

Effect of an Environmental School-based Obesity Prevention Program on Changes in Body Fat and Body Weight

School Health Environment School-based Prevention Childhood Obesity

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Citation

Williamson DA, Champagne CM, Harsha DW, et al. Effect of an environmental school-based obesity prevention program on changes in body fat and body weight: a randomized trial. *Obesity (Silver Spring)*. 2012;20(8):1653-1661. doi:10.1038/oby.2012.60

General Summary

Given the high prevalence of obesity in school-aged children, along with the familiarity of the school environment and the amount of time spent there, it is important to determine if changes to the school environment can improve the health of children. We wanted to see if we could help kids get healthier by making changes at school.

Our study, called LA Health, looked at 2,060 kids in grades 4-6 in 17 school districts in rural Louisiana. We randomly divided the schools into 3 groups: (a) primary, (b) primary + secondary, and (c) control. For primary, we made changes to the whole school. For primary + secondary, we added lessons in the classroom or online and made changes to the whole school. The control schools did not experience any changes. We found that when we combined all the groups with changes, it helped: boys lose body fat, girls gain less body fat and prevented weight gain in white girls. Adding classroom or online lessons helped kids with overweight stay active and got teachers to support healthier eating.



What is the purpose of the study?

The goal of the LA Health study was to see if changes at school could help kids in grades 4-6 get healthier. These changes included encouraging healthy eating, getting more exercise, and spending less time sitting down.



When did the study take place?

We started collecting information from students in the fall of 2006. We went back to collect more information from those same students in 2008 and again in 2009.



Who was involved?



The kids in the LA Health study were in grades 4-6 and came from 17 school districts in rural areas of Louisiana. We used information from 2,060 kids. The majority of children in the LA Health study were African-American (68.4%) and female (58.5%).

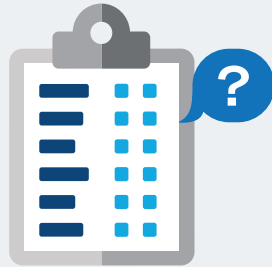
How did we get the results and findings?

We looked at the following information from students at three distinct moments in time: height, weight, percent body fat, answers to questionnaires about physical activity and feelings of social support, and digital pictures of food intake. The three moments in time were: in the very beginning, after 18 months, then finally after 28 months after the start. We compared information from students at different points in time, and we knew which schools had included either school wide changes, school wide changes + lessons in classroom or online, or no changes at all.



What were participants asked to do during the study?

First, parents had to sign a form saying it was okay for their child to be in the study. Then, the kids had to sign a form saying they wanted to be in the study.

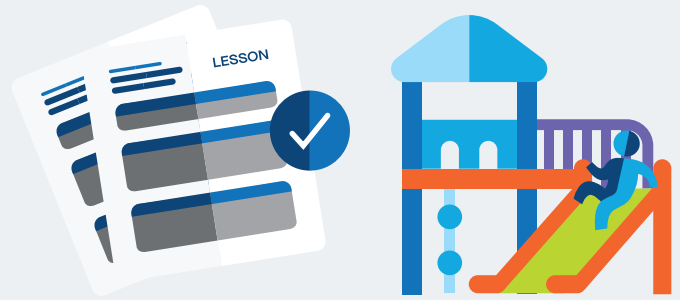


After that, researchers measured the kids' height and weight. They also took pictures of the kids' lunches to see what they ate. The kids answered questions about how much they exercised and how much support they got from their family, friends, and teachers for eating healthy.



What did we learn?

The study showed that changes to the school environment did improve children's health. For example, boys lost body fat, girls gained less body fat, and white girls did not gain weight. Adding classroom or online lessons helped kids with overweight stay active and got teachers to support healthier eating. The LA Health study found that making school wide changes can help a bit by preventing weight gain and encouraging healthy eating and exercise.



How will the results help children, schools, and those who care for them?



It may be beneficial for schools to understand that making changes to their environment has an impact on the health behaviors of their students.

What was unique about this study? How were participants given a voice in research?

The LA Health study focused on children who live in rural areas. This is important because living in rural areas has been shown to be a risk factor for obesity.

Were there any limitations to the study?

It's important to remember that the kids in this study were from rural areas in Louisiana. Most of the kids were African American and most came from families that experience poverty. This means the results of the study might not be the same for all kids in the U.S.



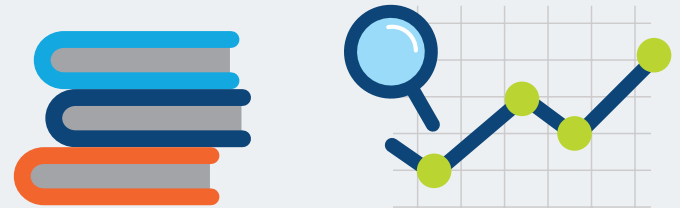
Why is this research important to patients, clinicians, and other researchers?

These findings suggest that adding classroom or online lessons to the school-wide changes helped kids with overweight stay more active. It also got teachers to support healthier eating habits for kids.



What's next?

The LA Health study shows that making changes at school can help kids get healthier. We can study new and creative ways to make schools healthier in the future.



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