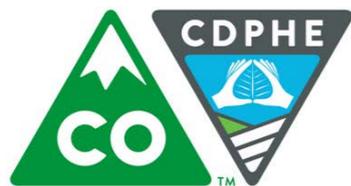




Childhood Overweight and Obesity in Colorado: Facts for Action

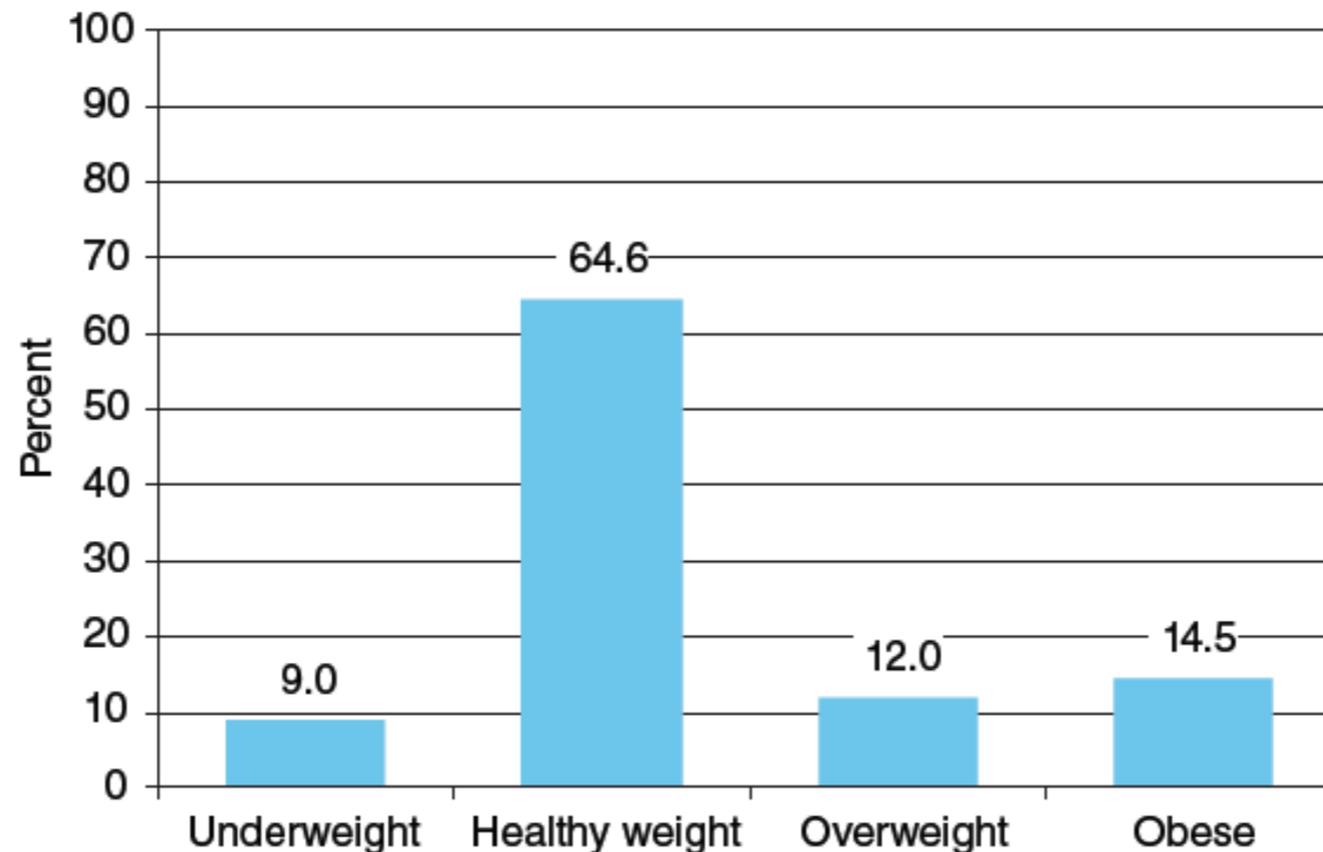


COLORADO
Department of Public
Health & Environment

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Weight Status: Children

Percent of children ages 2-14 years who were underweight, healthy weight, overweight, or obese, Colorado, 2013.

