

# The New Jersey Childhood Obesity Study

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## New Brunswick

### School BMI Data

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## About the Study

*The New Jersey Childhood Obesity Study*, funded by the Robert Wood Johnson Foundation, aims to provide vital information for planning, implementing and evaluating interventions aimed at preventing childhood obesity in five New Jersey municipalities: Camden, Newark, New Brunswick, Trenton, and Vineland. These five communities are being supported by RWJF's New Jersey Partnership for Healthy Kids program to plan and implement policy and environmental change strategies to prevent childhood obesity.

Effective interventions for addressing childhood obesity require community-specific information on who is most at risk and on contributing factors that can be addressed through tailored interventions that meet the needs of the community.

Using a comprehensive research study, the Center for State Health Policy at Rutgers University is working collaboratively with the State Program Office for New Jersey Partnership for Healthy Kids and the five communities to address these information needs. The main components of the study include:

- A household survey of 1700 families with 3 -18 year old children
- De-identified heights and weights data from public school districts
- Assessment of the food and physical activity environments using objective data

Data books and maps based on the results of the study are being shared with the community coalitions in the five communities to help them plan their interventions.

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## In This Chartbook...

The tables and graphs in this chartbook were created using data collected by New Brunswick Public Schools for the school year 2008 - 2009. Rutgers Center for State Health Policy obtained de-identified data from the schools and computed a BMI score and a BMI percentile (BMIPCT) for each child. Weight status is defined using the following BMIPCT categories.

| <u>BMIPCT</u> | <u>Weight Status</u>    |
|---------------|-------------------------|
| BMIPCT < 85   | Not Overweight or Obese |
| BMIPCT ≥ 85   | Overweight and Obese    |
| BMIPCT ≥ 95   | Obese                   |
| BMIPCT ≥ 97   | Very Obese              |

BMIPCT categories are presented at the city level and in sub-group analysis by age, gender, and race. Aggregate data are also presented at the school level, with notation, where representativeness of the data was a concern.

Tables and graphs on pages 5, 7, 9, and 11 show comparisons with national estimates (National Health and Nutrition Examination Survey, 2007-2008). The national data are representative of all 2-19 year old children in the US.

Each graph and table is accompanied by brief summary statements. Readers are encouraged to review the actual data presented in tables and graphs as there is much more detail.

*Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data*

## Prevalence of Childhood Overweight and Obesity In Five New Jersey Cities

|                              |                       | Overweight & Obese<br>(BMIPCT ≥ 85) | Obese<br>(BMIPCT ≥ 95) | Very Obese<br>(BMIPCT ≥ 97) |
|------------------------------|-----------------------|-------------------------------------|------------------------|-----------------------------|
| <b>City</b><br>(Ages 3-19)   | <b>Camden</b>         | <b>39.8%</b>                        | <b>23.3%</b>           | <b>17.3%</b>                |
|                              | <b>Newark</b>         | <b>44.2%</b>                        | <b>25.2%</b>           | <b>18.3%</b>                |
|                              | <b>New Brunswick</b>  | <b>46.4%</b>                        | <b>26.7%</b>           | <b>19.9%</b>                |
|                              | <b>Trenton</b>        | <b>47.3%</b>                        | <b>28.0%</b>           | <b>21.0%</b>                |
|                              | <b>Vineland</b>       | <b>43.6%</b>                        | <b>25.3%</b>           | <b>18.5%</b>                |
| <b>NHANES</b><br>(Ages 2-19) | <b>All</b>            | <b>31.7%</b>                        | <b>16.9%</b>           | <b>11.9%</b>                |
|                              | <b>Non-Hisp Black</b> | <b>35.9%</b>                        | <b>20.0%</b>           | <b>14.9%</b>                |
|                              | <b>Mexican Am</b>     | <b>38.9%</b>                        | <b>20.8%</b>           | <b>14.9%</b>                |
|                              | <b>Hispanic</b>       | <b>38.2%</b>                        | <b>20.9%</b>           | <b>15.2%</b>                |
|                              | <b>Non-Hisp White</b> | <b>29.3%</b>                        | <b>15.3%</b>           | <b>10.5%</b>                |

*Sources:*

*CSHP 2010, BMI data from public schools in 5 NJ cities, 2008-2009*

*NHANES 2007-2008 data*

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- Overall, rates of childhood overweight and obesity are higher in the five NJ cities compared to the national data.

