Riverside County Public Health

Childhood Obesity and the Built Environment
Riverside County, 2015

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INTRODUCTION

Although biology and genetics contribute to obesity, other factors play key roles. Environmental, social and economic factors influence community obesity rates. Two of the main causes of childhood obesity are physical inactivity and poor nutrition. The physical/built environment, e.g. safe places to walk and play, has an impact on the level of exposure to these two risk factors. Research has shown that the built environment impacts overall access to nutritious foods and physical activity (Rahman, Cushing and Jackson, 2011). Economic factors play an overarching role in the level of exposure of these two risk factors as well. People in rural, minority and lower-income neighborhoods typically have limited access to stores and supermarkets that sell healthier foods (CDC, n.d.). This brief focuses on these risk factors and their roles in childhood obesity in Riverside County.

Cities with Lowest and Highest Childhood Obesity Prevalence among 5th, 7th and 9th Graders 2013-2014

Cities with the Lowest Childhood Obesity Prevalence

City	Percent of Overweight 5th, 7th, 9th Graders	Percent Non-White Popn	Economic Hardship Rank (1-28)
Rancho Mirage	22.1	17.3	18
Temecula	30.1	44.9	25
Palm Desert	31.7	32.3	22
Murrieta	31.8	47.4	26
Indian Wells	33.1	12.4	27
Menifee	33.4	45.9	21
Beaumont	34.3	55.2	19
Eastvale	35.3	76.9	28
Norco	37.0	42.7	24
Hemet	37.3	49.0	6
Average	32.6	42.4	
Average Median Household Income		$ 71,489	

Cities with the Highest Childhood Obesity Prevalence

City	Percent of Overweight 5th, 7th, 9th Graders	Percent Non-White Popn	Economic Hardship Rank (1-28)
Mecca/Thermal/Oasis	50.6	97.9	1
Coachella	49.0	98.4	4
Cathedral City	48.8	69.1	8
Moreno Valley	48.1	80.9	9
Mead Valley	46.5	80.4	3
Perris	46.4	87.2	5
Jurupa Valley	45.6	76.0	15
Palm Springs	45.3	37.6	12
Indio	45.1	74.0	7
Banning	44.6	51.2	13
Average	47.0	75.3	
Average Median Household Income		$ 44,739	

*Economic Hardship Rank: 1=most poverty; 28=least poverty
Note: Table excludes schools from cities/communities where total number of students tested for Body Composition were less than 50
Data Sources: California Department of Education, California Physical Fitness Testing Program, 2013-2014; U.S. Census American Community Survey, 2009 - 2013.

Access to Healthy Food Options

In Riverside County, 1 out of 3 children are overweight or obese in cities ranked high (least poverty) on the economic hardship scale. In comparison, 1 out of 2 children are overweight or obese in cities ranked low (most poverty) on the economic hardship scale (Table 1). Economic hardship rankings for each city were based on median income ranking from 1 (most poverty) to 28 (least poverty). On average, cities that ranked low (most poverty) on the economic hardship scale had higher prevalence of childhood obesity; fewer large chain grocery stores and more small chain or convenient stores. These options make it challenging to find and choose healthy foods. Research has shown that food retailers such as convenience stores and fast food restaurants tend to sell less healthy foods (CDC, n.d.).

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Food Deserts

A food desert is an area where access to healthy food is limited.   These areas are usually comprised of predominantly lower-income neighborhoods and communities (USDA, 2010). The main source of food for residents in or near food deserts is typically fast food or convenient stores which tend to sell foods that are low in nutrition and high in fat and calories. In Riverside County, 9 of the 10 cities (90%) identified with the highest obesity rates among children in 5th, 7th and 9th grades, contained food deserts (Figure 1). These cities also had lower average median household income, fewer large chain grocery stores and approximately twice the number of convenient and small chain grocery stores than those cities identified with the lowest obesity rates. Living in or near a food desert can impact residents' access to nutritional foods and their health status as they will be less likely to consume fresh fruits and vegetables on a regular and consistent basis.

