2016

The Weight of Our Children

New Mexico Childhood Obesity 2016 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 2016, BMI data was collected on 7,557 students in 59 randomly-selected public elementary schools across New Mexico. These data were converted into weight categories classifying students as underweight (<5th BMI percentile), healthy weight (between 5th and 85th BMI percentile), overweight (between 85th and 95th BMI percentile), or obese (95th BMI percentile and above). Data were then analyzed by grade, gender, and race/ethnicity and weighted to appropriately represent the kindergarten and third grade public school populations.

Summary of Key Findings

- Upward shifts in weight categories between kindergarten and third grade suggest a time-sensitive window for preventing excessive weight gain in children, particularly those who are already overweight in kindergarten.

- Obesity has decreased among third grade students since 2010 from 22.6% to 19.4% (a 14% change). However, kindergarten students have experienced a slight incline over the seven years, from 13.2% to 14.9% (a 13% change).

- Obesity among American Indian third grade students has decreased from 36.6% in 2010 to 27.1% in 2016 (a 26% change). During the same time frame, American Indian kindergarten students showed a more modest decrease in obesity from 25.5% to 23.3% (a 9% change).

- Obesity among Hispanic third grade students has remained level over time and obesity among Hispanic kindergarten students has increased from 12.9% to 16.8% (a 30% change). 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.

NEW MEXICO
DEPARTMENT OF
HEALTH

HEALTHY KIDS
NEW MEXICO
Building a Fit Future

Overweight & Obesity by Grade

In 2016, more than one-in-four (28.6%) kindergarten students and one-in-three (34%) 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 (13.7%) and obesity (14.9%) were similar among kindergarten students, which were also comparable to rates of overweight for third grade students (14.6%). By the time children enter third grade, 19.4% are in the obese weight category.

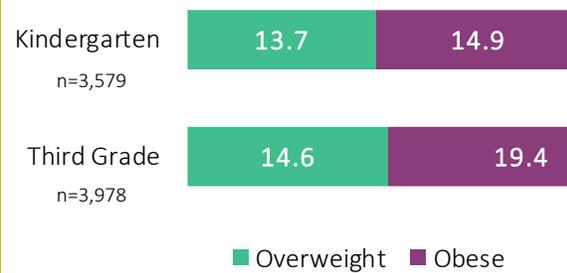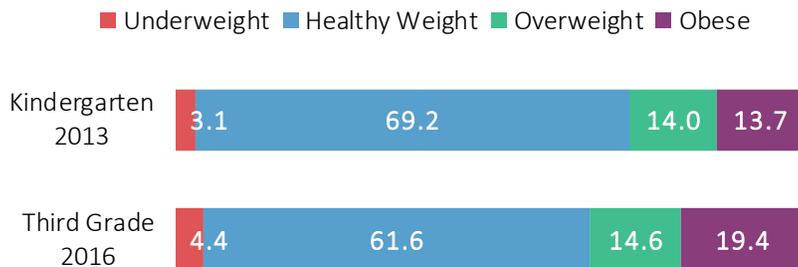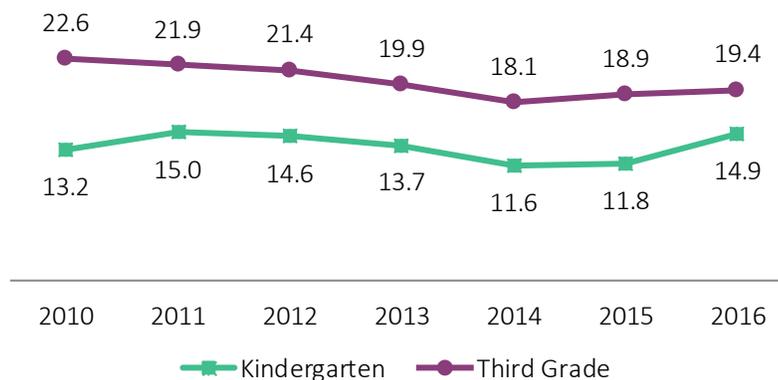## Fig. 1: Percent of Students Overweight and Obese by Grade, New Mexico, 2016

Kindergarten
n=3,579
13.7 | 14.9

Third Grade
n=3,978
14.6 | 19.4

■ Overweight ■ Obese

Fig. 2: Percent of Students in Weight Categories by Birth Cohort, New Mexico, 2013 & 2016

