

2017



## Childhood Obesity in Context

Childhood obesity is a serious health issue in New Mexico and across the United States. 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.

Overweight and obesity occur when caloric intake exceeds energy expenditure in the body. Many external factors influence childhood obesity, such as socioeconomic status, parental education level, community infrastructure, and food insecurity. In 2015, 25.6% of New Mexico school-aged children were living in poverty, compared to 19.5% nationally. Research has shown low-income children and children living in low-income neighborhoods are more likely to be obese. Additionally, 1 in 4 New Mexico residents (471,000) receive Supplemental Nutrition Assistance Program (SNAP) benefits and 74% of SNAP recipients are families with children.

Half of New Mexico is considered a food desert. Albuquerque, New Mexico's largest city, ranks 4<sup>th</sup> among 100 metro areas in the United States with the highest rates of difficulty accessing fresh fruits and vegetables in households with children. In New Mexico, 25% of children under age 18 are food insecure, compared to 17.9% nationally, and over 70% of New Mexican students receive free or reduced lunch at school. Studies indicate children living under these conditions have poorer academic and health outcomes.

# The Weight of Our Children

## New Mexico Childhood Obesity 2017 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. In the Fall of 2017, BMI data was collected on 8,065 students in 62 randomly-selected public elementary schools across New Mexico.

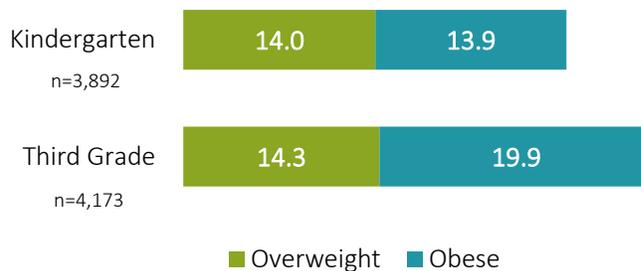
## Summary of Key Findings

- Obesity prevalence continues to increase substantially in the three years between kindergarten and third grade, while overweight prevalence is roughly unchanged between kindergarten and third grade.
- American Indian students continue to have the highest obesity prevalence compared to their Hispanic and White counterparts. Despite a decreasing trend in third grade American Indian obesity prevalence from 2010 to 2016, obesity rose to 37.8% in 2017, a 39% increase over 2016.
- Nationally, childhood obesity prevalence among 6 to 8-year-olds increased to 25.3% in 2015/2016 from 19.4% in 2013/2014. In New Mexico, obesity prevalence among third graders in 2017 was 19.9%.
- Obesity among Hispanic third grade students has remained relatively level over time and obesity among Hispanic kindergarten students has fluctuated without a consistent upward or downward trend. 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) collaboration across state and local agencies to implement sustainable obesity prevention initiatives; 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

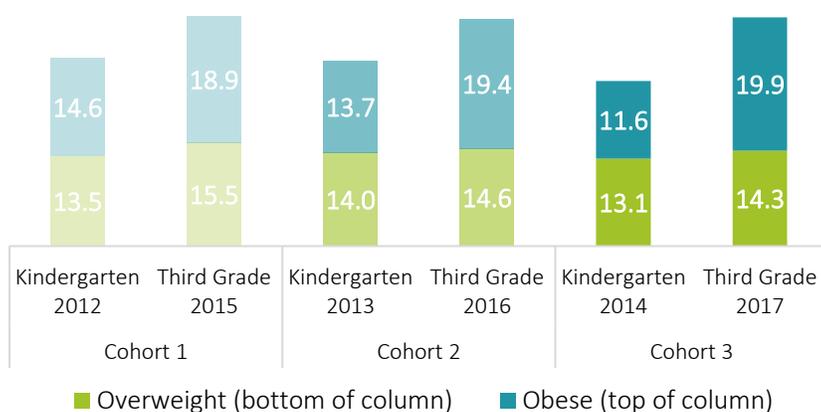
In 2017, more than one-in-four (27.9%) kindergarten students and one-in-three (34.2%) third grade students were overweight or obese (*Fig. 1; note: 'n' indicates number of students measured*). As a comparison, only 15% of children were overweight or obese in the 1970s. Rates of overweight (14%) and obesity (13.9%) were similar among kindergarten students, which were also comparable to rates of overweight for third grade students (14.3%). By the time children enter third grade, 19.9% are in the obese weight category. Kindergarten obesity decreased from 14.9% in 2016 to 13.9% 2017 and third grade obesity increased slightly from 19.4% in 2016 to 19.9% in 2017.

