

KEEPING CHILDREN'S WEIGHT ON TRACK



A PATHWAY TO HEALTH AND WELL-BEING

The first two years of life are critical for children's development and growth. While pediatric caregivers rely on a healthy weight trajectory that promotes cognitive, motor and socioemotional skills, children may grow at different rates in response to stressors.

When children experience major shifts in their weight trajectories¹ toward either underweight or overweight, their pediatricians and families often work together to get them back on track. Young children who are underweight without a return to a healthy weight may experience long term negative effects on both development and growth, including being in fair or poor health, and hospitalizations.² Young children who become overweight or obese are likely to maintain their unhealthy weight into adolescence and

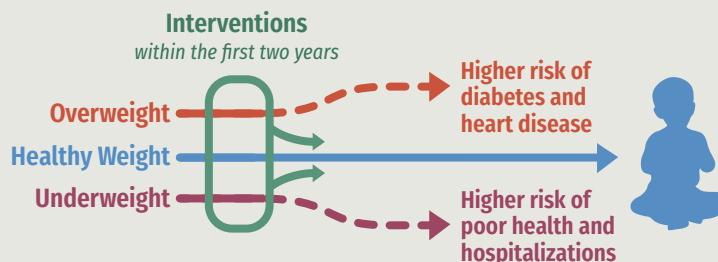
adulthood,^{3,4} increasing their chances of developing type II diabetes, hypertension, or cardiovascular diseases.

This report card examines weight trajectories among 2,719 children under 24 months of age who participated in the Children's HealthWatch interview twice within an average interval of 12 months. For this study, we began with a scenario where all children had a healthy starting point in life, limiting the sample to children born at term, and with normal birthweight.

Most children remained at a healthy weight at both visits. Children with an unhealthy weight at their first visit, were able to recover to a healthy weight at their second visit. Shifts from healthy to unhealthy weight (underweight or overweight) could be a sign of social and/or health stressors influencing young children's weight gain.

MOST CHILDREN REMAINED AT A HEALTHY WEIGHT AT BOTH VISITS.

CHILDREN WITH AN UNHEALTHY WEIGHT AT THEIR FIRST VISIT WERE ABLE TO RECOVER TO A HEALTHY WEIGHT BY THEIR SECOND VISIT.

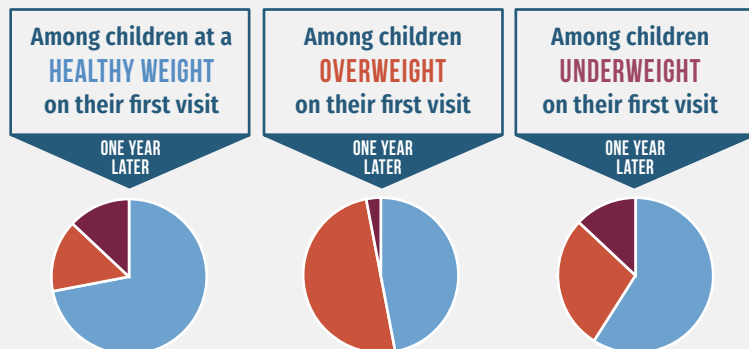


HEALTH INTERVENTIONS DURING THE FIRST TWO YEARS OF A CHILD'S LIFE ARE LIKELY TO HAVE POSITIVE LIFE-LONG EFFECTS.

FINDINGS ON WEIGHT TRAJECTORY

We studied the weights of 2,719 children from low-income families over the course of one year.

- Healthy Weight
- Overweight
- Underweight



3 OUT OF 4

of the children with a healthy weight at the first visit had a healthy weight at the second visit.

1 OUT OF 4

of the children with a healthy weight at the first visit became either underweight or overweight at the second visit.

50%



Approximately half of the children who were either underweight or overweight at the first visit recovered to healthy weight by the second visit, showing that **recovery is possible.**

POLICY RECOMMENDATIONS TO KEEP CHILDREN'S WEIGHT ON TRACK

Policies that provide children with access to healthful foods necessary to maintain a healthy weight are within reach. Strengthening evidence-based nutrition assistance programs will help ensure all children have a healthy start in life, even while national efforts to raise wages continue.

