Urban Park Use and Physical Activity
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February 2006
Funded by NIEHS Grant #P50ES012383
RAND Center for Population Health and Health Disparities
Goals

- To determine whether improvements in parks result in increases in physical activity among children and adults

- To determine the impact of park improvements on other aspects of health and functioning

- To determine the cost effectiveness of Prop K in increasing physical activity
Proposition K

• Passed in 1996

• Allocates $25 million per year for 30 years to improve parks and open spaces in the City of Los Angeles

• Serves as natural experiment to understand how parks might contribute to population level physical activity
Study Components

- Includes community based participation

- Focuses on new recreation centers and improvements over $1,000,000

- Requires observing activity in parks, including age group and race/ethnicity

- Includes surveys of park users and individuals who live in local neighborhoods
Twelve Neighborhood Parks

• 6 matched pairs based on demographics, SES, park form, and features

• All “active” parks with facilities for competitive sports

• Most intervention parks are building new gymnasiums
Neighborhood Characteristics

• Most parks included in this study are located in predominantly Latino and African-American neighborhoods.

• Most parks studied are in low-income neighborhoods and serve an average of 67,000 people in 1 mile radius and 210,000 people in 2 mile radius.

• Parks size ranges from 3.4 to 16 acres, with an average of 8 acres.
Observation Methods

- Park activity was observed four times per day
  - 7:30 - 8:30am
  - 12:30 - 1:30pm
  - 3:30 - 4:30pm
  - 6:30 - 7:30pm

- Park activity was observed for each day of the week and primary and secondary activities in each target area recorded, including being a spectator.

- Individuals were counted and recorded by:
  - Gender (female or male)
  - Age group (child, teen, adult, or senior)
  - Race/ethnicity (Latino, black, white, or other)
  - Activity level (sedentary, walking, or vigorous)
Survey Methods

• Park users were surveyed based on:
  • Target Area (busy and quiet areas)
  • Activity Level (sedentary, walking, or vigorous)
  • Gender (50% male, 50% female)

• Neighborhood residents were surveyed based on random selection of households in specified increments from the park:
  • 1/4 mile
  • 1/2 mile
  • One mile
  • Two miles

• Each participant was asked to complete a Parent Survey when they had a child under 18-years-of-age
Promotoras
Counter
Gymnasium Targeted for Improvement
Playground Area to be Replaced with Gym
Tennis Courts to be Replaced with Gym
More Males than Females Use the Parks (63% vs. 37%)

Average of 2000 persons observed per park over 7 days
Children and Teens Use Parks More than Adults
Most Park Users Live Within 1 Mile of the Park

- 31% live within 1 mile
- 27% live within 1/2 mile
- 23% live within 1/4 mile
- 13% live within 2 miles
- 6% live over 2 miles
Residential Proximity Associated with Frequency of Park Use

- People living within one mile of the park were four times as likely to visit the park once a week or more.
- Those living within one mile had an average of 38% more exercise sessions per week than those living farther away.
Percent of Park Users per Day of the Week

- Sunday: 19%
- Monday: 11%
- Tuesday: 14%
- Wednesday: 13%
- Thursday: 12%
- Friday: 12%
- Saturday: 19%
Percent of Park Users by Time Period

- Morning: 9%
- Lunch: 29%
- Afternoon: 29%
- Evening: 34%
Many Target Areas in the Parks were Empty

An average of 54% of park areas were empty during 28 observations/week.
Supervised Activities Draw More Park Users

- Gymnasium: Supervised 24, Unsupervised 8
- Outdoor Basketball Court: Supervised 35, Unsupervised 5
- Multi-purpose Field: Supervised 61, Unsupervised 6
- Baseball Field: Supervised 68, Unsupervised 4
Average Number of Park Users by Target Area and Activity Level