Fig. 1: Percent of Students Overweight and Obese by Grade, New Mexico, 2017



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

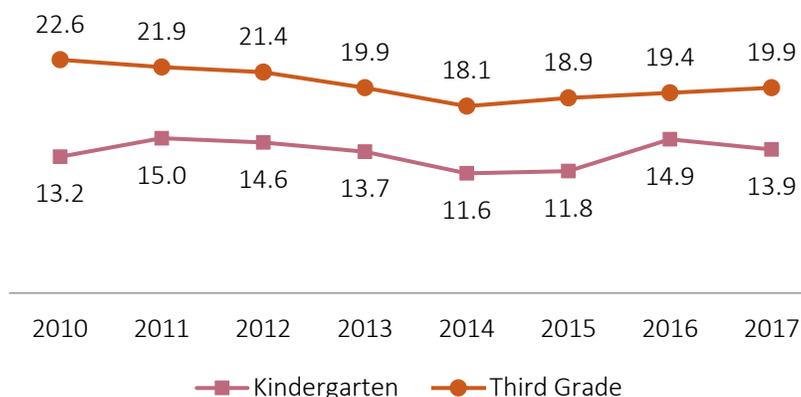
Fig. 2: Percent of Students Overweight and Obese in Three Birth Cohorts, New Mexico, 2012-2017



Each year, the measured third grade students are sampled from roughly the same general birth group as the kindergarten sample three years prior. The three birth cohorts sampled from 2012-2017 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 substantially increased. In the 2014-2017 cohort, obesity increased by 72% from kindergarten (11.6%) to third grade (19.9%). This significant upward shift in obesity prevalence between kindergarten and third grade highlights the continued need to address and prevent excessive weight gain and support healthy eating and active living behaviors at an early age.

Data collected from 2010 to 2017 suggest childhood obesity prevalence rates among the elementary school-age population may be stabilizing. Rates for third graders have decreased since 2010, going from 22.6% in 2010 to 19.9% in 2017, a 12% decrease over the eight years (*Fig. 3*). Obesity prevalence among kindergarten students has fluctuated over time, with a high of 15% in 2011 and a low of 11.6% in 2014. In 2017, 13.9% of kindergarten students were obese, a 5% increase from 2010. These data highlight the continuing need for increasing healthy eating and physical activity opportunities among pre-school and early elementary school-age children and their families.

