

# **Community & Environmental Benefits of Parks and Recreation**

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# Research to Practice: Why now?

- Evolution of community parks and recreation:
  - Late 1800's: Social service for health/well-being
  - 1960's-1970's: Shift to activities and facilities
  - Modern social issues facilitated change:
    - “Graying of America”
    - At-risk Youth
    - Obesity
    - Chronic disease prevalence
    - Climate change
    - Pollution
  - We have come full circle....back to our original mission.

# Why does leisure and recreation produce health benefits?

Several aspects of a leisure experience may facilitate health related benefits. For example, leisure/recreation is generally:

- Freely chosen
- Intrinsically satisfying
- Personally meaningful
- Enjoyable



Much research supports the above factors being important to experiencing leisure/recreation.

# How do parks and recreation help communities?

## Community Livability:

- Parks, trails and playgrounds among the top 5 most important community amenities (National Assn of Realtors & National Assn. of Home Builders).
- Recreation/parks and open space were ranked highest by small company owners who were relocating (Crompton, Love & More, 1997).



# Community Engagement

- A study by Kuo et al. (1998) of green space in inner city areas found:
  - The more green space there is available, the more common public spaces are used by residents.
  - Relationships between neighbors are strengthened by the presence of vegetation;
  - Compared to residents living near barren spaces, those closer to green spaces enjoy more social activities, know more neighbors and have a stronger sense of belonging.

In short, green spaces facilitate positive social ties. 5

# Example: Union Point Park, Oakland California

- Highest concentration of kids in the city, yet fewest parks
- Over a 1,000 residents & 50 community organizations involved
- A former neglected industrial site transformed



# Example: Village Homes, Davis, California

- A neighborhood designed to strengthen sense of community and social ties.
- Study by Francis (2002) found that Village residents have 2x the number of friends & 3x the social contacts compared to a conventional neighborhood in Davis.





# Community Benefits

- Recreation programs associated with lower juvenile crime rates:
  - 25% drop in Kansas City in areas where midnight basketball was available.
  - 28% drop in Fort Worth within a mile of centers.
  - 28% drop in juvenile arrests in Ft. Myers following implementing an after school program.
- People with a park within walking distance use parks more and are healthier.



# Economic Benefits of Parks and Recreation

- Neighborhood Parks account for a 20% increase in property values for homes that face or abut parks (Crompton, 2001).
- In Boulder, Colorado, homes adjacent to a green space were 32% higher in value than homes 3200 feet away (.65 mile).
- Proximate principle: homes near parks yield higher property taxes ~ offset expense of parks.

# Environmental Benefits of Parks & Recreation

- Over 50 years one tree generates:
    - \$31,250 worth of oxygen
    - \$62,000 of pollution control
    - Recycles \$37,500 worth of water
    - Controls \$31,250 worth of soil erosion
- (US Forest Service, 2001)

# Environmental Benefits of Parks

- Parks and open space can help reduce the effects of urban “heat islands” (Ahrens, 2006)
  - Heat islands are created by excessive amounts of paved surfaces, buildings & population density
  - Results in temps higher on avg. 2-10 degrees F
  - Consequences: ↑ air conditioning costs, ↑ pollution, ↑ increase heat related illness and mortality
- Trees and vegetation cool the air via shade and evapotranspiration (evaporation from leafy parts of plants)

# Environmental Benefits: Trees

- Trees are effective cleaning agents. Here are some examples:
  - A 200,000 acre urban park tree canopy removed 48 lbs. of particulates, 9 lbs of nitrogen dioxide, 6 lbs of sulfur dioxide, 2 lbs of carbon monoxide, and 100 lbs of carbon daily (Coder, 1996).
  - New York Cities trees removed an estimated 1,821 metric tons of air pollution in 1994 (Nowak, 1995).



# Personal Benefits: Physical Health

- Frequent park users- higher perceived health
- Park users had fewer MD visits
- Longer stay at park- lower SBP
- Active park users- lower BMI
- Park users had lower cortisol levels compared to non-park users.



# Community Health: Physical Activity

- 2/3<sup>rd</sup> of older adult park visitors reported high-moderate level of PA during park visit
- Adults who reported convenient & attractive surroundings were more likely to walk



Giles-Corti, B., Broomhall, M., Knuiman, M., Collins, C., Douglas, K., Ng, K., Lange, A., Donovan, R. (2005) Increasing walking: How Important Is Distance To, Attractiveness, and Size of Public Open Space? *American Journal of Preventive Medicine*, 28(2) supp.2,169-176.

Orsega-Smith, E., Payne, L., Mowen, A., Ho, C., & Godbey, G. (in press). The role of social support and self-efficacy in shaping leisure time physical activity of older adults. *Journal of Leisure Research*.



