



# Active Living Research

Using Evidence to Prevent Childhood Obesity and Create Active Communities

## Panel Presentation: *Integrating Research, Policy and Practice into Play*

- Jack Kardys, Director, Miami-Dade County Parks, Recreation and Open Spaces
- Maria I. Nardi, Chief, Planning and Research Division, Miami-Dade County Parks, Recreation & Open Spaces
- Nisha D. Botchwey, PhD, MCRP, MPH, Associate Professor, School of City and Regional Planning, Georgia Institute of Technology, College of Architecture
- Jay Maddock, Ph.D., FAAHB, Professor & Director, Office of Public Health Studies, University of Hawaii at Manoa

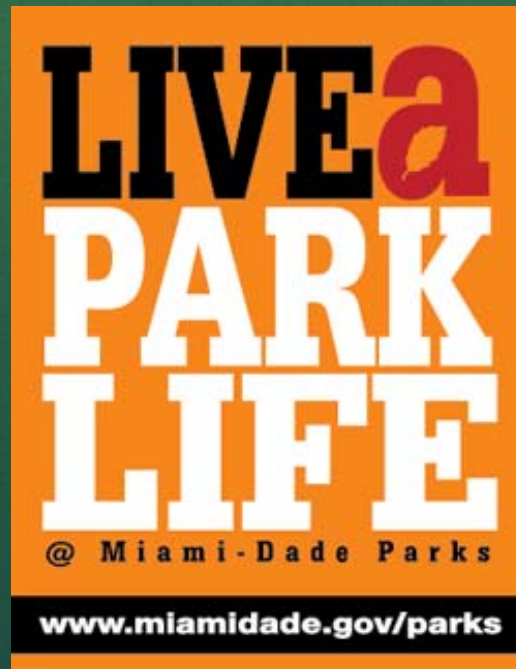


Robert Wood Johnson Foundation

# Miami-Dade County Parks, Recreation and Open Spaces

## VISION

Connecting People and Parks for Life !



# Objectives

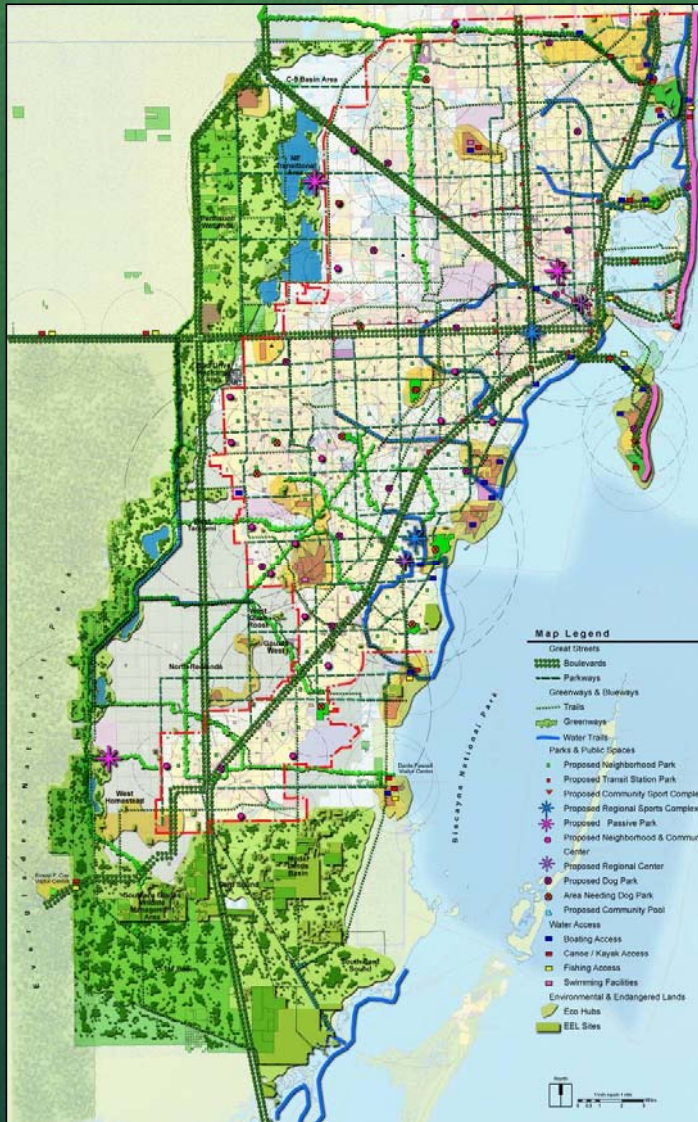
- How the implementation of community based, planning approach and an evidence based program model can have a positive impact on the health and wellness of a community
- Key components of a wellness program model that is fun and offers results
- Key steps that must be taken with existing staff and supporting material to implement an evidence-based health and wellness program for life

# About Miami-Dade County Parks, Recreation and Open Spaces

- Nationally accredited, a three-time winner of the NRPA National Gold Medal Award and winner of the 2009 Florida Governor's Sterling Award for excellence in management and operations
- Serve 2.5 million residents and 10 million visitors annually
- Over 2,000 square miles with 35 municipalities within the County
- Serve 10,000 children in out-of-school and summer programs and 25,000 children in organized youth leagues annually
- 260 parks & 12,848 acres of land including:
  - After school, sports, summer camp programs
  - Educational nature centers and nature preserves
  - Beaches, marinas, pools, golf courses, gun range
  - Zoo Miami
  - Deering Estate at Cutler
  - Arts and culture programs and events
  - And much more

# Open Space Master Plan

Creating a 50 Year, Unifying Vision for a Livable, Sustainable Miami-Dade County "through the Parks Window"



The Public Realm:

Great Parks

Great Public Spaces

Great Natural and Cultural Areas


Great Greenways and Blueways

Great Streets

# Open Space Master Plan: Policies

- On February 19, 2008, Board of County Commissioners approved the Park and Open Space System Master Plan (OSMP)
- Determined it to be an **essential roadmap** for developing a more sustainable, livable community by using a comprehensive and coordinated park system as its engine
- In 2009 the OSMP was incorporated into the CDMP – ROSE element. Its goals and principles guide public and private development

**OFFICIAL FILE COPY  
CLERK OF THE BOARD  
OF COUNTY COMMISSIONERS  
MIAMI-DADE COUNTY, FLORIDA**

**Memorandum** 

**Date:** February 19, 2008

**To:** Honorable Chairman Bruno A. Barriero  
and Members, Board of County  
Commissioners

**From:** George J. Burgess  
County Manager

**Subject:** Miami-Dade County Park and Open Space System Master Plan  
#R-171-08

Amended  
Agenda Item No. 8(M)(1)(A)  
Resolution No. R-171-08

**Recommendation**  
It is recommended that the Board of County Commissioners (BCC) adopt the attached resolution which approves the Miami-Dade County Park and Open Space System Master Plan, endorses the principles, goals and vision of the plan and directs the Mayor or his designee to develop an implementation strategy and action plan that will ensure that these principles, goals and vision are fully embedded in the County's strategic plan, incorporated into the goals and policies of effecting County departments, and communicated to all public agencies, including public schools, other municipalities, state and federal agencies, no later than twelve months after the adoption of this resolution.

**Scope**  
The Park and Open Space System Master Plan is a Countywide plan.

**Fiscal Impact/Funding Source**  
The plan is not a capital development plan, but rather a vision document that articulates goals and policies for park and public realm development in the future.

**Track Record/ Monitor**  
MDPR will have the responsibility for coordinating future efforts to implement the plan. Those efforts will involve other County departments, including Planning and Zoning, Public Works, Transit, DERM, GSA, Libraries, and Cultural Affairs, and state and federal agencies involved in public realm development.

**Background**  
The Park and Open Space System Master Plan is a broad policy framework and vision document that will guide the development and stewardship of parks and conservation open space into the 21<sup>st</sup> century. It envisions a system that connects communities through parks, public spaces, natural and cultural areas, greenways, water trails and streets. That system will provide a framework for a more livable and sustainable South Florida. The goal of the Park and Open Space System Master Plan is to ensure the development of a great park system comprised of the public realm that improves the overall quality of life for all our residents and visitors.

# Achieving Health Equity

Key Finding:  
Community based  
interventions could  
reduce disease  
levels

American's Plan for  
Health & Wellness



National Prevention Strategy

# Communities Putting Prevention To Work in Miami-Dade County



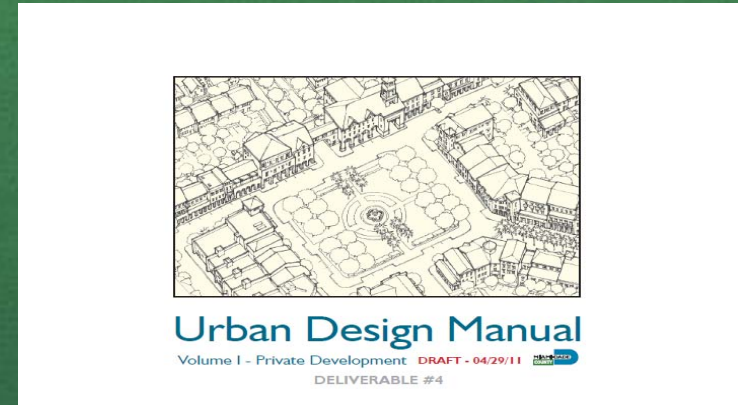
- Grant: State received \$14 million and MDC Parks Department received \$1 million
- Purpose: Create healthier communities through sustainable, proven, population-based approaches
- Focus: Policy, Systems and Environmental Changes to combat **obesity**
  - Increasing access to healthy foods
  - Increasing opportunities for physical activity
- Making the places where people live, learn, work and play healthier
- Transforming health through coalitions and partnerships across sectors
  - Consortium for a Healthier Miami-Dade



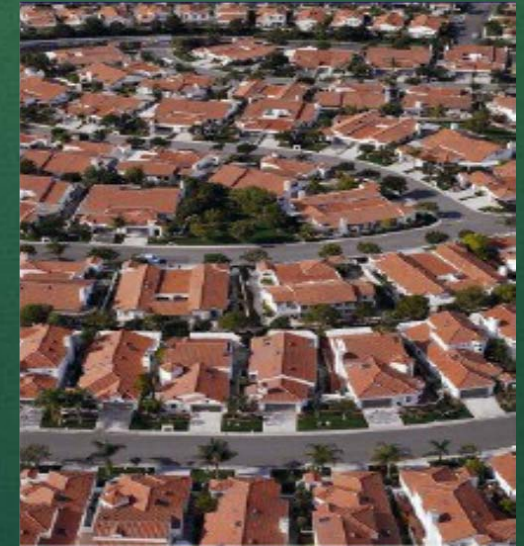
# Goal 9: Active Transportation and Recreation

## Miami-Dade County Parks and Recreation

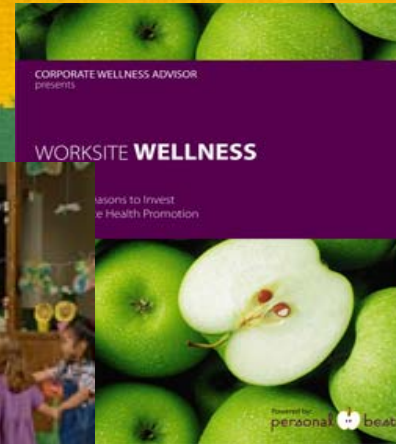
1. Urban Design Manual I (Private Development)
2. Urban Design Manual II (Civic Development)
3. Vending Machine Policy
4. Park Structure and Landscape Pattern Book
5. Park Access and Equity Report
6. Outdoor Gyms
7. Worksite Wellness Program



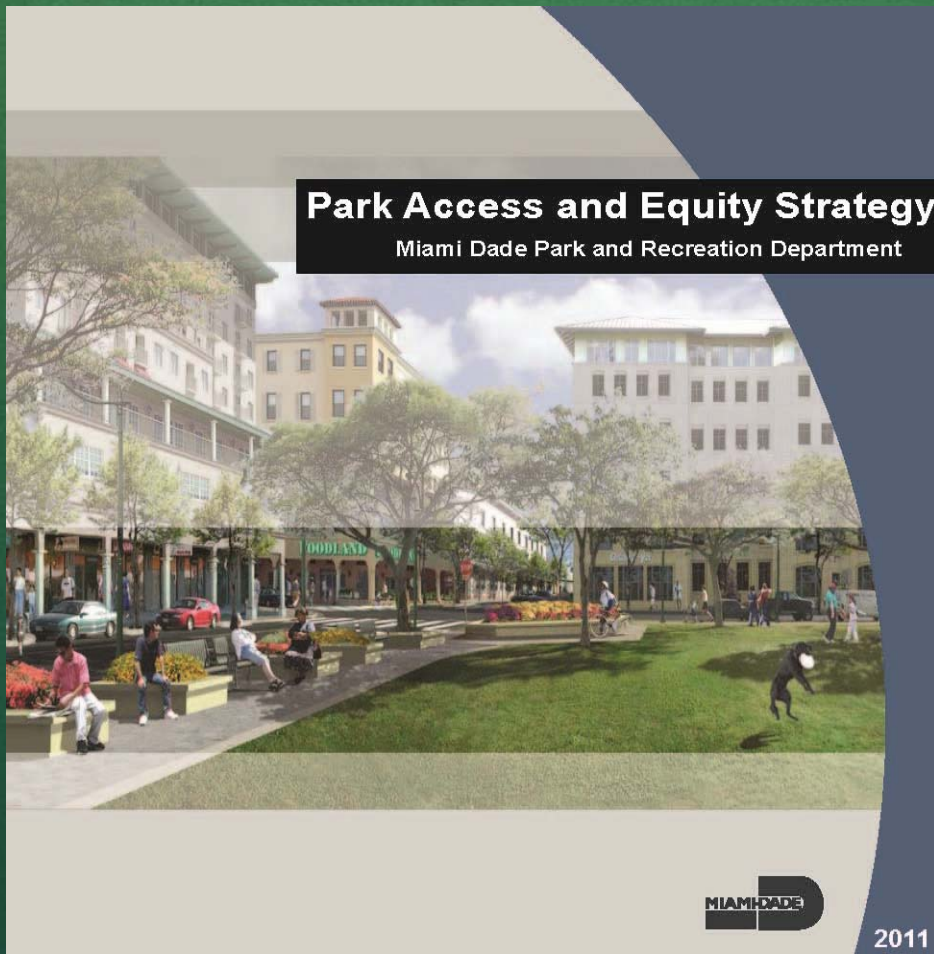
# From this...



# To this.....



# Access and Equity Analysis



- Based on OSMP Access Criteria
- Seeks to promote physical activity through recreation and active transportation