Fig. 3: Percent of Students Obese by Grade, New Mexico, 2010-2017



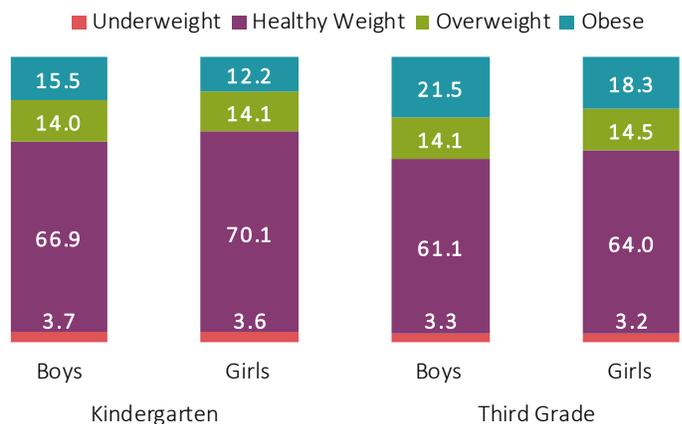
## Overweight & Obesity by Gender

In 2017, 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 (18.6% compared to 15.3%) (Fig. 4). This difference is less than it was in 2016 when 20.4% of boys and 14% of girls were obese. In looking at weight categories across gender and grade, boys were less likely to be at a healthy weight than girls. In 2017, 12.2% of kindergarten girls were obese compared to 15.5% of boys and 18.3% of third grade girls were obese compared to 21.5% of boys (Fig. 5). About 6% more third grade boys were obese than kindergarten boys and 6% more third grade girls were obese than kindergarten girls, suggesting increases in obesity from kindergarten to third grade occur equally for boys and girls. In 2017, kindergarten and third grade girls were more obese compared to 2016. Conversely, kindergarten and third grade boys were less obese in 2017 compared to 2016. While obesity and overweight rates are still too high, it is important to note 60% or more of elementary school-age students are within the healthy weight category.

Fig. 4: Percent of Kindergarten and Third Grade Students Overweight and Obese by Gender, New Mexico, 2017



Fig. 5: Percent of Students in Weight Categories by Grade and Gender, New Mexico, 2017



## Overweight & Obesity by Race/Ethnicity

Fig. 6: Percent of Kindergarten Students Overweight and Obese by Race/Ethnicity, New Mexico, 2017

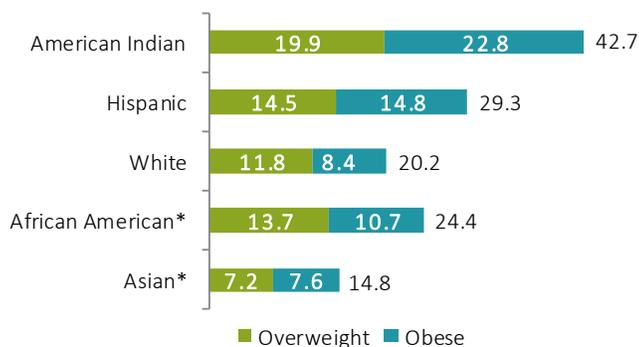
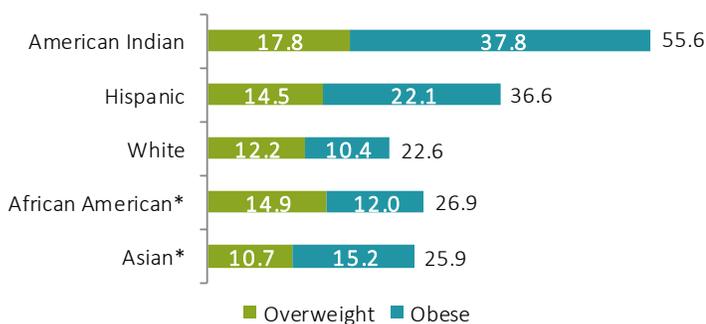


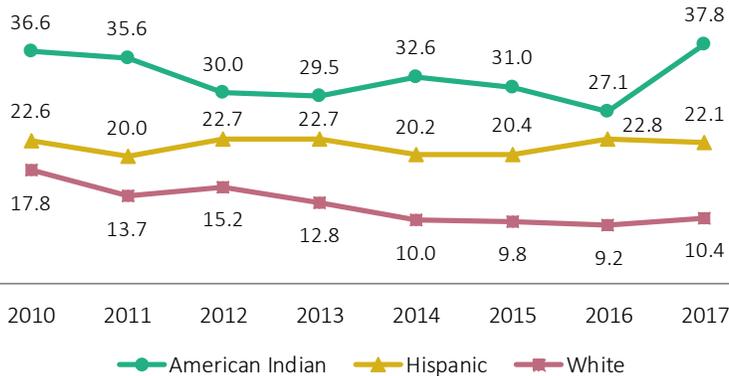
Fig. 7: Percent of Third Grade Students Overweight and Obese by Race/Ethnicity, New Mexico, 2017



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 2017, 42.7% of American Indian kindergarten students and 55.6% of American Indian third grade students were overweight or obese (Fig. 6 & 7). Third grade American Indian obesity increased by 39% between 2016 and 2017, while kindergarten American Indian obesity decreased by 2%. Kindergarten and third grade Hispanic obesity declined slightly in 2017 compared to 2016, while kindergarten White obesity did not change, and third grade White obesity increased in 2017 compared to 2016.

