



Helping Communities Assess Their Progress in Preventing Childhood Obesity

Developing a set of measures to evaluate community-based childhood obesity prevention programs

SUMMARY

Although many communities are implementing interventions to prevent and reduce childhood obesity, the field lacks ways to measure their impact.

From 2007 through 2009, a team at the [Division of Nutrition, Physical Activity, and Obesity](#) of the Centers for Disease Control and Prevention (CDC) identified 24 community-level strategies to prevent childhood obesity, and paired each with a measure for evaluating its success. These strategies and measures—which focus on physical activity and healthy eating—are designed to help communities assess their progress and to help researchers compare the impact of different interventions.

To develop the strategies and measures, the team at the Division of Nutrition, Physical Activity, and Obesity at the CDC convened a panel of experts on urban planning, the built environment, obesity prevention, nutrition and physical activity (see [Appendix 1](#)), as well as workgroups composed of people from multiple CDC divisions. Project staff used e-mail, online surveys and meetings to gather input from these advisers.

City managers, urban planners and budget analysts from 20 local governments, recruited by the International City/County Management Association, pilot-tested the measures in November and December 2008. These community representatives and the expert panelists offered feedback to inform final revisions of the strategies and measures at a meeting in Atlanta in January 2009.

The [CDC Foundation](#) provided administrative and fiscal oversight for the project. The foundation, created in 1995, promotes public health priorities by encouraging partnerships between CDC and individuals, foundations and corporations. ICF Macro, which conducts research and evaluation, coordinated the project under a subcontract with the foundation.

Key Results

In a report to RWJF, the project team at the CDC cited the following results:

- Project leaders identified 24 community-level strategies designed to prevent childhood obesity and 24 associated measures that local governments can use to evaluate the impact of each strategy. Divided into six categories, the strategies:
 - Promote the availability of affordable healthy food and beverages (six strategies)
 - Support healthy food and beverage choices (four strategies)
 - Encourage breastfeeding (one strategy)
 - Encourage physical activity or limit sedentary activity among children and youth (four strategies)
 - Create safe communities that support physical activity (eight strategies)
 - Encourage communities to organize to promote healthy eating and active living (one strategy)

See [Appendix 2](#) for a complete list of strategies and sample measures.

Project staff described the strategies and measures—and the evidence supporting them—in “Recommended Community Strategies and Measurements to Prevent Obesity in the United States” in the July 2009 issue of the CDC’s Morbidity and Mortality Weekly Report.

- Project staff produced *Recommended Community Strategies and Measurements to Prevent Obesity in the United States: Implementation and Measurement Guide*. The guide includes examples of communities that have implemented each strategy and resources for further information. The guide also includes detailed protocols for collecting data on the impact of the strategies, including questions to research and sources of data.
- Project participants developed a method for summarizing evidence and expert opinion on the strategies and measures, and for documenting the decision-making process that led to their inclusion. The method, called State of the Art for Community Practice, allows the CDC to incorporate new evidence and recommendations on combating obesity as it develops, because the scientific support for some of the strategies and measures is limited.

“Normally the CDC does not make recommendations unless they are state-of-the-art science, but in this arena everything is so new,” said Laura Kettel-Khan, Ph.D., the project’s principal investigator. “To keep moving forward, we agreed to figure out a new methodology that will help us build the evidence. This is the first time the CDC has ever done this.”

- Project staff made more than 20 presentations in the United States and abroad on the strategies and measures. For example, staff members spoke about the work at:
 - The International Congress on Physical Activity and Public Health, Amsterdam, April 2008
 - The Active Living Research Conference, Washington, April 2008
 - Meetings of several CDC initiatives, including Communities Putting Prevention to Work, Cancer Primary Prevention, and Racial and Ethnic Activities for Community Health (REACH)
- Ten states began using the strategies to guide their obesity prevention initiatives. For example, a state-sponsored program in Massachusetts, Mass in Motion, is using the strategies in the eight communities in which it operates.

Minnesota is incorporating both the strategies and the measures by adapting community-level data for use in its statewide public health surveillance system.

Funding

The Robert Wood Johnson Foundation (RWJF) provided \$705,679 for the project from February 2007 through November 2009. The CDC Foundation also received \$200,000 from the CDC's Division of Nutrition, Physical Activity, and Obesity, \$100,000 from the W.K. Kellogg Foundation and \$30,000 from the Kaiser Permanente/East Bay Community Foundation for the initiative.

Afterward

CDC is using the strategies to guide grants for its State Nutrition, Physical Activity, and Obesity Program. Another CDC program of community grants to promote healthy living, also guided by the recommendations, taps \$650 million in federal stimulus funds.

CDC is also funding a project to determine how best to adapt community-level data for use in state public health surveillance systems. To inform that effort, CDC is funding a fellow to analyze results from Minnesota's use of the measures.

The agency plans to build a separate section on its Web site to highlight the two project publications and the methodology developed to assess the evidence for strategies and measures to combat obesity.

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APPENDIX 1

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APPENDIX 2

CDC's Recommended Community Strategies for Preventing Obesity and Measures of Their Success

Strategies

1. Increase availability of healthier food and beverage choices in public service venues
2. Improve availability of affordable healthier food and beverage choices in public service venues
3. Improve geographic availability of supermarkets in underserved areas
4. Provide incentives to food retailers to locate in and/or offer healthier food and beverage choices in underserved areas
5. Improve availability of mechanisms for purchasing foods from farms
6. Provide incentives for the production, distribution and procurement of foods from local farms
7. Restrict availability of less healthy foods and beverages in public service venues
8. Institute smaller portion size options in public service venues
9. Limit advertisements of less healthy foods and beverages
10. Discourage consumption of sugar-sweetened beverages
11. Increase support for breastfeeding
12. Require physical education in schools
13. Increase the amount of physical activity in physical education programs in schools
14. Increase opportunities for extracurricular physical activity
15. Reduce screen time in public service venues
16. Improve access to outdoor recreational facilities
17. Enhance infrastructure supporting bicycling
18. Enhance infrastructure supporting walking
19. Support locating schools within easy walking distance of residential areas
20. Improve access to public transportation
21. Zone for mixed-use development
22. Enhance personal safety in areas where persons are or could be physically active

23. Enhance traffic safety in areas where persons are or could be physically active

24. Participate in community coalitions or partnerships to address obesity

Measures for Selected Strategies

Strategy: Improve geographic availability of supermarkets in underserved areas.

Measure: The number of full-service grocery stores and supermarkets per 10,000 residents located within the three largest underserved census tracts within a local jurisdiction.

Strategy: Require physical education in schools.

Measure: The largest school district located within the local jurisdiction has a policy that requires a minimum of 150 minutes per week of physical education in public elementary schools and a minimum of 225 minutes per week of physical education in public middle schools and high schools throughout the school year as recommended by the National Association of Sports and Physical Education in 2006.

Strategy: Enhance infrastructure supporting bicycling.

Measure: Total miles of designated shared-use paths and bike lanes relative to the total street miles (excluding limited-access highways) that are maintained by a local jurisdiction.

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