The Supplemental Nutrition Assistance Program (SNAP), reauthorized under the Farm Bill, provides nutritious diets at a minimal cost. The Food Insecurity Nutrition Incentives Grant (FINI) provides additional SNAP resources for fruit and vegetable purchases increasing SNAP participants' ability to afford fresh foods.⁵ Thus, it is important to reauthorize FINI in the next Farm Bill. SNAP benefits are currently insufficient to consistently purchase a healthy diet. Changing from the Thrifty Food Plan to the Low Cost Food Plan as the basis of the SNAP benefit calculation would reflect a more realistic and sustainable cost of a healthy diet for all family members and help children to have a healthy growth trajectory.⁶

The Special Supplemental Nutrition Program for Women Infants and Children (WIC) improves children's health and development by providing breastfeeding support for new mothers and nutritious foods for children up to age 5. WIC participation often declines after a child's first year of life, which may

leave children at risk for abnormal growth.⁷ Increasing the certification period to every 2 years, and creating more accessible WIC locations with more accommodating operating hours could reduce the barriers to accessing support during children's first few formative years of life.⁸

Child and Adult Care Food Program (CACFP) provides healthy meals to more than 4.2 million children in public or private day care centers. The nutritious meals and snacks provided by CACFP increase children's consumption of milk and vegetables, and may contribute to reductions in the prevalence of overweight and underweight.⁹ CACFP has been underutilized by eligible child care centers due to cumbersome paperwork requirements and difficult-to-understand rules and regulations. Reorganizing the structure of CACFP to increase access for children in low-income families and supporting the addition of a third meal for children spending more than 8 hours in child care would maintain children on their pathway to health.¹⁰

Is Weight Recovery Possible? The majority of young children in this sample maintained a healthy weight trajectory over the course of one year. However, the environment surrounding some children during this critical period of life impacted their growth trajectory negatively. One in every 4 children shifted from a healthy to an unhealthy weight status, illustrating the need to identify reasons behind children falling off a healthy weight trajectory, regardless of their healthy start in life. Despite weight fluctuations, almost half of the

children with an unhealthy weight at the first visit were able to return to a healthy weight at the second visit, indicating that weight recovery is possible early in life, even for those who may be surrounded by stressors. Ensuring that our nation's nutrition assistance programs, including SNAP, WIC, and CACFP are reaching young children is a critical step in building a healthy future, for children in all of our communities.

Sources

1. Tzioumis E, Kay M, Bentley M, et al. Prevalence and trends in the childhood dual burden of malnutrition in low- and middle-income countries, 1990–2012. *Public Health Nutrition*. 2016;19(8):1375–1388.
2. Meyers A, Joyce K, Coleman SM, et al. Health of Children Classified as Underweight by CDC Reference but Normal by WHO Standard. *Pediatrics*. 2013;131(6):e-1780-7.
3. Weng SF, Redsell SA, Swift JA, et al. Systematic Review and Meta-Analyses of Risk Factors for Childhood Overweight Identifiable during Infancy. *Archives of disease in childhood*. 2012;97(12):1019-26.
4. Ekeland U, Ong K, Linne Y, et al. Upward Weight Percentile Crossing in Infancy and Early Childhood Independently Predicts Fat Mass in Young Adults: The Stockholm Weight Development Study (SWEDS). *The American Journal of Clinical Nutrition*. 2006;83(2):324-30.
5. Olsho LEW, Klerman JA, Wilde PE, et al. Financial Incentives Increase Fruit And Vegetable Intake Among Supplemental Nutrition Assistance Program Participants: A Randomized Controlled Trial Of The USDA Healthy Incentives Pilot. *The American Journal of Clinical Nutrition*. 2016;104(2):423-35.
6. Caswell JA, Yaktine AL. Supplemental Nutrition Assistance Program: Examining the Evidence to Define Benefit Adequacy. Committee on Examination of the Adequacy of Food Resources and SNAP Allotments. Institute of Medicine. 2013. Available at: <http://nap.edu/13485>
7. National Academies of Sciences, Engineering, and Medicine. The WIC Program: Changes since the Last Review and Continuing Challenges. *National Academies Press*. 2017;51-108.
8. Grodsky D, Violante A, Barrows A, et al. Using Behavioral Science to Improve the WIC Experience. 2017. Available at: http://www.ideas42.org/wp-content/uploads/2017/07/142_WIC-Paper-Final.pdf
9. Korenman S, Abner KS, Kaestner R, et al. The Child and Adult Care Food Program and the Nutrition of Preschoolers. *Early Childhood Research Quarterly*. 2013;28.2:325-36.
10. Gayman A, Ettinger de Cuba S, March E, et al. Child Care Feeding Programs Support Young Children's Healthy Development. 2010. Available at: http://childrenshealthwatch.org/wp-content/uploads/CACFP_brief_January2010.pdf