# New Brunswick

## Prevalence of Childhood Overweight & Obesity

### By Age Group

|                  |           | Not Overweight<br>(BMIPCT < 85) | Overweight & Obese<br>(BMIPCT ≥ 85) | Obese<br>(BMIPCT ≥ 95) | Very Obese<br>(BMIPCT ≥ 97) |
|------------------|-----------|---------------------------------|-------------------------------------|------------------------|-----------------------------|
| <b>3-5 yrs</b>   | (n=1,108) | <b>52.1%</b>                    | <b>47.9%</b>                        | <b>28.7%</b>           | <b>22.1%</b>                |
| <b>6-11 yrs</b>  | (n=2,115) | <b>52.3%</b>                    | <b>47.7%</b>                        | <b>27.6%</b>           | <b>20.7%</b>                |
| <b>12-19 yrs</b> | (n=1,941) | <b>56.0%</b>                    | <b>44.0%</b>                        | <b>24.6%</b>           | <b>17.9%</b>                |
| <b>Total</b>     | (n=5,164) | <b>53.6%</b>                    | <b>46.4%</b>                        | <b>26.7%</b>           | <b>19.9%</b>                |

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

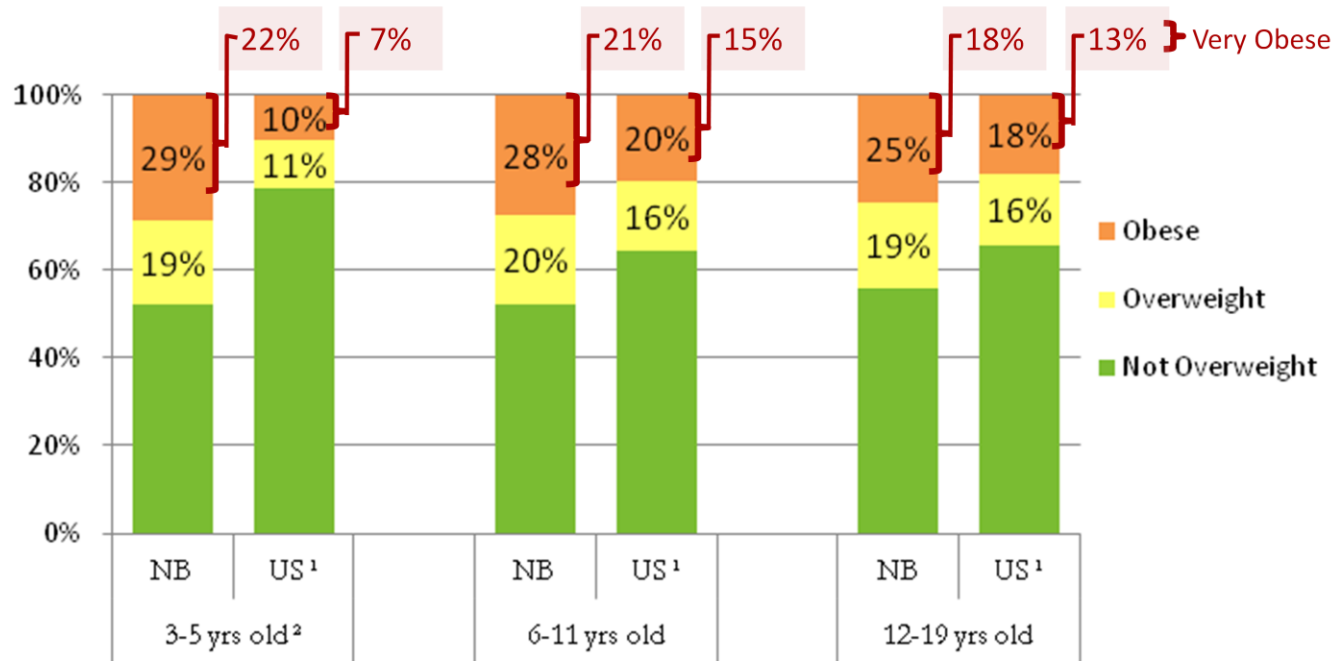
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- In New Brunswick, almost half of the children in every age group are overweight or obese.
- Approximately one quarter of all children are classified as obese (BMIPCT≥95), with the highest rates seen among the youngest (age 3-5 years).

