

# Parks & Recreation in Underserved Areas

A Public Health Perspective



National Recreation  
and Park Association



# Contents

## Parks and Recreation in Underserved Areas:

### A Public Health Perspective

Executive Summary ..... ii

Introduction ..... 1

**Part I**  
Disparities in Distribution of and Access to Public Parks  
and Recreation: *The Influence on Park Use and Physical Activity*..... 2

**Part II**  
Disparities in Park Facilities and Park Conditions:  
*Additional Factors that Affect Park Use and Physical Activity*..... 5

Conclusion ..... 7

Endnotes ..... 8

# Executive Summary

**O**ur nation is currently facing pressing public health concerns relating to obesity. As a result of skyrocketing obesity rates, chronic diseases are also on the rise. The dialogue around tackling obesity has shifted from solely focusing on nutrition towards understanding the built environment and its influence on promoting healthy lifestyles.

One of the several issues in addressing the built environment points to whether there are adequate places to engage in physical activity within communities in the United States. As a result, park and recreation agencies, who hold an appropriate position in this dialogue, have become key players in improving avenues to encourage physical activity.



Several studies have documented that while parks and recreational facilities are available throughout the United States, there are several additional factors that affect park use and physical activity levels. This paper examines the following factors:

- Park Access – Easy access to parks is associated with increased park use. Park visitation is much more frequent and physical activity levels are much higher for those who live within walking distance to a park.
- Park distribution – Disparities in park distribution are particularly evident in areas with low income and racial/ethnic populations. Higher park acreage within a community is associated with increased participation in physical activity.
- Park Facilities – Within parks, there are certain types of facilities that encourage higher levels of physical activity than others such as trails and playgrounds.
- Park Conditions – Park facilities that are consistently well maintained, aesthetically appealing and safe are associated with increased public use and physical activity.

In light of the urgency of the obesity epidemic and available research, it is essential for park and recreation agencies to review and reevaluate the aspects of parks that can potentially have a lasting impact on the future of public health.



# INTRODUCTION



Public health concerns over physical inactivity in the United States have sparked an interest in the role that public parks and recreation play in promoting healthy lifestyles. Over the last two decades, obesity rates for adults and children have increased steadily<sup>1</sup>. The Centers for Disease Control and Prevention (CDC) reports that in 2010, none of the states had an obesity prevalence of less than 20% and twelve states had a prevalence of over 30%<sup>1</sup>. African Americans experience the highest rates of obesity at 44.1% followed by Hispanics at 37.9% and Caucasians at 32.6%<sup>2</sup>. Research shows that although lowering daily calorie intake accounts for

most weight loss, the only approach to consistently maintaining weight loss is by engaging in the recommended levels of physical activity<sup>3</sup>.

Numerous empirical studies have investigated the association between green space, parks and physical activity behavior. A majority of these studies reveal evidence of positive correlations between park access, park use and physical activity levels<sup>4</sup>. Consequently, the availability of park and recreation resources and easy, safe access to them is a promising avenue to encourage increased levels of physical activity in all people.

While public parks and recreational facilities are a common amenity throughout several communities, park distribution, park access, park attributes, park conditions and park use varies across different populations and communities<sup>5</sup>. Studies have highlighted that unequal distribution of and access to green spaces, parks and recreation do indeed exist and that physical activity levels and park use are dependent on demographic, socioeconomic (SES) and regional characteristics<sup>6,7,8,9</sup>. Furthermore, availability of park facilities and the conditions of the facilities also determines the frequency of park use and physical activity levels<sup>10</sup>. Parks provide health, social and economic benefits in an environmental context; therefore, they are considered environmental amenities and the current dialogue on disparities in park proximity, park facilities and facility conditions is framed in the context of an environmental and social justice issue.

This paper takes a closer look at how park use and physical activity levels are influenced by the following factors: *distribution and access to public parks and recreation, park facilities and park conditions*.

# PART I

## Disparities in Distribution of and Access to Public Parks and Recreational Activities:

### The Influence on Park Use and Physical Activity

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Park proximity plays an important role in promoting higher levels of park use and physical activity amongst diverse populations, particularly for youth<sup>4</sup>. A study examining park proximity and travel diary data of youth between the ages of five and twenty in Atlanta, GA illustrates that youth who resided close to parks and open space were approximately two to three times likely to take a walk within a two-day period than their counterparts that had no parks near their homes<sup>11</sup>. This holds true for adults as well –

people who reside within half a mile of a park exercise five or more times a week than those who reside further away from parks<sup>12</sup>.

Interestingly, the number of parks and recreation facilities established within a community is also associated with increased physical activity levels<sup>13,14</sup>. A study conducted in West Virginia revealed that the total number of recreation facilities, publically managed county acres and county acres reserved for water-based recreation was associated with physical activity levels. The study found that counties that had the largest acreage of recreational space had more people meeting the recommended levels of physical activity<sup>14</sup>.

