



Nutrition, Physical Activity, and Obesity in Rural America

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While there may be some exaggeration about the good old days, there is plenty of anecdotal and statistical evidence to show that rural people were once better off in terms of physical activity, nutrition and weight. Recently, Tom Tai-Seale and Coleman Chandler conducted a comprehensive review of several studies that examine nutrition, physical activity and obesity in rural areas. Overall, they found a growing body of research documenting problems in nutrition and activity in rural areas. Further, rural residents generally fare worse than their urban counterparts in regards to obesity, which is opposite to the situation that existed prior to 1980.¹

Some of the key findings on nutrition, activity and obesity from recent research highlight the current situation:

National studies have found that obesity is more prevalent for rural adults than urban adults, although there is variation across rural America in terms of the severity of the problem.^{1,4}

- In 2003, a national sample showed that 16.5 percent of rural children were obese compared to 14.4 percent of urban children. The rural South had the highest levels of overweight (34.5%) and obese (19.5%) children.²
- A 1999 study in North Carolina of 1,000 rural and 1,000 urban school children found that rural children were 50 percent more likely to be obese.¹
- The Center for Rural Pennsylvania compared the body-mass index of 25,000 seventh graders in urban and rural communities and found that 20 percent of rural students were obese, four percentage points higher than the percentage of urban children. Further, during the period of 1999 to 2001, the percent of rural children classified as obese increased at twice the rate of urban students.¹³
- A 1998 study in South Carolina of 352 rural sixth graders found that nearly 50 percent were obese, over double the national average of 21 percent.¹
- A 2004 national study of adults found that three out of five respondents were physically inactive, with rural adults being slightly more likely to be physically inactive than urban adults.⁶
- A recent study revealed that 28.6 percent of American children (ages 10-17) failed to achieve the recommended level of physical activity. Rural children are reportedly slightly better off than urban children with 25.4 percent not meeting the recommended amount compared with 29.3 percent for urban children.²
- Almost 41 percent of rural children report not participating in any after school sports/activities.²
- Forty-eight percent of rural children (ages 10-17) report spending at least two hours per day with electronic entertainment media, which is slightly higher than the 47 percent of urban children reporting the behavior.²

Why Should We Be Concerned?

These statistics should be alarming to rural residents since obesity is second only to tobacco as a cause of death in the United States and might soon overtake tobacco.¹⁴ It is estimated that obesity increases the risk of death by one and a half times and doubles the risk of coronary heart disease.¹ Obesity is also related to Type 2 diabetes mellitus, hypertension, stroke and some cancers, along with myriad health problems.⁴ Research has also documented the significant emotional toll that is felt by the obese in terms of stigmatization and discrimination.¹ Not surprisingly,

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the United States Department of Health and Human Services lists being overweight and obesity as one of the 10 “leading health indicators.”¹

In addition to exacting a toll on health, obesity has a significant economic impact.

Approximately \$100 billion a year is spent on obesity-related illness, which is six to seven percent of total health care expenditures.¹

The economic impact of obesity for rural individuals is also becoming more evident. A study in Kentucky found that in 59 rural counties out-of-pocket expenditures for individuals with obesity added up to \$38 million.³

How Did We Get Here?

There are many explanations for why problems with nutrition, activity and weight are so prominent in rural America. No one explanation appears satisfactory and there is much debate. However, in spite of this uncertainty, it is critical to consider some of the most widely discussed factors, most of which concern the milieu of modern rural living.

Dr. Cornelia Butler Flora of Iowa State University notes that opportunities for eating well and being active are not isolated individual and family decisions but are reflective of social, cultural, environmental and economic forces that structure choice. For instance, food choices are embedded within the structure of the food system, including, “food producers, food procurers, food providers and food preparers.” People can only eat as healthy as their food system allows. Likewise, physical fitness is “determined in part by the degree to which the environmental context provides safe, fun opportunities for organized and recreational physical activity.”¹¹

There is evidence supporting Dr. Flora's approach to nutrition and activity. Recently the Saint Louis University School of Public Health identified the role of environmental factors within rural communities in influencing activity. In their survey of 2,500 rural residents in Missouri, Tennessee and Arkansas, researchers found that the distance from recreational facilities, stores, churches and schools was linked to obesity. A fear of neighborhood crime, fear of traffic and poor neighborhood aesthetics were also linked to obesity.⁴

Even the activity that grandpas across rural America brag about is in decline. Forty years ago, half of all students walked or bicycled to school; currently that number had dropped to fewer than 15 percent.⁵ A recent survey conducted in Laurel, Nebraska, a rural community of about 1,000 people located in northeast Nebraska, found that only 18 percent of students walk or ride their bikes to school. Surprisingly, the survey revealed that traffic safety concerns were among the leading reasons why children did not walk or ride to school. Unfortunately, since more parents drive their children to school, walking and riding becomes more dangerous for those who do.⁶

Other research illustrates how changing employment environments affects activity levels in rural areas. For instance, research shows that farmers get more exercise than non-farmers do. However, today fewer people farm. There has also been a decline in the percentage of rural residents employed in other rigorous occupations such as forestry and fishing. Most job creation in rural areas has been in “consumer services,” which generally require much less physical activity than traditional rural occupations.⁶

Another important change regarding employment is that in the last few decades the percentage of multiple income

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families has grown. In a focus group consisting of day care providers in rural northeast Nebraska, the providers discussed how families have “too much going on” with their jobs, along with school and community activities.⁷ Consequently, people in rural areas struggle with finding the time to exercise and to prepare nutritious meals.

Even if individuals and families try to make better eating decisions, the availability of nutritious food is often limited.

