



# PREVENTION RESEARCH CENTERS ADDRESSING NUTRITION AND OBESITY THROUGH POLICY RESEARCH AND EVALUATION

Obesity is a common disease that can lead to serious health problems for adults and children. Despite public health efforts to address this issue, obesity rates continue to increase in the United States. Obesity-related conditions—such as heart disease, stroke, type 2 diabetes, and certain types of cancer—are among the leading causes of preventable premature death.<sup>1</sup>

The causes of obesity are complex. Many factors can contribute to excess weight gain, including behavior, genetics, and certain health conditions and medications. Societal and community factors can also make it hard to maintain a healthy weight. These factors include childcare and school environments, neighborhood design, access to healthy food, and safe and convenient places for physical activity.<sup>2</sup>

CDC Prevention Research Centers (PRCs) work with local communities to develop and test solutions to public health problems. Many PRCs, through research projects and participation in a collaborative **Thematic Research Network**, help turn obesity and nutrition research into action by assessing the feasibility of programs and policies and finding ways to help communities make effective changes.



## What are CDC Prevention Research Centers?

PRCs are academic research centers that study how people and their communities can reduce the risks for chronic illnesses. PRCs collaborate with local communities to make a positive impact, especially in populations affected by health disparities. Together, they identify key public health issues, develop and test programs, policies, and practices to prevent chronic diseases, and create tools and resources that can be shared widely.

## Nutrition and obesity by the numbers



**1 in 5** children and  
**2 in 5** adults have obesity.<sup>1</sup>



Less than **1 in 10** children and adults eat the recommended amount of vegetables.<sup>1</sup>



Less than **1 in 4** children and adolescents get enough physical activity, and just **1 in 4** adults fully meet physical activity guidelines.<sup>1</sup>



**58%** of adults with obesity have high blood pressure (a risk factor for heart disease), and **23%** of adults with obesity have diabetes.<sup>3</sup>



## PROMOTING HEALTHIER EATING IN HOMES

The [Emory Prevention Research Center \(EPRC\)](#) created a program called [Healthy Homes/Healthy Families](#) to help adults start and maintain healthier eating habits.<sup>4</sup> Participants are coached in making changes to their home environment that support healthy eating. For instance, participants can opt to buy fresh fruits and vegetables once a week and make them easy to see and grab, or create rules that limit eating while watching TV.<sup>5</sup> The EPRC completed a study evaluating the program in 2013 and found it to be effective. Participants noted improved diet quality, lower calorie consumption, and weight loss that was maintained for at least 1 year.<sup>6</sup>

For the 2019–2024 funding cycle, the EPRC is studying whether the program is still effective after simplifying it to make it more cost-effective and therefore more accessible. In the initial study, participants in the program group received home visits, coaching calls, and mailings of support materials over 4 months. The coaching focused on nutrition and physical activity.<sup>7</sup> In this study, the EPRC is measuring the program's success when delivered by telephone. The researchers have also shortened the intervention to 3 months, focusing on the nutrition component.



The EPRC is also funding seven community-based organizations to carry out the program and is collecting information on how the organizations adapt the program to their needs.

Preliminary results suggest that the shorter program improved various aspects of healthy eating at home and overall eating habits. The intervention is also cost-effective, with a cost per quality-adjusted life year of \$28,000. It is considered cost-saving if the benefits last for at least 3 years.

“ One of the challenges faced by community organizations attempting to use evidence-based programs is knowing what can be changed and what needs to be kept the same for the program to still be effective. We are hoping to increase scalability of the program to make it easier for community partners to implement in a range of contexts.”

– Michelle Kegler, DrPH, MPH, Director of Emory Prevention Research Center

## INCREASING LOCAL IMPLEMENTATION OF EVIDENCE-BASED POLICIES

While evidence-based policies are shown to work through research and studies, they only truly work if communities develop and use them. The [Washington University Prevention Research Center in St. Louis \(PRC-StL\)](#) developed and shared [methods](#) to increase the use of proven policies that help reduce obesity and promote health equity locally.

To gain insight into how policymakers make decisions about health policies, PRC-StL [interviewed 20 local officials](#) from municipalities across the U.S.<sup>8,9</sup> Officials stated that among several factors, hearing from those affected by an issue could influence their decisions. They also emphasized the importance of relationships with community organizations, which can elevate an issue, provide data and information, and help identify and secure resources to address the issue.

