

# Kindergarten BMI Surveillance Report 2014-2016

Alexandria, VA

**Alexandria City Public Schools**  
**Alexandria Health Department**



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## Introduction

Childhood obesity is an established high priority health issue and an area of public health concern and intervention. From 2009-2011, the national prevalence of obesity in the United States for children 2-19 years old was 16.9 percent (1). According to the Centers for Disease Control and Prevention (CDC), overweight children are more likely to become overweight or obese as adults and experience the same disease risks as obese adults, including coronary heart disease, hypertension, type-2 diabetes and increased risk for cancers and chronic diseases (2) (2,3). Nationally, according to the CDC's national data from 2009-2010, the rates of obesity in children have tripled in the last two generations in the United States (4). Although, Northern Virginia consistently maintains the lowest rate for obesity in the state, in 2011, Virginia was ranked 23<sup>rd</sup> highest nationally for its percentage of overweight and obese children according to the National Survey of Children's Health (5).

There are currently limited methods of surveillance nationally, and more specifically in Alexandria City, for tracking obesity. Weight status is calculated in the Youth Risk Behavior Survey (YRBS), for 8<sup>th</sup>, 10<sup>th</sup> and 12<sup>th</sup> graders in Alexandria City Public Schools (ACPS), but this is limited by the accuracy of self-reporting. Women Infant and Children (WIC) data is accessible at the state level, but is not generalizable. As a mechanism for tracking and assessing the obesity rates of Alexandria's youth, the Kindergarten BMI Surveillance Report, will be completed yearly by Alexandria's Health Department (AHD) in collaboration with ACPS and the School Health Advisory Board (SHAB).

The Alexandria Children & Youth Master Plan 2014's first goal is to assure that "Every Child Will Be Physically Safe & Healthy" and includes numerous strategies that relate to preventing and reducing obesity among Alexandria children and youth (6). The SHAB, the Partnership for a Healthier Alexandria, ACPS and AHD initiated this work in 2014 to inform prevention programs, prioritize policy initiatives and assist in the allocation of resources toward decreasing childhood obesity in our city. The surveillance and reporting of incoming kindergarteners' weight status aligns with the Health and Wellness goals as outlined in the ACPS 2020 Strategic Plan, the Alexandria Children and Youth Master Plan 2014 and the Alexandria Community Health Improvement Plan (CHIP) 2014 – 2019 (7,6,8).

## Goals

The purpose of this report is to assess obesity in Alexandria City youth, utilizing the body mass index (BMI) measures, for incoming kindergarteners at ACPS during the 2014-2015, 2015-2016 and 2016-2017 school years. By identifying demographic or geographic subgroups at greater risk of obesity, Alexandria may better target prevention and treatment programs and improve awareness among school and health personnel, community members and policy makers.

The data presented in this report will serve as a baseline for identifying the current magnitude of childhood obesity for incoming kindergarten students. BMI surveillance programs aim to assess the weight status of a specific population to identify population trends and monitor intervention outcomes. This report intends to inform and educate City of Alexandria stakeholders on weight status of incoming kindergarteners in the 2014-2015, 2015-2016 and 2016-2017 school years by identifying weight disparities that may exist by:

- Gender
- Race/ Ethnicity
- Zip-code
- School

## Methodology

ACPS health personnel obtained information from the Commonwealth of Virginia School Entrance Health Form, MCH 213G, or its equivalent, provided at kindergarten enrollment. All data obtained was presented in aggregate without personal identifiers and follows the rules established by the ACPS Accountability Office to assure confidentiality. ACPS collected and entered the anthropometric data into school registration documents for incoming ACPS kindergarteners for the 2014 - 2016 academic years to obtain height and weight for calculation of a Body Mass Index (BMI) for each child. Data is outlined below, and includes: race, ethnicity, height, weight, zip code, school, date of birth and date of examination. Once a complete dataset was compiled and entered by ACPS staff, an anonymous identity number was assigned to each student and personal identifying information was removed prior to providing the data to AHD.

AHD calculated the BMI and assigned appropriate weight status categories, using STATA statistical analysis software. BMI was calculated using the English formula ( $BMI = \frac{\text{weight in pounds}}{(\text{height in inches})^2} \times 703$ ) for each child. Each calculated BMI was then compared to the standard percentile distribution as defined by the gender-specific CDC growth charts and assigned to a weight status category (Table 1). Data storage and analysis were completed using PowerSchool, Excel 2010, STATA and ArcGIS.

For children and teens, BMI is age and sex specific and is often referred to as BMI-for-age. Although BMI does not measure body fat directly, research has shown that it is correlated with direct measures of body fat (9). BMI is not a diagnostic tool, but serves as a useful screening tool to determine weight categories, as well as who may be overweight or obese and at risk for health problems (9). Furthermore, childhood obesity is a predictor of adulthood obesity (2).

The chi-squared test was used to determine the statistical significance of differences in the proportion estimates for weight status category for: incoming classes, gender, race/ethnicity and sex. The Chi-square test is intended to test how likely it is that an observed distribution is due to chance. When the p-value of a chi-square test for difference is  $< 0.05$  there is strong evidence against the null hypothesis of no difference between the categorical prevalence data. If the initial chi-square test was found significant ( $p\text{-value} < 0.05$ ), an additional chi-square test was done to identify the differences within the category.

## Limitations

There are several limitations to these studies. Health data for incoming students, including measures such as height and weight, are not uniformly collected. Incoming students are seen by private healthcare providers whose tools for measuring height and weight are uniquely calibrated.

Of the 1,424 children registered as incoming ACPS kindergartners for the 2014 - 2015 school year, 1,146 (80.4%) completed health records were available for analysis. Numbers for 2015 - 2016 and 2016 - 2017 were higher, with 1,378 (93.9%) and 1,362 (93.7%), respectively, with completed health records. The students for whom records were not available may be missing for a number of reasons, including registering but not attending school. Differences in weight categories for students not available are unknown. The percentage of students included in analysis categorized as economically disadvantaged is unknown, only the total kindergarten class as reported by the Department of Education. This report only provides surveillance data for ACPS and therefore does not include private school or home schooled students in Alexandria City.

# Results

## A. Comparison to National Benchmarks

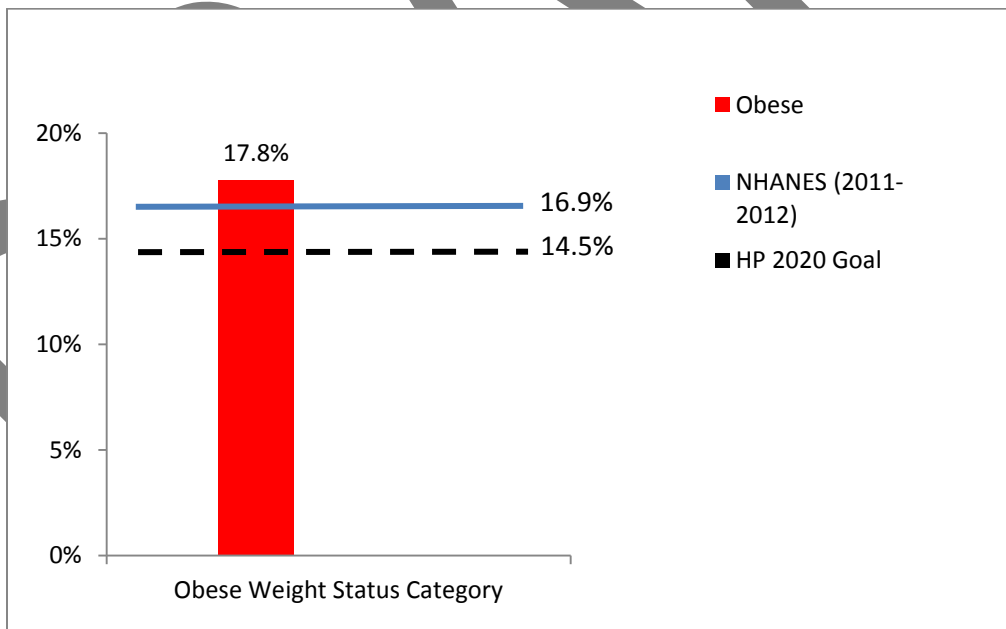
For the 2014 – 2016 school years, 32 percent of kindergarteners were overweight or obese, with 14.2 percent overweight and 17.8 percent obese. Compared to national benchmarks, Alexandria public school kindergarteners are close to national statistics but are well above Healthy People 2020 goals.