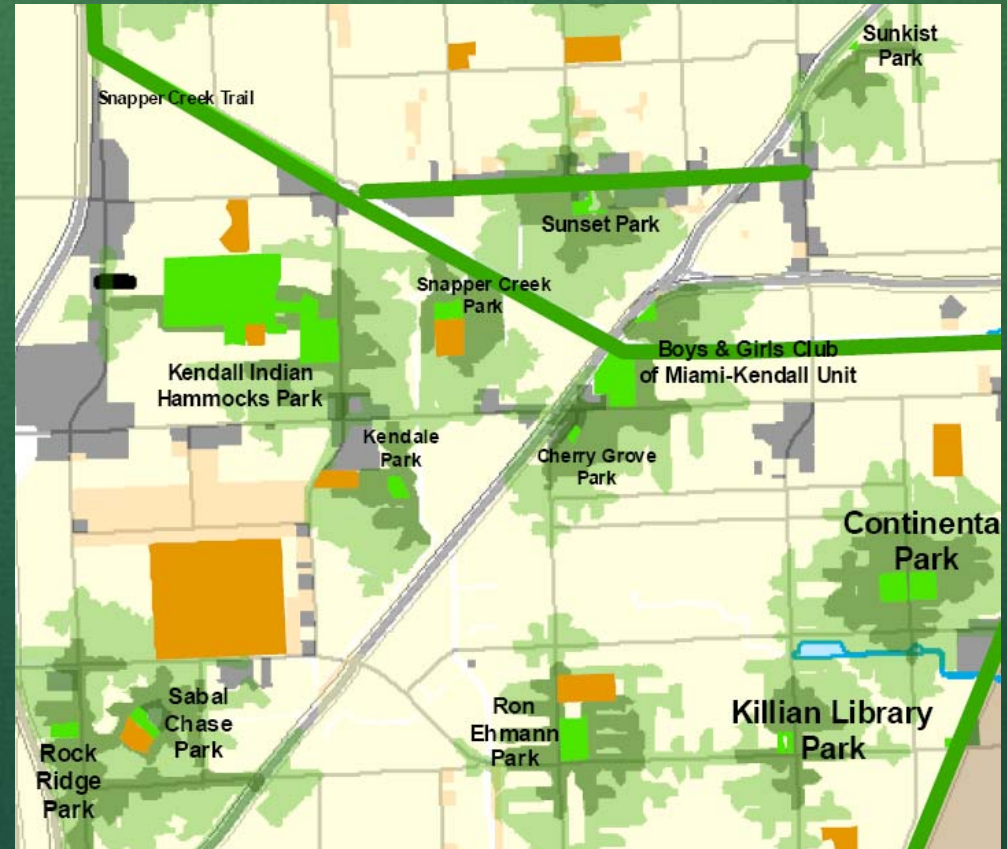
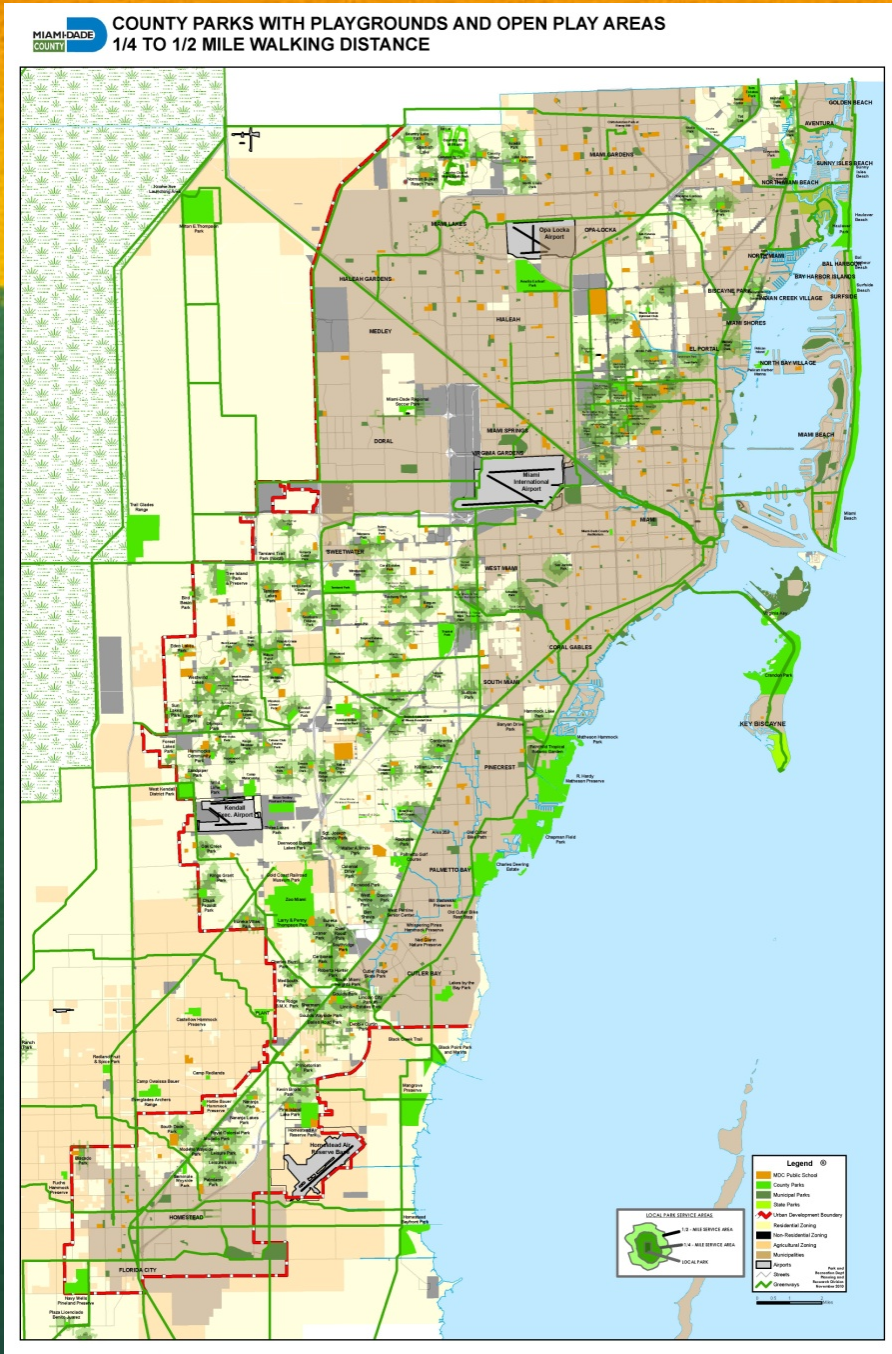
# Increase Access to Recreation

EQUITY ACCESS CRITERIA		
<b>REGIONAL</b>		
<b>RESOURCE-BASED</b>		
ACTIVITY	ACCESS	ACCESS MEASUREMENT
<b>NATURAL/CULTURAL RESOURCE-BASED RECREATION</b>	All residents shall have opportunities for canoeing, kayaking, motor boating, fishing, observing wildlife, and experience a natural area.	Access to geographically dependent natural and cultural resources.
<b>POPULATION-BASED</b>		
ACTIVITY	ACCESS	ACCESS MEASUREMENT
<b>FOOTBALL</b>	All residents should be able to access competition level football facilities.	2 - 3 MILES
<b>SOCCER</b>	All residents should be able to access competition level soccer facilities.	2 - 3 MILES
<b>SOFTBALL/ YOUTH BASEBALL</b>	All residents should be able to access competition level softball and youth baseball facilities.	2 - 3 MILES
<b>TENNIS</b>	All residents should be able to access competition level tennis facilities.	2 - 3 MILES
<b>AQUATICS</b>	All residents should be able to access aquatic facilities such as a pool or splash playground.	2 - 3 MILES
<b>LOCAL (UMSA)</b>		
<b>AT WILL</b>		
ACTIVITY	ACCESS	ACCESS MEASUREMENT
<b>OPEN PLAY/ PLAYGROUNDS</b>	All residents, regardless of location, should be able to access open play areas, tot lots and playgrounds.	1/4 - 1/2 MILE
<b>FOOTBALL</b>	All residents should be able to access football fields.	1/4 - 1/2 MILE
<b>SOCCER</b>	All residents should be able to access soccer fields.	1/4 - 1/2 MILE
<b>SOFTBALL/ YOUTH BASEBALL</b>	All residents should be able to access softball and youth baseball fields.	1/4 - 1/2 MILE
<b>TENNIS</b>	All residents should be able to access tennis facilities.	1/4 - 1/2 MILE
<b>BASKETBALL</b>	All residents should be able to access basketball facilities.	1/4 - 1/2 MILE
<b>PROGRAMMED</b>		
ACTIVITY	ACCESS	ACCESS MEASUREMENT
<b>OUT OF SCHOOL/ SUMMER CAMP</b>	All youth residents should be able to participate in an out of school or summer camp program.	2 - 3 MILES

- Based on OSMP principles of livability and sustainability
- Access to Parks should not require a car – walkable and bikeable
- By Activity Type
- Divided into Local and Regional
- Promotes physical activity and more equitable access to recreation

# Local Parks

1/4 - 1/2 mile walkshed

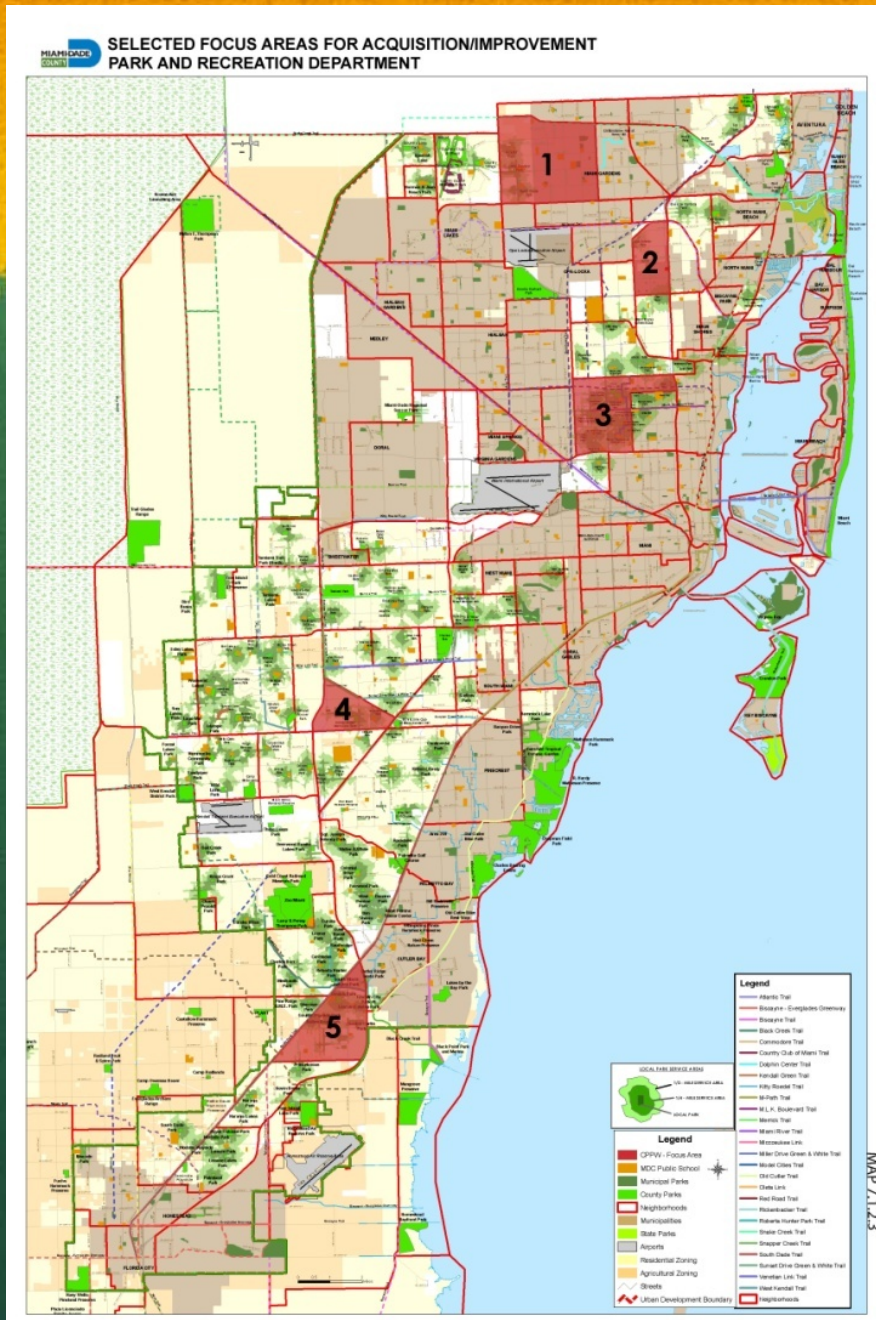






# 5 Focus Areas

- Areas of Health Disparity
- Areas with Gaps in Service
- North/South geographic distribution



# KENDALL INDIAN HAMMOCKS PARK KENDALL NORTH NEIGHBORHOOD



**OPPORTUNITIES**

1. PROVIDE EDUCATIONAL AND INTERPRETIVE EXPERIENCES AT EXISTING ARCHAEOLOGICAL, HISTORICAL & NATURAL AREAS WITHIN KENDALL INDIAN HAMMOCKS PARK
2. PROVIDE ACCESS TO THE PARK FROM THE HIGH DENSITY RESIDENTIAL AREA SURROUNDING PARK
3. CONNECT BICYCLE AND PEDESTRIAN USERS BY SHAFER GREEN TRAIL TO THE PARK
4. PROVIDE SAFE ROUTES TO THE PARK FROM NEARBY SCHOOLS
5. PROVIDE PEDESTRIAN ACCESS FROM ADJACENT MDC SCHOOL, DISTRICT PROPERTY
6. PROVIDE REGIONAL CONNECTIVITY VIA SIDEWALKS, BIKE LANES, LEGAL STREETS AND TRANSIT TO NEARBY SCHOOLS
7. PROVIDE WAYFINDING SIGNAGE DIRECTING PEOPLE TO THE PARK FROM NEARBY BUS STOPS
8. PROVIDE ON STREET PARKING FOR PARK VISITORS
9. ESTABLISH CONNECTIVITY BETWEEN THE PARK AND SURROUNDING STREET NETWORK
10. ENHANCE SIDEWALKS AND CROSSWALKS FOR PERSONS WITH DISABILITIES AND SENIORS
11. EXPAND EXISTING PARK AND ACQUIRE ADJACENT LANDS
12. DEVELOP SHARED USE PARKING WITH ADJACENT HIGH SCHOOL
13. ESTABLISH PROGRAM PARTNERSHIP WITH ADJACENT MIAMI DADE COUNTY SCHOOLS

**CONSTRAINTS**

1. LIMITED PEDESTRIAN ACCESS DUE TO ADJACENT LAND USES
2. LIMITED DEVELOPMENT ON NORTH SIDE OF PARK DUE TO NATURAL FOREST
3. COMMUNITY RESTRICTS DEVELOPMENT OF RECREATIONAL FACILITIES AND PEDESTRIAN ACCESS FROM THE ADJACENT SCHOOL
4. LIMITED PARK DEVELOPMENT POTENTIAL DUE TO MDC SCHOOL BOARD
5. CONTROLLING LARGE AREAS OF THE PARK, RESTRICTING SITE DEVELOPMENT AND PARK PROGRAMMING OPPORTUNITIES
6. LACK OF DIRECT CONNECTIVITY TO THE REGIONAL GREENWAY SYSTEM LACK OF SAFER ROUTE AND PEDESTRIAN ACCESS FROM NEARBY SCHOOLS TO THE PARK
7. LIMITED DEVELOPMENT OPPORTUNITIES DUE TO EXISTING ARCHAEOLOGICAL ZONES AND HISTORICAL SITES
8. CONFLICTING LAND USES ON ADJACENT PROPERTIES SUCH AS COUNTY MAINTENANCE AND SIGN SHOP, COUNTY STORAGE, PUBLIC WORKS AND FIRE DEPT TRAINING FACILITIES WHICH REQUIRE SETBACKS
9. LIMITED DEVELOPMENT ON NORTH SIDE OF PARK DUE TO AN EXISTING 40' WATER EASEMENT

LEGEND:									
	PARK BOUNDARY		POTENTIAL GREENWAY CONNECTION		EXISTING VEHICULAR ACCESS		ACQUISITION TARGETS		INTERSECTION/CROSSWALK IMPROVEMENTS
	VEHICULAR ROUTE		PROPOSED VEHICULAR ROUTE		EXISTING PEDESTRIAN ACCESS		ARCHAEOLOGICAL ZONES		WAYFINDING DIRECTIONAL SIGN
	EXISTING SIDEWALK		SAFE ROUTE TO PARKS		PROPOSED VEHICULAR ACCESS TO PARK		NATURAL AREA		INFORMATIONAL SIGN
	EXISTING SCHOOL BOUNDARY		PROPOSED SIDEWALK		PROPOSED PEDESTRIAN ACCESS TO PARK		JOINT USE/AGREEMENT AREA		EDUCATIONAL SIGN
	BUS STOP		PROPOSED CROSSWALK		PROPOSED BUS STOP				
	TRAIN/RAIL STATION		PROPOSED BUS ROUTE						