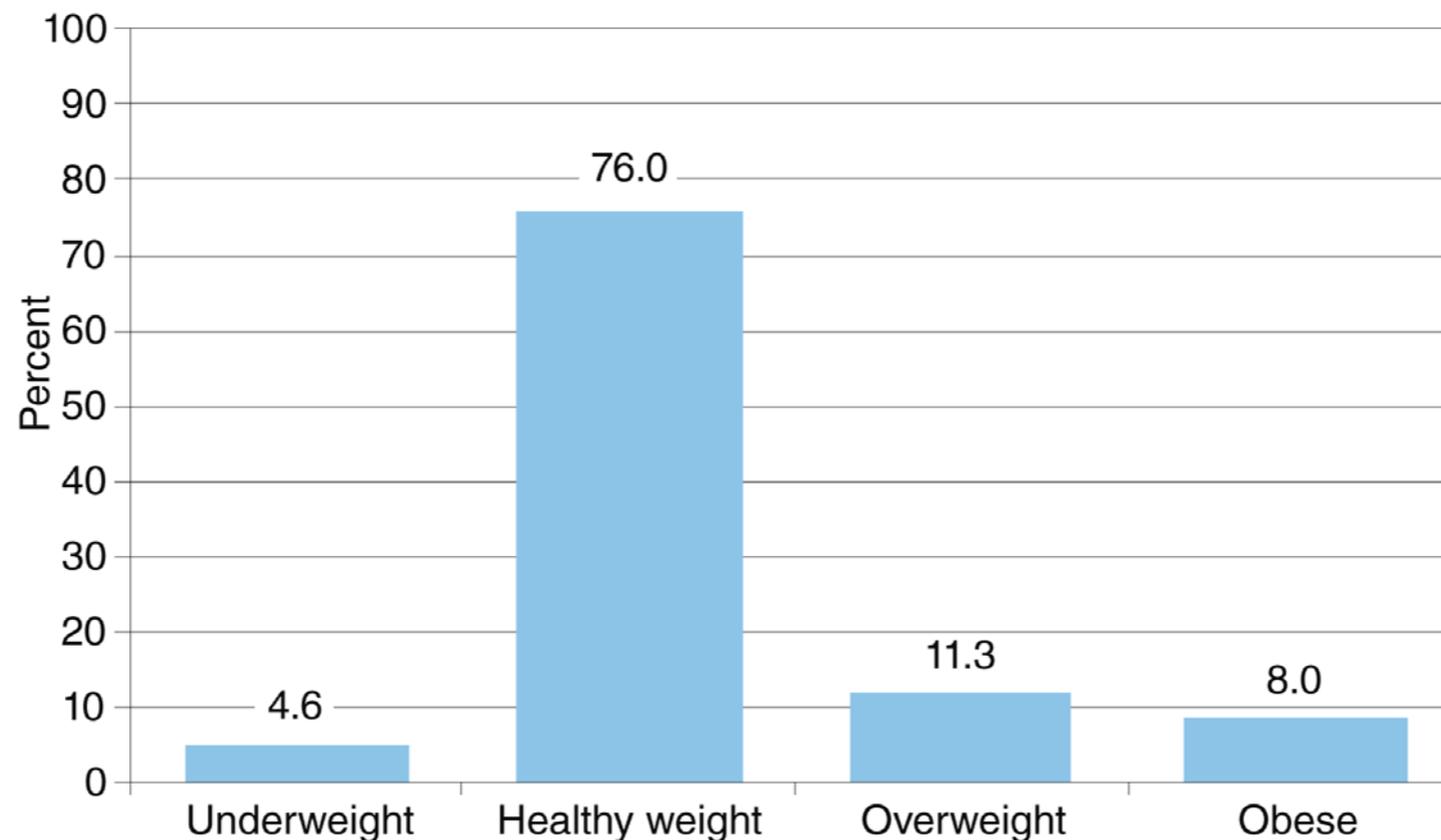


Data source: Colorado Child Health Survey.
Height and weight reported by child's primary caregiver.

- In 2013, the majority (64.6%) of children in Colorado were at a healthy weight, however 26.5% were overweight or obese and 9% were underweight.

Weight Status: High School Students

Percent of high school students who were underweight, healthy weight, overweight, or obese, Colorado, 2013.