\*Data collected through annual surveillance continue to be inadequate for the systematic study of disparities faced by African Americans and Asians, who comprise 2.5% and 1.7% of New Mexico's population and 2.8% and 1.7% of the 2017 sample, respectively. Due to small sample sizes, 2016 and 2017 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 (10.7% and 7.6%, respectively). In third grade, 12% of African American and 15.2% of Asian students were obese.

Fig. 8: Percent of **Third Grade** Students Obese by Race/Ethnicity, New Mexico, 2010-2017



Between 2010 and 2016, obesity prevalence among American Indian third grade students decreased five of the six years from 36.6% in 2010 to 27.1% in 2016. In 2017, American Indian third grade obesity prevalence jumped to 37.8%, a 39% increase from 2016 (*Fig. 8*). Data gathered in coming years will help determine whether this increase is an outlier in an overall trend of decreasing obesity prevalence since 2010, or the start of a new trend among this population. Obesity prevalence among White third grade students increased by 13% in the past year from 9.2% to 10.4%. Since 2010, White third grade obesity has decreased by 42%. Since 2010, Hispanic third grade students have experienced little change in obesity prevalence with a low of 20% in 2011 and a high of 22.8% in 2016. In 2017, Hispanic third grade obesity prevalence fell within the range of the previous seven years at 22.1%.

## What the State is Doing to Address Childhood Obesity in New Mexico

The New Mexico Department of Health’s Obesity Nutrition and Physical Activity Program (ONAPA) partners with state and local organizations and community coalitions across New Mexico to expand healthy eating and physical activity opportunities where children and low-income adults live, learn, play, work, eat, and shop.

### Key Obesity Prevention Strategies

#### State Partners:

Departments of Health, Human Services, Public Education, and Children, Youth & Families; NMSU Cooperative Extension Service; UNM Prevention Research Center; Cooking with Kids; Kids Cook; Las Cruces Public Schools

#### Local Healthy Kids Healthy Communities (HKHC) Coalitions:

ONAPA is working with 13 counties {Chaves, Cibola, Curry, Dona Ana, Eddy, Grant, Guadalupe, Hidalgo, Lincoln, Luna, Roosevelt, San Juan, Socorro} and 3 tribal communities {San Ildefonso Pueblo, Zuni Pueblo, Ohkay Owingeh Pueblo} across the state to implement long-term and sustainable policy, systems, and environmental change strategies based on the Centers for Disease Control & Prevention’s (CDC) best practices for preventing obesity.

#### School & Childcare Environment

- Strengthen and implement school district, childcare, and Head Start wellness policies to include language on healthy eating, physical activity, and staff wellness
- Establish and expand the Healthy Kids 5.2.1.O Challenge
- Integrate locally grown produce into school meals
- Implement healthy fundraising
- Establish salad bars and pre-made salads
- Expand healthy options and classroom nutrition education (fruit & vegetable and salad bar tastings, gardening lessons)
- Implement food service staff training on how to prepare healthier meals
- Implement teacher trainings on how to conduct classroom nutrition education
- Establish walk & roll to school and mileage programs
- Create active, welcoming schoolyards for community use

#### Built Environment

- Create active outdoor space for community use (neighborhood playgrounds/parks)
- Increase number of safe walking and biking routes that connect neighborhoods to schools and community sites
- Support Complete Streets initiatives

#### Food Environment

- Create community and school edible gardens
- Establish farmers’ markets and food buying clubs
- Increase and market healthy options in corner stores
- Expand healthy options and nutrition education (tasting, cooking, gardening lessons) in food distribution sites, WIC offices, senior centers, and farmers’ markets