# KENDALL INDIAN HAMMOCKS PARK KENDALL NORTH NEIGHBORHOOD

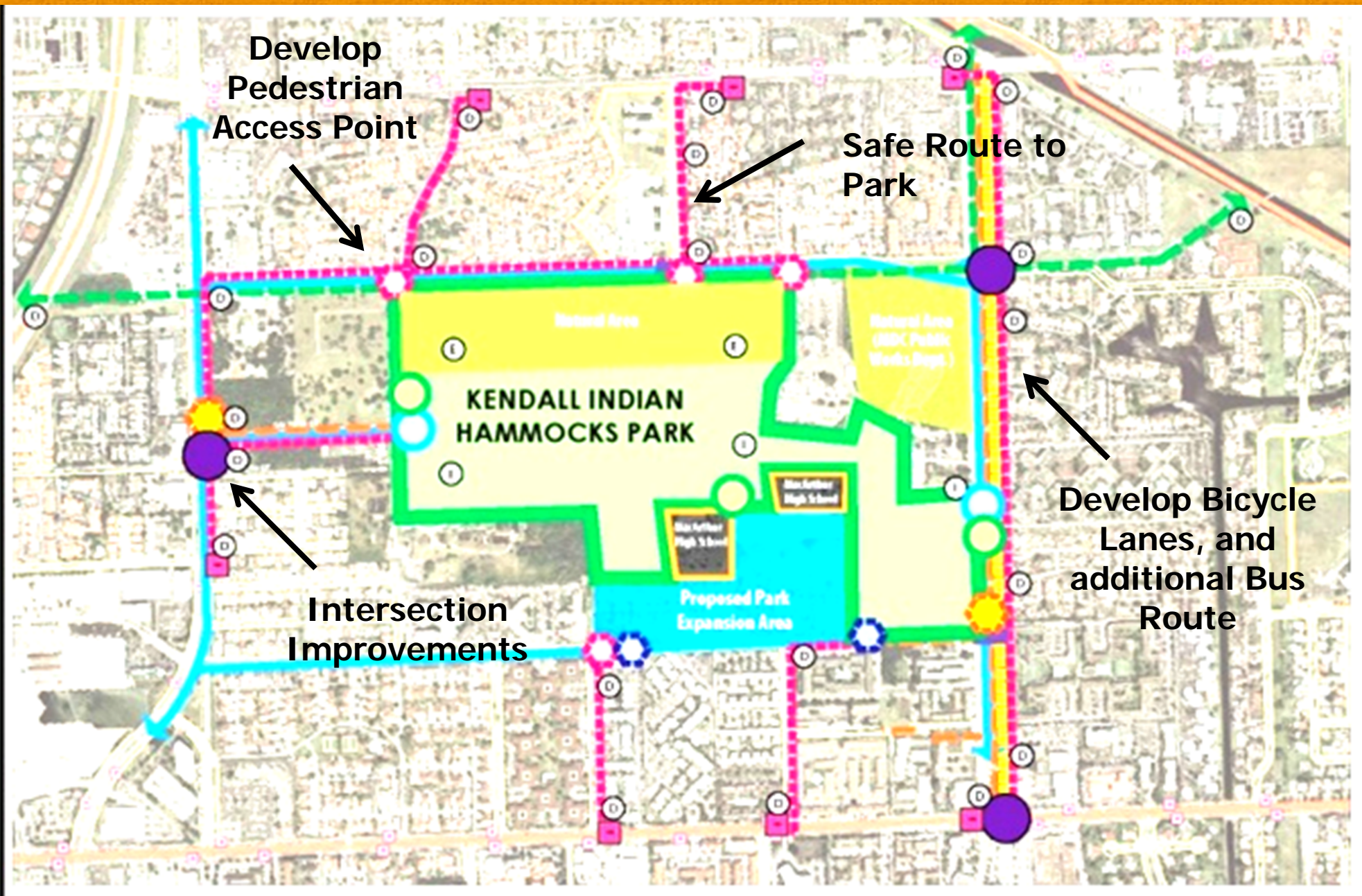


**INTERVENTIONS / SAFE ROUTE TO PARKS / WAYFINDING**

1. INSTALL INTERPRETIVE SIGNAGE AND EXHIBITS DETAILED THE ARCHEOLOGICAL HISTORY & NATURAL RESOURCES OF KENDALL INDIAN HAMMOCKS PARK
2. UTILIZE JOINT USE AGREEMENT WITH MIAMI DADE COUNTY SCHOOL DISTRICT FOR USE OF 25 ACRES WITH BASEBALL AND SOCCER FIELDS, BASKETBALL COURTS, AND CONCESSION STORAGE FACILITIES.
3. DEVELOP ADDITIONAL PARK ACCESS POINTS FROM SW 76TH STREET & SW 112TH AVE TO PROVIDE ACCESS TO MORE RESIDENTS
4. CONNECT TO REGIONAL AND COMMUNITY ACCESS FROM SW 107TH AVE AND THE NEARBY FLORIDA TURNPIKE
5. ENHANCE REGIONAL CONNECTIVITY VIA EASEMENT TO SNAPPER CREEK TRAIL
6. PROVIDE ACCESS FROM ADJACENT MDC SCHOOL DISTRICT PROPERTY VIA NEW SCHOOL ACCESS ROAD, SW 87TH TERRACE & NEW SW 112TH AVENUE.
7. DEVELOP ON STREET PARKING TO MINIMIZE NEED FOR ADDITIONAL PARKING AREAS WITHIN THE PARK.
8. DEVELOP PEDESTRIAN CONNECTIONS INTO PARK VIA EXISTING SIDEWALK NETWORK AROUND PARK AND FROM VARIOUS STREET ENDS THAT ABUT PARK.
9. DEVELOP INTERNAL BICYCLE AND WALKING PATHS WITHIN PARK.
10. ACQUIRE ADDITIONAL TROPICAL HARDWOOD HAMMOCK AREA NORTHEAST OF PARK, ADJACENT TO SOLID WASTE DEPT. PROPERTY.
11. ACQUIRE HAVEN CENTER PROPERTY
12. DEVELOP JOINT-USE AGREEMENT WITH MDC SCHOOL DISTRICT FOR RENOVATION OF GYM AND STORAGE FACILITIES
13. DEVELOP SHARED USE PARKING WITH NEW HIGH SCHOOL FOR ON AND OFF PARK PARKING
14. ESTABLISH PROGRAM PARTNERSHIP WITH MDC SCHOOLS FOR AFTER SCHOOL, SUMMER CAMP AND SENIORS PROGRAMS
15. RECREATIONAL FACILITIES WITHIN THE PARK THAT PROVIDE OPPORTUNITIES FOR PHYSICAL ACTIVITY, INCLUDING WALKING PATHS, PLAYGROUNDS, BASEBALL FIELDS, SOCCER FIELDS, BASKETBALL COURTS, PICNIC SHELTERS AND A RECREATION CENTER.

**LEGEND:**

PARK BOUNDARY	POTENTIAL GREENWAY CONNECTION	EXISTING VEHICULAR ACCESS	ACQUISITION TARGETS	INTERSECTION/CROSSWALK IMPROVEMENTS
VEHICULAR ROUTE	PROPOSED VEHICULAR ROUTE	EXISTING PEDESTRIAN ACCESS	ARCHEOLOGICAL ZONES	<u>WAYFINDING</u>
EXISTING SIDEWALK	SAFE ROUTE TO PARKS	PROPOSED VEHICULAR ACCESS TO PARK	NATURAL AREA	DIRECTIONAL SIGN
EXISTING SCHOOL BOUNDARY	PROPOSED SIDEWALK	PROPOSED PEDESTRIAN ACCESS TO PARK	JOINT USE/AGREEMENT AREA	INFORMATIONAL SIGN
BUS STOP	PROPOSED CROSSWALK	PROPOSED BUS STOP		EDUCATIONAL SIGN
TRAIN/RAIL STATION	PROPOSED BUS ROUTE			



**Develop  
Pedestrian  
Access Point**



**Safe Route to  
Park**



**Develop Bicycle  
Lanes, and  
additional Bus  
Route**



**Intersection  
Improvements**



**KENDALL INDIAN  
HAMMOCKS PARK**

Natural Area

Natural Area  
(MDC Public  
Works Dept.)

Proposed Park  
Expansion Area

Mickler  
High School

Mickler  
High School



# Kendall Indian Hammocks Park

Increase service area thru additional pedestrian access points

Interventions will result in a 50% increase in walkable park service



# Strategies



- Acquisition Strategy
  - Reduce gaps in service areas
- Maximize open space on existing publically owned land
  - Improve Access to Existing Parks
  - Joint-Use Agreements with Schools
  - Transfer of Existing County Properties

# Policies and Design Interventions

- Increase access to existing parks
- Maximize existing parks
- Develop pedestrian access points
- Build a pedestrian bridge over canal
- Install a sidewalk
- Intersection Improvements
- Bicycle Lanes



# Recreation Program Plan

- A means to guide the provision of recreation and leisure services to advance the overall mission and vision of Miami-Dade County
  - Informed and guided by the County's Strategic Plan
  - Supported by the Department's Business Plan
  - Parks and Open Spaces Master Plan



# Recreation Program Plan

- Put into place a systematic and ongoing inventory, analysis and assessment process that will help the Miami-Dade County Park and Recreation Department now and in the future
- Determine the context of recreation facilities and programs county-wide
- Provide specificity in determining the effectiveness of programs and services.

*“Where are we; where do we want to be and how do we get there.”*

# Recreation Program Plan

- Goals determined in achieving health equity through the Recreation Program Plan
  - Ensure Quality Recreation Programs that are Responsive to Community Needs
  - Create Healthy Communities
  - Ensure Financial Sustainability for Program Delivery
  - Foster Environmental and Cultural Stewardship
  - Ensure the Equitable Provision of Program Opportunities

# Recreation Program Plan

## ● Needs Assessment

- Identify recreation and leisure interests that are favorites of residents
- Identify recreation and leisure interests that are least favorites
- Determine facility and program needs
- Obtain residents' general evaluation of various aspects of county facilities and programs

# Recreation Program Plan

## Summary Initiatives

- Strategic Plan
- Planning Initiatives
- Recreation Programming Initiatives
- Programming Partnership Initiatives
- Arts and Culture Initiatives
- Enterprise Initiatives
- Attraction Initiatives
- Training Initiatives
- Adding Disability Services/Therapeutic Recreation
- Adding Inclusive Recreation

# Vision for the Future

- E Fit 2 Play Program
- Interactive
- Multiple learning dimensions



Miami-Dade Parks &  
Radio Disney AM 990



June 6-August 5, 2005

# Fit 2 Play

A Partnership for Youth Excellence

## Goals

An evidence based, interactive, fun and educational wellness program for ages 6-14 which incorporates physical activity with interactive learning to develop healthy lifestyles and good citizenship

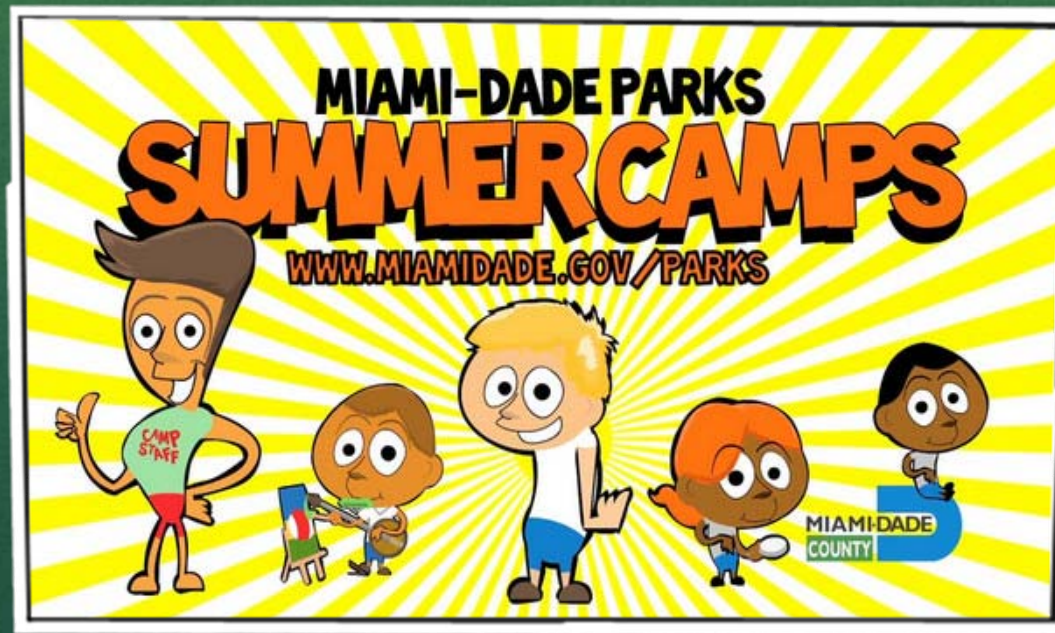


- Increase the physical activity of children through quality recreation activities
- Improve the health and wellness of children through a nutrition program that teaches healthy choices
- Improve school performance through quality homework assistance and citizenship opportunities
- Create opportunities for children to make friends
- Find a life sport through sports development programs

# Fit 2 Play

A Partnership for Youth Excellence

- After School, Out-of-School and Summer Camp programs are provided to support this initiative year-round.



[http://www.youtube.com/watch?v=rkhxKkJ8YnU&feature=em-share\\_video\\_user](http://www.youtube.com/watch?v=rkhxKkJ8YnU&feature=em-share_video_user)

# Physical Fitness Component

- After School Program 45 minutes of Physical Activity minimum 4 times a week
- Ongoing in-service training, evaluation and instructor coaching
- 1 or 2 day training workshops
- Equipment Available for Activities
- Follow up support available



**SPARK**

Sports, Play & Active Recreational for Kids!



# Nutrition Education



- EmpowerME4Life is an 8-session healthy living course to equip kids ages 8-12 with new attitudes, skills and knowledge about eating better and moving more.
- The Alliance's EmpowerME campaign is a by kids, for kids movement that's inspiring all kids to make healthy behavior changes and to become leaders and advocates for healthy eating and physical activity in their communities.

# Personnel and Certifications

- Parks & Recreation recruited Exercise Physiologists, and Wellness & Fitness Specialists, who are designated to oversee operations at specific sites to improve implementation and professionalism of the programs.
- Fitness professionals certified by an NCCA-accredited program
- Through International Fitness Professionals Association (IFPA)
  - Wellness & Fitness Specialist
  - Youth Fitness Specialist
  - Sports Nutrition Specialist



# University of Miami Study Design

- **Longitudinal cohort study** to determine the effect of Fit-2-Play on preventing overweight and obesity among 5-to-13 year olds in 23 Miami-Dade County parks.
- UM faculty and staff trained MDC Parks field staff in anthropometric and clinical data collection techniques.
- Web-based data collection program. Data automatically uploaded to UM server.
- UM faculty analyze data.



# Data Collection

Standardized, quantifiable and measurable testing is incorporated in the Fit-2-Play program to test health, fitness, wellness and academic performance.

This is a data collection form titled "Fit-2-Play Health and Wellness Assessment Tool". It includes fields for "Participant Name", "Date", and "Grade". Below these are sections for "Anthropometric Measures" (Height, Weight, BMI, Waist Circumference) and "Clinical Measures" (Blood Pressure, Heart Rate, Vision). The form uses checkboxes and numerical input fields for data entry.

This is a data collection form titled "Fit-2-Play Health and Wellness Assessment Tool". It includes fields for "Participant Name", "Date", and "Grade". Below these are sections for "Physical Fitness" (Cardiovascular Endurance, Muscular Strength, Flexibility) and "Academic Performance" (Reading, Math, Science, Social Studies, Language Arts). The form uses checkboxes and numerical input fields for data entry.

This is a data collection form titled "Fit-2-Play Health and Wellness Assessment Tool". It includes fields for "Participant Name", "Date", and "Grade". Below these are sections for "Nutrition Knowledge" (True/False questions) and "Wellness" (Stress Management, Self-Care, Safety). The form uses checkboxes and numerical input fields for data entry.

Pre and Post Testing at Beginning and End of School Year

Primary Outcome

Measures:

- Anthropometric Measures (BMI, WC)
- Clinical Measures (BP)
- Physical Fitness
- Nutrition Knowledge

# Anthropomorphic Results

	<b>Baseline/Pretest (Fall 2010)</b>	<b>Posttest (Spring 2011)</b>	<b>P value</b>
	Mean	Mean	
<b>BMI percentile</b>	72.2	72.5	NS
<b>BMI z score</b>	0.84	0.85	NS
<b>Weight z score</b>	0.72	0.72	NS
<b>Height</b>	136.4	138.5	<.0001
<b>Waist Circumference</b>	65.0	66.0	<.0001
<b>Hip Circumference</b>	76.5	77.8	<.0001

Collectively these anthropometric findings show that participants are growing normally while not gaining weight abnormally

# Physical Fitness Results

Test	Pretest (Fall 2010)	Posttest (Spring 2011)	Difference	P value
Sit-and-Reach	25.7	26.2	+.55	0.01
Push Ups	21.7	24.9	+3.3	<0.0001
Sit Ups	25.2	28.6	+3.8	<0.0001
400 Meter Run	260.5	201.7	-58.1	0.0003
Pacer Test	16.0	16.7	+.72	NS

# Nutrition Knowledge Results

Test Items/Variables	Pretest % Correct	Posttest % Correct	Change
being physically active is only for athletes	78%	87%	+9%
It is healthy to eat fruits and vegetables at every meal	66%	86%	+20%
Fruits and vegetables are full of nutrients and vitamins	84%	89%	+5%
It's good to exercise, an hour a day	74%	83%	+9%
Watch TV instead of exercise	76%	89%	+13%
I should limit the amount of TV	59%	81%	+22%
How does being physically active help your body	66%	87%	+21%
Identify the activity that is most physically active	88%	95%	+7%
Identify the bad drink	55%	77%	+22%

(mean change improved from 6.37 questions correct to 7.3 questions correct,  $P < 0.0001$ ).



**ALLISON DIAZ/FOR THE MIAMI HERALD**  
**RUNNING FOR HIS HEALTH:** Moises Sanchez, 14, tackles the morning mile as part of the Fit-to-Play summer camp at Hammocks Community Park in West Kendall. Sanchez has lost more than 40 pounds.

# 'Excess weight can be a strain on your child's health'

<http://www.local10.com/thats-life/health/Study-Program-helps-reduce-child-obesity/-/1717022/18496038/-/lnj4xrz/-/index.html>

## Excess weight can be a strain on your child's health

• OBESITY, FROM 1998

United States, according to a National Health and Nutrition Examination Survey. The number of obese children was just as high: Between 2007 and 2008, nearly 17 percent of 2- to 19-year-olds in the United States were obese, according to a National Health and Nutrition Examination Survey released in 2010.

A child is considered overweight when their body mass index is at or above the 85th percentile and lower than the 95th percentile. A child is considered obese when his or her body mass index is at or above the 95th percentile, according to the Centers for Disease Control and Prevention. These percentiles are age- and gender-specific.

At his heaviest, Moises, now 14, was about 170 pounds. Chelsea, now 12, was about 160 pounds. They were both around five feet three inches tall.

"Most of the time I would like to wear baggy clothes so it wouldn't show my stomach. I was embarrassed by my weight," Chelsea said.

"I'd always go like this," she said, pulling her T-shirt over her stomach.

Last summer things began to change for the siblings. They joined a summer camp where instructors emphasized exercise, nutritional eating and a healthy lifestyle. At Miami-Dade County Parks, Recreation and Open Spaces Department's Fit-to-Play camp, Moises lost 40 pounds and Chelsea lost 35.

Similar programs have sprung up throughout South Florida to reverse the rising tide of overweight and obese children. At the University of Miami Miller School of Medicine's Crunchtime program, children take a one-on-one fitness class and learn about nutrition. In Broward, a group of about 25 kids work on their core strength twice a week at the Power ABS class at the David Posnack Jewish Community Center.

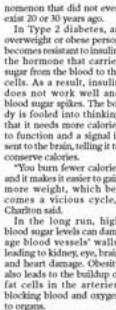
And at Memorial Regional Hospital's Fitness Center in Hollywood, children join an exercise class and, along with their parents, learn about nutritional eating.

"We need to intervene early as our kids start to gain weight," said Dr. Will Charlton, a pediatric endocrinologist at Joe DiMaggio Children's Hospital, part of the Memorial Healthcare System. "If we can get a hold of these kids earlier and make changes, then we can hopefully reverse this trend."

Obesity in children can lead to the early onset of Type 2 diabetes. In the past five years the number of children with Type 2 diabetes has "skyrocketed," Charlton said. This is a phe-



**ALLISON DIAZ/FOR THE MIAMI HERALD**  
**RUNNING FOR HIS HEALTH:** Moises Sanchez, 14, tackles the morning mile as part of the Fit-to-Play summer camp at Hammocks Community Park in West Kendall. Sanchez has lost more than 40 pounds.



**IN DAVIE:** An exercise program at the David Posnack JCC keeps kids (and the young at heart) in shape.



**STEVEN KOLLER/FOR THE MIAMI HERALD**  
**JCC keeps kids (and the young at heart) in shape.**

nomion that did not even exist 20 or 30 years ago. In Type 2 diabetes, an overweight or obese person becomes resistant to insulin, the hormone that carries sugar from the blood to the cells. As a result, insulin does not work well and blood sugar spikes. The body is fooled into thinking that it needs more calories to function and a signal is sent to the brain, telling it to conserve calories.