# New Brunswick

## Prevalence of Childhood Overweight & Obesity

### By Age Group



<sup>1</sup> US estimates are based on NHANES 2007-2008 data

<sup>2</sup> US estimates are for ages 2-5

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Compared to the national NHANES data, a higher percentage of New Brunswick children in all age categories are overweight, obese, or very obese.
- The largest difference between New Brunswick and national estimates appears to be in the youngest children (48% vs. 21% overweight or obese, and 22% vs. 7% very obese). It is important to remember that the national data for this age group are based on 2-5 year-olds, and New Brunswick data are based on 3-5 year-olds.

# New Brunswick

## Prevalence of Childhood Overweight & Obesity

### By Gender

|               |           | Not Overweight<br>(BMIPCT < 85) | Overweight &<br>Obese<br>(BMIPCT ≥ 85) | Obese<br>(BMIPCT ≥ 95) | Very Obese<br>(BMIPCT ≥ 97) |
|---------------|-----------|---------------------------------|--|------------------------|-----------------------------|
| <b>Male</b>   | (n=2,648) | <b>51.2%</b>                    | <b>48.8%</b>                           | <b>29.8%</b>           | <b>22.6%</b>                |
| <b>Female</b> | (n=2,516) | <b>56.2%</b>                    | <b>43.8%</b>                           | <b>23.4%</b>           | <b>17.1%</b>                |
| <b>Total</b>  | (n=5,164) | <b>53.6%</b>                    | <b>46.4%</b>                           | <b>26.7%</b>           | <b>19.9%</b>                |

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data



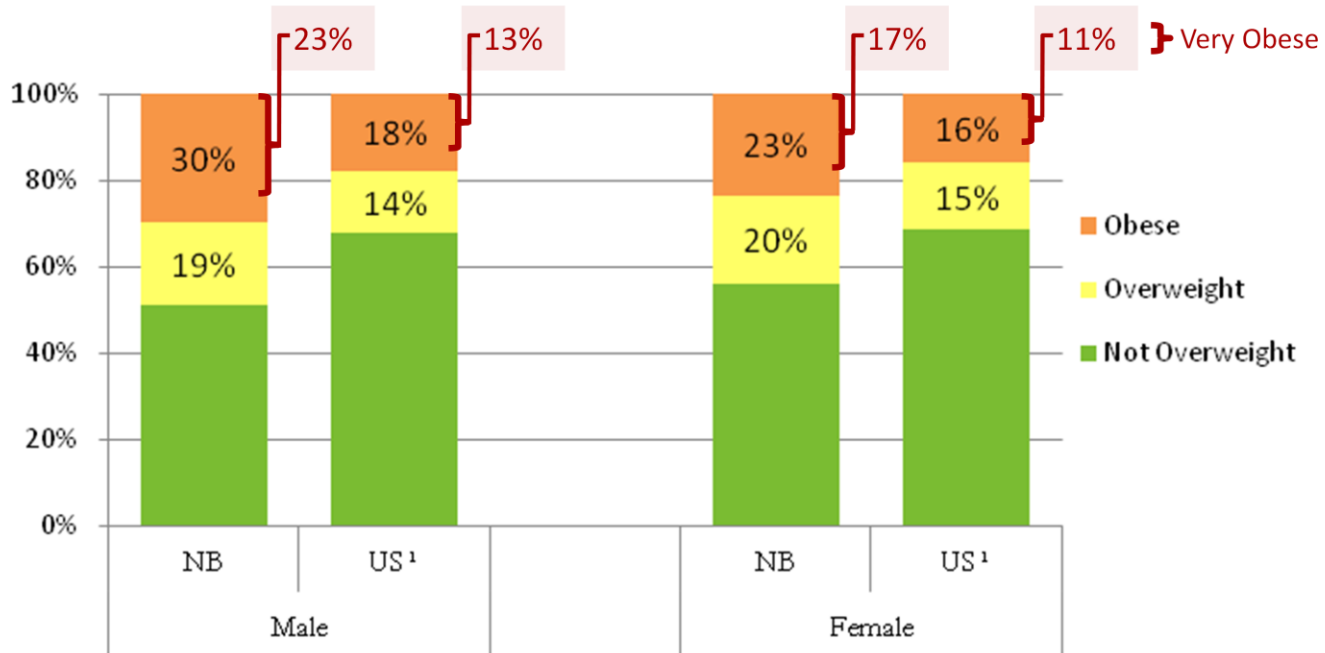
- Overall, more boys (49%) than girls (44%) in New Brunswick are overweight or obese.
- Nearly 1 in 5 children in New Brunswick are classified as very obese, that is, having their BMI fall at or above the 97th percentile compared to other children of the same age and gender.