Figure 1

Food Deserts in Cities Identified with the Lowest and Highest Obesity Among 5th, 7th, 9th Grade Children
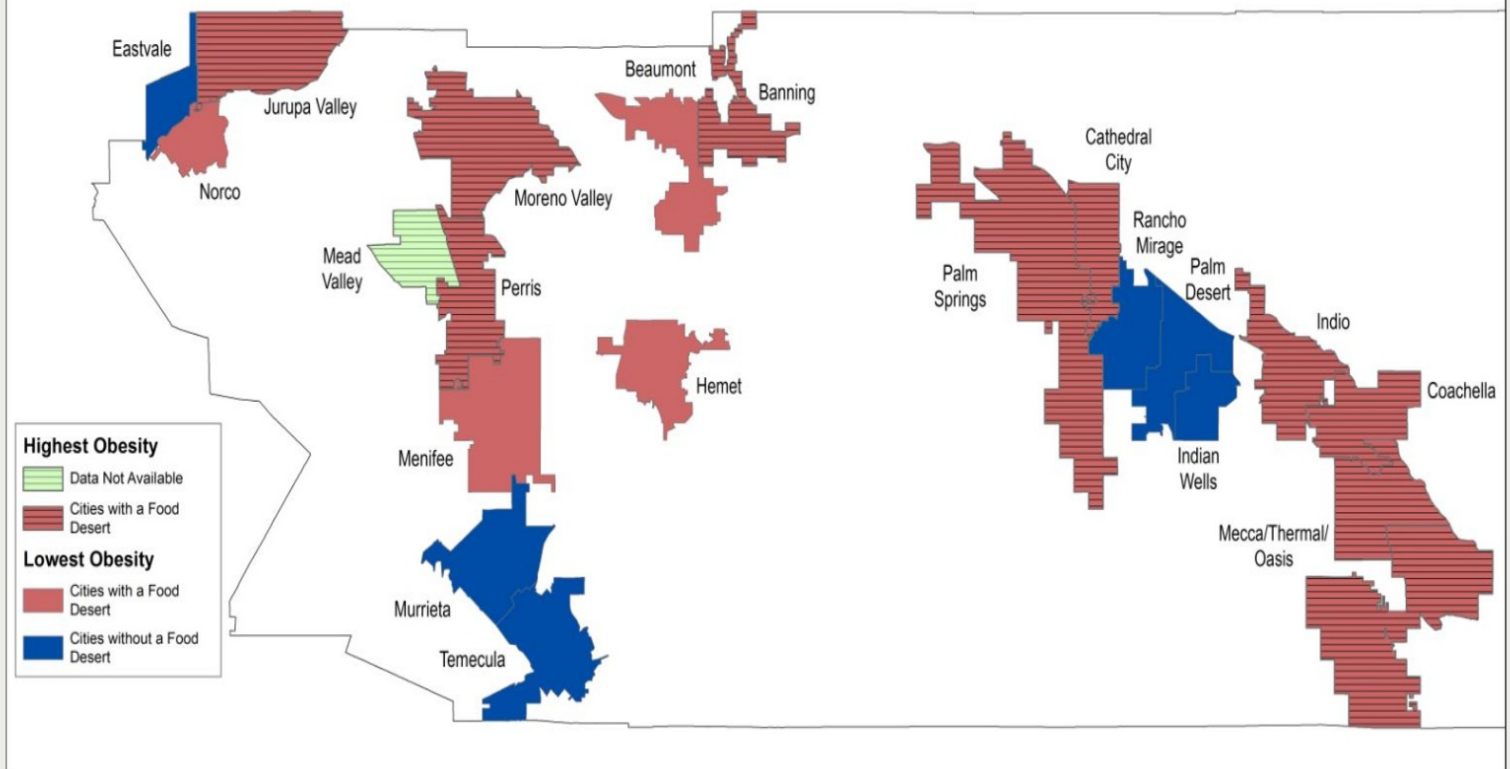
Physical Activity and Access to Parks and Society

Access to healthier choices of foods coupled with physical activity can prevent the onset of childhood obesity. In many neighborhoods, the availability of and access to parks promote physical activity. However, access is not enough. Parks and neighborhoods must also be safe. In Riverside County, it is noteworthy that the residents of the cities identified with the highest obesity prevalence among 5th, 7th and 9th graders have greater park accessibility than those cities identified with the lowest obesity prevalence among these grades. However, violent crimes were also three times more likely to occur in these cities than those with the lowest obesity prevalence (Figure 2).   Safe Routes to School is one of the strategies that can promote physical activity and prevent weight gain among children. Since 2008, the Safe Routes to School program was implemented in five Riverside County communities.