"You burn fewer calories and it makes it easier to gain more weight, which becomes a vicious cycle," Charlton said.

In the long run, high blood sugar levels can damage blood vessels' walls, leading to kidney, eye, brain and heart damage. Obesity also leads to the buildup of fat cells in the arteries, blocking blood and oxygen to organs.

"We used to think that fat was just fat and stayed there and it didn't look very pretty," said Dr. Tracie Miller, associate chair of Pediatrics for Clinical Research at the University of Miami Health System.

But fat cells secrete inflammation signals that lead to the production of white blood cells. It all accumulates in the arteries, blocking the flow of the blood to the organs, leading to oxygen deficiency.

"I cannot think of one organ that is not affected from obesity," Miller said. "There's a tremendous association between childhood obesity and adult complications. It's like an accelerated aging process."

She said while it is unlikely that heart attack would start happening in teenagers, people who were obese as children and adults may get a heart attack

in their 30s and 40s. When it comes to healthy eating, the number of calories is not that important, said Charlton. But the quality of the calories is — a piece of fruit is far better than a pack of fruit roll-ups.

"With fruit you are getting a lot of vitamins and minerals. And you will also

With Type 2 diabetes, exercising helps by making cells more sensitive to insulin flowing in the bloodstream. The result: A person does not need that much insulin and the body no longer stores calories.

"The primary benefit of exercise is that it changes how you burn calories for

Even if we don't have a change in weight, we have a big influence on the type of tissue there is in the body," said Gabriel Somarriva, an assistant professor and a physical therapist at UM's Division of Pediatric Clinical Research.

Pediatricians can measure a child's body composition — loss of adipose tissue, or body fat, versus gain of lean mass — to determine if the program is working.

Like many other children, River gained weight through no fault of his own. He was on a prescription migraine medication that lowered his metabolism and increased his appetite. Child-

hood obesity, where children are obese, is a health crisis, I had it

What: A nine-month program that includes assessing a child's body composition, bone density, heart activity and nutrition.

Where: University of Miami Miller School of Medicine, Bachelor Children's Research Institute, 1580 NW 10th Ave.

For information: Call 305-245-7722 or visit <http://pediatrics.med.miami.edu/crunchtime>.

Power ABS  
 What: Workout class.  
 Where: Jewish Community Center, 5850 South Pine Island Rd., Davie.  
 When: 5 p.m. to 6 p.m. Tuesdays and Thursdays.  
 Cost: Free for JCC members and \$2 per class for non-members.  
 For information: Call 954-454-0499 ext. 100 or 101.

Miami-Dade Park's Fit-to-Play  
 What: A summer camp and an after-school program where children learn how to lead a healthy lifestyle.  
 Where: At Miami-Dade County Parks.  
 When: Begins Aug. 2 and is held from 2 p.m. to 6 p.m.  
 Cost: \$25-\$35.  
 For information: Call 305-755-7900 or visit <http://www.miamidade.gov/parks/>.

Kids Zone, Kids in Training and Shapdown  
 What: Exercise and nutrition classes for children.  
 Where: Memorial Hospital West Fitness Center, 701 North Flamingo Rd., Pompano Beach.  
 For information: Call 954-864-7125 or visit <http://www.memorialhospitalscenter.com/infow>.

**ALLISON DIAZ/FOR THE MIAMI HERALD**  
**SETTING IN SHAPE:** River Friedman, 12, jumps rope as part of the Crunchtime program at the University of Miami Miller School of Medicine.

### If you go

#### Crunchtime

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## FIT-TO-PLAY

## Healthy habits start at childhood

■ Miami-Dade's Fit-to-Play program aims to educate kids on the benefits of physical fitness and sensible eating.

BY LIDIA DINKOVA  
Special to The Miami Herald

To help fight the childhood obesity epidemic and instill healthy habits in youths, Miami-Dade County started Fit-to-Play, an after-school health and exercise curriculum held at local parks.

To examine the program's effects, a team of University of Miami doctors did pre- and post-school year measurements tracking students' progress.

The results? Children and teens maintained a healthy weight, lowered their blood pressure, and increased their physical fitness and nutritional knowledge, said Dr. Sarah Messiah, who is conducting the study and is a research associate professor at the University of Miami Department of Pediatrics. These results are based on measurements taken at the beginning and end of the

2010-11 school year. The overall results for the 200-42 and 2012-13 school year are not available yet.

"The earlier the better in terms of influencing the children to be physically active," she said. "This program is now an evidence-based program and a resource for all children in this community that is accessible, affordable and year-round — something we haven't really had before."

For the study, which focused on 250 students from 6 to 14, doctors measured body-mass index, fat distribution, blood pressure, physical fitness and nutritional knowledge.

"We are trying to get the big picture by taking all of these different measurements," Messiah said.

Body-mass index, the measurement generally used to determine if a person is obese or overweight, is based on weight and height.

Children's body-mass index is determined by using age- and sex-specific percentiles — those who are overweight are above the

85th percentile and those who are obese are above the 95th percentile.

But body-mass index measurements could be a bit misleading. More athletic children, who have built up muscle, may yield a higher weight and a high body-mass index even if they're not obese or overweight.

"Muscle weighs more than fat," Messiah said.

As such, doctors also administered a skinfold-measurement test that shows the percentage of body-fat composition. Fit-to-Play also has targeted blood-pressure levels.

In general, a pre-hypertensive adult has a systolic blood pressure, or the higher number of a blood-pressure measurement, greater than 120. Jennifer Irias, 7, started the program with a systolic blood pressure of 125 — a high number even for an adult. By the end of the 2010-11 school year, that rate dropped to 105.

Her diastolic blood pressure, or the lower number of a blood-pressure measurement, remained unchanged at 77, which is considered normal.

Like many other children in the program, Jennifer's physical fitness and nutritional knowledge have improved significantly.

When she started the program, she could do one sit-up. Now, she can do eight. And on her nutritional-knowledge exam, she answered two more questions correctly than she did at the start of the school year.

By the end of the 2010-11 school year, 22 percent more children identified soda as an unhealthy drink versus water and 20 percent more said fruits and vegetables are healthy with every meal.

"As a nation, as a whole, we are very nutritionally illiterate," Messiah said. "But with very little time, kids learn."

For more information on Fit-to-Play, call 305-755-7800.



DANIEL BOCK/SPECIAL TO THE MIAMI HERALD

LIFE LESSONS: Nathan Turner, left, and Tyreque Ford, both 10, play touch football at the program.

## Fit-to-Play: programa accesible, económico y que funciona

LIDIA DINKOVA

Special to The Miami Herald

Para ayudar a combatir la epidemia de obesidad infantil e inculcar hábitos saludables en los jóvenes, el Condado de Miami-Dade comenzó el programa Fit-to-Play (En forma para jugar), un programa extracurricular de salud y ejercicios que se lleva a cabo en los parques locales.

Para conocer el impacto del programa, un equipo de médicos de la Universidad de Miami estableció medidas previas y posteriores al año escolar 2010-2011 para dar seguimiento al progreso de los estudiantes.

¿Los resultados? Los niños y adolescentes mantienen un peso saludable, baja la presión sanguínea y aumenta la eficiencia física y el conocimiento nutricional, dice la Dra. Sarah Messiah, quien dirige el estudio y es investigadora asociada y profesora en el Departamento de Pediatría de la Universidad de Miami. El estudio se encuentra en su tercer año, pero los resultados gene-

rales para los años escolares 2011-2012 y 2012-2013 aún no están disponibles.

"En términos de influir a los niños para estar físicamente activos, mientras más temprano se comienza mejor", dice.

Para este estudio, que se enfoca en 250 estudiantes entre las edades de 6 a 14 años, los médicos miden el índice de masa corporal, la distribución de la grasa, la presión sanguínea, la condición física y el conocimiento sobre nutrición.

"Tratamos de tener el cuadro general teniendo todos estos factores en cuenta", menciona Messiah.

El índice de masa corporal, medida que se utiliza generalmente para determinar si una persona está obesa o sobrepeso, se basa en peso y altura.

Pero las medidas del índice de masa corporal pueden inducir a error. Los niños más atléticos, que han desarrollado músculos, pueden alcanzar un mayor peso y un índice de masa corporal más alto.

"El músculo pesa más que la grasa", dice Messiah.

Es por esto que los médicos también administran la prueba de medición del pliegue cutáneo que muestra la composición del por ciento de grasa corporal.

Fit-to-Play ha sido particularmente exitoso en controlar los niveles de la presión sanguínea.

"Me sorprendió mucho ver la cantidad de niños que son prehipertensos e hipertensos", comenta Messiah.

En general, un adulto prehipertenso tiene una presión sanguínea sistólica, o el número más alto de la medida de presión sanguínea, mayor de 130.

Jennifer Irias, de 7 años de edad, comenzó el programa con una presión sanguínea sistólica de 125, un número aun mayor que un adulto, dice Messiah. Al terminar el año escolar 2011-2012, su presión sanguínea bajó a 105.

La presión sanguínea diastólica, o el número menor de la medida de presión sanguínea, fue la misma desde el comienzo hasta el final del año escolar. La presión sanguínea diastólica de 77 era normal.

A principio del año escolar Jennifer podía hacer solo una sentadilla, ahora es capaz de hacer 8. En el examen de conocimiento nutricional, tuvo dos contestaciones correctas adicionales al examen que tomó al principio del año escolar. El examen incluye preguntas tales como: "¿Es saludable comer frutas y vegetales con cada comida?" y "¿Es saludable ver televisión?"

Al finalizar el año escolar 2010-2011, el 22 por ciento de los niños identificaba el refresco como una bebida no saludable versus el agua y mencionaban que debían limitar el tiempo frente al televisor. Veinte por ciento más niños dijeron que las frutas y los vegetales son saludables con cada comida.



DANIEL BOCK/SPECIAL TO THE MIAMI HERALD

NATHAN TURNER, 10, y Tyreque Ford, ambos de 10 años, participan en el programa Fit-to-Play.



2012 P.L.A.Y. MLB Initiative



# TAG, YOU'RE IT!



## 'Fitness Made Fun' Fit 2 Play Press Release

FIT TO PLAY

# FITNESS MADE FUN

**A NEW AFTER-SCHOOL PROGRAM AT MIAMI-DADE PARKS GETS KIDS MOVING WITH FIELD-DAY TYPE GAMES, PLUS HOMEWORK HELP AND LESSONS ON HEALTHY EATING — AND FEES ARE MINIMAL, IF NOT AT ALL**

BY KARINA OSWALDO

**O**n the basketball court at Leisure Lake Park in Homestead, Fatima Bellan stands behind the white line, waiting to charge the orange cone as it rolls in front of her.

As soon as the timer starts, she sprints down the court. Back-and-forth she runs — six times without stopping.

At the end of the cone for the sixth time, her coach shouts for her to get a drink of water. Sweat shines on her face. Fatima pours herself a cup, barely containing her excitement.

"This is the best part," said Fatima, 8, a third-grader at Leisure City Elementary in Homestead. "I love to run and I can do a lot of that here after I get out of school."

Sponsored by first lady Michelle Obama's "Let's Move!" campaign, Miami-Dade Parks and Recreation Department is leading the initiative locally with Fit to Play: Health, Wellness and Obesity Prevention Out-of-School program.

The fitness program, in its inaugural year, is dubbed SPARK, or Sports, Play and Active Recreation for Kids. It involves students from 6 to 14. After school, they head to their neighborhood park, where they play tag, kickball, and running games. In addition, they get homework help and are taught about eating well.

"We were one of the first programs in the neighborhood to promote health and living," said Marvin Barnough, supervisor of Leisure Lake Park in

Liberty City, which has 40 children participating. "Kids have started eating better and losing weight at home because of what we are teaching them after school."

In Karie Daniels, 9, a fourth-grader at Hialeah Elementary enrolled in the program, she's a fan.

"I really like coming home after school. They teach us about the food pyramid and give us healthy snacks. We also get to play a lot of sports like kickball. It's my favorite."

More than 1,000 students have registered. Fees are determined on a family's income — many of the children attend for free due to funding from The Children's Trust.

"Our program is of no cost to the kids and their families because of The Children's Trust's contributions," said Darcy Miller, manager at Leisure Lake Park, which has 60 children enrolled.

"There is a waiting list of families who want to participate in Fit-to-Play right now, but we hope to be able to allow more of them in as time goes by. This kind of initiative really does great things for our community."

Miami-Dade Parks also is working with the University of Miami UHealth System. The children will receive their fitness improvements, which will be measured by medical students throughout the year.

"Being a part of this program really allows our third-year medical students to see the importance of community outreach," said Dr. Donna Whoroc, assistant professor of clinical pediatrics.



**KEEPING BODIES AND MINDS IN SHAPE:** From left, Karina Green, 10, Karie Tanner, 9, Adrian Barron, and Xavier Williams, 11, work in a line before playing a game of flag-tag at Martin Luther King Jr. Memorial Park last week as they participate in Miami-Dade Parks Fit-to-Play: Health, Wellness and Obesity Prevention Out-of-School program. At right, Erika Abreu, left, and Gebrile Carbone, both 13, help each other with their language arts and math homework at Continental Park in Kendall.

### Fit to play: How to sign up

- Funded by The Children's Trust, the after-school program is free for many students, depending upon the family's income. Fees for additional program spots range from \$5 a week. Other parks charge a maximum of \$75 a week.
- For more information, go to [www.miamidade.gov/parks/fit-to-play.html](http://www.miamidade.gov/parks/fit-to-play.html), or call 305-376-7500.

"If we can get kids to understand the importance of a healthy lifestyle now, future generations will benefit from it." The effort oversees the health, wellness and obesity prevention initiatives.

interactive projects like this that make them more aware of what's going on." Fit-to-Play also requires the students to dedicate one to two hours to homework and reading comprehension. "When we get home after school, the counselors sit with us and help us with the things we don't understand," said Gebrile Carbone, 13, an eighth-grader at Kenwood K-8 Center who participates at Continental Park in Kendall. "They have a lot of patience and explain everything really well. I wouldn't get the same attention after school at home."

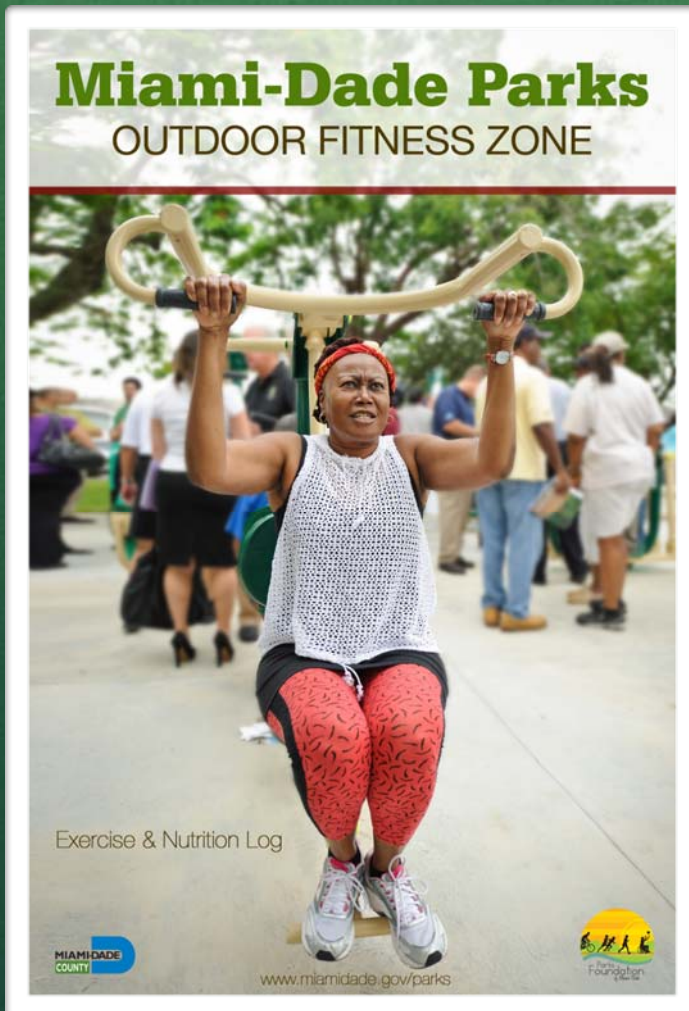


**PROBLEM SOLVED:** Michael Salvatore, 9, gets some math homework help from Miami-Dade Park service aide Luis Torres.



**KEEPING COUNT:** Karina Zavala, 8, runs around cones to see how many laps she can complete at Leisure Lake Park in Homestead during the Fit-to-Play: Health, Wellness and Obesity Prevention Out-of-School program.

# Outdoor Fitness Zones®



- Partnership between the Trust for Public Land and Miami Dade Parks
- Provide the opportunity for community members to increase their daily physically activity, for free within their own neighborhoods.
- Designed for all fitness levels, cardiovascular, strength training, endurance and flexibility improvements can be made by individuals who take advantage of this valuable equipment.

# EXERCISE IN THE PARK



PHOTOS BY ALLISON DIAZ FOR THE MIAMI HERALD  
Williams, 10, reaches for the pull-up bar during the unveiling of the outdoor gym at West Perrine Park. The gym equipment is free and open to the public for use. The Trust for Public Land partnered with the Miami-Dade County's Parks, Recreation and Open Spaces Department to create the fitness zone.



Anaya Miller, 11, tries out the elliptical bike during the unveiling ceremony of the Fitness Zone at West Perrine Park. The gym equipment is free and open to the public for use. The Trust for Public Land partnered with the Miami-Dade County's Parks, Recreation and Open Spaces Department to create the fitness zone.



Children from the West Perrine Park summer camp program test the new outdoor gym equipment at West Perrine Park.



Miami-Dade County Mayor Carlos Gimenez addresses the crowd during the unveiling ceremony of the new outdoor gym equipment at West Perrine Park.