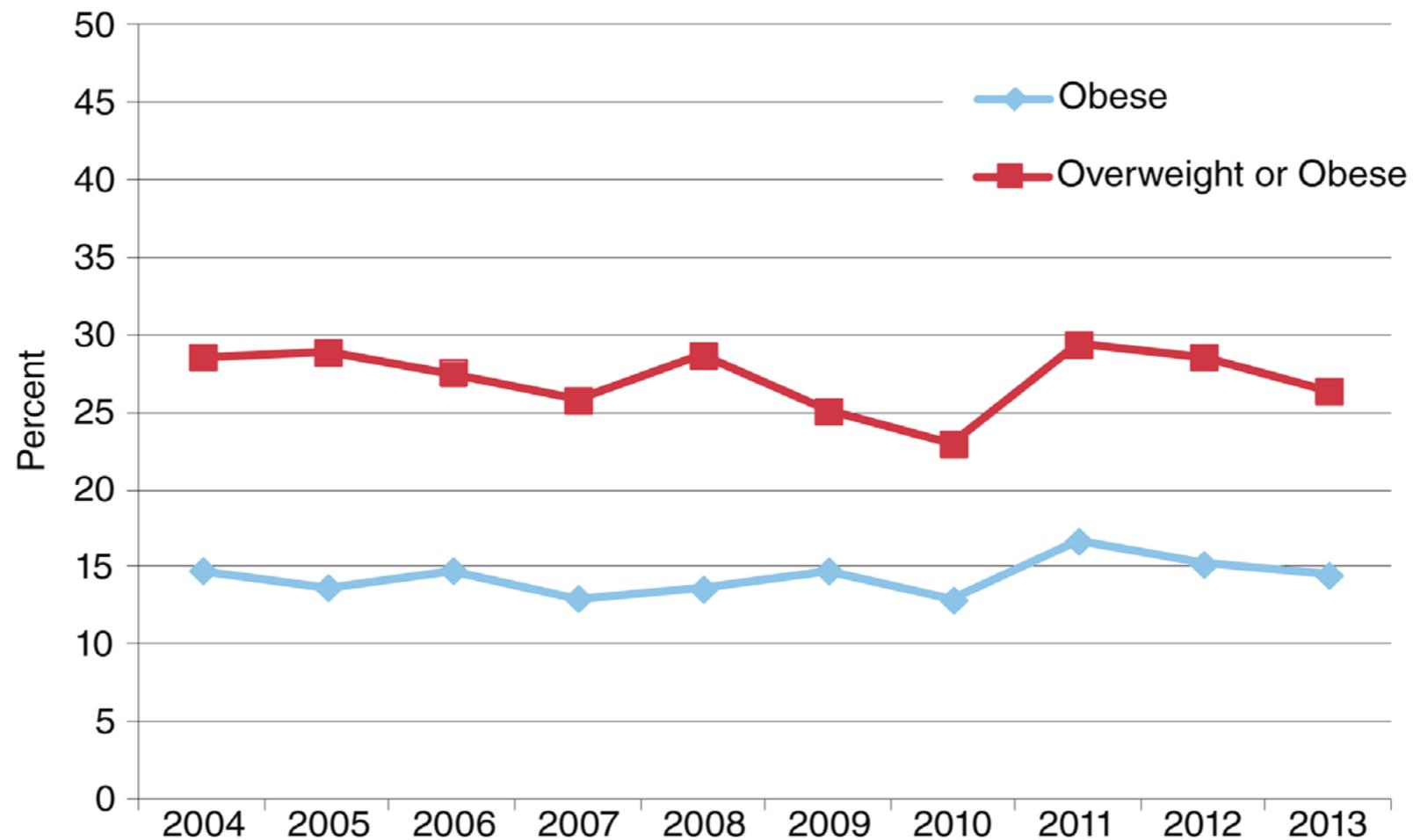


Data source: Healthy Kids Colorado Survey (HKCS).
Height and weight were self-reported by high school students

- In 2013, the majority (76%) of high school students in Colorado were at a healthy weight. Even still, more than 41,000 (19.3%) adolescents were overweight or obese in 2013.
- 40.1% of high school students reported that they were trying to lose weight.

Trends among Children

Percent of children ages 2-14 years who are obese or overweight/obese, Colorado, 2004-2013.



Data source: Colorado Child Health Survey (CHS).