The Centers for Disease Control and Prevention conducts the National Health and Nutrition Examination Survey (NHANES) to characterize the health and nutritional status of adults and children in the United States. This provides the closest national comparison available for Alexandria kindergarteners. The 2011 - 2012 NHANES (the most recent available) found that approximately 31.8 percent of children 2- 19 years old were obese or overweight, with 16.9 percent being obese (1).

The US Department of Health and Human Services' Office of Disease Prevention and Health Promotion promulgates national health objectives through Healthy People 2020 (HP 2020). There is no suggested goal for the kindergartener ages; instead HP 2020 aims to lower the national measures of obesity in all children 2-19 years old to 14.5 percent by the year 2020. (HP 2020 does not provide a goal for overweight).

Figure 1 shows aggregated incoming kindergartener for ACPS.

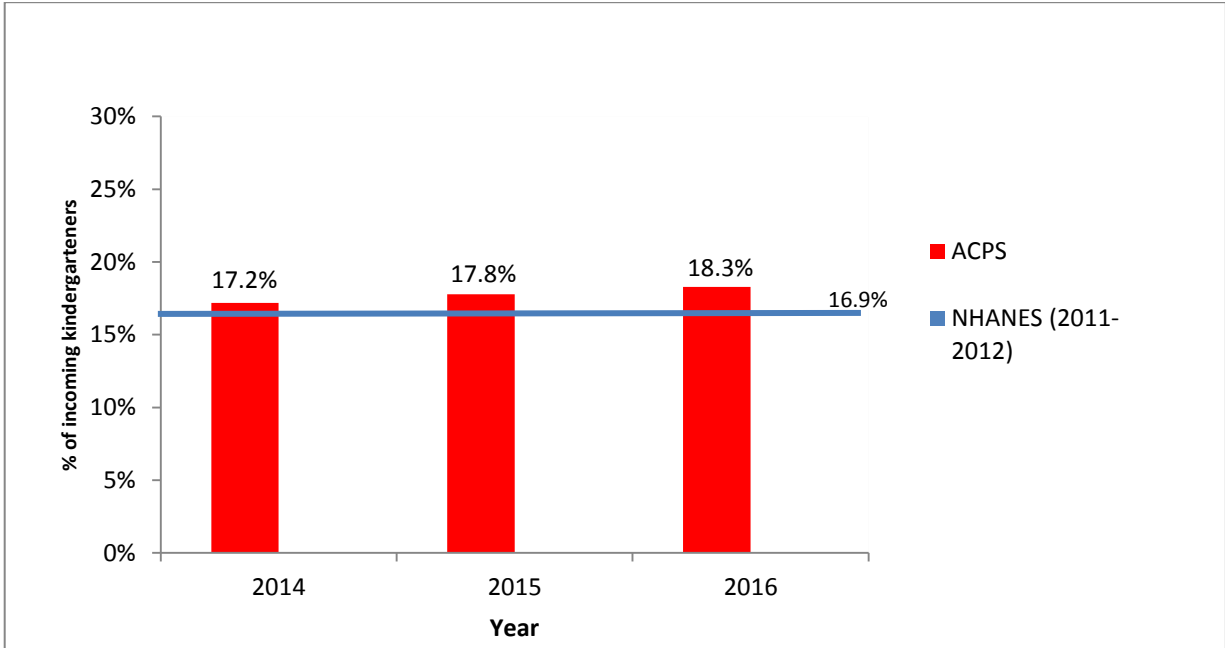
**Figure 1: Incoming ACPS Kindergarten Obese Weight Status, 2014 – 2016, compared to NHANES 2011 – 2012 and HP 2020 Goal**



## B. Yearly

There was no statistically significant difference found between the incoming kindergarteners' weight status from years 2014 to 2016. Figure 2 reveals the percentage of obese ACPS kindergarteners by year. Figure 3, below, shows the weight status category distribution over the same years.

**Figure 2: Incoming ACPS Kindergarten Obese Weight Status, 2014 - 2016, compared to NHANES, Obese Weight Status, 2011 - 2012**