# New Brunswick

## Prevalence of Childhood Overweight & Obesity

### By Gender



<sup>1</sup> US estimates are based on NHANES 2007-2008 data

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Both boys and girls in New Brunswick have higher rates of overweight and obesity compared to the US averages.
- In New Brunswick, 23% of the boys are obese compared to 13% nationally and 17% of the girls are obese compared to 11% of the girls nationally.

# New Brunswick

## Prevalence of Childhood Overweight & Obesity

### by Race/Ethnicity

|                           |           | Not<br>Overweight<br>(BMIPCT < 85) | Overweight<br>& Obese<br>(BMIPCT ≥ 85) | Obese<br>(BMIPCT ≥ 95) | Very Obese<br>(BMIPCT ≥ 97) |
|---------------------------|-----------|------------------------------------|--|------------------------|-----------------------------|
| <b>Non-Hispanic Black</b> | (n=879)   | <b>55.5%</b>                       | <b>44.5%</b>                           | <b>23.1%</b>           | <b>17.2%</b>                |
| <b>Hispanic</b>           | (n=3,888) | <b>52.8%</b>                       | <b>47.2%</b>                           | <b>27.8%</b>           | <b>20.7%</b>                |
| <b>Non-Hispanic White</b> | (n=80)    | <b>70.0%</b>                       | <b>30.0%</b>                           | <b>13.8%</b>           | <b>10.0%</b>                |
| <b>Other</b>              | (n=228)   | <b>52.2%</b>                       | <b>47.8%</b>                           | <b>28.5%</b>           | <b>23.2%</b>                |
| <b>Total *</b>            | (n=5,164) | <b>53.6%</b>                       | <b>46.4%</b>                           | <b>26.7%</b>           | <b>19.9%</b>                |