Figure 2. Average percentage of population within a half mile of a park/beach/open space in Riverside County cities identified with the highest and lowest obesity rates among 5th, 7th and 9th graders compared to average crime rates within these cities.
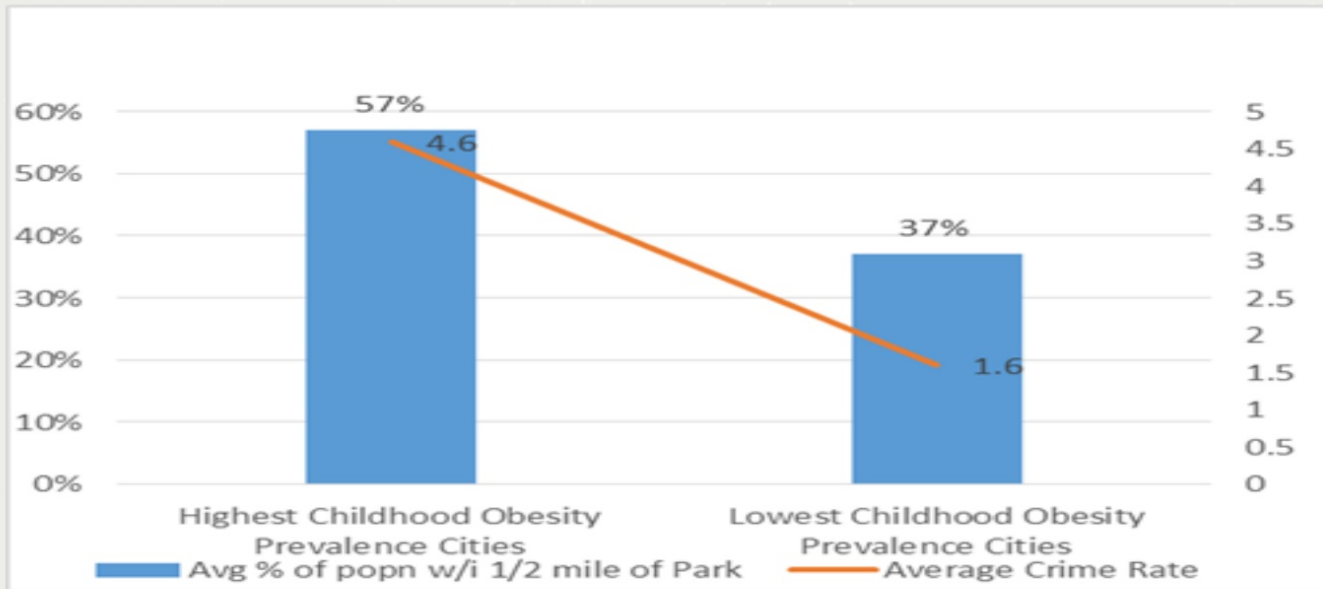
From the Desk of Marsie Huling, Program Coordinator, Injury Prevention Services

The Riverside County Safe Routes to School Program, funded by the California Department of Transportation, helps the community become more physically active by improving the built environment through infrastructure changes such as sidewalks, crosswalks and bike lanes for safer travel to and from school. Students and their families are encouraged to walk and bike to school safely through non-infrastructure interventions including Walk to School events, parent workshops and traffic safety education.

At schools where improvements are needed, walkability workshops are conducted where community members actually "walk the walk" of the students to identify barriers and possible solutions for a safe route to school. These action plans are then discussed with the city, school district, and residents for implementation.

In Riverside County, many schools have instituted Walking Wednesdays or Fit Fridays as a part of their weekly routine, where students walk together with parent volunteers to school. With adults present to supervise and educate children about traffic safety, the "walking school buses" become a fun activity for the kids while giving everyone an opportunity for some exercise.

The Safe Routes to School Program continues to work with community partners to improve the built environment and ultimately change the trend from sitting in vehicular traffic to enjoying a brisk walk to your destination.

References:
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2. California Department of Public Health. Healthy Communities Data and Indicators Project (HCI). Access to Parks: Percent of residents within 1/2 mile of a park, beach or open space.
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4. United States Department of Agriculture [USDA].(2010). Creating Access to Healthy, Affordable Food. Retrieved from: https://apps.ams.usda.gov/fooddeserts/AccessHealthyFood.pdf