**Figure 3: Incoming ACPS Kindergarten Weight Status, 2014 - 2016**

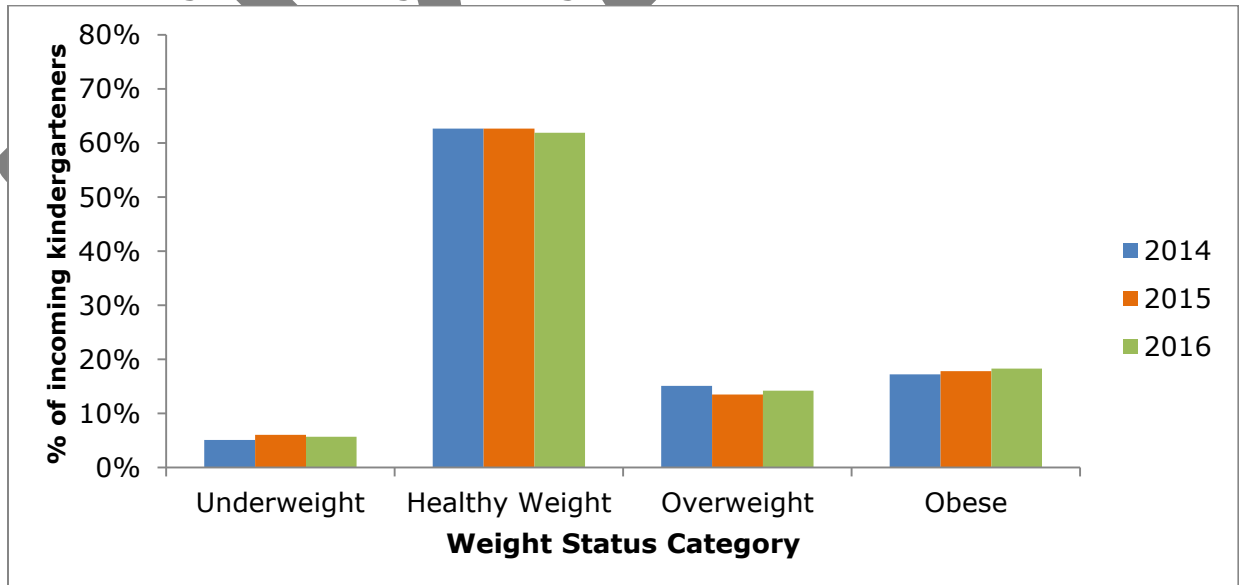
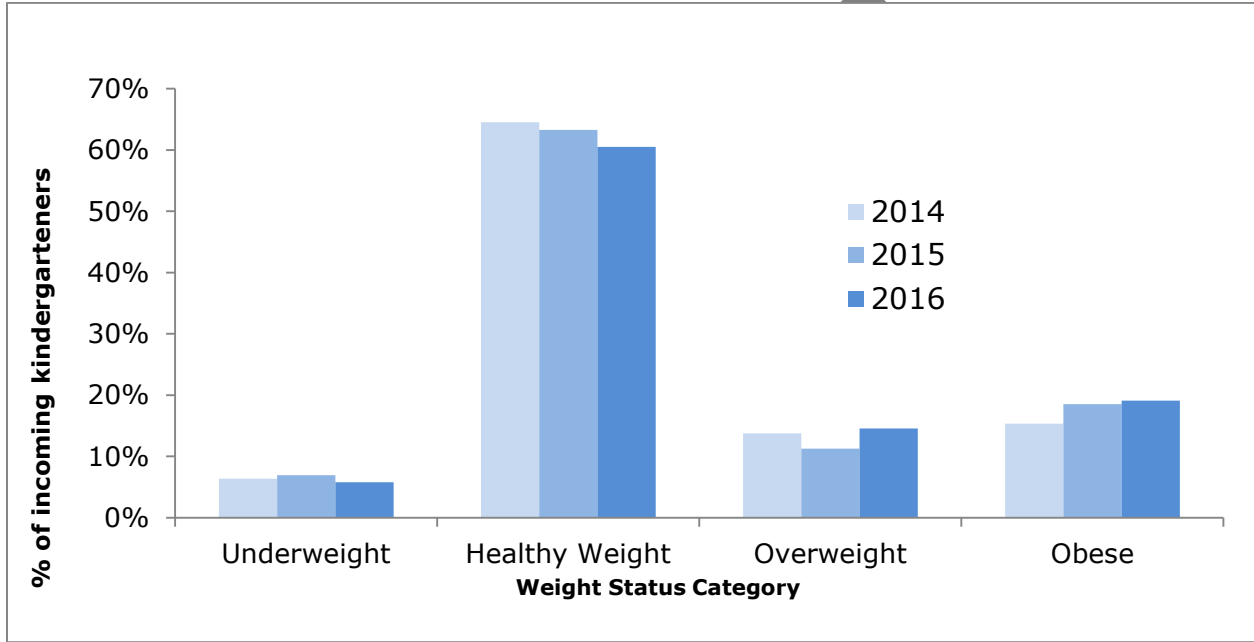


Table 2, in the appendix, displays the distribution of incoming kindergarten class weight status distribution by year, as well as the aggregated weight status distribution for all three years of incoming kindergarteners, 2014 - 2016.

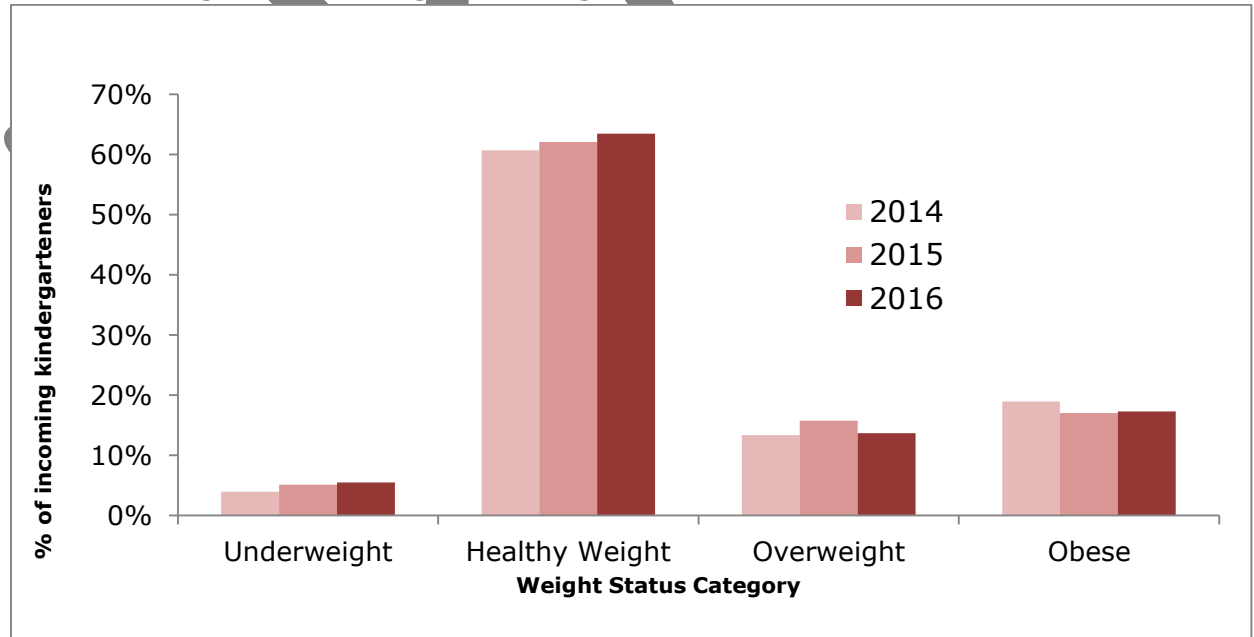
### C. Gender

When stratified by gender, no statistically significant differences in weight status category were found for overweight and obese ( $p=0.201$ ) or obese ( $p=0.937$ ) incoming kindergarteners from 2014 – 2016. Aggregating the three incoming classes, 15.2 percent of females were overweight and 17.7 percent of females were obese, compared to 13.2 percent of males being overweight and 13.7 percent of males being obese ( $N=3,887$ ). A higher proportion of males, as compared to females, were underweight, at 6.29 percent compared to 4.89 percent and this difference was observed throughout the three years of incoming kindergarten data, (Table 3, a-c).