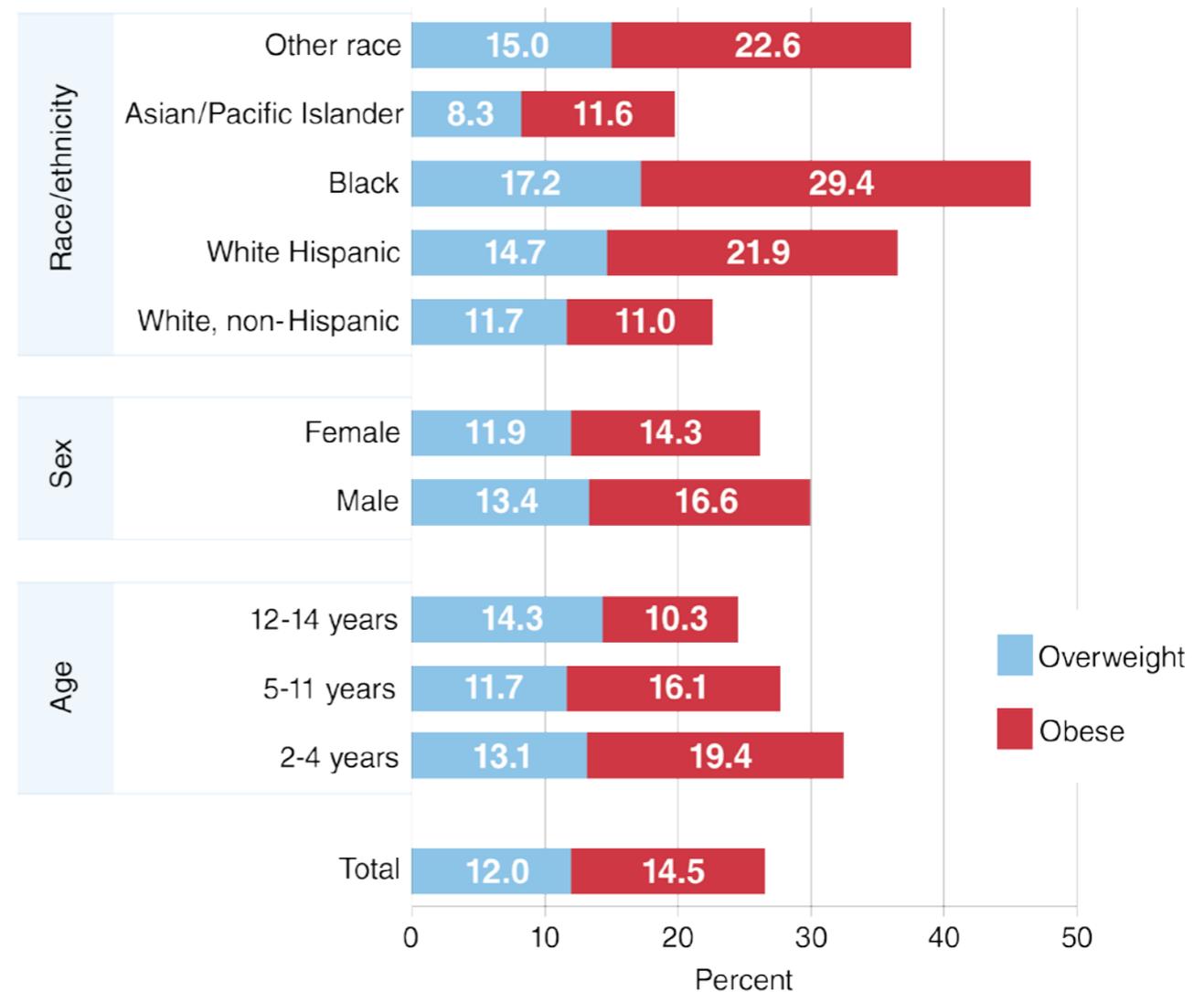
Note that survey methods changed in 2011 and trends should be interpreted with caution.

- Similar to national trends, the percent of children in Colorado who were overweight/obese or obese did not significantly change from 2004 to 2013.
- These trends in weight status also did not change among sub-groups based on a child's age, sex, race/ethnicity, or food insecurity.

Disparities among Children

- For the combined years 2011-2013, the prevalence of overweight or obesity was significantly higher among Black and White Hispanic children compared with White non-Hispanic and Asian or Pacific Islander children.
- No differences were found by age or sex. Similarly, no differences were found by geographic region of residence.

Percent of children ages 2-14 years who were overweight or obese by demographic factors, Colorado, 2011-2013.

