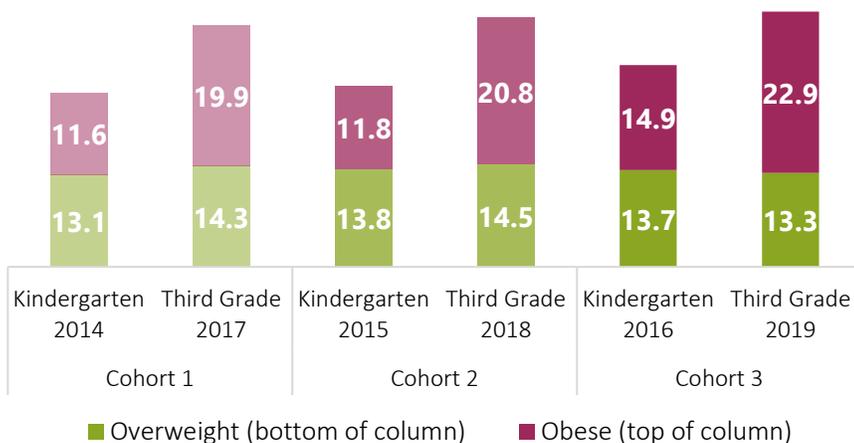
In 2019, 29.2% of kindergarten students and 36.2% of third grade students were overweight or obese (*Fig. 1; note: 'n' indicates number of students measured*). As a comparison, only 15% of children were overweight or obese in the 1970s. Rates of overweight (13.8%) and obesity (15.4%) were similar among kindergarten students, which were also comparable to rates of overweight for third grade students (13.3%). By the time children enter third grade, 22.9% are in the obese weight category. Between 2018 and 2019, kindergarten obesity increased from 13.3% to 15.4% and third grade obesity increased from 20.8% to 22.9%. Neither increase is statistically significant.

Fig. 1: Percent of Students Overweight and Obese by Grade, New Mexico, 2019



Note: For all analyses, BMI percentiles were converted into weight categories classifying students as underweight (<5th percentile), healthy weight (5th to less than the 85th percentile), overweight (85th to less than the 95th percentile), or obese (95th percentile and above).

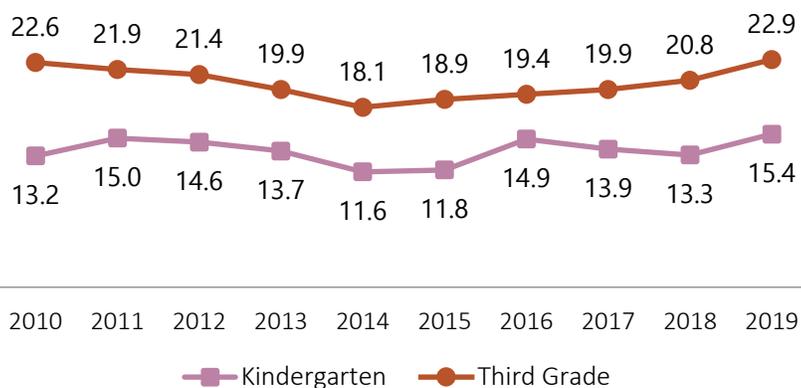
Fig. 2: Percent of Students Overweight and Obese in Three Birth Cohorts, New Mexico, 2014-2019



Each year, the measured third grade students are sampled from the same general birth group as the kindergarten sample three years prior. The three birth cohorts sampled from 2014 to 2019 demonstrate rates of overweight and obesity are similar among kindergarten students and are comparable to rates of overweight for third grade students (*Fig. 2*). By the time children enter third grade, obesity has increased significantly. In the 2016-2019 cohort, obesity increased by 54% from kindergarten (14.9%) to third grade (22.9%). This upward shift highlights the continued need to prevent and address excessive weight gain and support healthy eating and active living behaviors at an earlier age.

Data collected from 2010 to 2019 demonstrate fluctuations in obesity prevalence among the elementary school-age population, including a statistically insignificant uptick between 2018 and 2019. Rates among kindergarten students have increased overall since 2010, going from 13.2% to 15.4% in 2019 – a 17% increase over the ten years (*Fig. 3*). Rates among third grade students decreased from 2010 to a low of 18.1% in 2014 before gradually increasing to a high of 22.9% in 2019. While both grades have experienced a general upward trend in obesity prevalence since 2014, this increase is not statistically significant. Data collected in the coming years will help determine whether this upward trend will continue.