**Figure 4a: Incoming ACPS Kindergarten Weight Status for Males, 2014 - 2016**



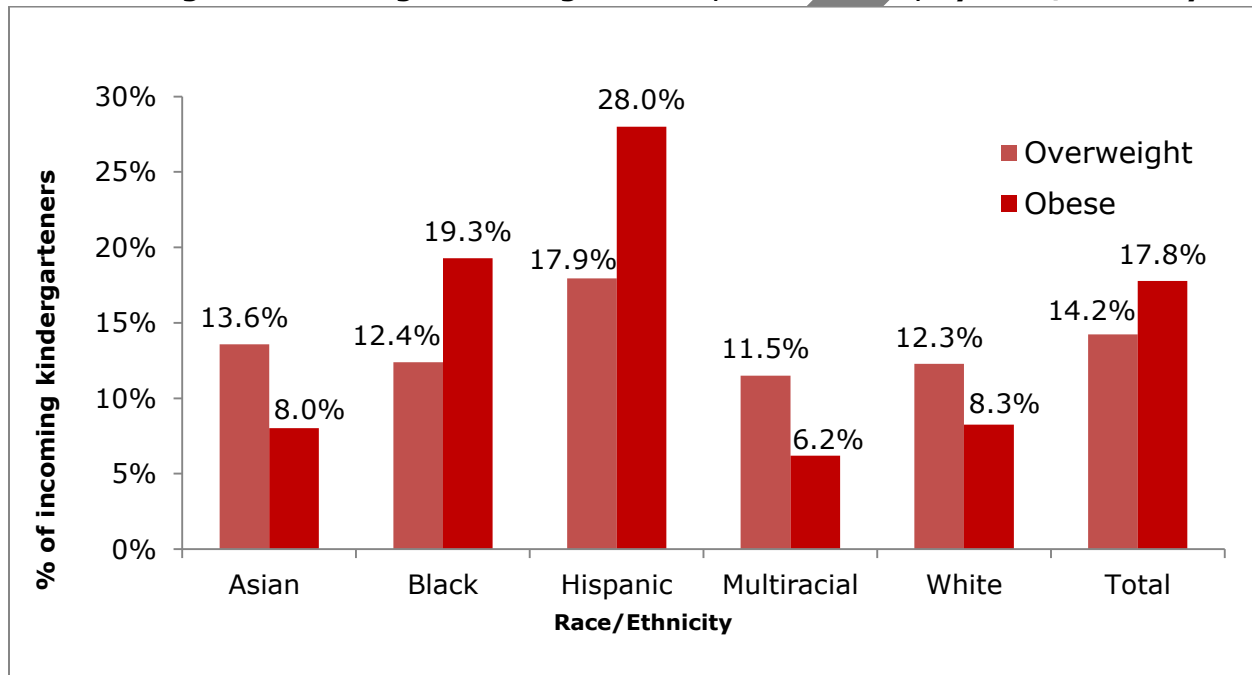
**Figure 4b: Incoming ACPS Kindergarten Weight Status for Females, 2014 - 2016**



#### D. Race/Ethnicity

When stratified by race/ethnicity, statistically significant differences were observed between weight status category for overweight and obese ( $p < 0.001$ ) and obese ( $p < 0.001$ ) incoming kindergarteners from 2014 – 2016. A higher proportion of obese students was observed among Hispanic students at 28.0 percent; this was statistically significant when performing additional chi-square tests for differences of proportions with whites, blacks, and Asians, separately. Additionally, statistically significant differences were consistent across all three years. Lowest proportions of obese students were observed in whites (8.3%), multiracial (6.2%) and Asians (8.0%) for aggregated 2014 – 2016 school years, (Table 4, a-c).

**Figure 4: Incoming ACPS Kindergarten Weight Status, 2014 - 2016, by Race/Ethnicity\***



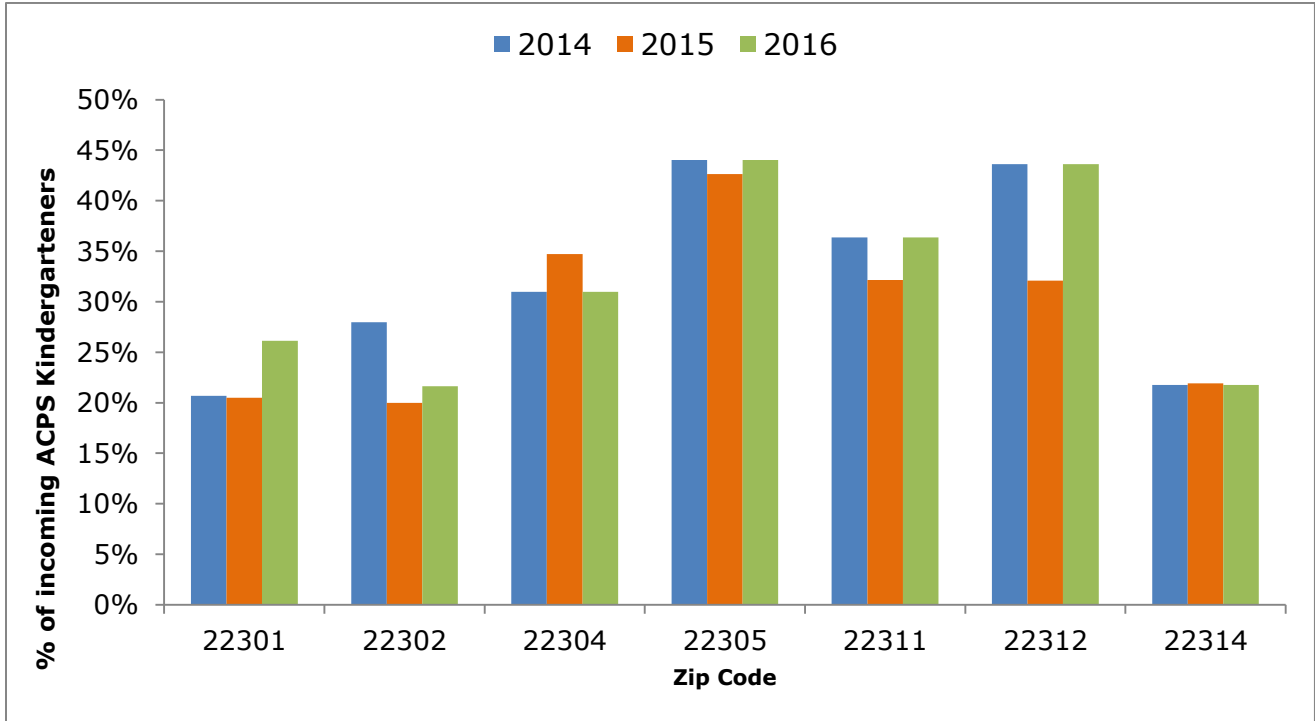
\* Race and ethnicity are self-reported by parents when completing ACPS forms.

