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The Importance of Body Mass Index Assessment and Surveillance in Schools

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The Fit study, a randomized controlled trial of body mass index (BMI) screening and reporting among children in grades 3 to 8, found that this program did not reduce BMI and had mixed results regarding unintended negative consequences.¹ However BMI reporting is not the only purpose of school-based fitness testing. Here, we highlight the benefits of, and need to sustain BMI screening and related school-based surveillance systems.

School-based surveillance systems, including BMI screening, provide unparalleled data to address critical issues: evaluate program and policy effectiveness at school and state levels, monitor population trends and disparities, and identify places and populations requiring targeted interventions. States across the country have increasingly recognized the value of these data which have helped demonstrate (1) that legislation to improve the healthfulness of school foods was associated with reductions in childhood obesity;² (2) that community food environments are related to child obesity;³ (3) the racial/ethnic and socioeconomic inequities in obesity; and (4) obesity-related medical costs.⁴

Schools, community-based organizations, and policymakers use this data to monitor, improve and prioritize programs and policies. Data have been used to inform legislators about obesity-related disparities in their districts, thereby spurring local and state-level health-related investments. Practitioners routinely use these data to support grant applications, in funder reports, and to tailor interventions and policies to specific areas and populations.

Although the study authors did not examine the effects of BMI screening/reporting among young children, BMI is routinely collected and reported in federal programs (e.g., Head Start, Women, Infants, and Children program). Studies show that parents of young children desire information about their child's weight status and how to help their children achieve a healthy weight.⁵ Future studies should evaluate the strengths and limitations of BMI screening/reporting in younger children.

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In summary, it is critically important to continue to collect school-based surveillance data, including BMI. No other sources of widespread local-level BMI and related data are collected and freely available to the public. States across the U.S. need these data to initiate and evaluate innovative policies and programs. Suspending these surveillance systems would create missed opportunities and thwart future planning. Given weight gain among children during the COVID-19 pandemic and the associated increased risk, particularly among disadvantaged populations, it has never been more crucial to have access to data that can be used for ongoing surveillance and for targeting limited resources to socially disadvantaged areas and populations.

References

- 1. Madsen KA, Thompson HR, Linchey J, et al. Effect of School-Based Body Mass Index Reporting in California Public Schools: A Randomized Clinical Trial. JAMA Pediatr. 2020.
- Sanchez-Vaznaugh EV, Sanchez BN, Baek J, Crawford PB. 'Competitive' food and beverage policies: are they influencing childhood overweight trends? Health Aff (Millwood). 2010;29(3):436–446. [PubMed: 20194985]
- Elbel B, Tamura K, McDermott ZT, Wu E, Schwartz AE. Childhood Obesity and the Food Environment: A Population-Based Sample of Public School Children in New York City. Obesity (Silver Spring). 2020;28(1):65–72. [PubMed: 31675159]
- Levitt DE, Jackson AW, Morrow JR. An Analysis of the Medical Costs of Obesity for Fifth Graders in California and Texas. Int J Exerc Sci. 2016;9(1):26–33. [PubMed: 27293504]
- Hoffman JWC, Johnson S. Engaging Head Start Families in Childhood Obesity Prevention: School-Home Communication about Children's Height and Weight Screenings. Dialog 2015;18(2), 92–97.