**Park proximity plays an important role in facilitating higher levels of park use and physical activity levels particularly amongst youth populations<sup>4</sup>.**

Although public parks and recreation is available in urban, suburban and rural communities across the United States, the distribution of these amenities is not uniform. Disparities in distribution and park access exist across communities that are specifically characterized by low-income populations and some racial/ethnic minority populations<sup>15,16</sup>. This is documented as one of the several aspects of the built environment that affects the ability for low income and racial/ethnic minorities to meet the daily recommended levels of physical activity<sup>16</sup>.

**Disparities in park distribution and park access exist across communities particularly in neighborhoods that largely consist of low income and racial/ethnic populations<sup>15,16,17</sup>.**

Research suggests that there are no significant differences in the number of pay-per-use recreational facilities for low, medium and high SES communities; however, there are notably fewer publically-provided resources such as parks, trails, and playgrounds in low and medium SES communities than in high SES communities<sup>17</sup>. A nationally representative study of American youth found that the distribution of public parks and recreational facilities was disproportionate such that non-White and low income neighborhoods were fifty percent less likely to have one recreational facility in their community than White and high income neighbourhoods<sup>8</sup>. While some metro-based studies have demonstrated that low income and minority populations have greater access to public parks, public pools and green space, national-based studies show evidence that access to the same amenities is much lower in neighborhoods largely occupied by African Americans<sup>8,18</sup>.

The national guideline on sufficient distribution of parkland ranges from 6 acres to 19 acres per 1,000 of the population<sup>19,20</sup>, however, in Los Angeles, CA it is reported for areas that had a population of 75% or more Latinos, there was 0.6 acres of parkland available per 1,000 residents. Areas that had the same percentage or more African Americans had 1.7 acres of parkland per 1,000 residents and areas that had 75% or more non-Hispanic Whites had 31.8 acres of parkland per 1,000 residents thus illustrating that the acreage of parkland available to Latinos and African Americans falls significantly below the national average<sup>21</sup>. A study conducted in Baltimore, MD found that although African Americans had easier access to parks than Whites (within a 400 meter walking distance or less), Whites had access to more parkland within walking distance than did African Americans. This resulted in high park congestion in predominantly African American neighborhoods<sup>20</sup>.

Research reports that creating spaces for physical activity has resulted in a 26% increase in the number of people that exercised at least three times a week. There are several communities in the United States that are involved in initiatives to promote easy access to parks and recreation.

### **The City Project: Los Angeles State Historic Park**

**The City Project based in California, an organization whose mission to achieve equal justice for all, was a leader in the alliance towards building the Los Angeles State Historic Park<sup>22</sup>. The 32 acre park is located in downtown Los Angeles in the Chinatown Cornfield. Prior to the establishment of the park, residents of Chinatown and The William Mead Housing Project did not have a park in their neighborhood. The park now serves 282,967 children who live within a five mile radius of the Cornfield, a community that is primarily Latino and Asian and a community of which approximately one-third of the population lives in poverty<sup>22</sup>.**



### Miami Dade Open Space Master Plan: A Sustainable System of Parks

Miami Dade County is facing population growth that is expected to result in an increase of automobile trips by 39% in addition to other challenges that are associated with population increases<sup>23</sup>. In response to the changing environment, the county developed the Miami Dade Open Space Master Plan to address these issues. Two of the several guiding principles of the master plan are access and equity to parks and other amenities. The goal of the plan is to ensure that every resident in Miami Dade County is within a 5 minute walking or biking distance from a neighborhood park, recreation center, civic space, etc<sup>23</sup>.

### The Louisville Loop: Connecting Neighborhoods to Parks

The Louisville Loop located in Louisville, KY is a 100 mile trail network that is expected to circle the city connecting neighborhoods to parks and recreation centers. One of the goals of developing the trail system is to ensure that residents can easily access parks and open space in order to engage in active lifestyles<sup>24</sup>.

### DeKalb County, GA: Improving Accessibility to Parks

In Georgia, DeKalb County is on a mission to increase park use by providing residents with easy walking access to parks<sup>25</sup>. Through support from the Robert Wood Johnson Foundation, Active Living Research observed physical activity levels of users, park features and neighborhood characteristics at 13 parks. The study found that neighborhood layout does indeed influence park accessibility. For instance, several park users who reside within walking distance to parks still drove to the park as it was much easier than walking. In addition, parks that only had one entrance located along a road without sidewalks had less people walking to the park than parks that had more than one entrance with trail connections<sup>25</sup>. Park users that walked to the park are three times more likely to use park services at least two days a week. Since then, DeKalb County officials purchased land adjacent to one of the parks studied and have constructed pedestrian access where it did not previously exist<sup>25</sup>.

# PART II

## Park Facilities and Park Conditions: Additional Factors that Facilitate Park Use and Physical Activity

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Although park access does indeed influence park use and physical activity, there are additional factors within parks itself that facilitate higher physical activity levels and park use – *park facilities and park conditions*.

### **Park Facilities**

While park settings tend to have a wide range of facilities to encourage physical activity, research has revealed that there are specific types of facilities that promote higher levels of physical activity than others<sup>26,27</sup>. Park users engage in higher levels of physical

activity in parks that have playgrounds, sports facilities and trails<sup>26,27</sup>. Furthermore, parks that have either paved or unpaved trails and wooded areas are seven times more likely to be used for physical activity than parks that did not have these features<sup>26</sup>.