#### E. Zip Code

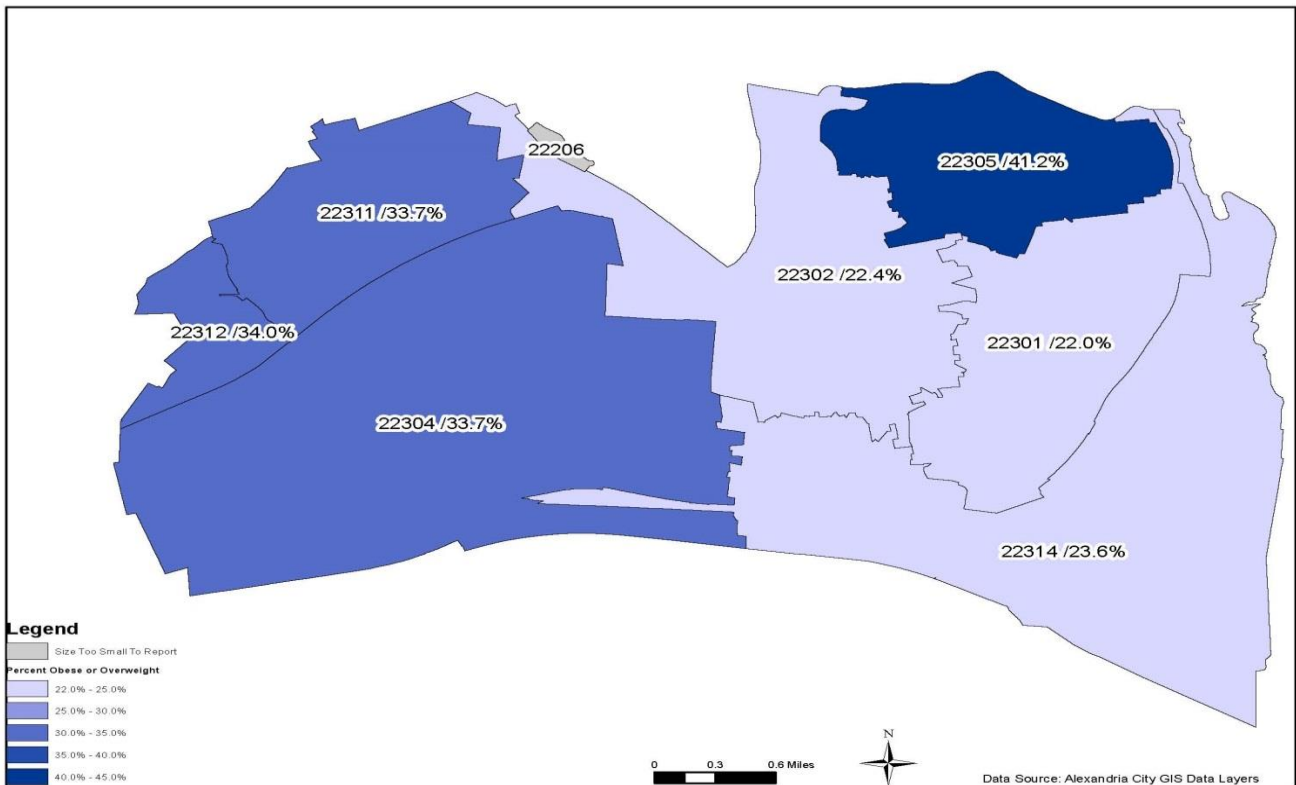
When stratified by zip code, statistically significant differences were observed between weight status category for overweight and obese ( $p < 0.001$ ) and obese ( $p < 0.001$ ) incoming kindergarteners from 2014 – 2016. The zip codes with the highest proportion of overweight and obese students were 22305 (42.1%), 22312 (35.0%) and 22311 (34.1%) for aggregated 2014 – 2016 incoming kindergarteners. Zip code 22305 had the highest proportions of overweight and obese incoming kindergarteners across all three years of data. Conversely, zip codes with lowest proportions of overweight and obese students from 2014 - 2016 were 22302 (23.0%) 22314 (23.6%) and 22301 (22.5%), (Table 4, a-c).



**Figure 5: Incoming ACPS Kindergarten Weight Status for Overweight and Obese, 2014 - 2016, by Zip Code**



**Figure 6: Incoming ACPS Kindergarten Weight Status for Overweight and Obese, 2014 - 2016, by Zip Code**

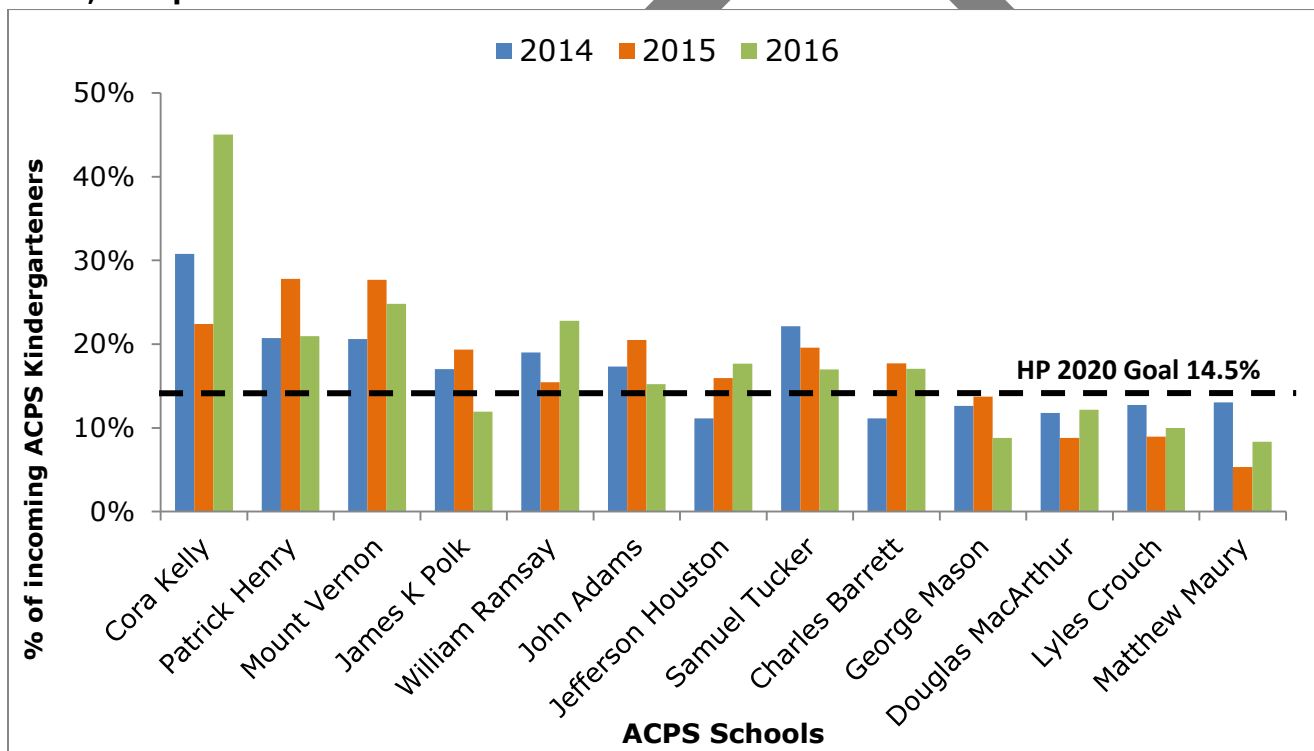


## F. School

When stratified by school, statistically significant differences were observed for overweight and obese ( $p < 0.001$ ) and obese ( $p < 0.001$ ) incoming kindergarteners from 2014 - 2016. Schools, in Figure 5, are ranked by highest to lowest proportions of students in the obese weight status category. From the available data, incoming kindergarteners from Cora Kelly had the highest percentage of obese (34.8%) students from aggregated 2014 – 2016 data, followed by Patrick Henry (23.1%) and Mount Vernon (24.5%). Students from Lyles Crouch (10.4%) and Mathew Maury (8.8%) Elementary Schools have the lowest proportions of incoming kindergarteners with obese weight statuses from 2014 - 2016, (Table 6, a-c).