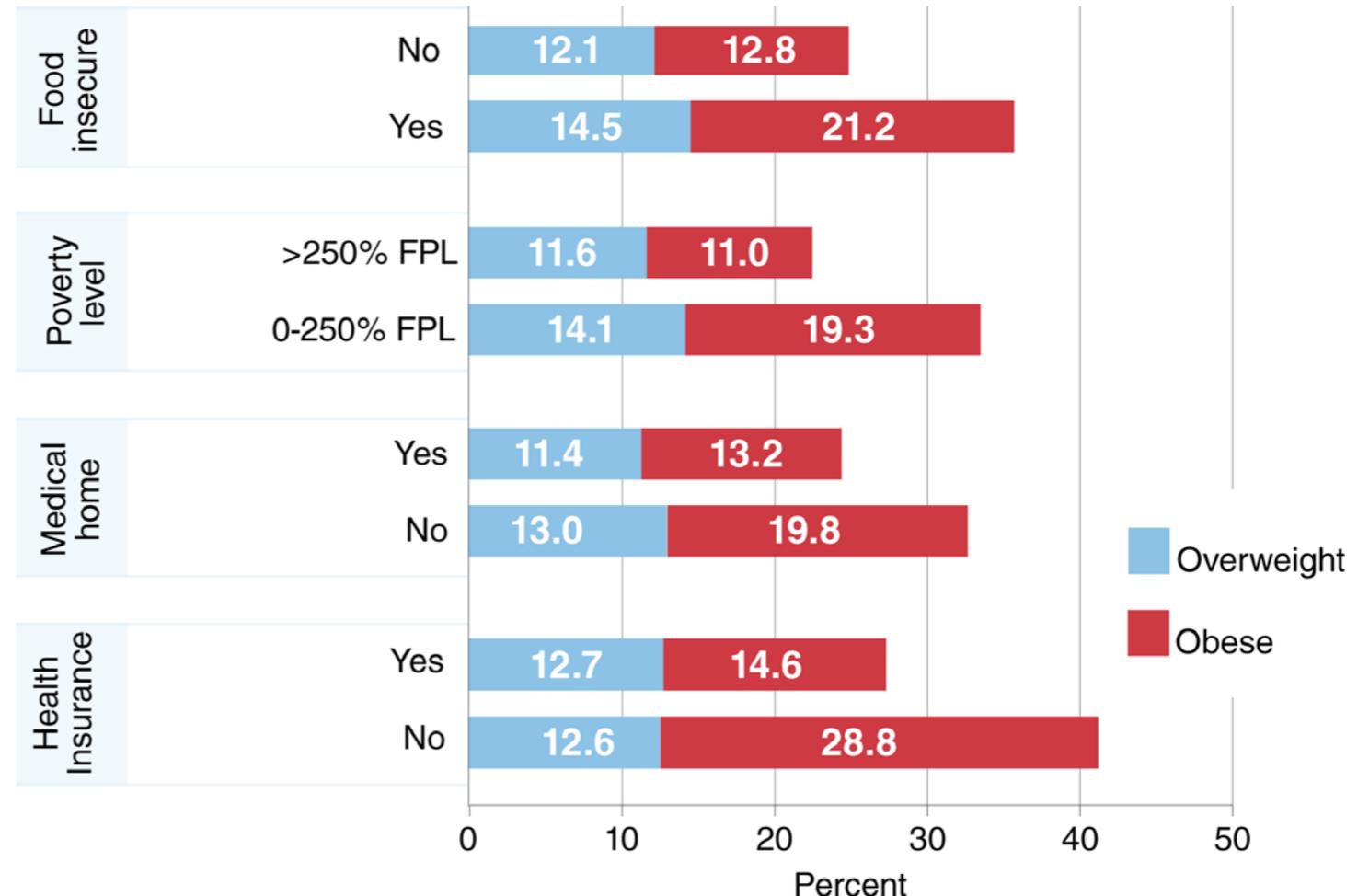


Data source: Colorado Child Health Survey.

Disparities among Children

Percent of children ages 2-14 years who were overweight or obese by demographic factors, Colorado, 2011-2013.

- For the combined years 2011-2013, the prevalence of overweight or obesity was significantly higher among children who had food insecurity, household incomes of 250% federal poverty level or less, no medical home, and no health insurance.
- Disparities in overweight and obesity (higher prevalence) among Black and Hispanic children in Colorado are much greater among those living in poverty compared with those with higher income levels.



Data source: Colorado Child Health Survey.

FPL: federal poverty level.

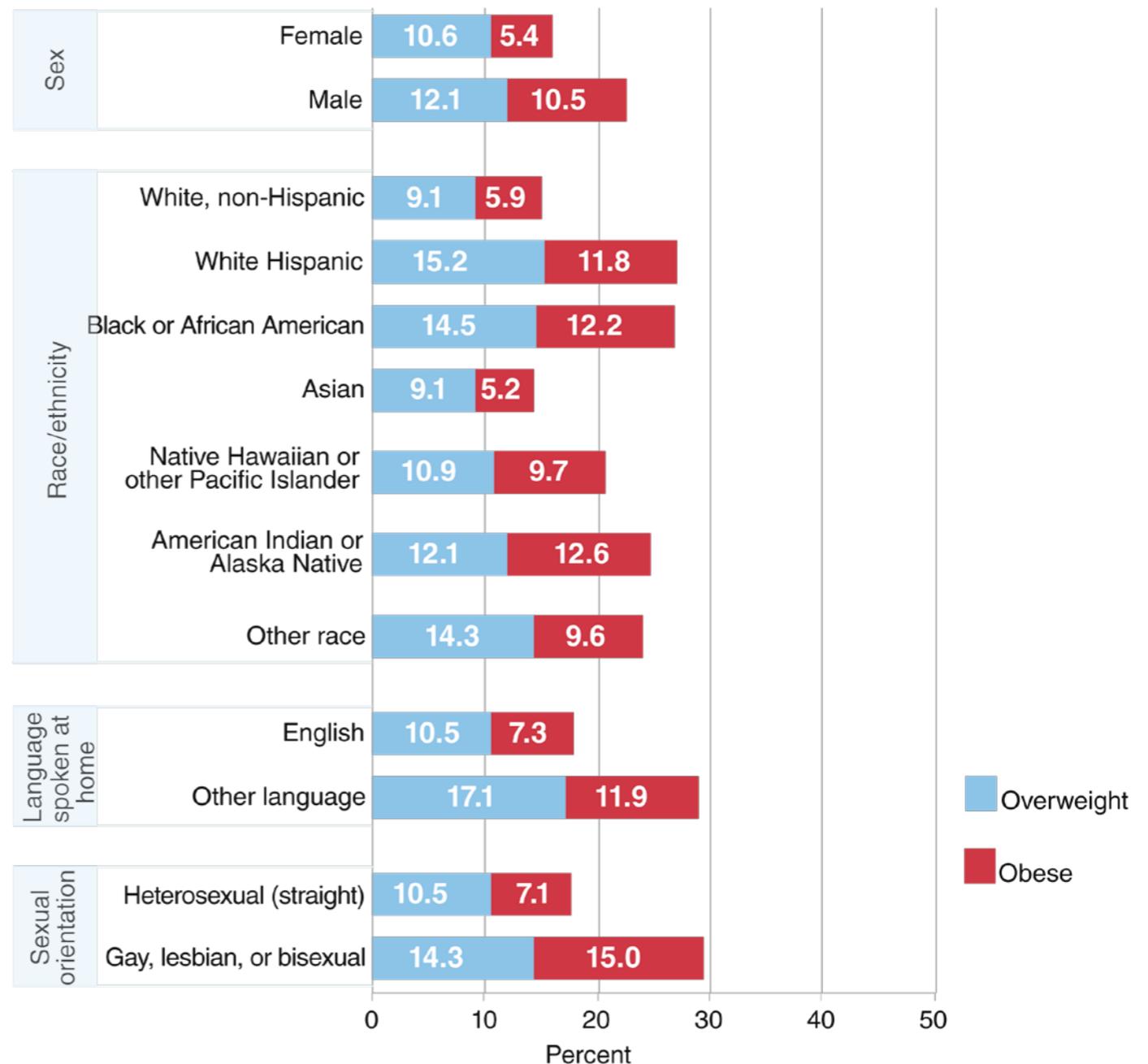
Food insecure defined as caregiver report of sometimes or often relying on only a few kinds of low-cost food to feed the child because of running out of money to buy food.