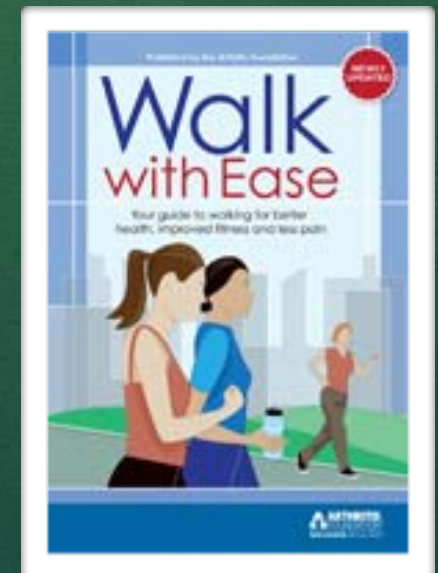
Miami Herald Press Release Summer 2012

# Aging Adults Programming

- Parks Prescription for Health
  - Fitness Zones®
- Walk for Life: Walking Program
- Aging Friendly Workshops
- Environmental Scan
- Hiring appropriate staff, mature & active adults

# Walk with Ease Walking Program

- Partnered with the Health Foundation of South Florida
- Free evidence based self-directed walking program, created by the Arthritis Foundation
- Target population: Active Adults ages 55 and older
- Six-week program, participants meeting with a trained leader and are provided with a guidebook including tips for getting fit, healthy and motivated.
- Number of participants
- 13 Park locations that offer the *Walk With Ease* walking program
- 4 additional parks with marked walking trails



# Additional Park Offerings for Active Adults

- Fitness Boot Camps: created for all fitness levels, to provide a total body workout for individuals to the whole family
- More than 9 programs offered at 7 different locations



- Swimming: A great non-impact way exercise that is appealing to people of ages
- 6 locations open year round, 6 locations opened summer months only

- Classes at Deering: This historic site provides a mix of classes to keep participants excited about fitness
- Classes include Pilates, Yoga and Ballroom Dancing from the Trot to the Cha Cha





# Wrapping Up

- How the implementation of community based, planning approach and an evidence based program model can have a positive impact on the health and wellness of a community
- Key components of a wellness program model that is fun and offers results
- Key steps that must be taken with existing staff and supporting material to implement an evidence-based health and wellness program for life

Thank you and  
any questions?



# Integrating Research, Policy and Practice into Play

*The Atlanta Case Study*

Active Living Research Meeting

February 28, 2013

Nisha D. Botchwey, PhD, MCRP, MPH, Associate Professor, City and Regional Planning  
Center for Quality Growth and Regional Development, Georgia Institute of Technology

# The Atlanta BeltLine

Health Impact Assessment of the Atlanta BeltLine (2007)

Health Benefits of the Atlanta BeltLine Eastside Trail: A Pre-Impact Assessment (2011)

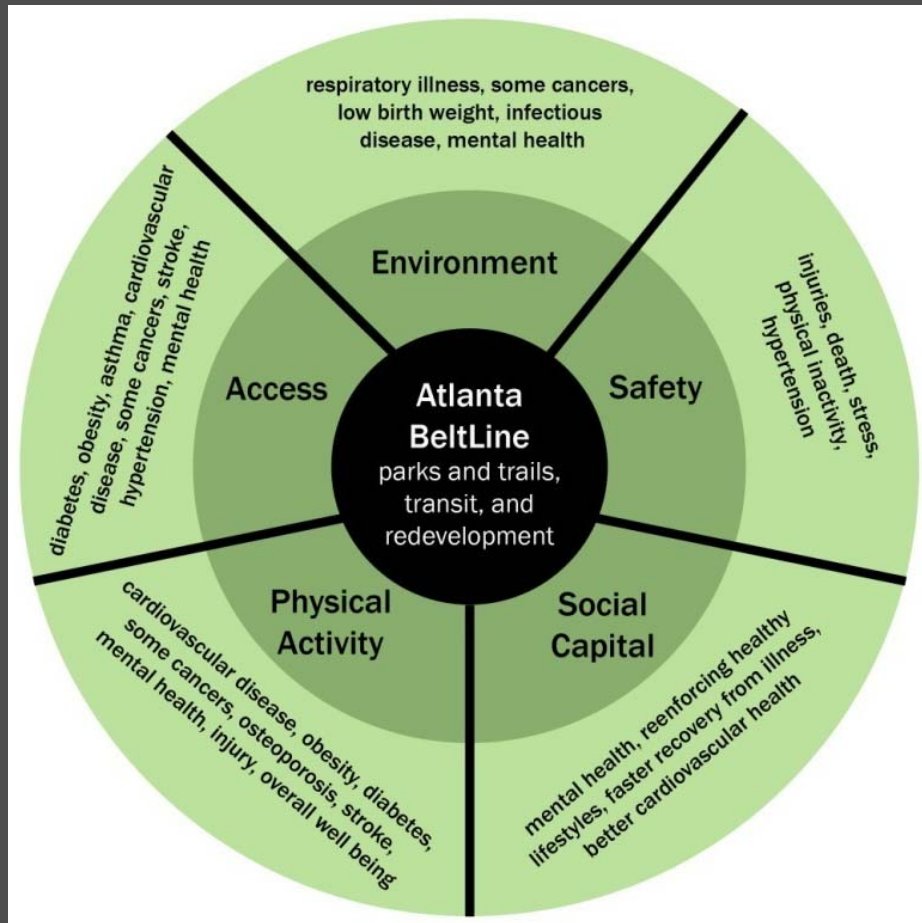
Atlanta BeltLine Eastside Trail: Population Comparison  
Measuring Changes in Behavior Related to Health (2013)

Lessons Learned

Resources

Acknowledgements

# Health Impact Assessment (HIA) of the Atlanta BeltLine

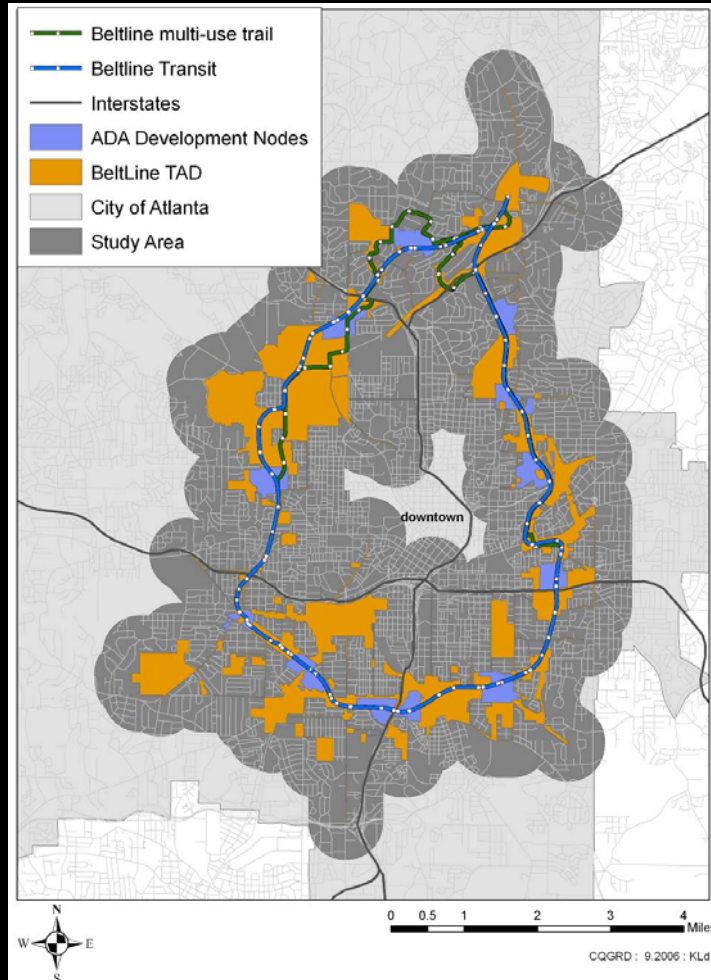


HIA was completed in 2007

The comprehensive nature of the HIA resulted in **extensive baseline evidence collection and analysis**

Required cooperation between city planners and public health professionals

Healthy communities and access especially for the **disadvantaged and vulnerable population**



Proposal	Atlanta BeltLine Project
Is there a decision?	Yes
Is the decision likely to substantially affect health or health determinants?	Yes
Is the timeframe for the decision-making process appropriate?	Yes
Is there enough evidence and data for the analysis?	Yes
Is there potential to disproportionately affect vulnerable populations?	Yes- possible displacement of some residents, positive impacts also possible
Does the current decision-making process fail to adequately address health?	Health outcomes and baseline conditions will be indirectly included in the planning process.
Does the legal framework allow for health to be factored into the decision?	Yes
Are available staff and resources adequate to complete a successful HIA?	Yes
Is there major public controversy about the decision?	No
Is an HIA likely to produce new findings or recommendations?	Yes
Is there a risk for major catastrophic health consequences?	No

**200,000+ people** live within walking distance of the BeltLine, and more by 2030

represents approximately a **\$1.7 billion public investment**

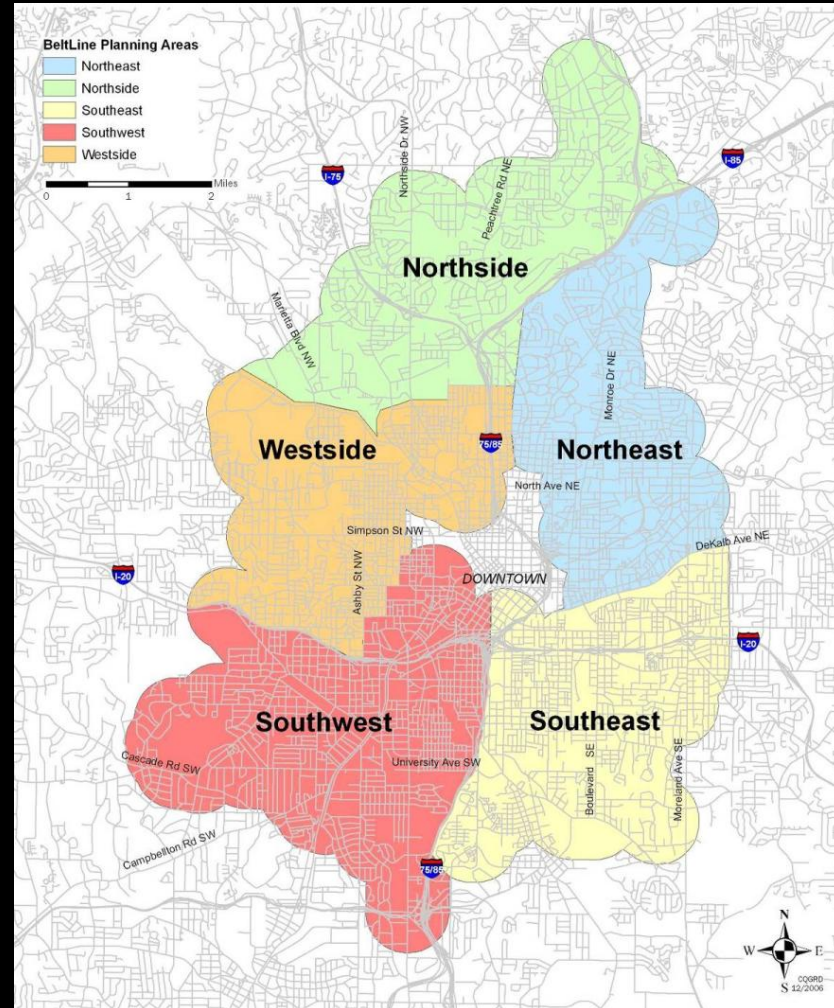
**Redevelopment:** 6,500 acres of redevelopment, 10 redevelopment nodes

**Parks:** 1,300 acres of new greenspace and parks

# Subareas with very different populations

Subareas

Subarea	Non-white	Under age 18	Below Poverty Level
Northside Pop. 36,800	22%	11%	11%
Northeast Pop. 43,000	30%	10%	13%
Southeast Pop. 39,000	73%	27%	30%
Southwest Pop. 51,000	96%	28%	29%
Westside Pop. 43,000	78%	22%	26%





## Health disparities in study area

(per 100,000 population, average from years 2000- 2004)

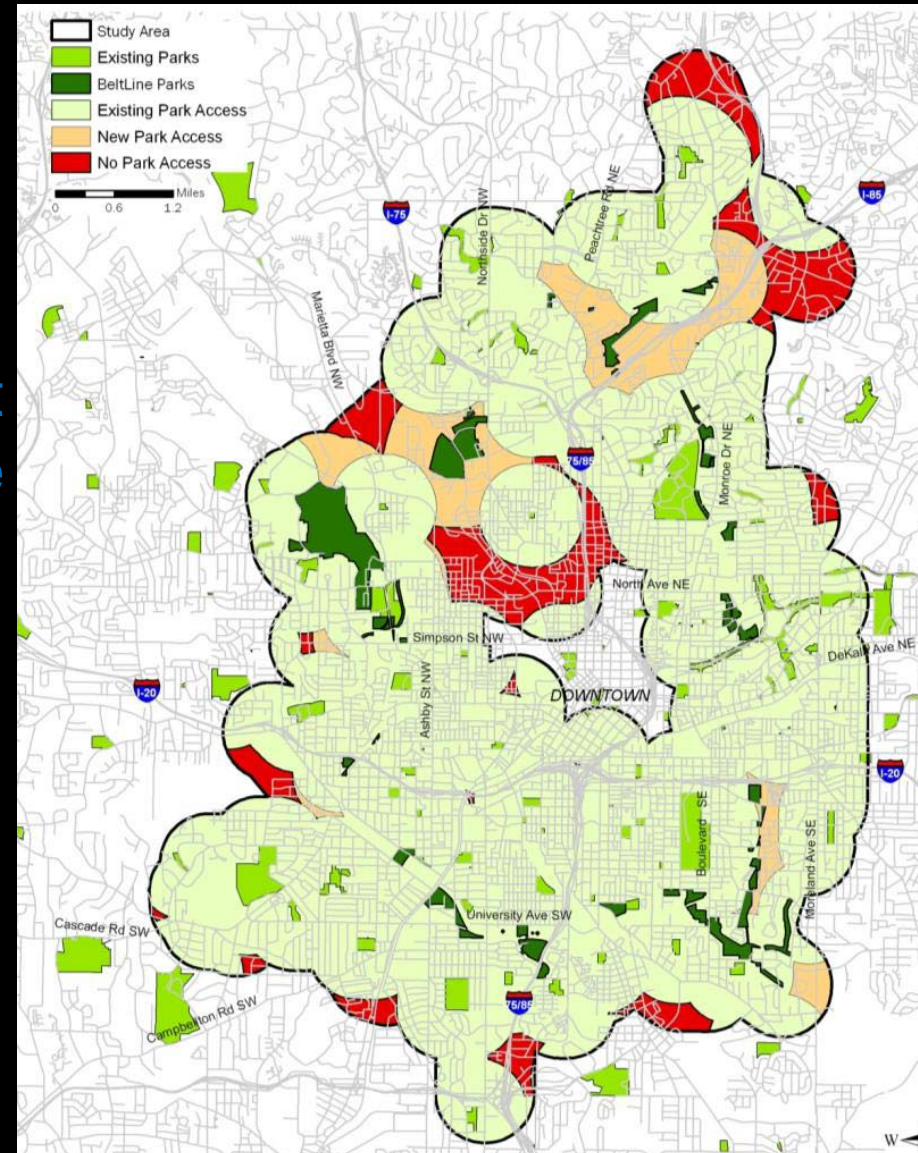
Cause of Death	Northside	Northeast	Southeast	Southwest	Westside
Heart disease	159.1	131.6	178.8	236.5	209.8
Malignant neoplasms	115.1	96.9	154.4	183.9	163.2
Cerebrovascular disease	41.7	32.2	34.8	58.7	48.9
Homicide	10.6	6.3	25.5	30.8	32.3
Diabetes mellitus	11.7	11.0	21.5	27.2	24.0
Motor vehicle accidents	6.5	9.3	15.7	12.5	12.0
Asthma	*	*	5.2	4.7	4.6

## Park Access

Parks are well distributed based on socio-economic factors... but **the Southwest subarea is and will continue to be underserved.**

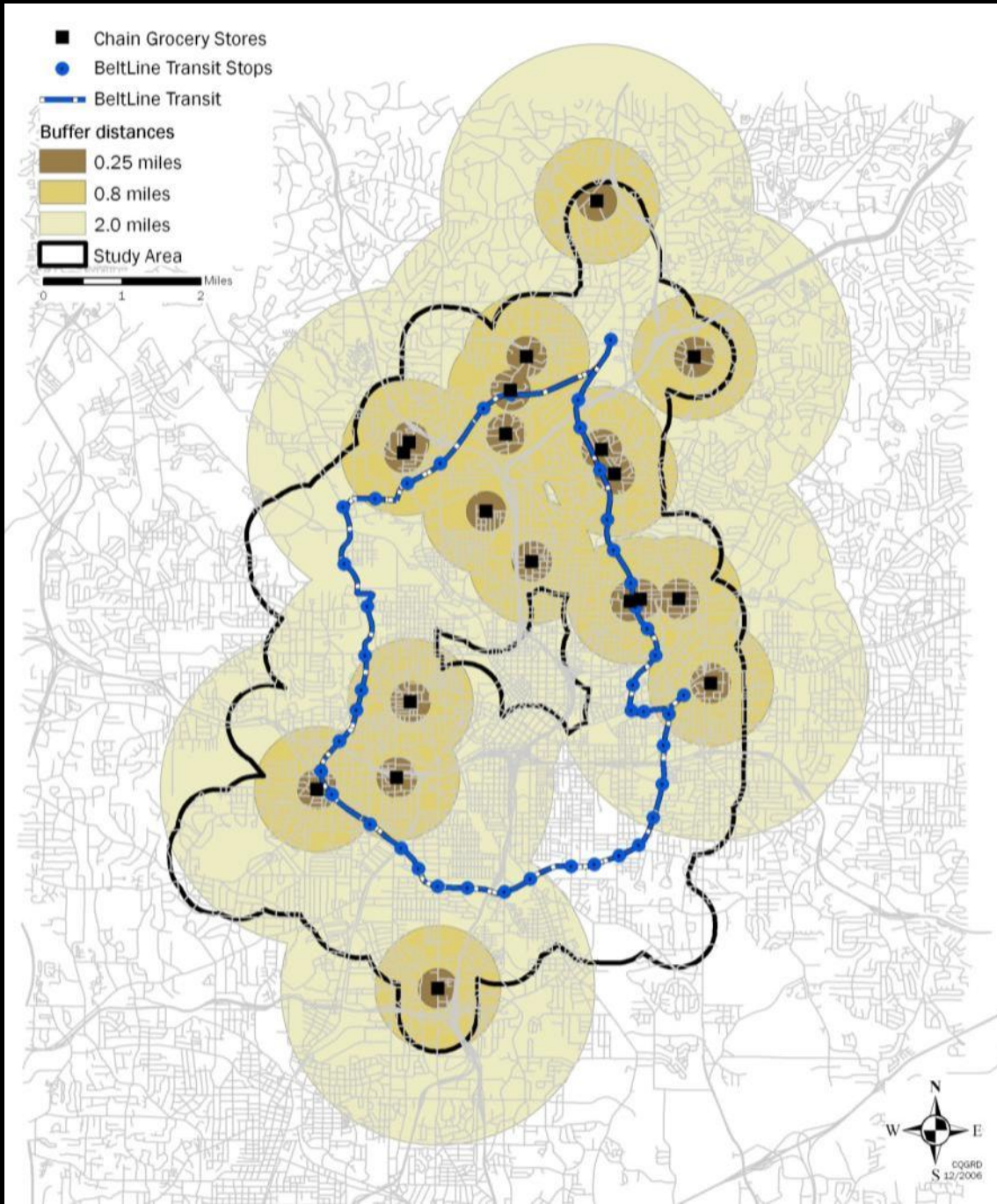
Not enough for the 2030 projected population if the goal remains 10.5 park acres/1,000 people.

