

Physical Activity Levels in an Urban New Immigrant Latino Community

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**Presentation for the 2011 Active Living Research Conference
February 23, 2011**

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Funded by the Robert Wood Johnson Foundation, Active Living Research, grant #67308

Background

- Research has found an association between elements of the built environment, such as parks and playgrounds, physical activity, and poor health outcomes.
- Parks and playgrounds have been associated with physical activity among children and adolescents.
- Urban Latino children and youth are particularly at high risk for obesity and related chronic diseases and conditions.
 - However extant research focused on people of Mexican-origin.
- Understanding who uses the parks and how can inform the development of culturally and community specific efforts to encourage physical activity among children and youth.

Lawrence Community Priorities

- Prioritization of the improvement of outdoor and recreational spaces, such as parks and playgrounds.
- Parks improvement plan implemented since 2004.
- The youthfulness of the city's population has placed emphasis on outdoor spaces to meet the needs of children and youth.
- Actively seeking ways to get youth involved in the community and engage youth in public health improvement efforts.
- Reduce the prevalence of obesity in the community.
 - Increasing physical activity as important for mitigating obesity, especially among children and youth.
- How local policy can increase utilization of outdoor spaces to increase physical activity among residents and improve health

About Lawrence

- Has the highest obesity rate in MA, notably among children and adolescents
- Lags behind the rest of the state on virtually all health status indicators. Coronary heart disease, hypertension, and diabetes are higher than MA state rates.
- Population: 72,000
- 43% of the population is under age 24
- 46% of the population is foreign born
- 69.4% of the population is Latino (predominantly Puerto Rican and Dominican)
- Highest unemployment rate in the state: 17.6% in Dec 2010
- Per capita income=\$14,753
- Approximately 51% of residents live under 200% of the federal poverty level
- Over 40% receive some form of public assistance
- Over 90% of students receive free or reduced price lunch
- High School graduation rate is 40%
- 30% of the population over age 25 has graduated from high school



Study Design

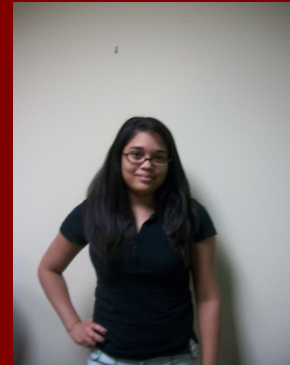
Aims and Goals



- To assess park and playground
 - Quality and conditions
 - Utilization
- To inform efforts to improve the quality and condition of parks and playgrounds and increase their utilization
- To inform community health improvement efforts to increase physical activity, reduce sedentary behaviors, and decrease obesity, particularly among children and youth

Approach

- Community engaged
 - Partnership with the Community Development Department and Groundwork Lawrence
- Youth engaged
 - Youth were recruited from the community as research assistants
 - Application process
 - 5 were selected and trained to administer park assessments.



Methods

- Observational assessment tools:
 - Utilization
 - The System for Observing Physical Activity and Recreation in Communities (SOPARC) tool
 - Quality and conditions
 - Physical Activity Resource Assessment (PARA) tool.
- Photography to document conditions and issues in need of attention in the parks
- Observations May-Oct 2010, 1 week and 1 weekend day each week, 3x/day during the morning, afternoon and evening.

Data collection: SOPARC

- A one-page direct observation tool to assess:
 - the number of people engaged in physical activity
 - the type of physical activity individuals are engaging in
 - Eg: sitting, jogging, playing baseball, playing tag/chase games, reading
 - The physical activity level of individuals (low, medium, high):
 - Sedentary= lying down, sitting, or standing in place
 - Walking= walking at a casual pace
 - Vigorous=an activity more vigorous than walking that increases heart rate
 - Gender and estimated age (child, youth, adult, senior)

Park Selection and Characteristics

- All city parks and playgrounds under city jurisdiction
- Conducted an inventory of all city parks
- Excluded state-run parks, large open green spaces, pocket parks, and school-based parks.
- Selected from 40+ parks in the city
- Focus on 24 parks



Limitations

- Youth were assigned parks for the duration of data collection
 - No random assignment
- Not all parks included
- Modification of tools:
 - Simplified for ease of use



Preliminary Results



Park Attendance

- During the months of May through July of 2010 a total of 3,869 individuals were observed in the parks.
- Of those observed the majority (67%) were male.



Estimated Age of Park Goers

| | |
|---------------------|-------|
| Child (<12 years) | 34.8% |
| Teen (13-20 years) | 28.1% |
| Adult (21-59 years) | 35.7% |
| Senior (>60 years) | 1.4% |

Activity Levels

- 45.4 % of individuals observed were engaging in vigorous activity.
- 22.3% of individuals observed were engaging in moderate activity.
- 32.3% of individuals observed were sedentary.



Activities

Top 5 activities in the parks:

1. Sitting
2. Basketball
3. Walking
4. Playing around in playground
5. Standing

Top 5 activities for women and girls:

1. Sitting (26%)
2. Walking (22%)
3. Playing on playground equipment (13%)
4. Standing (9%)
5. Swings (7%)

Top 5 activities for men and boys:

1. Basketball (25%)
2. Sitting (17%)
3. Walking (10%)
4. Baseball (8%)
5. Playing on playground equipment (8%)

Variations by Age and Gender

- Average activity level by gender:
 - Women/girls 1.84
 - Men/boys 2.19
- Average activity level by age group
 - Children 2.52
 - Teens 2.16
 - Adults 1.77
 - Seniors 1.31



➤ 1=low/sedentary, 2=medium/walking,3=high/more than walking)

Key Finding

- Girls were less active than boys.
- The older park goers were, the less physically active they were.



Possible Explanations



- Boys were more often engaged in teams sports.
- Adults as well as girls were more likely to be spectators at sporting events, such as baseball games.
- Organized team sports target young boys.

Youth's Insights

- Culturally based gender roles
 - Girls hair and make-up
- Boys more interested in the activities going on in the parks
- Expectations of girls and boys



Our Take-Away Message

- To increase the utilization of parks and playgrounds:
 - Increase community awareness of the many great parks in Lawrence
 - Address safety and sanitation issues in the parks
 - Ensure equipment is functioning and well maintained
 - Increase community ownership and appreciation of parks