A study conducted in 28 parks in Tampa, FL and Chicago, IL employed reliable and valid observational methodology to determine physical activity levels of park users in various park settings. The findings indicate that park users were engaged in moderate to vigorous physical activity on athletic courts, sports fields and playgrounds<sup>27</sup>. Moreover, parks that provide supporting amenities such as bicycle racks and restrooms are more likely to be used for physical activity<sup>26</sup>.

### **Orange County, California: Development of Parks to Boost Physical Activity**

A few years ago, an organization known as the Latino Health Access began a dialogue with city officials to develop the first park in Santa Ana, an area that is park poor with 0.5 acres of park-land per 1000 residents<sup>28</sup>. In 2010, through California's Proposition 84, the Latino Health Access received funding in the amount of \$3.5 million to build new parks in underserved areas. The Lacy neighborhood park is expected to be completed this year. The park will include features that particularly influence higher levels of physical activity such as a basketball half court, a toddler playground, an adolescent jungle gym, a walking path and rest points for elderly users<sup>28</sup>.

## Park Conditions

Not only do people make the decision to use parks based on the types of facilities available but the condition of the park and the facilities also determines the decision as well. Parks users are more likely to visit a park that is consistently well maintained in which the facilities are safe to use<sup>10</sup>. The Sixth Nationwide Safety Survey of Public Playgrounds revealed that in 2001, approximately 190,000 children needed emergency treatment as a result of injury due to poor quality public playground equipment<sup>29</sup>. Several studies have shown that inadequate playground equipment has led to serious injuries and death<sup>29</sup>. Unsafe play equipment is likely to influence parents' decisions in encouraging their children to play in parks that have facilities exhibiting such conditions<sup>10,30</sup>.

Furthermore, perceived park aesthetics is also associated with park use and physical activity within parks<sup>6,31</sup>. Research suggests that parks are more likely to be used for exercise purposes if they are more aesthetically appealing to the public<sup>6,31</sup>. Studies have found that having attractive environmental features in and around parks is a powerful motivator for physical activity. Enjoyable scenery is particularly motivating for people to use a park and engage in physical activity<sup>10</sup>. Aesthetic features that have the potential to influence park use and physical activity include park size, layout design, landscaping, balance of sun and shade and ponds<sup>10</sup>.

Moreover, perceived and objective personal safety is also a factor that determines park use. Perceived safety is how safe one feels in and around parks while objective safety is the actual rate of crime that occurs in and around parks<sup>10</sup>. A study showed that residents who witnessed signs of disorder in their neighborhoods such as graffiti, garbage, vandalism, etc. and felt unsafe after dusk were less likely to let their children play in public playgrounds. In contrast, adults who felt safe in their neighborhood were 60% more likely to let their children play in public playgrounds<sup>32</sup>.

### Denver, Colorado: Renovating School Yards

**Learning Landscapes, a program operated by the College of Architecture and Planning at the University of Colorado, renovates old, neglected school yards into attractive, safe and multi-use school yards for the local community's use<sup>33</sup>. A study of nine public school yards in Denver, CO revealed that children exhibited significantly higher rates of physical activity on school yards that were renovated by Learning Landscapes than those that were not renovated<sup>33</sup>.**

# CONCLUSION

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Increasing obesity rates in the United States continue to trigger discussions about how public health can be improved through the built environment with particular focus on safe, easy access to places and spaces to engage in physical activity. In the midst of the obesity crisis, park and recreation agencies are appropriately positioned to influence physical activity by large segments of the public; however, there are several factors affecting park use and physical activity that call for action, as discussed throughout this paper.

Given that evidence from research does continue to inform us that park distribution, park proximity, park facilities and park conditions do indeed have an impact on people's desire to engage in physical activity, it becomes necessary to reevaluate current park designs/layouts, financing mechanisms and maintenance policies. Investing in improvements to counteract disparities in the various facets of parks has the potential to provide long term solutions in addressing the obesity epidemic. Park and recreation agencies, as public resources, have a key role to play in addressing some of the nation's public health concerns through modifying and altering variables that will ultimately influence healthy lifestyles for all Americans.



# Endnotes

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## About NRPA

The National Recreation and Park Association is a national nonprofit organization dedicated to advancing park, recreation and conservation efforts that enhance quality of life for all people. Through its network of nearly 19,000 recreation and park professionals and citizens, NRPA encourages the promotion of healthy lifestyles, recreation initiatives, and conservation of natural and cultural resources.

Headquartered in Ashburn, Va., NRPA works closely with local, state and national recreation and park agencies, citizen groups and corporations to carry out its objectives. Priorities include advocating favorable legislation and public policy; continuing education for park and recreation professionals and citizens; providing professional certification, university accreditation, research and technical assistance; and increasing public awareness of the importance of parks and recreation. For more information, visit [www.nrpa.org](http://www.nrpa.org).



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