Medical home defined as having a usual source of care, a personal doctor or nurse, family-centered care, and effective care coordination and getting needed referrals.

Disparities among High School Students

- Male high school students had a significantly higher prevalence of overweight or obesity compared with female students in 2013.
- White Hispanic, Black or African American, and American Indian or Alaska Native high school students had significantly higher prevalence of overweight or obesity in 2013.
- Gay, lesbian, or bisexual high school students and those who speak a language other than English at home were among the most likely to be overweight or obese in 2013.
- 14.2% of high school students reported that they went hungry sometimes because of lack of food at home. Report of sometimes going hungry was more likely among all minority groups than White, non-Hispanics.

Percent of high school students who were overweight or obese by demographic factors, Colorado, 2013.



Data source: Healthy Kids Colorado Survey.

Obesity Prevention

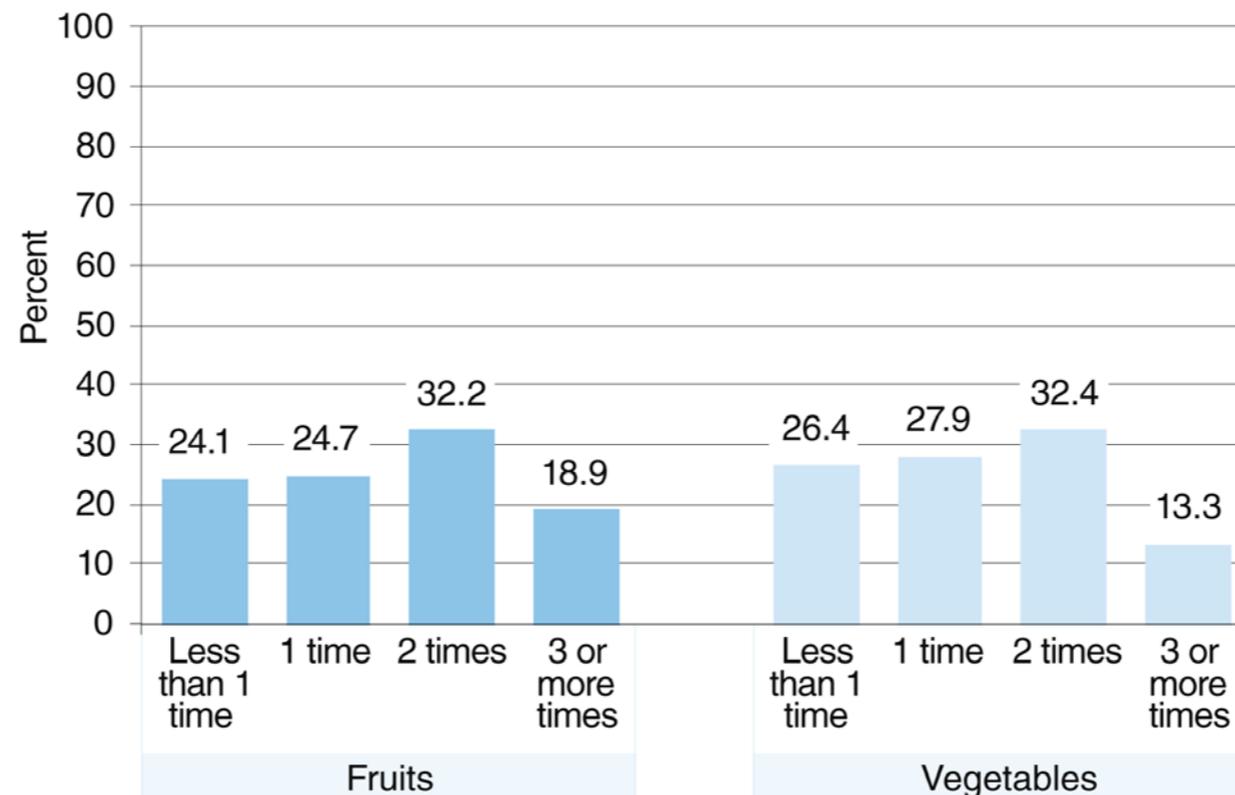
Preventive behavior	How are children doing?	2013 Colorado data
Physical activity ^{xiii}	Less than half of children meet recommendations	<ul style="list-style-type: none"> 43.0% of children ages 5-14 years met recommendation of at least 60 minutes per day
Limited screen time ^{xiv}	Most children meet recommendations on weekdays but have more screen time on weekends	<ul style="list-style-type: none"> 85.2% of children ages 5-14 years had 2 hours or less screen time on weekdays 53.5% of children ages 1-14 years had 2 hours or less screen time on weekend days
Sleep ^{xv}	Half of children ages 1-14 years meet recommendations, but less than half of children ages 5-11 years meet recommendations	<ul style="list-style-type: none"> 50.0% of children ages 1-14 years met age-specific sleep recommendations 59.7% of children ages 1-2 years (12+ hours) 47.9% of children ages 3-4 years (11+ hours) 44.4% of children ages 5-11 years (10+ hours) 59.1% of children ages 12-14 years (9+ hours)
Fruit consumption ^{xvi}	About half of children meet recommendations	<ul style="list-style-type: none"> 51.2% of children ages 1-14 years ate fruit 2 or more times per day
Vegetable consumption ^{xvii}	About 1 in 8 children meet recommendations	<ul style="list-style-type: none"> 13.3% of children ages 1-14 years ate vegetables 3 or more times per day
No sugary beverage consumption ^{xviii}	Most children (about 8 in 10) meet recommendations	<ul style="list-style-type: none"> 81.1% of children ages 1-14 years did not drink any sugary beverages in a typical day