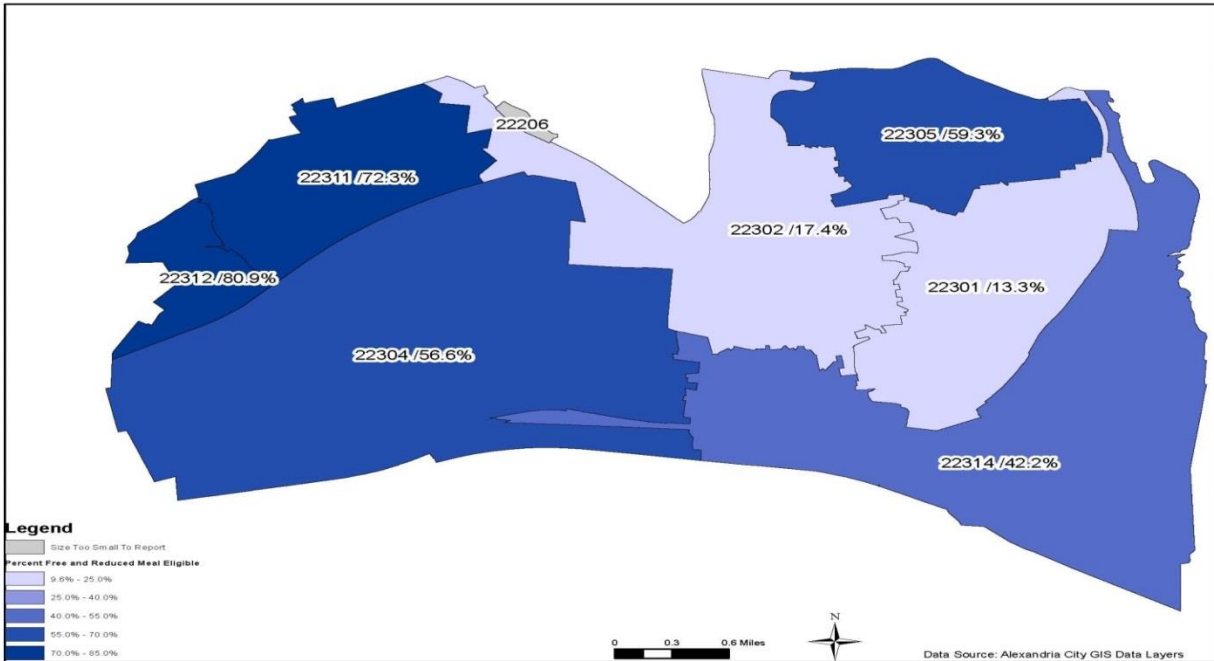
Note: Healthy People 2020 goals are based on percent of obese students; the data in Figure 1 is for obese kindergarteners (and does not include overweight kindergarteners).

**Figure 7: Incoming ACPS Kindergarten Weight Status for Obese Kindergarteners, 2014-2016, by School, Compared to HP2020 Goal for Obese 2-19 Year Olds**



From 2014 - 2016, approximately 52 percent of the incoming kindergarten class at ACPS was categorized as 'economically disadvantaged'. Students are categorized as economically disadvantaged if they are eligible for Free/Reduced Meals, receive TANF, are eligible for Medicaid or become identified as migrant at any time during the school year. The elementary schools with the highest proportions of students categorized as economically disadvantaged are Cora Kelly (72.3%) and Patrick Henry Elementary School (70.9%); the lowest proportions are Mathew Maury (27.0%) and Lyles Crouch (23.8%) according to the Virginia Department of Education.

**Figure 8: Economically Disadvantaged, 2014 - 2016, by Zip Code**



## Conclusion

Thirty two percent of 2014 - 2016 incoming kindergarteners attending public school in the City of Alexandria were categorized as overweight or obese.

The highest rate of overweight or obesity was found in Hispanic youth (45.9%), students residing in zip codes 22305 (42.1%), 22312 (35.0%) and 22311 (34.1%) and attending Cora Kelly (53.7%), Patrick Henry (40.4%) and Mount Vernon (39.6%) elementary schools. Similarly, elementary schools with the highest proportions of students categorized as economically disadvantaged are Cora Kelly (72.3%) and Patrick Henry (70.9%). These findings align with national data, as reported by the CDC, which indicate a higher prevalence of obesity in pre-school children from low-income families and in Hispanic children, compared to non-Hispanic, non-low-income children (10,11).

As indicated earlier in the report, support for BMI assessment for weight status surveillance is fairly robust. Continuing to monitor incoming kindergartners in the future, as well as surveillance of obesity prevalence in students at one or more points in higher grades is important. There is a need to continue surveillance of childhood and adolescent BMI to track trends in obesity and to evaluate existing interventions implemented by community organizations in order to best understand how to target resources.

## Resources

The following are resources to help take action to improve the health and wellbeing of Alexandria City in relation to decreasing childhood obesity

### **Health Matters in Alexandria**

This is a web-based resource through which the Alexandria community can learn about community health and wellbeing within the City of Alexandria. The site, which is maintained by the Alexandria Health Department, provides information on topics including local health, promising best practices, and community news & events.

<http://www.healthmattersalexandria.org/>

### **Northern Virginia Healthy Kids Coalition**

A community partnership to get kids healthy and to fight obesity, the Northern Virginia Healthy Kids Coalition (NVHKC) is a grassroots coalition of local organizations including Inova Health System, area school districts and others joined in a common goal: to promote better health for children of all ages.

<http://www.inova.com/inova-in-the-community/nvhkc/index.jsp>

### **Partnership for a Healthier Alexandria**

This is a citizen-led coalition of non-profit organizations, schools, municipal agencies, local businesses, government, community leaders, and concerned citizens who come together to promote and preserve a healthy Alexandria. The partnership emerged in 2006 to address major health priorities that were identified from the first Community Health Assessment in Alexandria.

<http://healthieralexandria.org>

### **Public Health Advisory Commission**

This commission provides information about and evaluation of health-related matters and investigates specific health problems. The Commission meets on the third Thursday of the month at 5:30 p.m.

<https://www.alexandriava.gov/health/info/default.aspx?id=14870>

### **School Health Advisory Board**

This board works on health access and outreach for ongoing programs and implementation of school-based healthcare initiatives. In 2016 they reviewed new Federal Food and Nutrition Services guidelines and Smart Snacks and drafted relevant policy.

<https://www.acps.k12.va.us/Page/1232>

## Acknowledgments

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## Appendix

**Table 1: CDC Weight Status Categories for Children**

<b>Weight Status Category</b>	<b>Percentile Range</b>
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th to less than the 95th percentile
Obese	Equal to or greater than the 95th percentile

**Table 2: Weight Status Categories for ACPS Incoming Kindergarten Classes, 2014 - 2016**

<b>Weight Status Category</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Total</b>
Underweight	5.1%	6.0%	5.7%	5.6%
Healthy Weight	62.7%	62.7%	61.9%	62.4%
Overweight	15.1%	13.5%	14.2%	14.2%
Obese	17.2%	17.8%	18.3%	17.8%
Overweight or Obese	32.3%	31.3%	32.5%	32.0%

**Table 3: Weight Status Categories for ACPS Incoming Kindergarten Classes, 2014 - 2016, by Gender**

<b>Weight Status Category</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
Underweight	6.3%	4.9%	5.6%
Healthy Weight	62.6%	62.1%	62.4%
Overweight	13.2%	15.3%	14.2%
Obese	17.8%	17.7%	17.8%
Overweight or Obese	31.1%	33.0%	32.0%

**Table 3a: Weight Status Categories for ACPS Incoming Kindergarten Class, 2014, by Gender**

<b>Weight Status Category</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
Underweight	6.4%	4.0%	5.1%
Healthy Weight	64.6%	60.7%	62.7%
Overweight	13.8%	13.4%	15.1%
Obese	15.3%	19.0%	17.2%
Overweight or Obese	29.1%	35.3%	32.3%

**Table 3b: Weight Status Categories for ACPS Incoming Kindergarten Class, 2015, by Gender**

<b>Weight Status Category</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
Underweight	6.9%	5.1%	6.0%
Healthy Weight	63.3%	62.1%	62.7%
Overweight	11.3%	15.7%	13.5%
Obese	18.5%	17.1%	17.8%
Overweight or Obese	29.8%	32.8%	31.3%