\* Note: Total includes individuals whose race/ethnicity information is unknown

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

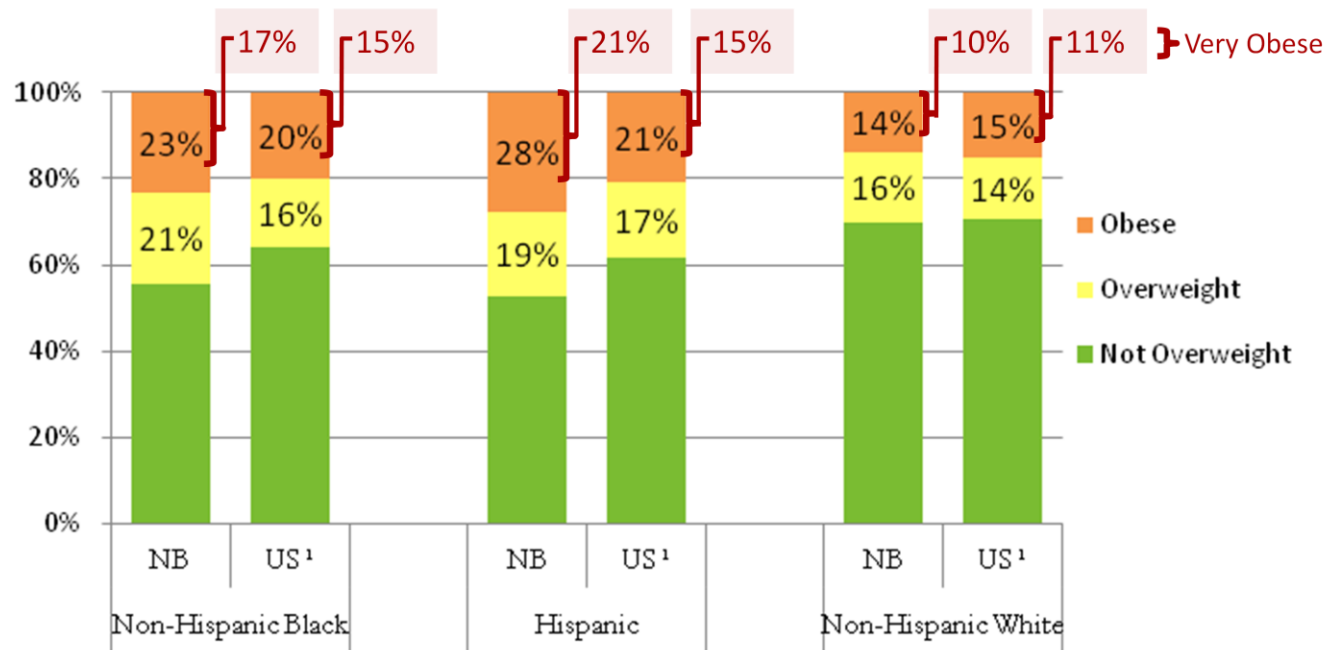
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- Hispanics and children from “other” race/ethnicity groups in New Brunswick have the highest rates of overweight and obesity.
- In interpreting the prevalence, it is important to note that there is only a small number of children in the non-Hispanic white category.

# New Brunswick

## Prevalence of Childhood Overweight & Obesity

by Race/Ethnicity



<sup>1</sup> US estimates are based on NHANES 2007-2008 data

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

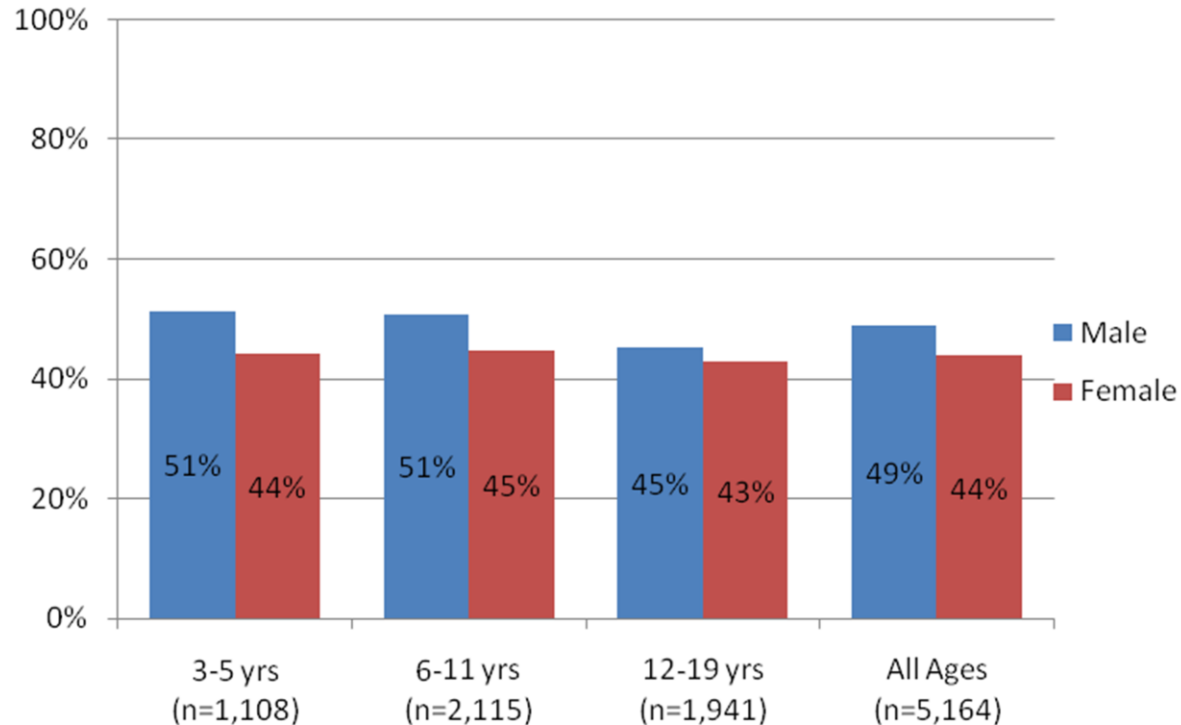
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- 44% of the non-Hispanic black children in New Brunswick are overweight or obese compared to 36% nationally.
- 47% of the Hispanic children in New Brunswick are overweight or obese compared to 38% nationally.
- It is important to note that there is only a small number of children (n=80) in the non-Hispanic white category.

