BOSTON, MA: Creating Healthier Afterschool Environments (OSNAP)



This brief summarizes a CHOICES Learning Collaborative Partnership model examining the implementation of the Out of School Nutrition and Physical Activity (OSNAP) initiative that helps afterschool programs improve practices and policies that increase physical activity and consumption of healthy snacks.

The Issue

Every child should have opportunities to grow up healthy. Regular physical activity, healthy eating, and adequate hydration can help children maintain a healthy weight. Over 6,000 students in kindergarten to fifth grade participate in afterschool programs in Boston.¹ These educational settings can provide essential opportunities for children to learn healthy eating habits and promote physical activity and wellness. However, not all programs offer the same opportunities for healthy eating and physical activity.² Helping more afterschool programs adopt policies and practices that incorporate more physical activity, healthier snacks, and improved water access during program time can help ensure that all children in Boston's afterschool programs have opportunities to grow up healthy.

About Creating Healthier Afterschool Environments

OSNAP is a proven initiative implemented in multiple communities that helps afterschool programs create environments that promote increased physical activity and consumption of healthy snacks.³⁻⁶ Creating healthier afterschool environments can contribute to higher quality afterschool programming. To implement this initiative, the Boston Public Health Commission would provide professional development opportunities for afterschool program leaders serving students in grades K-5. Afterschool staff leaders would participate in three learning collaborative sessions and receive technical assistance to assess⁷ and modify their programs' practices and policies³ to meet the OSNAP nutrition and physical activity goals. The Boston Public Health Commission would supply program leaders with materials to support implementation and offer continuing education units for their participation.

Comparing Costs and Outcomes

CHOICES cost-effectiveness analysis compared the costs and outcomes over a 10-year time horizon (2020-2029) of implementing the OSNAP program with the costs and outcomes associated with not implementing the program.

Creating healthier afterschool environments is an investment in the future. By the end of 2029:



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Conclusions and Implications

Opportunities for physical activity and access to healthy foods in afterschool programs are important to parents² and can help enhance the quality of afterschool programing. Over 10 years, this strategy could train more than 600 afterschool teachers and directors. By equipping afterschool leaders with these skills and resources, afterschool programs could adopt healthier practices and policies and we project that 10,800 children would benefit from more physical activity and improved diet. We project that 37 cases of obesity would be prevented and \$34,100 in healthcare costs related to excess weight would be saved in 2029. We expect this strategy would cost \$18.30 per child per year to implement in Boston and is projected to be cost-effective at commonly accepted thresholds⁸ based on net population health improvement related to excess weight (\$72,100 per quality-adjusted life year gained).

In addition to promoting healthy weight, this strategy may also support children's health in other ways. Regular physical activity, healthy eating, and adequate hydration can improve children's mental and emotional wellbeing and their heart, lung, and bone health.⁹ These healthy behaviors can also strengthen students' attention, memory,^{10,11} and cognitive functioning,¹⁰ all important components for learning and academic performance. Incorporating physical activity and healthy snacks in afterschool programs can help children nurture healthy habits and lay a strong foundation for overall health and well-being.

This strategy builds upon Boston Public Health Commission's demonstrated success where, in 2015, more than 120 programs took steps to improve their screen time, physical activity, and nutrition practices through OSNAP, creating higher quality afterschool programs across Boston.¹¹ Broader implementation could reach all afterschool programs in Boston, improving practices and policies that promote increased physical activity and consumption of healthy snacks, furthering the Boston Public Health Commission's goal of creating policy and systems changes in childcare to promote the health of all Boston residents.

- Boston AfterSchool & Beyond. SY 21-22 Programs. In. Boston, MA: Boston AfterSchool & Beyond; 2021.
- Kids on the Move: Afterschool Programs Promoting Healthy Eating and Physical Activity. Washington, D.C.: America After 3pm, Afterschool Alliance; 2015.
- Kenney EL, Giles CM, deBlois ME, Gortmaker SL, Chinfatt S, Cradock AL. Improving nutrition and physical activity policies in afterschool programs: results from a group-randomized controlled trial. *Prev Med.* 2014;66:159-166. doi:10.1016/j.ypmed.2014.06.011
- Cradock AL, Barrett JL, Giles CM, et al. Promoting Physical Activity With the Out of School Nutrition and Physical Activity (OSNAP) Initiative: A Cluster-Randomized Controlled Trial. JAMA Pediatr. 2016;170(2):155-162.
- Lee RM, Giles CM, Cradock AL, Emmons KM, Okechukwu C, Kenney EL, Thayer J, Gortmaker SL. Impact of the Out-of-School Nutrition and Physical Activity (OSNAP) Group Randomized Controlled Trial on Children's Food, Beverage, and Calorie Consumption among Snacks Served. J Acad Nutr Diet. 2018 Aug;18(8):1425-1437. doi: 10.1016/j.jand.2018.04.011.
- Lee RM, Barrett JL, Daly JG, Mozaffarian RS, Giles CM, Cradock AL, Gortmaker SL. Assessing the effectiveness of training models for national scale-up of an evidence-based nutrition and physical activity intervention: a group randomized trial. *BMC Public Health*. 2019 Nov 28;19(1):1587. doi: 10.1186/s12889-019-7902-y.

- Lee RM, Emmons KM, Okechukwu CA, Barrett JL, Kenney EL, Cradock AL, Giles CM, deBlois ME, Gortmaker SL. Validity of a practitioner-administered observational tool to measure physical activity, nutrition, and screen time in school-age programs. *Int J Behav Nutr Phys Act.* 2014 Nov 28;11:145. doi: 10.1186/s12966-014-0145-5.
- Neumann PJ, Cohen JT, Weinstein MC. Updating cost-effectiveness-the curious resilience of the \$50,000-per-QALY threshold. *New England Journal of Medicine*. 2014 Aug 28;371(9):796-7. DOI: 10.1056/NEJMp1405158. PMID: 25162885.
- Health Benefits of Physical Activity for Children. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/physicalactivity/basics/adults/health-benefits-of-physical-activity-for-children.html. Published Jan 12, 2022. Updated 2022-01-2705:06:092. Accessed Dec 7, 2022.

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- Childhood Nutrition Facts. Centers for Disease Control and Prevention. <u>https://www.cdc.gov/healthyschools/nutrition/facts.htm</u>. Published 2022. Updated 2022-08-05T03:49:26Z. Accessed Dec 12, 2022.
- Blanding N. Afterschool Programs in Boston, MA, Expand Opportunties for Obesity Prevention. Centers for Disease Control and Prevention; 2016. <u>http://nccd.cdc.gov/ nccdsuccessstories</u>



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