The findings highlight the influence of community organizations on obesity and nutrition policies. Since these organizations have relationships with people in the community who are affected by health policies, they are crucial intermediaries.

“ The statement, ‘All public health is local,’ rings true as I think about our work to advance community health through support of evidence-based policymaking and change. Understanding and being deeply connected to conditions in the community—within neighborhoods and what residents face—allows for greater responsiveness, organizing, and collaboration to address challenges and to have collective action to improve health and address inequities.”

– Renee Parks, MS, Senior Research Manager, Prevention Research Center at Washington University in St. Louis

## DETERMINING THE COST-EFFECTIVENESS OF CHILDHOOD OBESITY INTERVENTIONS

The [Massachusetts-Childhood Obesity Intervention Cost-Effectiveness Study \(MA-CHOICES\)](#) works with community partners in Massachusetts to evaluate the costs and benefits of different strategies to promote healthy weight in children. This evaluation provides valuable insights for other states and cities, allowing them to plan strategically and adopt interventions that are cost-effective.

The [Prevention Research Center on Nutrition and Physical Activity at the Harvard T.H. Chan School of Public Health \(HPRC\)](#), which leads the MA-CHOICES project, has calculated cost-effectiveness estimates for over 40 commonly used childhood obesity programs. These include programs in schools, early care, and out-of-school settings, as well as in clinical, treatment, community, and government settings.<sup>10</sup> MA-CHOICES developed a playbook of the most effective strategies that promote healthy weight.<sup>11</sup>

Another important aspect of MA-CHOICES is a learning collaborative strategy, which helps community partners gain knowledge and confidence in applying cost-effective and fair prevention methods. In one example, researchers explored the potential costs and outcomes of [installing touchless water dispensers in schools with the greatest need](#). They estimated this would be a cost-effective way to prevent childhood obesity by providing children with safe and appealing drinking water as an alternative to sugary drinks.<sup>12</sup> These and other findings can help schools and community partners identify reasonable strategies to prevent childhood obesity. This work builds off the broader [CHOICES Project](#), which includes other partners.



“Time and money are two major barriers to implementing school wellness initiatives. It is very common for school nutrition directors to lead (solo) school wellness work; however, school wellness is truly a team effort. It’s been helpful to identify key messages that are important to share with different audiences, such as administration, nurses, school business officials, school nutrition directors, and managers.”

– Claire Santarelli, RD, CDE, LDN, Director, Division of Health Protection & Promotion, Massachusetts Department of Public Health

## NUTRITION AND OBESITY POLICY RESEARCH AND EVALUATION NETWORK (NOPREN)

The [Nutrition and Obesity Policy Research and Evaluation Network \(NOPREN\)](#) is one of several Thematic Research Networks of PRCs that work together on specific health issues. NOPREN members conduct research and evaluation on nutrition and obesity to build an evidence base for effective policies that address food insecurity, prevent obesity, and improve nutrition. NOPREN’s research is driven by its work groups, where members collaborate to conduct policy-relevant research and evaluation, develop tools and resources, and share the latest findings, methods, and measures. These work groups aim to help members enhance their professional skills, contribute to the evidence base, and apply research findings in real-world settings. During the 2019-2024 funding cycle, 24 PRCs participated in NOPREN.

[The University of California San Francisco](#) serves as the coordinating center for NOPREN. It advances the science of nutrition policy by:<sup>13</sup>

- Providing **strategic direction** across the network and its work groups
- Promoting **networking and collaboration**
- Engaging the **next generation of nutrition policy researchers**
- Enabling expert-led **information-sharing**
- Supporting the work groups in conducting **policy-relevant research and translation**



## References

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- <sup>12</sup> McCulloch SM, Barrett JL, Reiner JF, Cradock AL, Gortmaker SL. Massachusetts: Water Dispensers in Schools {Issue Brief}. The CHOICES Learning Collaborative Partnership at the Harvard T.H. Chan School of Public Health, Boston, MA; June 2023. Available at: <https://choicesproject.org/publications/brief-water-dispensers-ma/>
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## LEARN MORE

Learn more about the Prevention Research Centers by visiting [www.cdc.gov/prevention-research-centers/](https://www.cdc.gov/prevention-research-centers/) and exploring the [Pathway to Practice \(P2P\) Resource Center](#).