# New Brunswick, All Racial/Ethnic Groups Prevalence of Childhood Overweight & Obesity By Age & Gender

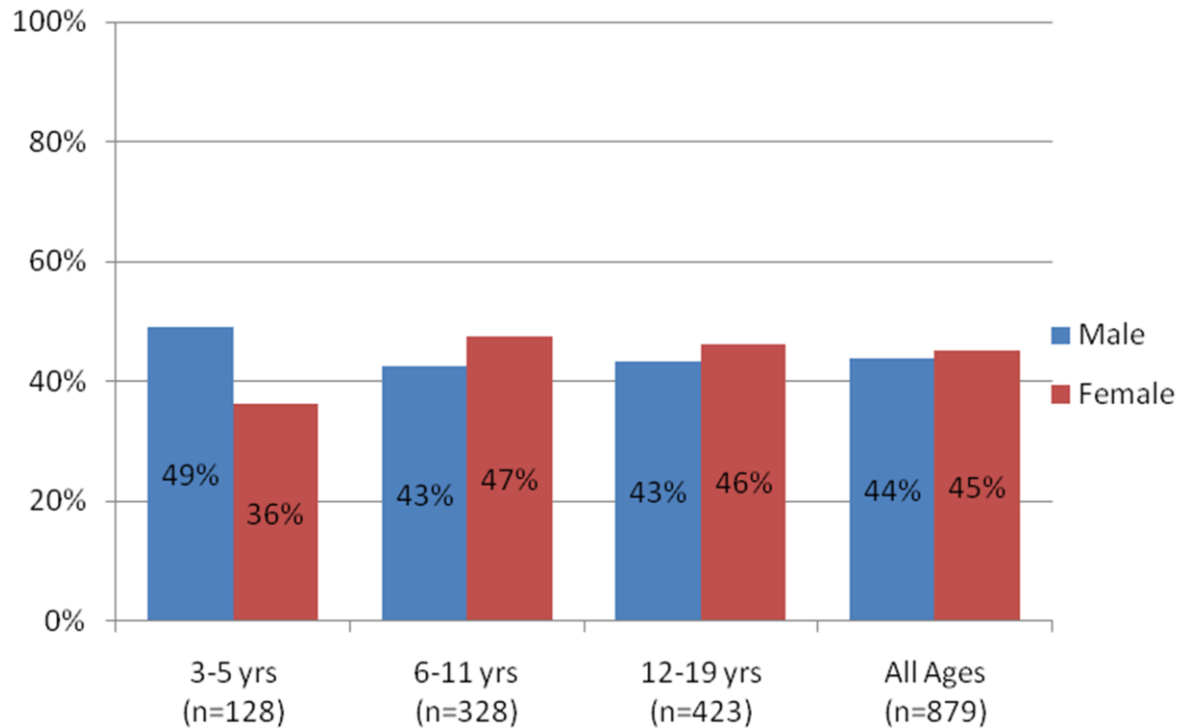


Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Overall, a higher percentage of boys than girls is overweight or obese in New Brunswick, with nearly 1 in 2 boys being overweight or obese across all age groups.
- The gender difference is more pronounced in younger children (of ages 3-11 years) than in older children.