Ironically, in areas where food is grown that feeds the world, people often have limited access to healthy food choices. Many rural communities rely on convenience stores for their food, which often offer little to no healthy choices.⁸

Sometimes social networks, which are generally a positive aspect of rural life, may actually reinforce unhealthy eating and sedentary behaviors. A recent article in the *New England Journal of Medicine* links obesity to social networks. The researchers predict that if a person becomes obese the chances that a friend of his/her will become obese increases by 57 percent.⁹

There is some evidence that education about healthy living is deficient in rural areas, particularly in regards to nutrition. Some studies have found that rural residents have less understanding of how to prepare nutritious meals and a shortage of nutritionists in rural areas likely exacerbates the problem.¹ Unfortunately, rural schools often do not have the funding available for nutrition programs.

Finally, perhaps the most important reason rural areas are performing poorly concerns demographics. Rural residents are older, less educated and poorer than urban residents. All of these demographics increase obesity.¹

What Can We Do?

While there seems to be many immutable forces driving the problems, there is ample room for optimism for one simple reason. Many (though certainly not all) of the factors involved in worsening conditions regarding diet, activity and obesity can be addressed through individual, family and community action that does not necessarily require massive policy changes.

Before outlining some of what has been done in rural America and what can be done, there are three important considerations. First, while urban and rural settings face many of the similar forces affecting health, rural areas have unique qualities that make health initiatives in urban areas not always amenable to rural life. Second, there is no “one-size-fits-all” approach. Even the Surgeon General admits that there is still ambiguity on what works best in fighting obesity.¹ Third, rural individuals and communities must take a careful look at how their strengths, such as strong social networks, might at times undermine healthy decisions.

Rural communities should use the qualities of their social climate such as “dense social networks, social ties of long duration, shared life experiences, high quality of life, and norms of neighborliness, self-help, and reciprocity” to their advantage.¹⁰

Examples of action:

- **Take responsibility for your health and the health of your community through education and action.** Dr. Barbara Engebretsen, professor of Health, Human Performance and Sport at Wayne State College, takes both a professional and personal interest in working towards making her communities healthier. She works with her small rural community, and others, in addressing changes that are practical and possible. In reflecting on her work, Dr. Engebretsen sums up the possibilities for the future. “The rural environment poses both opportunity and obstacle for healthy living. On the one hand we have less crime and pollution. On the other, we lack infrastructure and

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culture that encourages lifelong intergenerational recreational activity. I refuse to accept that it must be because it is so. I try to teach future generations of rural Nebraskans to invest in their communities so that active living will someday be the culture of the region.”

- **Work within your social networks to change patterns of behavior about eating and activity.** If the bonds of social networks can help people make poor decisions, they can also be used to help make positive decisions. For instance, individuals can work towards shaping the expectations and perceptions of eating and activity of their friends.
- **Take responsibility for healthy living and attitudes in your family.** Families can do much to promote life-long healthy living and attitudes. Promote healthy eating. Shut off the television and computer and video game systems. Exercise and play outdoors together. All relatively simple family activities, but ones that can make a lifetime of difference.
- **Make walking and riding to school safe, accessible and fun.** In 2005, Congress allocated \$612 million over five years to help communities create such safer routes to school.⁵ This *Safe Routes to School* money can be used “for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school.” You can learn more at: <http://safety.fhwa.dot.gov/saferoutes/>. There are other options like creating a “Walking School Bus” that is like a carpool that allows parents to share the responsibility of walking/riding groups of children to school, it has been successful in Canada and England.⁵
- **Create community-based nutrition and exercise programs.** There is research describing exercise and nutrition programs that work for rural communities. Explore the research and see what might work in your community. The literature review by Tom Tai-Seale and Coleman Chandler is a great place to start.¹
- **Promote and enhance pedestrian walking and biking trails.** There is significant funding available through government programs for bringing trails to your community or improving existing trails. In some situations trails can be an opportunity to support recreational tourism. For example, DeSoto Missouri, a rural community of 6,400, recently adopted a comprehensive street plan to encourage walking and biking with the goal of building a healthier community.
- **Support business initiatives that address nutrition, activity and obesity.** As with any societal problem, there are opportunities for business. For example, fitness clubs are opening up in rural communities. Recruiting and assisting these and other types of health promotion businesses can not only alleviate obesity but also provide economic development.¹²
- **Make nutrition programming an integral part of the school environment.** Behaviors that contribute to obesity often are set in childhood so preventing obesity begins with developing healthy eating habits.¹ Nutritional programs in pre-school and elementary schools can be a great place to start. Research shows the effectiveness of such programs.¹ One easy first step is to have schools replace good quality snacks for junk food, which has been shown to work in rural areas.¹ State and federal policy, including provisions in the 2008 Farm Bill, should be used to promote nutritional programming in schools. Any federal health care reform proposal should include this as a major initiative, particularly in rural schools.
- **Work to make your food system healthier.** In its Food and Fitness Initiative, the Kellogg Foundation advocates policies and decisions that focus on producing and consuming “good food.” Good food is defined as food that is local (e.g., community supported agriculture), healthy (not processed), fair (making sure producers are adequately rewarded) and green (grown with limited chemicals).¹¹ The 2008 Farm Bill contained numerous new initiatives and expanded existing programs that provide opportunities to create local food systems and to market local food products.
- **Promote and enhance health, wellness, and physical activity in health care legislation.** While individuals, families and communities can play fundamental roles in promoting healthy lifestyles, public policy responses can as

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well. Grants to communities to undertake the recommendations here, full funding of 2008 Farm Bill initiatives on local food production and access, and implementation of 2008 Farm Bill conservation initiatives that allow for community recreational access are examples of policy responses that could be linked to health care system reform legislation. To promote healthier people, families, and communities, federal health care reform legislation could also include provisions that provide for coverage for prevention and wellness in all health plans and make wellness and health a national priority.

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