# Community Health: Physical Activity

- People who use parks can meet CDC recommendations for physical activity



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# Psychological & Social Benefits: Community Wellness Programs

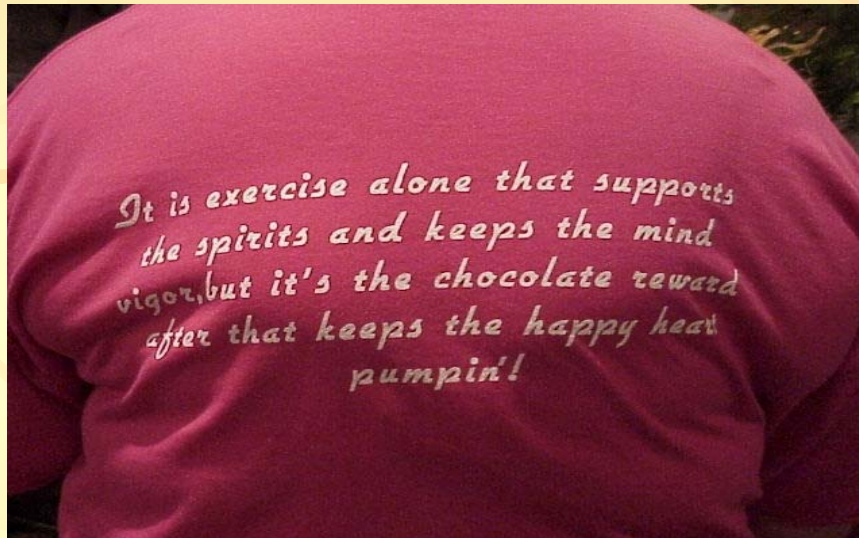
- Respondents who participated once per week indicated greatest gains in physical parameters (flexibility, strength), social support & self-efficacy





# Physical Benefits: Community Wellness Programs

- Participants in a community-based physical activity program increased
  - weekly caloric expenditure
  - physical activity frequency and duration



# Health Benefits: Community Wellness Programs

- Participants in “A Taste of Healthy Living” reported:
  - Increased knowledge of community resources as a result of their program participation
  - Pedometers and supportive environment facilitated physical activity



# Communit Health Benefits: Cognitive

- Mental fatigue & aggression was higher among urban public housing residents:
  - Living in buildings without “green”
  - Than those residing in buildings with more “green”





# Community Level Benefits

- A statewide study in West Virginia found that counties with greater recreation opportunities (e.g., existence of parks, number of facilities, acres of recreation lands) also had higher rates of physical activity, lower health care expenditures, and lower obesity rates.



# Organizational Resources for Parks and Recreation Development

- **Illinois Institute for Rural Affairs:**

- <http://www.iira.org/>

- Community MAPPING Program
  - Mapping your community's health

- **Illinois Coalition for Community Services:**

- <http://www.time-to.org/>

- Assist with non-profit status paperwork
  - Survey development & administration
  - Partnership development

# Organizational Resources for Parks and Recreation Development

## ■ University of Illinois Extension

- Unit Offices in 92 counties:

<http://web.extension.uiuc.edu/state/index.html>

- Community Improvement Programs:

- Community Swap
- Community Development Toolbox
- Conflict Resolution
- Annual leadership conference

# Organizational Resources

- **American Planning Association:**  
<http://www.planning.org/cpf/>
  - City Parks Forum: briefing papers
- **Trust for Public Land:** <http://www.tpl.org/>
  - Excellent City Parks Reports
  - Economic Benefits of Parks and Open Space
- **Illinois Department of Natural Resources:**  
<http://dnr.state.il.us/>
  - Community Park and Recreation Planning
  - Outdoor Recreation Facilities Guide
  - Guide to Playground Planning:  
<http://dnr.state.il.us/publicservices/publications/freebies1.htm>



# Resources

- **IL Department of Natural Resources:**
  - Recreation Grant in Aid Program (Open Space, Land Acquisition and Development Grants)
- **Illinois Association of Park Districts:**
  - Grants for parks and recreation related initiatives
  - Power Play After School Program grants
- **National Recreation and Park Association**
  - NFL grants
  - US Tennis Association grants

# Organizational Resources

- **Parks Victoria: Health Benefits of Parks Annotated Bibliography**

**<http://www.parkweb.vic.gov.au/index.cfm>**

- Click on “Healthy parks, healthy people”
- Then click on “research”

- **Illinois Association of Park Districts:**

- Bi-Monthly Magazine available online
- 1<sup>st</sup> issue each year has a grants outlook article



# Thank You

Questions?

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