Fig. 3: Percent of Students Obese by Grade, New Mexico, 2010-2019



Overweight & Obesity by Gender

In 2019, the combined group of measured kindergarten and third grade boys had a higher obesity prevalence than the combined group of girls in those grade levels (21.4% compared to 16.9%) (Fig. 4). The same is true within each grade – 14.3% of kindergarten girls were obese compared to 16.5% of boys and 19.6% of third grade girls were obese compared to 25.9% of boys (Fig. 5).

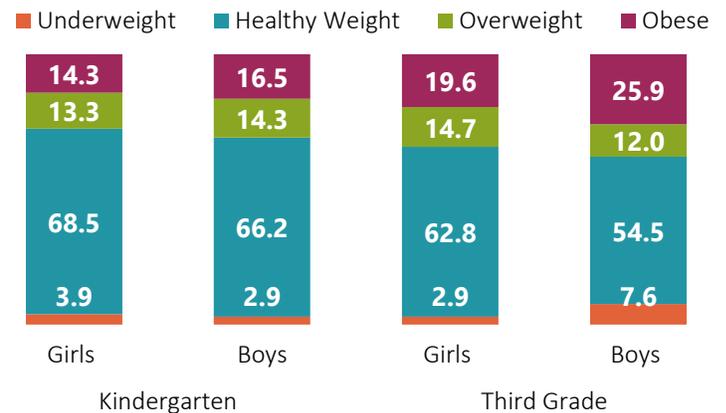
When looking at weight categories across gender and grade, boys were less likely to be at a healthy weight than girls. Mirroring the upward shift in obesity prevalence seen in the three years between kindergarten and third grade (Fig. 1 & 2), obesity among boys increased by 57% from kindergarten (16.5%) to third grade (25.9%). This pattern is not seen among girls.

While obesity has increased slightly among both genders since 2018, it is important to note more than 50% of elementary school-age students are within the healthy weight category (Fig. 5).

Fig. 4: Percent of Students Overweight and Obese by Gender, New Mexico, 2019



Fig. 5: Percent of Students in Weight Categories by Grade and Gender, New Mexico, 2019



Overweight & Obesity by Race/Ethnicity

Fig. 6: Percent of **Kindergarten** Students Overweight and Obese by Race/Ethnicity, New Mexico, 2019

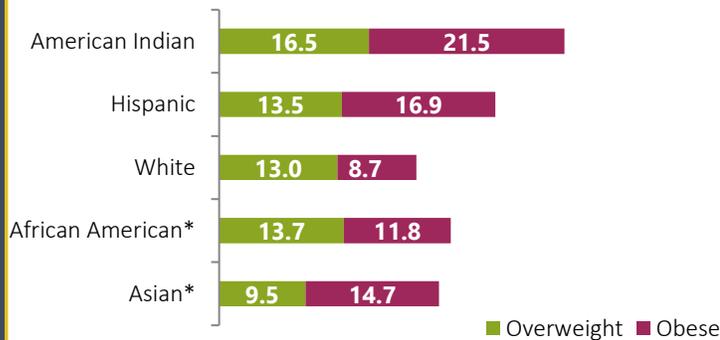


Fig. 7: Percent of **Third Grade** Students Overweight and Obese by Race/Ethnicity, New Mexico, 2019

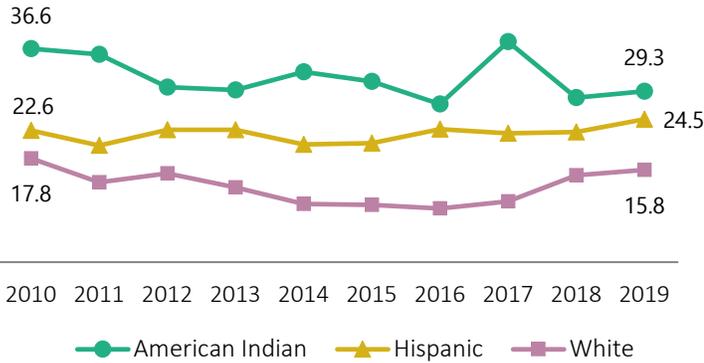


In analyzing disparities across racial and ethnic groups by grade, American Indian students continue to have the highest obesity prevalence compared to their Hispanic and White counterparts. In 2019, 38% of American Indian kindergarten students and 46.2% of American Indian third grade students were overweight or obese (Fig. 6 & 7). Between 2018 and 2019, obesity among American Indian, Hispanic, and White students increased slightly except for American Indian kindergarten students, where rates decreased from 22.5% in 2018 to 21.5% in 2019.