Expected: **only 6.5 park acres/1000 people in 2030**



# Healthy Foods

The Southeast subarea currently lacks easy access to full-service grocery stores.



Access and Equity: Sample Findings

- Ensure **affordable and healthy housing** is provided throughout the BeltLine.
- Add **more park acres** and create better connected and more accessible parks, especially in the Southwest Subarea.
- Incorporate **universal design** principles
- Create linkages between the BeltLine and existing civic spaces, **promote socialization**
- Make health protection and promotion an explicit goal.
- Appointing **public health professionals** to the boards.
  
- **Conduct ongoing and continuing evaluation of levels of physical activity attributed to the BeltLine.**

# How the HIA impacted the project:

Findings	Recommendations	Subsequent Project Impact
<p>BeltLine will promote good health, especially physical activity, social capital, equity, and safety</p>	<p>Project should go forward and should be fast tracked to realize health benefits for current city residents sooner than 25 years</p>	<p>Unknown; may be impacted by instability broader economy.</p>
<p>Project implementation should take into account health impacts</p>	<p>Make health promotion and protection an explicit goal in BeltLine funding decisions and implementation priorities</p>	<p><b>Health is one of a set of metrics for project assessment in support of decision-making. Codified in a Decision Support Tool.</b></p> <p>Following the HIA, the Environmental Protection Agency (EPA) awarded \$1 million to the BeltLine to clean up <b>brownfields</b>. Announcing the award, EPA cited the BeltLine HIA and its finding that “brownfields redevelopment can help reduce urban sprawl and lead to healthier communities by creating more greenspace and walkable areas”.<sup>64</sup></p>

# How the HIA impacted the project:

Findings	Recommendations	Subsequent Project Impact
Increased availability of affordable housing yields health benefits including social equity	Ensure affordable and healthy housing is provided throughout the BeltLine project area and establish programs and partnerships to address residential displacement	<b>Evidence from the HIA in support of programs that ensure affordable housing and reduce displacement</b> has been utilized to support an affordable housing policy for the BeltLine.
Increased access to parks yields health benefits including physical activity, social capital, and equity	Add more park acres and create better connected and more accessible parks, especially in the southwest planning area	<b>Influenced decision-makers to prioritize new greenspace facilities as the first construction activity on the BeltLine.</b>



\* Ross.C.L. et al (2012). Health impact assessment of the Atlanta BeltLine. Am J Prev Med, 42(3):203-13.

# Health Benefits of the Atlanta BeltLine Eastside Trail: A Pre-Impact Assessment

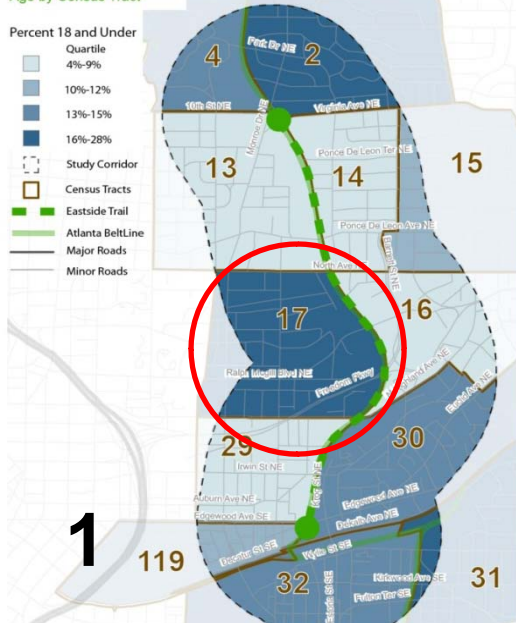
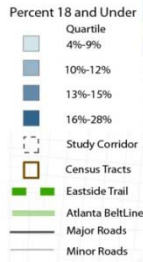


# Existing Conditions

## Atlanta BeltLine Eastside Trail:

### Atlanta BeltLine Eastside Trail

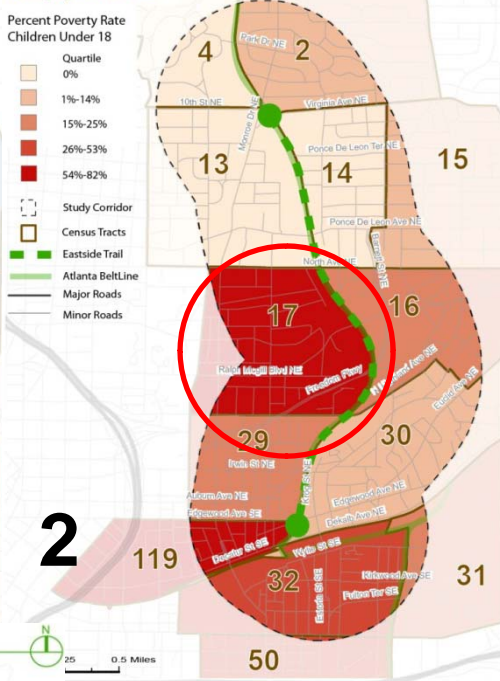
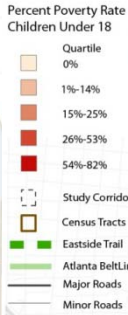
Age by Census Tract



1

### Atlanta BeltLine Eastside Trail

Poverty by Census Tract

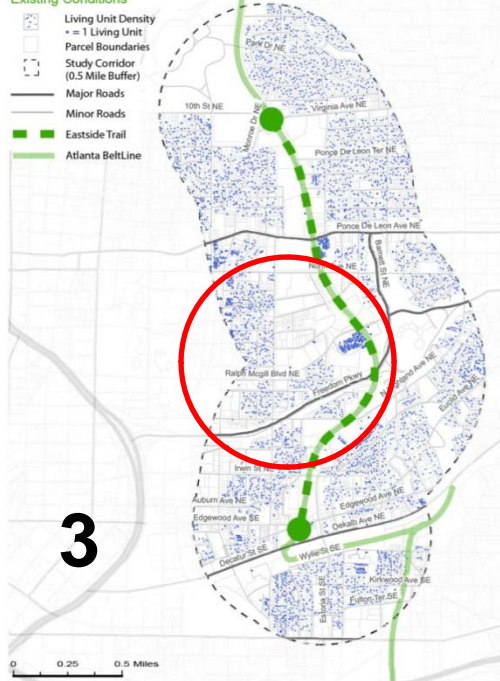
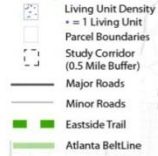


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### Atlanta BeltLine Eastside Trail

Existing Conditions

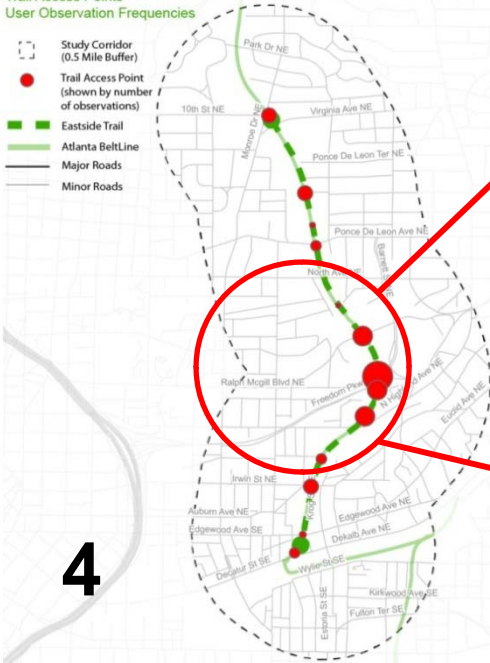
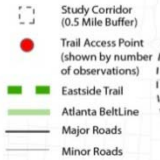


3

### Atlanta BeltLine Eastside Trail

Trail Access Points

User Observation Frequencies

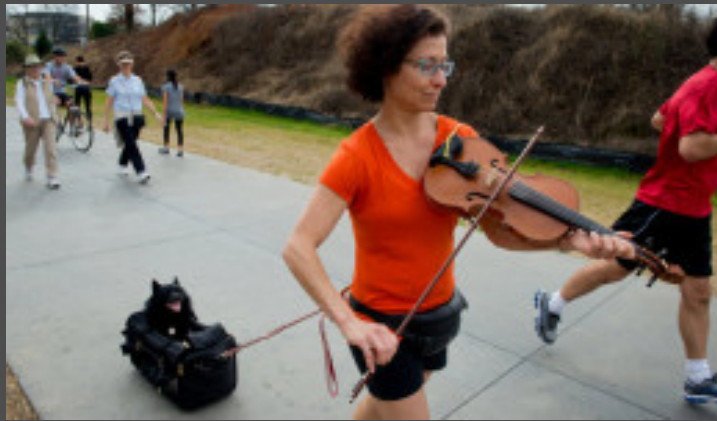


4





# Atlanta BeltLine Eastside Trail: Population Comparison Measuring Changes in Behavior Related to Health



*BeltLine Provides New Life to Railroad Tracks in Atlanta, NYT, February 15, 2013*



- **Use** of the trail increased from **54%** to **84%**
- **70%** of Households reported **not using the trail** during the initial survey; at follow-up, **50%** of this group **increased the number of days they walked for at least 10 minutes**
- **Safety rating** on the trail improved from **35%** to **55%**
- Incorporate bike racks, signage, bike rental opportunities

“Programs to engage these individuals could include educational efforts such as a **bike safety courses** or general education on the benefits of physical activity through trail usage. Additionally, survey results and prior research indicate that **family-oriented programs and activities** may be more effective in engaging vulnerable populations ... “

– CQGRD Kaiser Permanente Georgia Report , February 2013



*Atlanta BeltLine pitches idea at Feb 25<sup>th</sup> Govathon...*

*Imagine having an app that tells ‘us’... activities, locations, times, meet-ups, mode, user customized*

*Keep imagining* ... strategically imagining in public to maintain momentum.

Demand for the Atlanta BeltLine Eastside Trail continually evolves.

Technical Assistance can lead to real project outcomes.

Vulnerable populations are difficult to reach, even through key informants. Think outside the box.

Fewer people know about active living opportunities in their own backyards than we expected.

Trail users will travel over an hour to get on the trail.

Workforce demands will increase as demand for healthy, active living communities continues to increase

Atlanta BeltLine

<http://beltline.org/>

Atlanta BeltLine Health Impact Assessment

<http://www.cqgrd.gatech.edu/research/atlanta-beltline-health-impact-assessment>

Decision & Planning Support Tools

<http://www.cqgrd.gatech.edu/research/decision-planning-support-tools/overview>

Health Benefits of the Atlanta BeltLine Eastside Trail: A Pre-Impact Assessment

<http://www.cqgrd.gatech.edu/research/health-benefits-of-the-atlanta-beltline-eastside-trail>

Health Impact Assessments

<http://www.cqgrd.gatech.edu/research/healthy-places-impact-assessment/publications>

Built Environment and Public Health Curriculum

[www.bephc.com](http://www.bephc.com)

Project	Sponsor
Health Impact Assessment (HIA) of the Atlanta BeltLine	PEW Health Impact Project
Health Benefits of the Atlanta BeltLine Eastside Trail: A Pre-Impact Assessment	BeltLine Partnership
Atlanta BeltLine Eastside Trail: Population Comparison Measuring Changes in Behavior Related to Health	Kaiser Permanente

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@healthyplaces\_



# Integrating Research, Policy and Practice into Play: The Healthy Hawaii Initiative 2000-2012

Jay Maddock, PhD

University of Hawaii at Manoa

# State studies tobacco deal

## Share put at \$1.1 billion over 25 years

Advertiser Staff  
and News Services

Hawaii officials are weighing whether to accept a proposed \$1.1 billion settlement of the state's lawsuit against the tobacco industry.

State Attorney General Margery Bronster said yesterday she is pleased with the

Among other things, the settlement would limit advertising by the tobacco companies, particularly marketing

cartoon images and T-shirt logos allegedly aimed at young people — concessions that the state would never be able to win at trial, Bronster said.

She will meet with Gov. Ben

tial payment of \$14 million that could be forwarded as early as this year, Bronster said. The payments would then be increased each year to a peak of about \$50 million a year. State

State attorneys general, who announced the proposal at a news conference yesterday, said it is a first step in the effort to curb tobacco's influence on the nation's youth. But they urged Congress to move ahead with other restrictions, such as giving the Food and Drug Administration authority

effort to protect children.

But he, too, urged Congress to pick up where it left off.

"With this very large settlement... we are moving forward, but we have a lot more to do," the president said at the White House, where he was joined by some of the eight state attorneys general who

## Tobacco: State could get \$14 million this year

FROM PAGE ONE

The four major tobacco companies reaching the agreement — Philip Morris, R.J. Reynolds, Brown & Williamson and Lorillard — said in a statement that they had accepted the settlement, although confident their legal defense would hold up in court, "as a way to end this unique litigation and join in a common sense approach to addressing important tobacco issues."

Tobacco companies generally traded lower on Wall Street yesterday as stock market indexes rose.

Public health groups criticized the agreement.

"It does too little to protect public health and too much to



David Scull / The Honolulu Advertiser

Attorney General Margery Bronster held a press conference outside her office on Queen Street to discuss the latest developments in the tobacco lawsuit settlement negotiation.

The Honolulu Advertiser — Nov. 17, 1998

### Tobacco deal

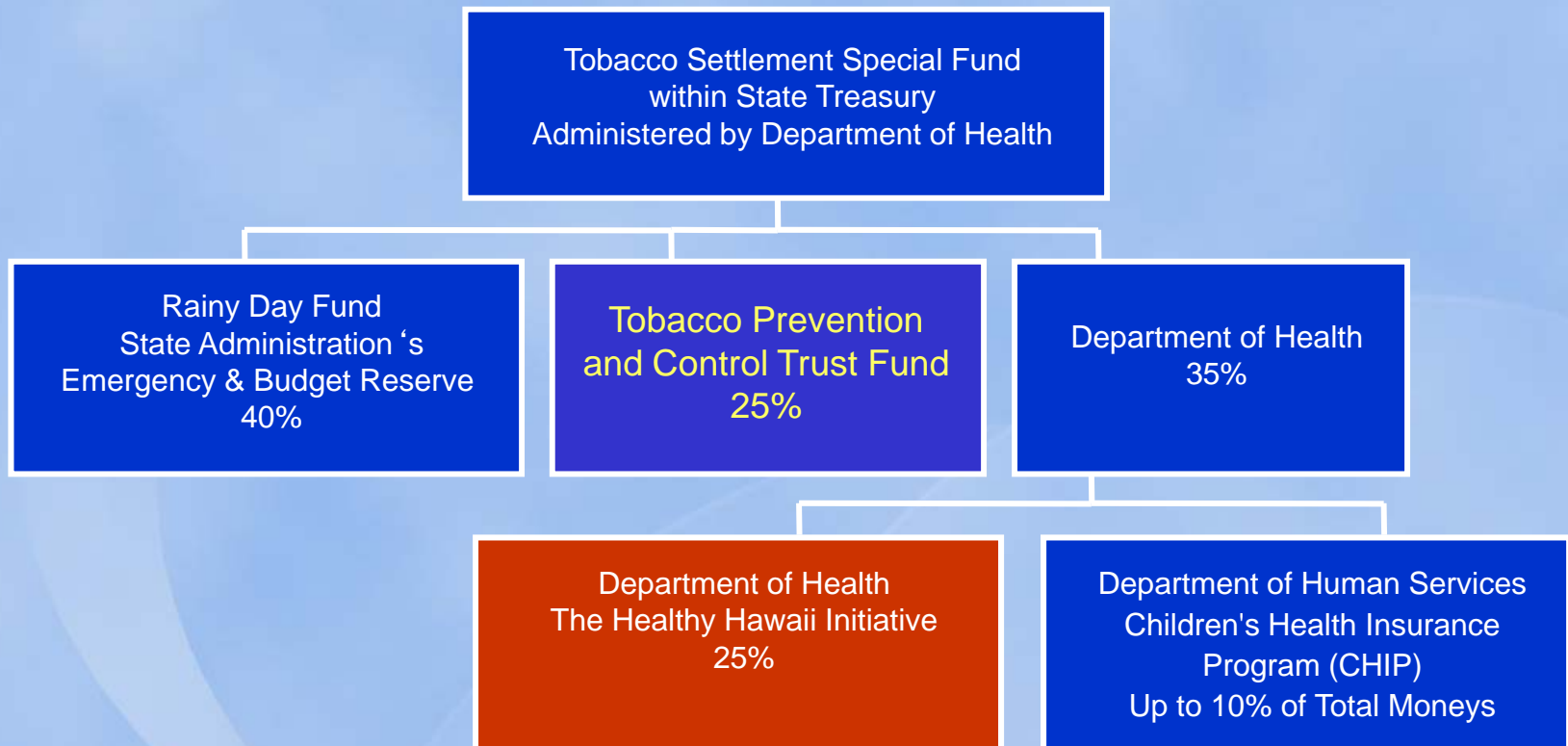
In the biggest U.S. civil settlement ever, cigarette makers have agreed to a \$206 billion deal, removing an enormous financial threat should the industry lose any state court cases. Under the agreement cigarette makers will:

- Pay \$12 billion over the next five years; remaining payments would be spread out until 2025.
- Establish a \$2 billion foundation that would send anti-tobacco advertising into every home in America.
- End advertising of tobacco on billboards and public transportation and stop marketing tobacco paraphernalia such as hats and T-shirts that are popular with youth.
- Dedicate about \$250 million of the total specifically to cut teen smoking.
- Stop using cartoon characters, such as the once-popular Joe Camel, in any tobacco advertising. The Marlboro Man can still be used in ads.