Data source: Colorado Child Health Survey.

- More than half of children in Colorado met recommendations for screen time, sleep, fruit consumption, and sugary beverage consumption. However, children are not doing as well at meeting recommendations for physical activity and vegetable consumptions.

Obesity Prevention: Healthy Eating

Daily frequency of fruit and vegetable consumption (percent) among children ages 1-14 years, Colorado, 2013.



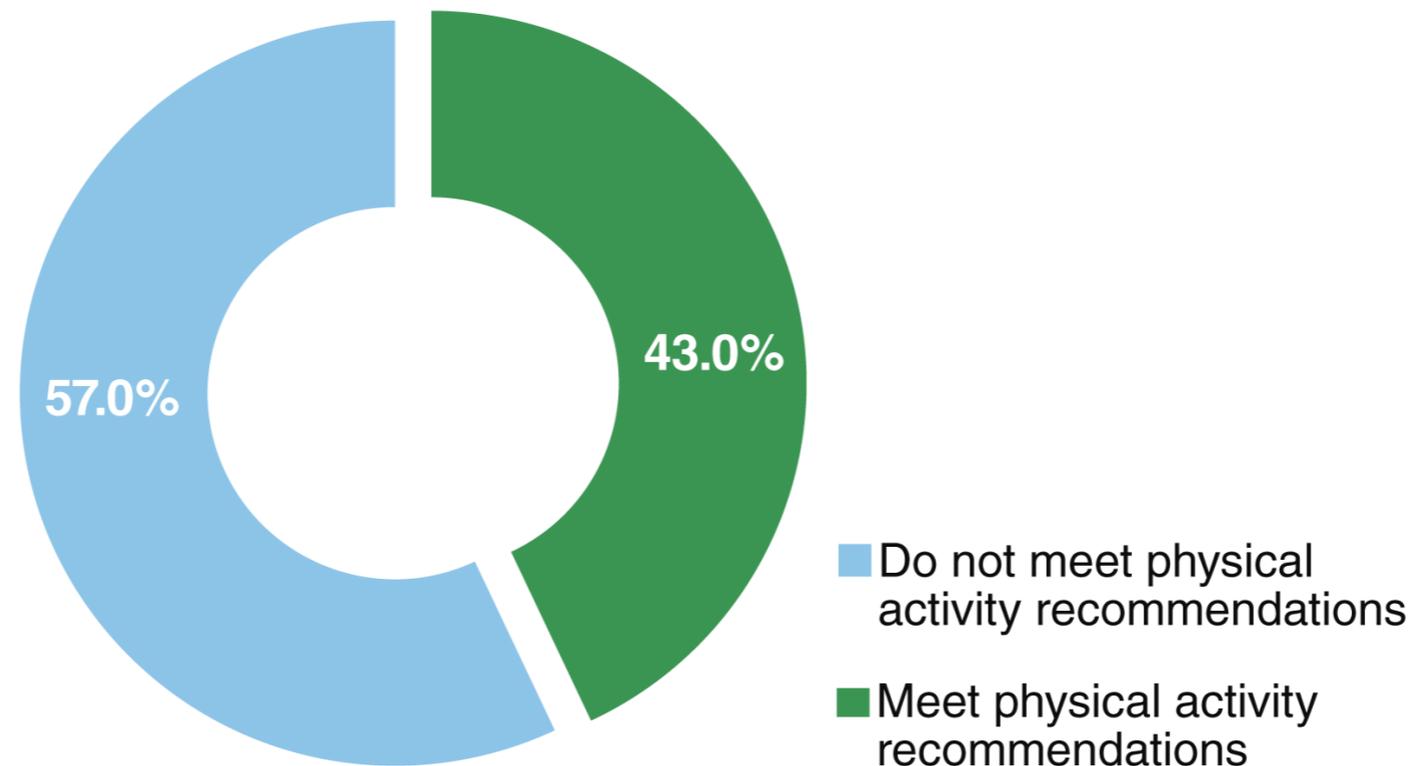
Data source: Colorado Child Health Survey (CHS).