# New Brunswick, Non-Hispanic Black Prevalence of Childhood Overweight & Obesity By Age & Gender

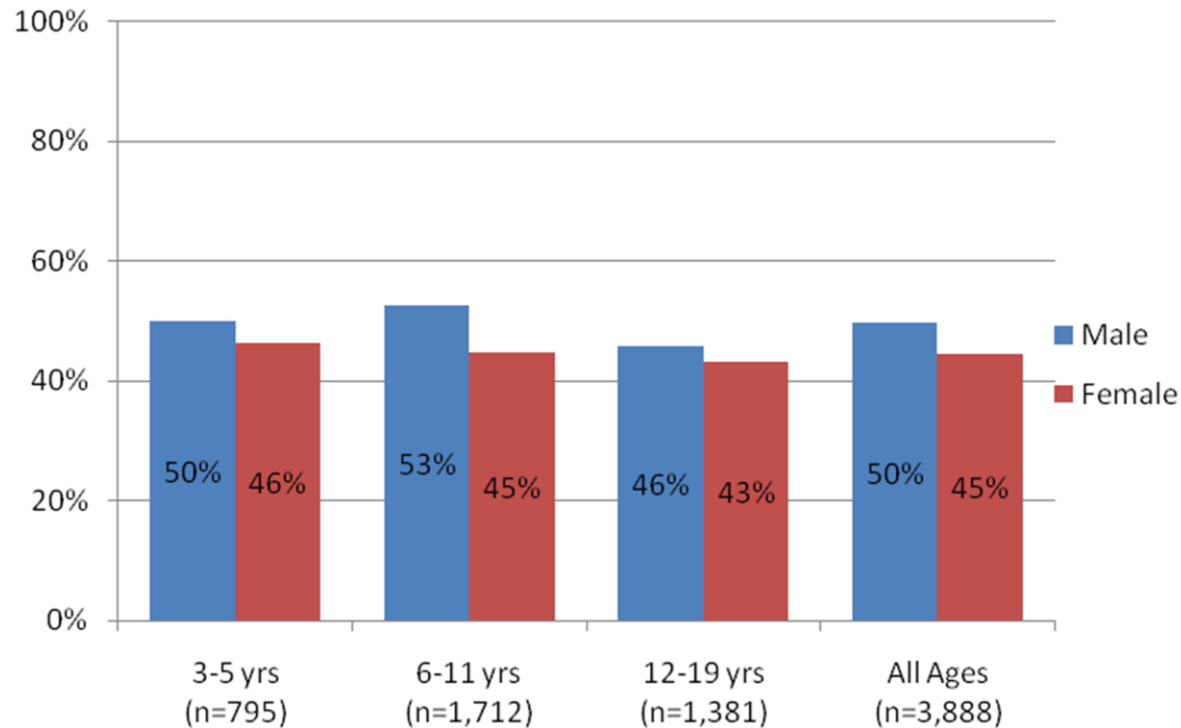


Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Among non-Hispanic black children, a slightly higher percentage of girls are overweight or obese compared to boys in all age categories except among the youngest, where a higher percentage of boys are overweight or obese.