# Tobacco Settlement Special Fund Structure

How Hawaii's Tobacco Settlement Money Works

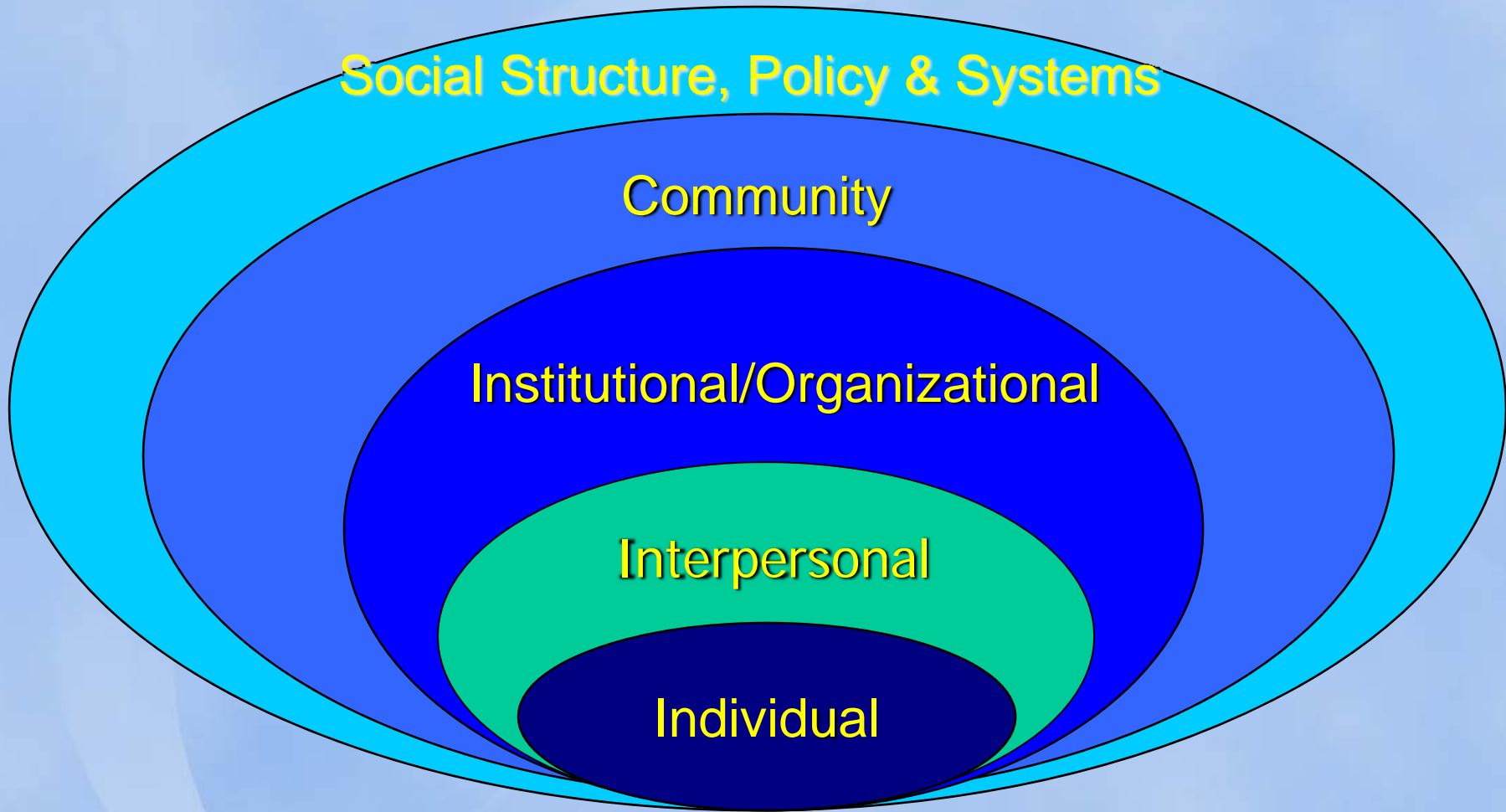


# The Healthy Hawai`i Initiative (HHI)

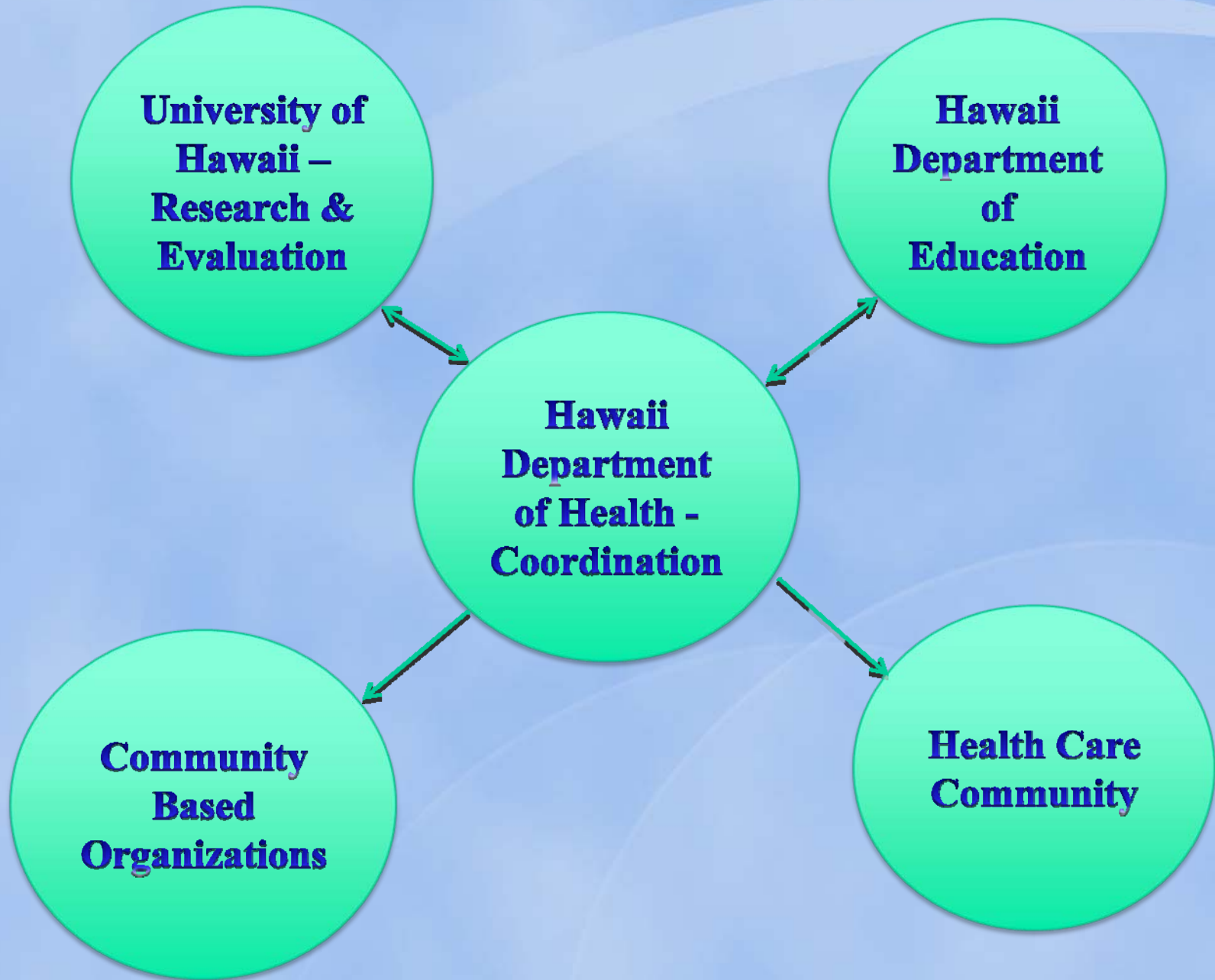
- Increase quality and years of healthy life for all of Hawai`i's people

- Reduce existing health disparities among ethnic groups in Hawai`i

# Socio-Ecological Framework



Circa 2000 – pre-dates ARL/ALPES





# Healthy Hawaii Initiative

- Physical Activity and Nutrition with a focus on system, environmental and policy change

Grant funding allocated for:

- School-based programs
- Community programs
- Public Education
- Professional Education
- Surveillance and Evaluation

# Discovering Shared Goals

- Make a Hawaii a healthier place to live, work, learn and play
- Educate, motivate and empower all of our citizens to live healthy lifestyles

# And Differing Goals

- HDOH – Please the Director of Health, Governor and State Legislature
- UHM – Publish, get promoted, become plenary speaker at ALR
- HDOE – To educate the keiki, meet NCLB requirements

# Can these goals coexist?

- Yes, but the type of research that you do is very different than the majority of people in your field.
- This is quite scary for a brand new 27 year old assistant professor.



## Modifying the Recess Before Lunch Program: A Pilot Study in Kaneohe Elementary School

Cathy Tanaka<sup>1</sup>, Katherine L. Richards<sup>2</sup>, Leilani S. L. Takeuchi<sup>2</sup>, Mitchell Otani<sup>3</sup>, Jay Maddock<sup>2</sup>

<sup>1</sup>Healthy Hawai'i Initiative, Hawai'i Department of Health

<sup>2</sup>University of Hawai'i Department of Public Health Sciences and Epidemiology

<sup>3</sup>Kaneohe Elementary School

### Abstract

Moving recess before lunch (RBL), though a simple schedule change, may provide many benefits for both students and elementary schools. Having recess before lunch has been shown to decrease plate waste (Bergman, et al., 2003; Gettlinger, 1996; Montana OPI, 2003; Ruppenthal & Hogue, 1977), and may improve discipline problems. The RBL schedule change has not previously been implemented in Hawai'i schools. The purpose of this pilot study was to assess the feasibility of implementing a modified version of RBL into elementary schools in Hawai'i. The modified version of RBL allows for implementation into a three-bell lunch system, a system used by many elementary schools in Hawai'i. A one-grade-per-lunch period RBL switch was assessed among 6th grade students for 1) shorter lunch line wait, 2) increased access to recess equipment 3) decrease in conduct-related referrals, and 4) moderate decrease in food and milk waste for the affected grade(s). Results indicate a significant decrease in lunch line wait, a decrease in discipline referrals, and a slight non-significant decrease in lunch waste. Additional comments from administrators and teaching staff indicate positive changes in student behavior on the playground, in the cafeteria, and in the classroom. One major finding was the reduction in discipline problems after the implementation of RBL, as seen in both the quantitative referral counts and qualitative teacher and administrator questionnaires. The positive results of this study support further implementation of RBL into schools in Hawai'i. Kaneohe Elementary School has continued to apply recess before lunch to the sixth grade lunch periods and is considering further implementation into other grades. The Hawai'i Action for Healthy Kids team plans to approach more schools in Hawai'i about using the modified recess before lunch program.

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Keywords: *Hawaii, elementary school, fitness, nutrition*

### Introduction

The National School Lunch Program provides low cost, nutritionally balanced meals for millions of students each school day, including approximately 182,000 public school students in Hawai'i. These lunches must meet the recommendations of the Dietary Guidelines for Americans and provide essential nutrients to students (USDA, 2003). Healthy eating patterns and adequate nutrients are important for school-aged children to promote cognitive development, prevent health problems and reduce under-nutrition which has been linked to increased behavioral and emotional functioning (MMRW, 1996; USDA, 2003). Research has shown that students who participate in NSLP

have better nutrient intakes than students who eat sack lunches, from vending machines, or off campus (Gordon, Devaney, & Burghardt, 1995; Rainville, 2001).

Though the NSLP provides nutritious meals to school students, environmental or system-related factors, such as having lunch before recess may decrease the amount of food students are eating as well as the nutrients they need to function and learn throughout the school day (Bergman, Buerger, Englund, and Femrite, 2003; Gettlinger, Laughlin, Bell, Akre, & Arjmandi, 1996; Ruppenthal & Hogue, 1977). In the 'normal' lunch schedule with lunch first and then recess, the alluring qualities of recess may push students

# PREVENTING CHRONIC DISEASE

## PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

VOLUME 5: NO. 3

JULY 2008

COMMUNITY CASE STUDY

### Increasing Access to Places for Physical Activity Through a Joint Use Agreement: A Case Study in Urban Honolulu

Lehua B. Choy, MPH, Meghan D. McGurk, Reid Tamashiro, MPA, Blythe Nett, MPH, Jay E. Maddock, PhD

*Suggested citation for this article:* Choy LB, McGurk MD, Tamashiro R, Nett B, Maddock JE. Increasing access to places for physical activity through a joint use agreement: a case study in urban Honolulu. *Prev Chronic Dis* 2008;5(3). [http://www.cdc.gov/pcd/issues/2008/jul/07\\_0117.htm](http://www.cdc.gov/pcd/issues/2008/jul/07_0117.htm). Accessed [date].

PEER REVIEWED

#### Abstract

##### Background

To increase levels of physical activity (PA), interventions that create or enhance access to places for PA are recommended. Establishing a joint use agreement is one way to increase access to existing PA and recreational facilities. The purpose of this article is to present a case study of In-Motion, a pilot joint use agreement project at one urban high school in Honolulu, Hawaii.

##### Context

Residents of urban Honolulu are underserved by the amount of parkland and recreational facilities available for their use. The Honolulu County Department of Parks and Recreation sought to implement a joint use agreement to use the facilities of one urban high school for a recreational program. The high school selected for the pilot project has a student population primarily from low-income and ethnic minority backgrounds.

##### Methods

An assessment of the potential of 7 urban high schools to implement a joint use agreement was conducted to select the pilot site. In-Motion developed and implemented a

joint use agreement. PA preferences of students, staff, and community members were assessed to guide recreational program offerings. Various recreational classes were offered free to the school community.

##### Consequences

Several barriers to implementing the joint use agreement and recreational program were encountered. However, participants were satisfied with the recreational classes they attended and said that the In-Motion program helped them to engage in more PA. Program awareness by high school students and staff was high.

##### Interpretation

In-Motion has successfully modeled a pilot joint use agreement and provided new opportunities for PA to the high school's students, teachers, and staff, and to community residents.

#### Background

More than half of U.S. adults do not meet recommended physical activity (PA) levels (1) of at least 30 minutes of moderate-intensity PA on 5 or more days per week or at least 20 minutes of vigorous-intensity PA on 3 or more days per week (2). Additionally, many adolescents do not engage in sufficient amounts of PA (3). To increase PA levels among adults and adolescents, the *Guide to Community Preventive Services* recommends interventions that create or enhance access to places for PA combined with informational outreach activities (4). These interventions have the potential to result in a 25% increase in the number of people who exercise at least 3 times per week (5). The recommendation of the *Guide to Community*

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# PREVENTING CHRONIC DISEASE

## PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

VOLUME 5: NO. 1

JANUARY 2008

COMMUNITY CASE STUDY

### A Survey of Policies and Local Ordinances Supporting Physical Activity in Hawaii Counties

Katie M. Heinrich, PhD, Courtney B. Johnson, MPH, RD, Yuka Jokura, BPHE, Blythe Nett, MPH, Jay E. Maddock, PhD

*Suggested citation for this article:* Heinrich KM, Johnson CB, Jokura Y, Nett B, Maddock JE. A survey of policies and local ordinances supporting physical activity in Hawaii counties. *Prev Chronic Dis* 2008;5(1). [http://www.cdc.gov/pcd/issues/2008/jan/06\\_0153.htm](http://www.cdc.gov/pcd/issues/2008/jan/06_0153.htm). Accessed [date].

PEER REVIEWED

#### Abstract

##### Background

Features of the built environment that influence physical activity behavior characterize Active Community Environments.

##### Context

Whether Active Community Environments policies exist in the state of Hawaii's four counties is unknown. The purpose of this study was to provide a baseline assessment of these policies in Hawaii.

##### Methods

A survey assessing policies in six domains (i.e., sidewalks, bike lanes, greenways, recreational facilities, commercial buildings, and shared-use paths) was completed by employees of Hawaii planning departments.