■ Underweight ■ Healthy Weight ■ Overweight ■ Obese

Kindergarten 2013
3.1 | 69.2 | 14.0 | 13.7

Third Grade 2016
4.4 | 61.6 | 14.6 | 19.4

Third grade students measured in 2016 were sampled from roughly the same general birth group as the 2013 kindergarten sample. 13.7% of kindergarten students were obese in 2013 and by 2015, 19.4% of students in this birth group (now third graders) were obese *(Fig. 2)*. This significant (42%) 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 2016 could indicate 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 19.4% in 2016, corresponding to a 14% decrease over the seven years. This pattern is not seen among kindergarten students where rates have gone from 13.2% in 2010 to 14.9% in 2016, corresponding to a 13% increase over the seven years *(Fig.3)*. While it is difficult to determine whether obesity rates are stabilizing among this population, data indicate 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, 2010-2016

Year	2010	2011	2012	2013	2014	2015	2016
Third Grade	22.6	21.9	21.4	19.9	18.1	18.9	19.4
Kindergarten	13.2	15.0	14.6	13.7	11.6	11.8	14.9

■ Kindergarten ● Third Grade

Overweight & Obesity by Gender

In 2016, the combined group of measured kindergarten and third grade boys had a significantly higher obesity rate than the combined group of girls in those grade levels (20.4% compared to 14%) *(Fig. 4)*. In looking at weight categories across gender and grade level, boys were less likely to be at a healthy weight than girls. In 2016, 11.7% of kindergarten girls were obese compared to 18% of boys and 16.1% of third grade girls were obese compared to 22.6% of boys *(Fig. 5)*. While obesity and overweight prevalence rates are still too high, it is important to note that 60% or more of elementary school-age students are within the healthy weight category.

Fig. 4: Percent of Students Overweight and Obese by Gender, New Mexico, 2016
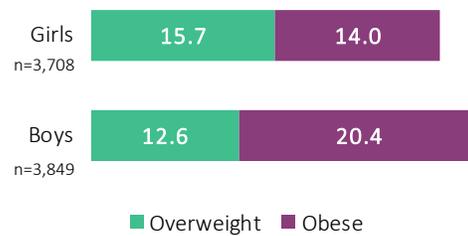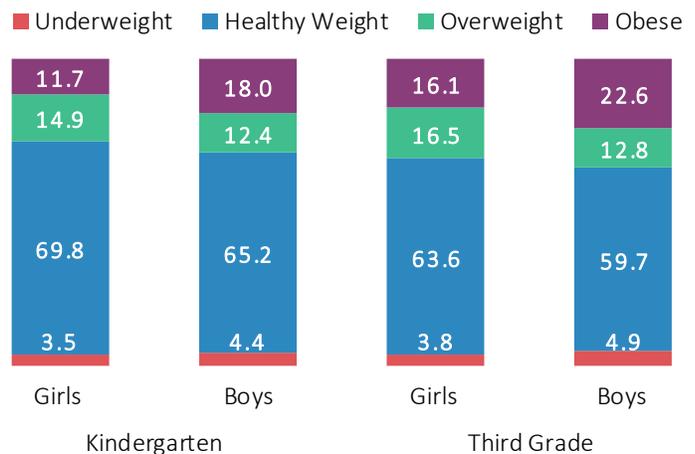
Girls
n=3,708
Overweight 15.7 | Obese 14.0

Boys
n=3,849
Overweight 12.6 | Obese 20.4

■ Overweight ■ Obese

Fig. 5: Percent of Students in Weight Categories by Grade and Gender, New Mexico, 2016

■ Underweight ■ Healthy Weight ■ Overweight ■ Obese

	Kindergarten		Third Grade	
	Girls	Boys	Girls	Boys
Obese	11.7	18.0	16.1	22.6
Overweight	14.9	12.4	16.5	12.8
Healthy Weight	69.8	65.2	63.6	59.7
Underweight	3.5	4.4	3.8	4.9

Overweight & Obesity by Race/Ethnicity

Fig. 6: Percent of Kindergarten Students Overweight and Obese by Race/Ethnicity, New Mexico, 2016