# New Brunswick, Hispanic Prevalence of Childhood Overweight & Obesity By Age & Gender

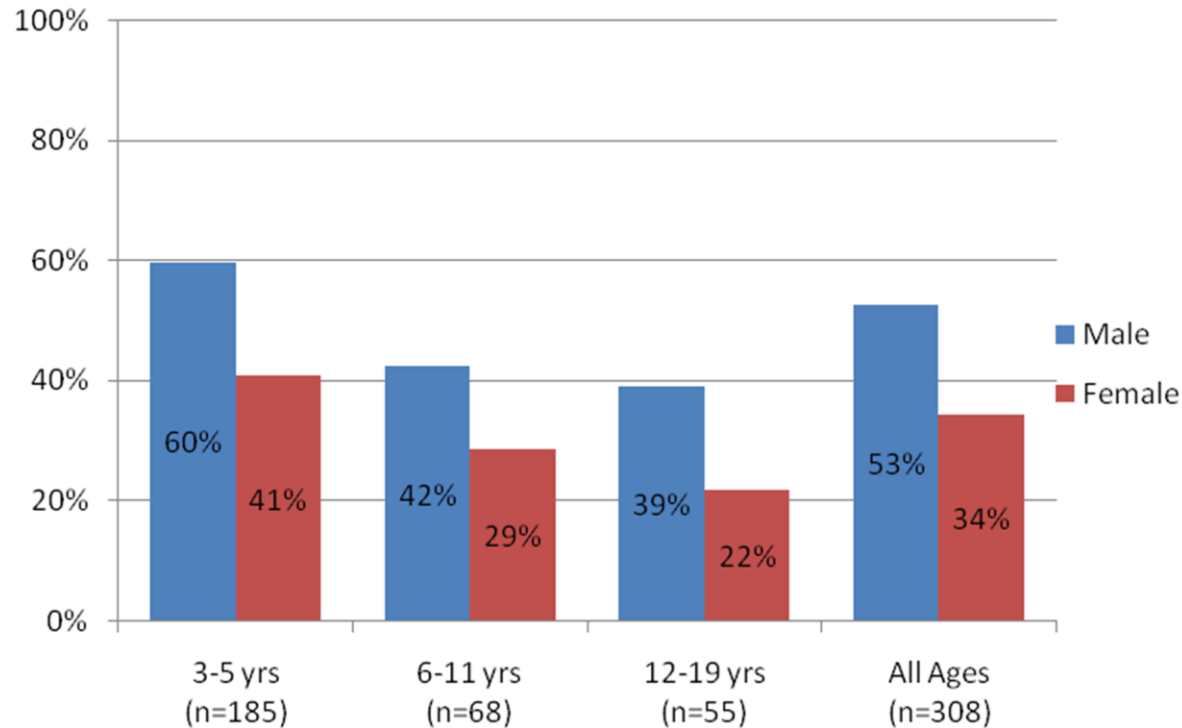


Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Among Hispanic children in New Brunswick, boys are more likely to be overweight or obese compared to girls in the same age category.
- Boys aged 6-11 years have the highest rate (53%) of overweight and obesity.

# New Brunswick, “Other” and Non-Hispanic White Prevalence of Childhood Overweight & Obesity By Age & Gender



Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Given the small numbers, non-Hispanic white and “other” racial/ethnic groups were combined for analysis, with a larger number of children coming from the “other” race and ethnicity category.
- In this group, more boys were overweight or obese compared to girls.

# New Brunswick Public Schools

| School                                 | % Students Overweight or Obese |
|--|--------------------------------|
| Livingston <sup>b, d</sup>             | 33.7                           |
| McKinley Comm <sup>b, c, d</sup>       | 41.1                           |
| Lord Stirling                          | 42.9                           |
| Woodrow Wilson                         | 43.0                           |
| New Brunswick High <sup>a</sup>        | 43.1                           |
| New Brunswick Middle                   | 45.6                           |
| Early Childhood Education <sup>e</sup> | 48.1                           |
| A. Chester Redshaw <sup>b, d</sup>     | 50.9                           |
| Roosevelt Elementary <sup>a, d</sup>   | 50.9                           |
| Lincoln <sup>a, d</sup>                | 52.8                           |
| Paul Robeson Comm <sup>a, d</sup>      | 54.9                           |

<sup>a</sup> Only 50-80% of the students were measured

<sup>b</sup> Less than 50% of the students were measured

<sup>c</sup> Male students over-represented

<sup>d</sup> Data not representative by grade

<sup>e</sup> School gender, race/ethnicity and grade composition not available

Source: CSHP 2010, New Brunswick public schools 2008-2009 BMI data

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- Estimates are provided at the school level for New Brunswick schools.
- It is important to note that for some schools insufficient numbers of students were measured so that the percentages above may not be representative (see superscript flags). Of particular concern are schools where less than 50% of the students were measured (flag **b**).