



THE WEIGHT STATUS OF 2 to 8 YEAR OLD CHILDREN IN FOUR REGIONS OF ALASKA: Baseline findings from the Children's Healthy Living Program

What did CHL learn about the weight status of children in our study?

Overall, 61.6% of 2 to 8 year old children were a healthy weight, 20.4% were overweight, and 17.6% were obese.

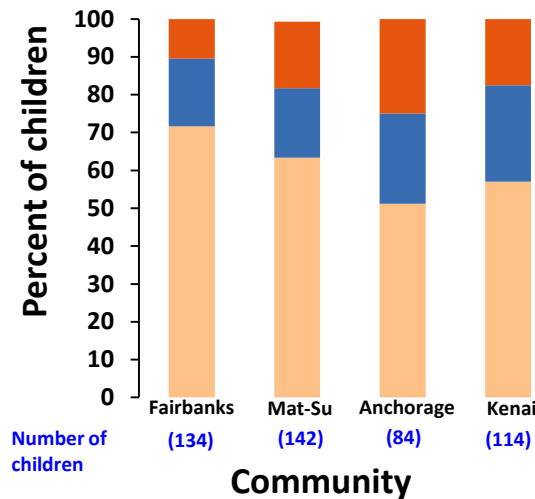
National rates of obesity:

National statistics on childhood obesity compiled by the CDC in 2011 - 2012 report that 8.4% of 2 to 5 year olds and 17.7% of 6 to 12 year olds were obese¹.

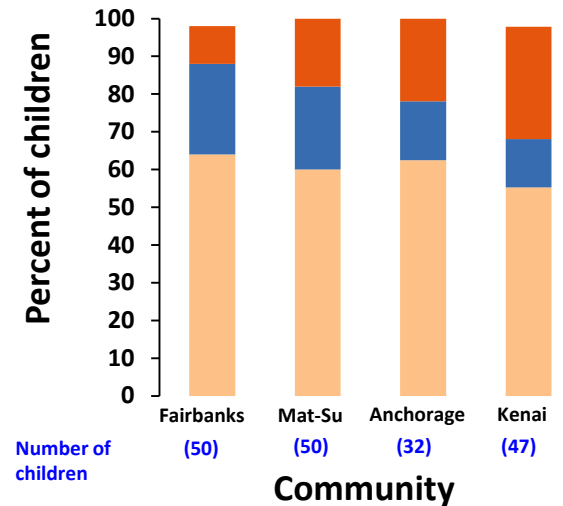
There is a strong relationship between income and obesity; children from lower income households, like many children in this study, often have higher rates of obesity².

Healthy weight Overweight Obese

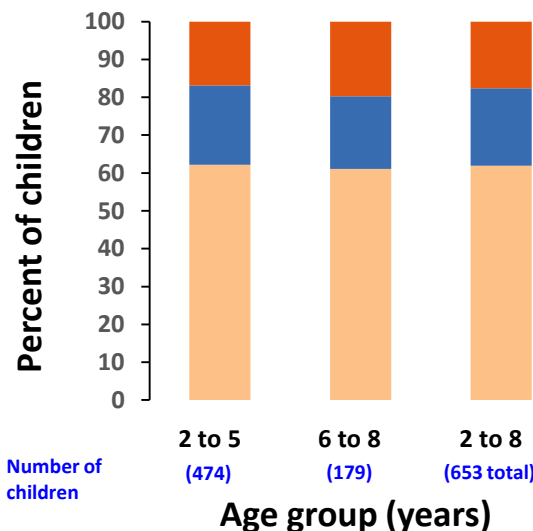
Weight status of 2 to 5 year old children, by community



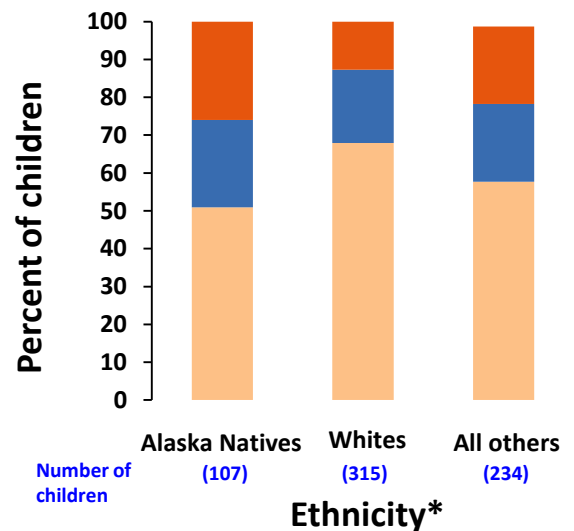
Weight status of 6 to 8 year old children, by community



Weight status by age group



Weight status by ethnicity



*Participants were classified as Alaska Native or White only if they self identified as this and no other race was reported.