American Indian
n=391
Overweight 20.6 | Obese 23.3 → 43.9

Hispanic
n=2,093
Overweight 14.5 | Obese 16.8 → 31.3

White
n=909
Overweight 9.9 | Obese 8.4 → 18.3

■ Overweight ■ Obese

Fig. 7: Percent of Third Grade Students Overweight and Obese by Race/Ethnicity, New Mexico, 2016

American Indian
n=413
Overweight 21.6 | Obese 27.1 → 48.7

Hispanic
n=2,399
Overweight 13.2 | Obese 22.8 → 36.0

White
n=966
Overweight 16.7 | Obese 9.2 → 25.9

■ Overweight ■ Obese

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 2016, 43.9% of American Indian kindergarten students and 48.7% of American Indian third grade students were overweight or obese. In addition, both American Indian and Hispanic kindergarten and third grade students were at least twice as likely as White students to be obese (*Fig. 6 & 7*).

Data collected through annual childhood obesity surveillance continues to be inadequate for the systematic study of disparities faced by African Americans and Asians, who comprise 2.6% and 1.7% of New Mexico's population, respectively. Due to small sample sizes, 2015 and 2016 data have been aggregated; some estimates may be statistically unstable and comparisons cannot be made across groups. Aggregated data do indicate that obesity rates are relatively low for African American and Asian kindergarten students (8.5% and 8.2%, respectively). By third grade, 18.4% of African American and 11% of Asian students were obese.

American Indian and White kindergarten and third grade students have experienced a decline in obesity prevalence when 2016 rates are compared to 2010. The decrease has been most drastic among White third grade students, going from 17.8% in 2010 to 9.2% in 2016, a 48% change over the six years. However, obesity prevalence among American Indian third grade students has decreased from 36.6% in 2010 to 27.1% in 2016, corresponding to a 26% change over the seven years *(Fig. 8)*. Hispanic kindergarten and third grade students, however, have experienced little change in either obesity or combined obesity/overweight prevalence between 2010 and 2016. This is especially troubling considering this group comprises the majority of elementary school-age children in New Mexico.

Fig. 8: Percent of **Third Grade** Students Obese by Race/Ethnicity, New Mexico, 2010-2016
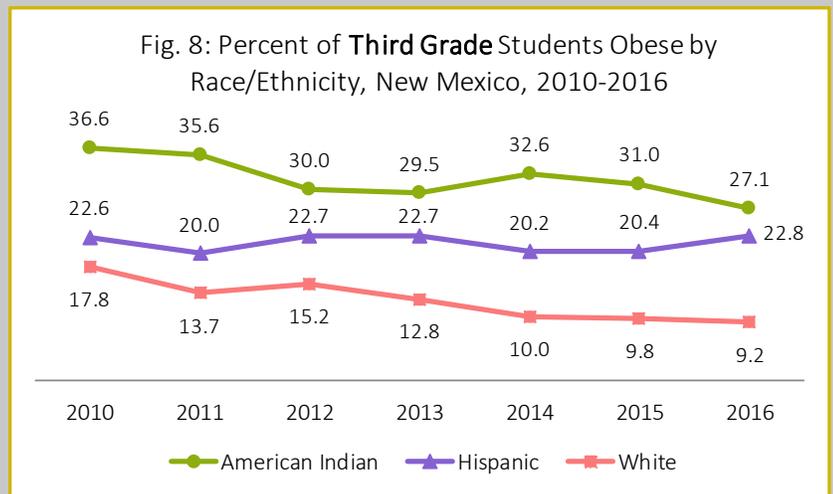
What the State is Doing

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.

State Partners: Departments of Health, Human Services, Public Education, and Children, Youth & Families; Women, Infants & Children (WIC); 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 15 counties {Chaves, Cibola, Curry, Dona Ana, Eddy, Grant, Guadalupe, Hidalgo, Lincoln, Luna, McKinley, Quay, Roosevelt, San Juan, Socorro} and 5 tribal communities {San Ildefonso Pueblo, Zuni Pueblo, Ohkay Owingeh Pueblo, Santo Domingo Pueblo, and Santa Ana Pueblo} across the state to implement sustainable policy, systems, and environmental change strategies based on the Centers for Disease Control & Prevention's (CDC) best practices for preventing obesity.

Key Obesity Prevention Strategies

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