*Data collected through annual surveillance continue to be inadequate for the systematic study of disparities faced by African Americans and Asians, who comprise 2.2% and 1.7% of New Mexico's population and 2.1% and 1% of the 2019 sample, respectively. Due to very small sample sizes, 2018 and 2019 data have been aggregated; some estimates may be statistically unstable, and comparisons cannot be made across groups. Aggregated data indicate obesity rates are relatively low for African American and Asian kindergarten students (11.8% and 14.7%, respectively). In third grade, 15.8% of African American and 16.5% of Asian students were obese.

Overweight & Obesity by Race/Ethnicity

Fig. 8: Percent of **Third Grade** Students Obese by Race/Ethnicity, New Mexico, 2010-2019



Since 2010, obesity prevalence among American Indian third grade students has decreased from 36.6% to 29.3% in 2019, a 20% decline (Fig. 8). American Indian kindergarten students have experienced a similar downward trend. Obesity prevalence among White third grade students has decreased from 17.8% in 2010 to 15.8% in 2019, an 11% decline, whereas obesity among White kindergarten students has remained relatively level over this time. Since 2010, Hispanic third grade students have experienced little change in obesity prevalence with a low of 20% in 2011 and a high of 24.8% in 2019. Hispanic kindergarten students, however, have experienced a 31% increase in obesity since 2010. Because Hispanic students comprise the majority of elementary school-age children in New Mexico, this is particularly concerning.

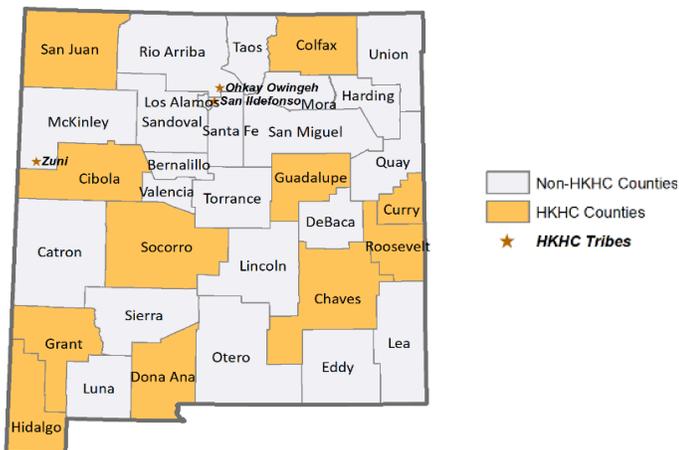
What the State is Doing to Address Childhood Obesity

The New Mexico Department of Health’s Obesity Nutrition and Physical Activity Program (ONAPA) partners with state and local organizations and community coalitions in eleven counties and three tribal communities across New Mexico (see *Healthy Kids Healthy Communities* map below) to expand healthy eating and physical activity opportunities where children and low-income adults live, learn, play, work, eat, and shop. For more information, please contact Rita Condon, ONAPA Program Manager, at rita.condon@state.nm.us.



Healthy Kids Healthy Communities

ONAPA is working with eleven counties and three tribal communities across the state to implement long-term and sustainable policy, systems, and environmental change strategies based on the Centers for Disease Control and Prevention’s best practices for preventing obesity. Despite countless successes and community transformation at the local level, it is clear more resources and increased collaboration among state agencies are needed to have a meaningful impact on childhood obesity rates in New Mexico.



Key Obesity Prevention Strategies

School and Preschool Environment

Increase opportunities for healthy eating and physical activity before, during, and after the school day.



Some strategies include establishing salad bars, edible gardens, and walking programs; integrating locally grown produce into meals; creating active schoolyards for community use; and strengthening wellness policies to include language on healthy eating, physical activity, and staff wellness.

Food and Built Environment

Increase access to healthy affordable food choices and places to be physically active in low-income, rural, and tribal communities.

Some 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 schools and community sites.