**Table 3c: Weight Status Categories for ACPS Incoming Kindergarten Class, 2016, by Gender**

<b>Weight Status Category</b>	<b>Boys</b>	<b>Girls</b>	<b>Total</b>
Underweight	5.8%	5.5%	5.7%
Healthy Weight	60.5%	63.5%	61.9%
Overweight	14.6%	13.7%	14.2%
Obese	19.1%	17.3%	18.3%
Overweight or Obese	33.7%	31.0%	32.5%

**Table 4: Weight Status Categories for ACPS Incoming Kindergarten Classes, 2014 - 2016, by Race/Ethnicity**

<b>Weight Status Category</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>Multi</b>	<b>White</b>
Underweight	14.2%	7.1%	3.7%	7.1%	5.2%
Healthy Weight	64.2%	61.2%	50.4%	75.2%	74.3%
Overweight	13.6%	12.4%	17.9%	11.5%	12.3%
Obese	8.0%	19.3%	28.0%	6.2%	8.3%
Overweight or Obese	21.6%	31.7%	45.9%	17.7%	20.5%

**Table 4a: Weight Status Categories for ACPS Incoming Kindergarten Class, 2014, by Race/Ethnicity**

<b>Weight Status Category</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>Multi</b>	<b>White</b>
Underweight	4.6%	7.9%	3.8%	2.9%	4.4%
Healthy Weight	70.5%	61.7%	51.6%	74.3%	73.3%
Overweight	13.6%	11.6%	19.7%	11.4%	13.6%
Obese	11.4%	18.8%	24.9%	11.4%	8.7%
Overweight or Obese	25.0%	30.4%	44.6%	22.9%	22.3%

**Table 4b: Weight Status Categories for ACPS Incoming Kindergarten Class, 2015, by Race/Ethnicity**

<b>Weight Status Category</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>Multi</b>	<b>White</b>
Underweight	15.5%	7.9%	3.1%	11.1%	5.8%
Healthy Weight	69.0%	62.0%	51.0%	66.7%	73.9%
Overweight	8.6%	11.9%	17.6%	16.7%	11.1%
Obese	6.9%	18.2%	28.4%	5.6%	9.1%
Overweight or Obese	15.5%	30.1%	45.9%	22.2%	20.3%

**Table 4c: Weight Status Categories for ACPS Incoming Kindergarten Class, 2016, by Race/Ethnicity**

<b>Weight Status Category</b>	<b>Asian</b>	<b>Black</b>	<b>Hispanic</b>	<b>Multi</b>	<b>White</b>
Underweight	20.0%	5.8%	4.0%	7.1%	5.2%
Healthy Weight	55.0%	60.0%	48.8%	83.3%	75.5%
Overweight	18.3%	13.3%	16.9%	7.1%	12.4%
Obese	6.7%	20.8%	30.4%	2.4%	7.0%
Overweight or Obese	25.0%	34.2%	47.2%	9.5%	19.3%

**Table 5: Weight Status Categories for ACPS Incoming Kindergarten Classes, 2014 - 2016, by Zip Code**

<b>Weight Status Category</b>	<b>22301</b>	<b>22302</b>	<b>22304</b>	<b>22305</b>	<b>22311</b>	<b>22312</b>	<b>22314</b>
Underweight	5.0%	7.0%	6.0%	4.4%	5.2%	7.5%	5.3%
Healthy Weight	72.5%	70.0%	60.9%	53.5%	60.7%	57.5%	71.1%
Overweight	14.4%	11.1%	14.7%	16.1%	15.7%	14.3%	11.1%
Obese	8.1%	11.9%	18.4%	26.1%	18.4%	20.7%	12.5%
Overweight or Obese	22.5%	23.0%	33.1%	42.1%	34.1%	35.0%	23.6%

**Table 5a: Weight Status Categories for ACPS Incoming Kindergarten Class, 2014, by Zip Code**

<b>Weight Status Category</b>	<b>22301</b>	<b>22302</b>	<b>22304</b>	<b>22305</b>	<b>22311</b>	<b>22312</b>	<b>22314</b>
Underweight	3.5%	6.8%	5.3%	4.7%	6.1%	4.3%	6.5%
Healthy Weight	75.9%	65.3%	63.7%	51.3%	57.6%	52.1%	71.8%
Overweight	16.1%	13.6%	14.5%	13.7%	15.2%	20.2%	8.8%
Obese	4.6%	14.4%	16.5%	30.3%	21.2%	23.4%	12.9%
Overweight or Obese	20.7%	28.0%	31.0%	44.0%	36.4%	43.6%	21.8%

**Table 5b: Weight Status Categories for ACPS Incoming Kindergarten Class, 2015, by Zip Code**

<b>Weight Status Category</b>	<b>22301</b>	<b>22302</b>	<b>22304</b>	<b>22305</b>	<b>22311</b>	<b>22312</b>	<b>22314</b>
Underweight	6.6%	5.2%	5.9%	4.4%	7.0%	9.9%	6.2%
Healthy Weight	73.0%	74.8%	59.4%	53.0%	60.8%	58.0%	71.9%
Overweight	12.3%	5.2%	15.0%	17.1%	14.1%	13.6%	11.8%
Obese	8.2%	14.8%	19.7%	25.5%	18.1%	18.5%	10.1%
Overweight or Obese	20.5%	20.0%	34.7%	42.6%	32.2%	32.1%	21.9%

**Table 5c: Weight Status Categories for ACPS Incoming Kindergarten Class, 2016, by Zip Code**

<b>Weight Status Category</b>	<b>22301</b>	<b>22302</b>	<b>22304</b>	<b>22305</b>	<b>22311</b>	<b>22312</b>	<b>22314</b>
Underweight	4.5%	9.0%	5.1%	4.7%	6.1%	4.3%	6.5%
Healthy Weight	69.4%	69.4%	63.9%	51.3%	57.6%	52.1%	71.8%
Overweight	15.3%	14.9%	14.5%	13.7%	15.2%	20.2%	8.8%
Obese	10.8%	6.7%	16.5%	30.3%	21.2%	23.4%	12.9%
Overweight or Obese	26.1%	21.6%	31.0%	44.0%	36.4%	43.6%	21.8%



**Table 6: School by Weight Status Categories for ACPS Incoming Kindergarten Classes, 2014 - 2016**

School	Underweight	Healthy Weight	Overweight	Obese	Over/ Obese
<b>Cora Kelly</b>	4.5%	41.8%	18.9%	34.8%	53.7%
<b>Patrick Henry</b>	5.4%	54.2%	17.3%	23.1%	40.4%
<b>Mount Vernon</b>	4.7%	55.7%	15.1%	24.5%	39.6%
<b>James K Polk</b>	5.4%	59.8%	19.0%	15.9%	34.8%
<b>William Ramsay</b>	7.1%	58.6%	15.2%	19.0%	34.3%
<b>John Adams</b>	6.7%	62.7%	12.7%	17.9%	30.6%
<b>Jefferson Houston</b>	3.9%	66.0%	14.7%	15.4%	30.1%
<b>Samuel Tucker</b>	6.5%	64.1%	10.2%	19.2%	29.4%
<b>Charles Barrett</b>	6.9%	66.5%	11.0%	15.5%	26.5%
<b>George Mason</b>	3.1%	71.2%	13.9%	11.8%	25.7%
<b>Douglas MacArthur</b>	5.1%	70.1%	14.1%	10.8%	24.9%
<b>Lyles Crouch</b>	5.2%	73.4%	10.9%	10.4%	21.4%
<b>Matthew Maury</b>	6.9%	72.6%	11.8%	8.8%	20.6%