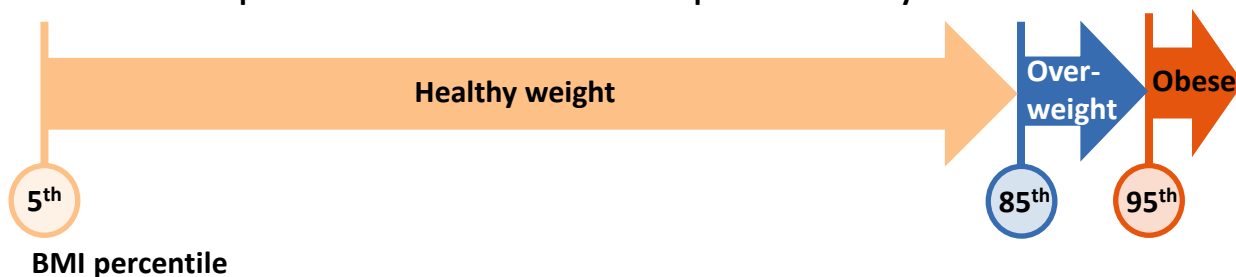
Who participated in our study and what did we measure?

- Between 2012-14, CHL recruited 653 2 to 8 year old children at public events and preschools in four regions of Alaska: Fairbanks, the Matanuska-Susitna valley (Mat-Su), Anchorage, and communities throughout the Kenai Peninsula.
- We targeted lower income households. Among our participants:
 - ❑ 48.0% of household incomes were below \$35,000
 - ❑ 61.0% received assistance for food in the past year
- These four regions were selected because:
 - ❑ most of Alaska's population lives in these areas
 - ❑ 15% of the population is Alaska Native
 - ❑ 10% of children are 10 years old or younger
- We measured the height and weight of 653 children and used their age and sex specific body mass index (BMI = weight in kilograms/height in meters) to determine weight status.

What is a healthy weight?

- A healthy weight is defined as a BMI falling at the 5th percentile but below the 85th percentile of age and sex specific BMIs in large nation-wide samples of BMIs collected by the United States Centers for Disease Control (CDC)³.
- Age and sex specific BMIs at the 85th and 95th percentiles establish cut-points for BMIs considered overweight or obese². For example, the BMI at the 95th percentile means that 95% of BMIs in the nation-wide sample were below this level and children with BMIs at this level or higher are considered obese.

Weight categories based on age and sex specific BMIs at the 5th, 85th, and 95th percentile of BMIs in national samples collected by the CDC.



Why is it important for children to maintain a healthy weight?

Being overweight or obese:

- ↑ Increases the risk of many health problems^{4,5} including high blood pressure^{6,7}, abnormal cholesterol levels⁷, type II diabetes⁸, and depression^{4,9}
- ↓ Reduces a child's self-esteem¹⁰ and academic achievement¹¹
- ↑ Increases the chance of being an obese adult¹²
- ↑ Increases the chance of early death from all causes^{13,14}
- ↑ May add \$19,000 in extra medical costs over a person's lifetime¹⁵

How can we promote healthy weight in Alaskan children?

- Choose water instead of sugar sweetened beverages like soda, fruit drinks, and sport drinks
- Eat more fruits and vegetables and encourage healthy eating¹⁶
- Limit screen time and other sedentary behaviors
- Incorporate physical activity into every day

References:

1. Ogden CL, MD Carroll, BK Kit, and KM Flegal. 2014. The Journal of the American Medical Association, 211(8):806-814
2. United States Centers for Disease Control and Prevention. Childhood obesity facts. Retrieved from <https://www.cdc.gov/obesity/data/childhood.html>
3. United States Centers for Disease Control and Prevention. Defining childhood obesity. Retrieved from <https://www.cdc.gov/obesity/childhood/defining.html>
4. Must A, and RS Strauss. 1999. International Journal of Obesity, 23(2):2-11
5. Sanders RH, A Han, JS Baker, and S Cobley. 2015. European Journal of Pediatrics, 174:715-746
6. Falkner B, SS Gidding, G Ramirez-Garnica, SA Wiltrout, D West, and EB Rappaport. 2006. Journal of Pediatrics, 148(2):195-200
7. Skinner AC, EM. Perrin, LA. Moss, and JA Skelton. 2015. New England Journal of Medicine, 373:1307-1317
8. Hannon TS, G Rao, and SA Arslanian. 2005. Pediatrics, 116(2):473-480, DOI: 10.1542/peds.2004-2536
9. Erickson SJ, TN Robinson, KF Haydel, and JD Killen. 2000. Archives of Pediatrics & Adolescent Medicine, 154(9):931-935
10. Strauss RS. 2000. Pediatrics, 105(1)
11. Helbig M and S Jahnen. 2013. Zeitschrift fur Soziologie, 42(5):405-423
12. Freedman DS, LK Khan, MK Serdula, WH Dietz, SR Srinivasan, and GS Berenson. 2005. Pediatrics, 115(1):22-27
13. [Hirko KA](#), ED Kantor ED, SS Cohen, WJ Blot, MJ Stampfer, and LB Signorello. American Journal of Epidemiology, 182(5):441-450
14. Park MH, C Falconer, RM Viner, and S Kinra. 2012. Obesity reviews, 13:985-1000
15. Finkelstein EA, WCK Graham, and R Malhotra. 2014. Pediatrics, 133(5):1-9
16. Fought E, KV Ploeg, YL Chu, K Storey, and PJ Veugelers. 2016. Public Health Nutrition, 19(5):822-829

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