Children are more likely to meet fruit and vegetable consumption recommendations if their parents do and if their family eats meals together at least once a day.

- In 2013, 89.4% of children who ate vegetables daily had a parent who ate vegetables daily.
- In 2013, 52.9% of children (ages 1-14 years) ate at least one meal together with their family each day in the past week.

Obesity Prevention: Active Living

Percent of children ages 5-14 years who met physical activity recommendations of at least 60 minutes per day, Colorado, 2013.



Data source: Colorado Child Health Survey (CHS).

- The majority of Colorado children are not getting enough physical activity each day.

Do children and their parents share similar behaviors?

Children were **more likely to meet physical activity recommendations** if their parent met recommendations (49.3%) compared with children whose parent did not meet recommendations (32.8%).

Children were **more likely to eat vegetables daily** if their parent ate vegetables daily (77.1%) compared with children whose parent did not eat vegetables daily (57.0%).

Children were **more likely to eat fruit daily** if their parent ate fruit daily (89.7%) compared with children whose parent did not eat fruit daily (70.7%).

Children were **more likely to drink sugary beverages less than once per day** if their parent drank sugary beverages less than once per day (86.0%) compared with children whose parent drank sugary beverages more often (70.4%).

>70% of children who had these healthy behaviors had a parent who also did.

Data sources: Colorado Child Health Survey and Behavioral Risk Factor Surveillance System.

Obesity Prevention: Maternal Factors

How do maternal factors influence childhood obesity?

Factors related to the preconception, prenatal, and infancy periods are most strongly linked to obesity risk in early childhood:^{xx}

Childhood obesity risk factor	2012 or 2013 Colorado data
Maternal obesity prior to pregnancy	45.2% of mothers were overweight or obese before pregnancy
Excessive weight gain during pregnancy	42.2% of mothers gained more weight during pregnancy than recommended by the Institute of Medicine guidelines based on body mass index 35.8% gained an appropriate amount
High birth weight (4000 grams or more)	5.1% of babies had high birth weight
Low birth weight (less than 2500 grams)	8.8% of babies had low birth weight
Maternal smoking during pregnancy	9.0% of mothers smoked during the last 3 months of pregnancy (of those who smoked in the past 2 years)

Data sources: 2012 Pregnancy Risk Assessment Monitoring System (PRAMS) and 2013 Vital Statistics - Colorado Department of Public Health and Environment.

Breastfeeding is associated with reduced risk of childhood overweight and obesity; Among children born in Colorado in 2011, 55.2% were breastfed at age 6 months, with much fewer being exclusively breastfed at this age (25.8%) as per American Academy of Pediatrics recommendations. A total of 29.3% of children continued to breastfeed until 12 months of age.

Data source: National Immunization Survey

Health Implications

Health risks now

- High blood pressure and high cholesterol, which are risk factors for cardiovascular disease
- Impaired glucose tolerance, insulin resistance, and type 2 diabetes
- Breathing problems, such as sleep apnea, and asthma
- Joint problems and musculoskeletal discomfort
- Fatty liver disease, gallstones, and gastro-esophageal reflux (i.e., heartburn)
- Social and psychological problems, such as discrimination and poor self-esteem, which can continue into adulthood

In the Bogalusa Heart Study, **70%** of obese children had at least one cardiovascular disease risk factor, and **39%** had two or more.²⁴



Health risks later

Obese children are more likely to become obese adults, and their obesity is likely to be more severe.

- Adult obesity is associated with several serious health conditions including heart disease, stroke, diabetes, and some cancers.

In Colorado:

- **33%** of obese children had **difficulties with emotions, concentration, behavior, or getting along with others** compared with 23% of non-obese children.
- Children's prevalence of asthma did not differ significantly by weight status.

Data source: Colorado Child Health Survey

