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Results From an Intervention to Improve Rural Home Food and Physical Activity Environments

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What Is the Purpose of this Study?

- The Healthy Homes/Healthy Families intervention study was designed to test whether people living in rural areas would participate in a coaching intervention to make the home environment more supportive of healthy eating and physical activity.
- We also wanted to know if a coaching approach would lead to changes in the home environment, such as more fruits and vegetables easily accessible or more family support for physical activity.
- We wanted to find out if changing the home environment would lead to increases in physical activity and healthy eating behaviors.
- This study also provides a good example of how the CDC-funded Prevention Research Centers work in collaboration with community partners in setting and implementing an action-oriented research agenda.

What Is the Problem?

- Obesity is a major public health problem, and is especially common in rural areas.
- Even 10 to 15 extra pounds are associated with increased risk of chronic diseases like diabetes and coronary heart disease.
- Larger increases in weight are associated with several types of cancer.
- Because adults generally gain weight over time, one way to prevent obesity is to help people keep their weight stable as they age.
- Slowing this weight gain as people age would require improvements in physical activity and dietary behavior.
- Both behaviors are affected by the environment, including the environment in the home.
- Because 70% of caloric intake comes from foods prepared at home, homes are a particularly important intervention setting for obesity prevention.
- Studies have shown that the type of food available in the home affects what people eat.
- Availability of exercise equipment in the home and family rules that limit TV watching affect exercise levels.
- Few studies have tried to change the home environment to help people prevent weight gain or to encourage healthy eating and physical activity.
- We need to learn more about whether this might be an effective approach for promoting healthy eating, physical activity, and prevention of obesity, especially in rural communities.

What Are the Findings?

- Families that participated in the intervention reported significant improvements in household food inventories, purchasing of fruits and vegetables, healthier meal preparation, meals with the TV off, and family support for healthy eating, relative to comparison households.
- Intervention households reported increased exercise equipment and family support for physical activity relative to comparison households.
- Percent of fat intake decreased significantly, but no significant changes were observed for fruit and vegetable intake, physical activity, or weight among intervention relative to comparison households, although trends were generally positive.
- In addition to observing positive outcomes, the process evaluation results showed that participants liked the coaching process.
- They felt the coaches were easy to understand, informative, and were good motivators for themselves and their families.
- Participants also found the home visits interesting and relevant, as well as the coaching calls, and thought that the coach spent the right amount of time with them.

Who Should Care Most?

- This research is relevant for health care and public health professionals who are seeking new approaches to help people prevent weight gain, eat healthier and be more physically active.
- The health coach has the potential to be a low-cost bridge between the patient-centered medical home and the actual patient home. One of the major challenges of the patient-centered medical home is that of achieving behavioral change especially concerning diet and physical activity.
- The coaching intervention that proved effective in this pilot could offer an effective tool to improve the efficiency of the patient-centered medical home. This could be achieved through providing a valuable resource to families to help them construct a home environment that would support the behavioral changes suggested by their physicians.

Recommendations for Action

- Based on these positive findings, we are currently conducting a large, randomized, controlled trial at three federally qualified health centers in rural southwest Georgia.
- The staff at these centers helped design the intervention and are on the Community Advisory Board of the Emory Prevention Research Center.
- These three centers provide medical homes for large numbers of poor, minority rural patients who experience major disparities in health outcomes owing to staggering rates of obesity and sedentary lifestyles.
- The goal of the study is to design a behavioral intervention through the health coach that significantly changes behavior, is cost effective, and is efficient to use in a busy medical practice that serves as a patient-centered medical home for all populations, especially those at high risk for poor health outcomes.