Average Number of Park Users

Sedentary  Walking, Moderate & Vigorous

Track  Sidewalk  Gymnasium  Multi-purpose field  Playground  Outdoor Basketball  Lawn  Baseball  Senior Center
Percentage Walking Among Those Not Engaged in Specific Activities

![Bar chart showing the percentage of respondents walking among those not engaged in specific activities at different parks. The chart indicates that Park 9 has the highest percentage of respondents walking, with Park 5 and Park 12 having lower percentages. The bars are color-coded to represent parks with walking paths and tracks.]
Males Are More Vigorously Active than Females

- Sedentary: Male 58%, Female 65%
- Walking: Male 23%, Female 24%
- Vigorous: Male 19%, Female 12%
Walking and Sitting Are the Most Common Self Reported Activities

- Walking
- Sitting
- Playground
- Celebrations
- Meet Friends
- Outdoor Basketball
- Other
- Walk Dog
- Soccer
- Indoor Basketball

% Respondents

Residents
Park Users

February 2006
Observed Activities Reflect Self-Report

<table>
<thead>
<tr>
<th>Activity</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sitting</td>
<td>17%</td>
<td></td>
</tr>
<tr>
<td>Walking</td>
<td>15%</td>
<td></td>
</tr>
<tr>
<td>Playground</td>
<td>14%</td>
<td></td>
</tr>
<tr>
<td>Standing</td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Basketball</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>Picnicking</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Baseball</td>
<td>6%</td>
<td></td>
</tr>
<tr>
<td>Soccer</td>
<td>10%</td>
<td></td>
</tr>
<tr>
<td>Tennis</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

% of Park Users

February 2006
Respondents Rarely Visit Other Neighborhood Parks

- **Daily:**
  - Residents: 0%
  - Park Users: 1%

- **At Least Weekly:**
  - Residents: 13%
  - Park Users: 11%

- **At Least Monthly:**
  - Residents: 16%
  - Park Users: 20%

- **Yearly:**
  - Residents: 32%
  - Park Users: 30%

- **Never:**
  - Residents: 39%
  - Park Users: 39%
Respondents Report Long Visits to the Parks
People Must be Overestimating Park Use

![Bar chart showing the number of park users for different parks. The bars are color-coded with blue representing self-report and pink representing observed usage. The chart indicates that people are likely overestimating the usage of certain parks.](image-url)
Most Park Users Walk to the Park

- **Walk**: 49% Residents, 35% Park Users
- **Bike**: 1% Residents, 3% Park Users
- **Car**: 47% Residents, 37% Park Users
- **Bus**: 1% Residents, 1% Park Users
- **More than one mode**: 16% Residents, 10% Park Users
Parks Are Social Venues

How often do you meet people you know?
Most Thought Parks Are Safe

Perceptions of safety did not predict park use.
People Exercise in Parks

<table>
<thead>
<tr>
<th>Location</th>
<th>Resident</th>
<th>Park User</th>
</tr>
</thead>
<tbody>
<tr>
<td>Park</td>
<td>34%</td>
<td>54%</td>
</tr>
<tr>
<td>Home</td>
<td>21%</td>
<td>13%</td>
</tr>
<tr>
<td>Private Club</td>
<td>6%</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>4%</td>
<td>3%</td>
</tr>
<tr>
<td>More than one</td>
<td>35%</td>
<td>28%</td>
</tr>
</tbody>
</table>
More Users Correlates with Greater Energy Expenditure per Park
Summary

• Residential proximity to parks is a critical determinant of park use and leisure exercise

• Males use parks more than females

• Children and teens use parks more than adults and seniors

• Most people in the parks are sedentary
Summary

• People report using parks frequently, yet we observed many areas in the park to be largely unused during substantial portions of the week

• Supervised activities draw more people to the park

• Walking paths associated with more walking

• More park users correlated with more energy expended
Conclusion

- Parks already play a significant role in people’s lives

- Parks have the potential and capacity to do more to facilitate physical activity

- Future research will document the impact of Prop K improvements