**Table 6a: School by Weight Status Categories for ACPS Incoming Kindergarten Class, 2014**

School	Underweight	Healthy Weight	Overweight	Obese	Over/Obese
<b>Cora Kelly</b>	1.9%	51.9%	15.4%	30.8%	46.2%
<b>Patrick Henry</b>	4.9%	58.4%	15.9%	20.7%	36.6%
<b>Mount Vernon</b>	4.6%	56.5%	18.3%	20.6%	38.9%
<b>James K Polk</b>	6.0%	89.0%	18.0%	17.0%	35.0%
<b>William Ramsay</b>	6.6%	61.2%	13.2%	19.0%	35.2%
<b>John Adams</b>	3.9%	63.8%	14.9%	17.3%	32.3%
<b>Jefferson Houston</b>	5.6%	61.1%	22.2%	11.1%	33.3%
<b>Samuel Tucker</b>	10.6%	56.7%	10.6%	22.1%	32.7%
<b>Charles Barrett</b>	2.8%	73.6%	12.5%	11.1%	23.6%
<b>George Mason</b>	4.2%	67.4%	15.8%	12.6%	28.4%
<b>Douglas MacArthur</b>	3.9%	65.7%	18.6%	11.8%	30.4%
<b>Lyles Crouch</b>	1.8%	74.6%	10.9%	12.7%	23.6%
<b>Matthew Maury</b>	5.8%	71.0%	10.1%	13.0%	23.2%



**Table 6b: School by Weight Status Categories for ACPS Incoming Kindergarten Class, 2015**

School	Underweight	Healthy Weight	Overweight	Obese	Over/Obese
<b>Cora Kelly</b>	6.9%	44.8%	25.9%	22.4%	48.3%
<b>Patrick Henry</b>	4.4%	51.1%	16.7%	27.8%	44.4%
<b>Mount Vernon</b>	5.4%	54.7%	12.2%	27.7%	39.9%
<b>James K Polk</b>	5.0%	58.8%	16.8%	19.3%	36.3%
<b>William Ramsay</b>	7.4%	60.3%	16.9%	15.4%	32.4%
<b>John Adams</b>	9.0%	62.1%	8.4%	20.5%	28.9%
<b>Jefferson Houston</b>	4.4%	62.3%	7.4%	15.9%	33.3%
<b>Samuel Tucker</b>	5.8%	62.3%	12.3%	19.6%	37.9%
<b>Charles Barrett</b>	7.1%	65.9%	9.4%	17.7%	27.1%
<b>George Mason</b>	9.8%	70.6%	14.7%	13.7%	28.4%
<b>Douglas MacArthur</b>	7.2%	76.0%	8.0%	8.8%	16.8%
<b>Lyles Crouch</b>	4.5%	71.6%	14.9%	9.0%	23.9%
<b>Matthew Maury</b>	8.0%	74.7%	12.0%	5.3%	17.3%

**Table 6c: School by Weight Status Categories for ACPS Incoming Kindergarten Class, 2016**

School	Underweight	Healthy Weight	Overweight	Obese	Over/Obese
<b>Cora Kelly</b>	4.4%	34.1%	16.5%	45.1%	61.5%
<b>Patrick Henry</b>	6.7%	53.3%	19.1%	21.0%	40.1%
<b>Mount Vernon</b>	4.1%	55.9%	15.2%	24.8%	40.0%
<b>James K Polk</b>	5.2%	61.2%	21.6%	11.9%	33.6%
<b>William Ramsay</b>	6.6%	55.2%	15.4%	22.8%	38.2%
<b>John Adams</b>	7.2%	61.6%	16.0%	15.2%	31.2%
<b>Jefferson Houston</b>	2.0%	74.5%	5.9%	17.7%	23.5%
<b>Samuel Tucker</b>	4.4%	70.4%	8.2%	17.0%	25.1%
<b>Charles Barrett</b>	10.2%	61.4%	11.4%	17.1%	28.4%
<b>George Mason</b>	4.4%	75.8%	11.0%	8.8%	19.8%
<b>Douglas MacArthur</b>	3.7%	67.3%	16.8%	12.2%	29.0%
<b>Lyles Crouch</b>	8.6%	74.3%	7.1%	10.0%	17.1%
<b>Matthew Maury</b>	6.7%	73.3%	11.7%	8.3%	20.0%

## References

1. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of Childhood and Adult Obesity in the United States, 2011-2012. *JAMA*. 2014;311(8):806-814. doi:10.1001/jama.2014.732.
2. Singh AS, Mulder C, Twisk JW, Van Mechelen V, Chinapaw MJ. Tracking of childhood overweight into adulthood: a systematic review of the literature. *Obesity reviews*, 2008. 9(5): p. 474-488.
3. Overweight and Obesity Statistics. National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Disorders. Available at <http://win.niddk.nih.gov/publications/PDFs/stat904z.pdf>. Updated October, 2012. Accessed April 20, 2017.
4. Fryar CD, Carroll MD, Ogden CL. Prevalence of overweight and obesity among children and adolescents: United States, 1963-1965 through 2011-2012. Atlanta, GA: National Center for Health Statistics, 2014.
5. Virginia Performs: Obesity. Council on Virginia's Future. Available at <http://vaperforms.virginia.gov/indicators/healthFamily/obesity.php>. Updated 2017. Accessed April 21, 2017.
6. Alexandria City and Youth Master Plan. Children Youth and Families Collaborative Commission. Available at <https://www.alexandriava.gov/uploadedFiles/dchs/info/AlexandriaChildrenYouthMasterPlanFinal.pdf>. Updated March 14, 2014. Accessed April 6, 2017.
7. ACPS 2020 Strategic Plan. Available at <https://www.acps.k12.va.us/domain/798>. Updated 2015. Accessed June 9, 2017.
8. Community Health Improvement Plan: City of Alexandria, Virginia, 2014-2019. Partnership for a Healthier Alexandria. Available at <http://healthieralexandria.org/uploadedFiles/healthieralexandriawwwroot/FINAL%20CHIP%20Jan%202015.pdf>. Updated 2014. Accessed June 9, 2017.
9. Adult Child and Teen BMI. Centers for Disease Control and Prevention. Available at [https://www.cdc.gov/healthyweight/assessing/bmi/childrens\\_bmi/about\\_childrens\\_bmi.html](https://www.cdc.gov/healthyweight/assessing/bmi/childrens_bmi/about_childrens_bmi.html). Updated May 15, 2015. Accessed April 11, 2017.
10. Ogden CL, Carroll MD, Kit BK, Flegal KM. Prevalence of Obesity Among Adults and Youth. United States, 2011-2014. *NCHS Data Brief*, 2015. 219.
11. Pan L, Freedman DS, Sharma AJ, Castellanos-Brown K; Park, Smith, RB, Blanck HM. Trends in Obesity Among Participants Aged 2-4 Years in the Special Supplemental Nutrition Program for Women, Infants, and Children- United States, 2000-2014. 2016. 65(45); 1256-1260.

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