##### Consequences

Honolulu County had the most policies (n = 13), followed by Maui County (n = 6), Kauai County (n = 2), and Hawaii County (n = 1). Written policies were most prevalent in Honolulu County (n = 15), followed by Kauai County (n = 14), Hawaii County, (n = 4), and Maui County (n = 3).

Sidewalk policies were reported for Honolulu County, Maui County (no written policies were found for Maui County), and Kauai County. Bike lane and greenway policies were found for Honolulu County (reported and written) and Kauai County (written). Recreation facility and pedestrian shared-use path policies existed for all counties, although only Honolulu and Kauai counties had written policies for commercial buildings (Maui County reported having policies). Few policies directly addressed physical activity promotion.

##### Interpretation

The most populous county, Honolulu, had the most policies in place, although discrepancies existed between reported and written policies. This baseline measure of physical activity-related policies will help focus efforts of county coalitions to increase opportunities for physical activity. Additional policies should be tracked with population behavior surveillance.

#### Background

Physical inactivity is a major public health concern in the United States and contributes to the obesity epidemic (1). A slight increase in physical activity levels among inactive people has a major impact on the improvement of public health (2). The built environment influences physical activity of community residents by providing visual cues and opportunities for activity (3).

Moderate physical activity levels are linked to how communities are designed (4). For example, residents of neighborhoods with mixed uses (i.e., neighborhoods that

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# PREVENTING CHRONIC DISEASE

## PUBLIC HEALTH RESEARCH, PRACTICE, AND POLICY

VOLUME 8: NO. 5, A105

SEPTEMBER 2011

ORIGINAL RESEARCH

### An Observational Study of Physical Activity in Parks in Asian and Pacific Islander Communities in Urban Honolulu, Hawaii, 2009

Jane J. Chung-Do, DrPH; Elise Davis, MPH; Stephanie Lee; Yuka Jokura, MPH, CHES; Lehua Choy, MPH;  
Jay E. Maddock, PhD

*Suggested citation for this article:* Chung-Do JJ, Davis E, Lee S, Jokura Y, Choy L, Maddock JE. An observational study of physical activity in parks in Asian and Pacific Islander communities in urban Honolulu, Hawaii, 2009. *Prev Chronic Dis* 2011;8(5):A107. [http://www.cdc.gov/pcd/issues/2011/sep/10\\_0215.htm](http://www.cdc.gov/pcd/issues/2011/sep/10_0215.htm). Accessed [date].

PEER REVIEWED

#### Abstract

##### Introduction

Research on park use among Asians and Pacific Islanders is limited. This study examined use and conditions of 6 urban parks, varying in size, location, and neighborhood income level, in predominantly Asian and Pacific Islander communities in Honolulu, Hawaii. Sociodemographic predictors of park use were also identified.

##### Methods

Observations were conducted from June through October 2009. Raters used the System for Observing Play and Recreation in Communities to count the number of people in predesignated zones and to code their physical activity level as sedentary, moderate, or vigorous. Raters coded park conditions on the basis of accessibility and usability, whether equipment and supervision were provided, and whether organized activities were occurring. Differences associated with sex and age of park users and income level of the neighborhood were examined by using  $\chi^2$  and logistic regression.

##### Results

Raters observed 6,477 park users, most of whom were men. Approximately 60% of users were sedentary, 23% were engaged in moderate activities, and 14% performed vigorous activities. Women and girls were less active than men and boys. More users were present in the evenings, but morning users were more active. Although park users in low-income neighborhoods were more active than users in high-income neighborhoods, fewer people used the low-income parks. Most parks were accessible and usable but few provided equipment and supervision. Organized activities were rarely observed.

##### Conclusion

More efforts should be made to promote parks as a physical activity resource in Asian and Pacific Islander communities, particularly for women, girls, and low-income residents. More research should be conducted to identify barriers and facilitators to park use, especially among underrepresented populations.

#### Introduction

Although physical inactivity is a major public health issue in the United States, few studies have been conducted with Asian and Pacific Islander populations. Approximately 12 million Asians and Pacific Islanders live in the United States, accounting for approximately 5% of the total US population (1). The low proportion of Asians and Pacific Islanders has resulted in limited research with these populations, although a lower proportion of Asians and Pacific Islanders (38.6%) are physically active compared with the



The findings and conclusions in this report are those of the authors and do not necessarily represent the official position of the Centers for Disease Control and Prevention.

## A Comprehensive Multi-Level Approach for Passing Safe Routes to School and Complete Streets Policies in Hawaii

Katie M. Heinrich, Nancee N. Aki, Heidi Hansen-Smith, Mark Fenton, and Jay Maddock

**Background:** Policy changes were needed to reshape the built environment for active transportation. **Methods:** Using the social ecological model as a framework, the Healthy Hawaii Initiative worked with a contractor to develop a series of meetings, planning sessions, and workshops. Activities spanned 22 months between 2007 and 2009, and involved multiple stakeholders, including educational outreach for legislators and collaborative planning sessions with advocates. **Results:** Ultimately, with the help of the contractor to initiate the process, Complete Streets and Safe Routes to School (SRTS) legislation were introduced January 2009. Advocacy groups monitored bill progress, testified at hearings, and assisted in rewording the bills. The SRTS statute required the Department of Transportation (DOT) to administer the federal SRTS funds and the complete streets law tasked the state and county DOTs to adopt complete streets policies and review existing highway design standards and guidelines. Both bills were signed into law June 2009. **Conclusions:** Focusing efforts at multiple levels of the social ecological model involving champions and key stakeholders led to the successful passage of legislation supporting active transportation. Tracking policy implementation and evaluation over time will help determine actual impact on active transportation behaviors across Hawaii.

**Keywords:** social-ecological model, elected officials, physical activity, legislation

Over the past 20 years, leisure-time physical activity rates have stabilized, while rates of obesity have climbed.<sup>1-3</sup> Decreases in non-leisure-time physical activity such as active commuting may be contributing to the obesity epidemic.<sup>4</sup>

Interventions to increase physical activity through individual and social approaches have shown modest effects.<sup>5</sup> The social ecological model postulates that behavior is influenced by a variety of factors including not only individual level knowledge, attitudes, and behaviors but also policy, institutional, community, and societal level influences.<sup>6</sup> Accordingly, community and policy-level interventions should have the greatest population reach and may be the most effective for widespread behavior change.<sup>6</sup>

Nationwide, 2 policies have been gaining support to improve the safety of pedestrians and cyclists for active transportation: Safe Routes to School (SRTS) and Complete Streets. SRTS is a comprehensive approach to increase walking and biking to school through engineering, education, enforcement, encouragement and evaluation.<sup>7</sup> Complete streets focus on safely accommodating

all modes of transportation, prioritizing pedestrians and cyclists, through a variety of policies and practices.<sup>8</sup> While both SRTS and complete streets include a variety of activities, statewide enabling legislation is often essential to ensure broad changes at the highest level of the social ecological model.

Public health professionals and advocates cannot enact policy directly. To have an impact, multisectoral partnerships are essential to influence key decision-makers who enact policies and procedures.<sup>9,10</sup> This manuscript summarizes the process and lessons learned from passing SRTS and complete streets legislation at the state level using the framework of the social ecological model.

### Methods

The Healthy Hawaii Initiative (HHI) was established in 2000 to lead statewide chronic disease prevention efforts for the Hawaii State Department of Health (DOH).<sup>11</sup> HHI initially began to focus on improving the built environment for active transportation to address high rates of pedestrian<sup>12</sup> and bicyclist<sup>13</sup> fatalities and lack of prioritization of these issues by policy-makers in Hawaii.<sup>14</sup>

For statewide policy change, HHI formulated a multilevel approach based on the social ecological model (Figure 1)<sup>6</sup> to be delivered through a series of meetings, training sessions, and workshops with diverse stakeholders. HHI contracted with an expert consultant (Mark Fenton) who had a multidisciplinary background

Heinrich is with the Dept of Kinesiology, Kansas State University, Manhattan, KS. Aki and Hansen-Smith are with the Healthy Hawaii Initiative, Hawaii State Dept of Health, Honolulu, HI. Fenton is with Fenton Consulting, Boston, MA. Maddock is with the Dept of Public Health Sciences, University of Hawaii, Honolulu, HI.

## Assessing State-Level Active Living Promotion Using Network Analysis

Opal Vanessa Buchthal, Nicole Taniguchi, Livia Iskandar, and Jay Maddock

**Background:** Physical inactivity is a growing problem in the United States, one that is being addressed through the development of active living communities. However, active living promotion requires collaboration among organizations that may not have previously shared goals. **Methods:** A network analysis was conducted to assess Hawaii's active living promotion network. Twenty-six organizations playing a significant role in promoting active living in Hawaii were identified and surveyed about their frequency of contact, level of collaboration, and funding flow with other agencies. **Results:** A communication network was identified linking all agencies. This network had many long pathways, impeding information flow. The Department of Health (DOH) and the State Nutrition and Physical Activity Coalition (NPAC) were central nodes, but DOH connected state agencies while NPAC linked county and voluntary organizations. Within the network, information sharing was common, but collaboration and formal partnership were low. Linkages between county and state agencies, between counties, and between state agencies with different core agendas were particularly low. **Conclusions:** Results suggest that in the early stages of development, active living networks may be divided by geography and core missions, requiring work to bridge these divides. Network mapping appears helpful in identifying areas for network development.

**Keywords:** community-based research, public health, health promotion, policy, evaluation

Physical inactivity is a growing health problem in the United States, contributing to rising rates of obesity and chronic disease among both adults and children.<sup>1-3</sup> Contributing to this problem are the structural barriers in modern communities that act to reduce physical activity in daily life.<sup>4-6</sup> In response, public health agencies are working to promote active living within communities. Active living promotion, defined as "a way of life that integrates physical activity into daily routines,"<sup>7</sup> focuses on reducing structural barriers to active transport (walking, bicycling), building opportunities for physical activity in daily life (walking children to school, playing in the park), improving access to sports and recreational facilities, and encouraging individuals to adopt these daily behavioral changes.<sup>8</sup>

Promoting active living is a complex undertaking, requiring collaboration among a wide range of state, county, and local agencies in both policy and program development. Organizations involved in different aspects of active living may not have a history of working with each other, or even view themselves as having related missions. Consequently, efforts are being made to develop coalitions and networks among these organizations, to build a sense of shared mission and increase collaboration between agencies. These activities reflect

the understanding that a single agency cannot solve complex public health problems alone. Partnership development is needed to provide more effective public health services.<sup>9-13</sup>

One challenge in this effort is evaluation and measurement: how do you document the work of coalition-building? How do you identify the strengths and weaknesses of your network, or map the key players in your network? Knowledge of how to integrate and promote interorganizational collaboration is limited,<sup>14</sup> and the importance of developing new methodologies for public health systems research has been noted.<sup>15</sup>

Network analysis is a potential tool for assessing the development of partnerships and collaborations. Network approaches have been used to examine how public health systems address issues such as provision of mental health<sup>10</sup> and HIV services,<sup>16</sup> health policy,<sup>11</sup> and emergency preparedness.<sup>17</sup> Network analysis has also recently been used to assess the impact of international collaboration efforts among researchers and agencies involved in physical activity promotion in Brazil.<sup>18</sup>

Network studies that have been conducted to assess the collaboration among partners working in state tobacco control programs<sup>14,19</sup> may provide a particularly salient model for assessing statewide active living promotion efforts. Statewide tobacco control networks bear a pronounced structural resemblance to the types of organizations involved in active living promotion within states. Because tobacco control networks are more mature, these

The authors are with the Dept of Public Health Studies, University of Hawaii at Manoa, Honolulu, HI.

## Priority of Activity-Friendly Community Issues Among Key Decision Makers in Hawaii

Jay E. Maddock, Bill Reger-Nash, Katie Heinrich, Kevin M. Leyden,  
and Thomas K. Bias

**Background:** The U.S. Community Guide to Preventive Services strongly recommends changes in urban design, land use and accessibility to increase physical activity. To achieve these goals, policy change is often needed. This study assessed attitudes of decision makers in Hawaii to determine if physical activity related issues are among their priorities. **Methods:** State and county officials (n = 179) were mailed surveys. Respondents listed the three most important problems (open-ended) in Hawaii and rated the importance of 23 specified problems, of which six directly related to physical activity. **Results:** The survey was completed by 126 (70.4%) respondents. The most frequently mentioned categories for the open-ended questions were affordable housing, environment/sustainability, sprawl/traffic/population growth, and healthcare. Among the closed-ended physical activity related items, increasing traffic was ranked highest (43.9%) and fourth overall. Less than 12% of decision makers rated other physical activity issues as important. **Conclusions:** Future work is needed to increase the visibility and importance of physical activity related issues among policymakers.

**Keywords:** physical activity, policy, elected officials, legislation

Regular physical activity is associated with decreased risk of many chronic diseases and with improved quality of life.<sup>1</sup> Over the last several years, there has been a growing awareness of the importance of the built environment in supporting or hindering adequate daily physical activity.<sup>2</sup> The U.S. Community

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Guide to Preventive Services strongly recommends four policy and environmental approaches to increasing physical activity. These include (1) creation of or enhancing access to places for physical activity, (2) point of decision prompts, (3) street and community scale urban design, and (4) land use policy and practices to enhance active transport.<sup>3,4</sup> To better understand what enables active living communities, a modified Delphi process was used to develop indicators of Activity-Friendly Communities (AFC), which included land use environment, access to exercise facilities, transportation environment, aesthetics, travel patterns, social environment, land use economics, transportation economics, institutional and organizational policies, and promotion of physical activity.<sup>5</sup> To have a population-based impact on physical activity, policy changes are needed at all levels of state and local government. Most importantly, there needs to be changes in existing land-use planning regulations and enforcement. Although these changes may prove difficult, they are certainly not insurmountable.<sup>6</sup>

Legislation, budget priorities, and regulation can have a greater impact on the public's health than individual based approaches.<sup>7-9</sup> Thus, elected and appointed officials have an essential role in public health and in promoting AFC. Despite this role, little systematic research has been done to assess the relative priority for AFC among local and state decision makers. A better understanding of what issues policymakers perceive as important can help guide public health efforts and be used as a surveillance tool to measure effectiveness. The goal of this study was to assess the priority of AFC policies among decision makers in Hawaii.

### Methods

Due to the small size of Hawaii, a census approach was used. All state and county elected officials were selected, as well as gubernatorial appointed officials at state-level departments and agencies. This led to a population of 185 positions, with 25 state senators, 51 state representatives,

## ORIGINAL RESEARCH

# A Statewide Observational Assessment of the Pedestrian and Bicycling Environment in Hawaii, 2010

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PEER REVIEWED

## Abstract

### Introduction

Walking and bicycling are important but underused modes of transportation in the United States. Road design influences how much walking and cycling takes place along streets and roads. Currently, numerous national policy initiatives, including Safe Routes to School and Complete Streets, are attempting to improve pedestrian and cycling infrastructure and "friendliness." However, no state has completed a systematic assessment of its streets to determine how amenable they are to walking and bicycling. Our statewide study was undertaken to assess how accessible and friendly Hawaii roads are to these 2 activities.

### Methods

We randomly selected street segments in Hawaii's 4 counties and then completed objective assessments using the Pedestrian Environmental Data Scan. We audited 321 segments, and interrater reliability was adequate across all measures. Streets were coded as high (42.4%) or low capacity (57.6%) depending on how much vehicular traffic the street was designed to accommodate. Outcome measures included street accommodations (ie, sidewalks and crossing aids) and pedestrian and cyclist use.

### Results

Most high-capacity streets had sidewalks (66%). These sidewalks were usually in good condition, contiguous, and had traffic control devices and pedestrian signals. Most low-capacity roads did not have sidewalks (63.4%). Cycling facilities were limited (<10%) on both types of roads. Pedestrian and bicycle traffic was related to mixed use, including both residential and retail space, and to pedestrian and cycling infrastructure.

### Conclusions

Road segments in Hawaii with more infrastructure and types of use, including single-family houses, apartment complexes, restaurants, office buildings, and industrial buildings, are used more by pedestrians and cyclists.

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## Introduction

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**On The Move** YU SHING TING

# Walking, The Simplest Exercise

Do you want to get back into shape, but don't know where to start? Try walking.

Next Wednesday (April 4), the state Department of Health (DOH) is launching a 10-week statewide walking campaign called Step It Up Hawaii to encourage adults to walk 30-plus minutes a day.

"The purpose of the campaign is to get people who haven't been active active," says Jay Maddock, director of the Office of Public Health Studies at the University of Hawaii. "And walking is a nice first step for people who want to get started."

"Our target is working adults, ages 35 to 55, because when we looked at our statistics you really see a big drop off in that category. We found that people have trouble participating in the same activities they did when they were growing up. Also, they tend to have significant life changes, such as starting a family. And when you're in your mid 30s, you tend to have a lot of time pressures that you didn't have when you were younger."

Throughout April and May, there will be media messages (television, radio and print) encouraging Hawaii's adults to try to incorporate walking into their daily routine. The commercials suggest that



Walking with a friend is a fun, active way to get together. You'll be surprised at how much ground you can cover.



Instead of a sitting meeting, the DOH suggests scheduling a walk and talk. This moving meeting is great for brainstorming and discussion. Walking and breathing in fresh air may inspire great ideas that you may not get in a meeting room.

three walks of 10-plus minute are just as effective as one of 30-plus minutes.

In one commercial, Lt. Gov. Duke Aiona, who himself is an avid stair climber, uses the stairs and encourages a man waiting for the elevator to join him.

According to a behavioral risk factor surveillance survey by the Centers for Disease Control, Hawaii is ranked second among

the 50 states plus the District of Columbia for having the lowest rate of obesity for adults. Colorado ranked the best.

However, according to Maddock, obesity numbers have been slowly increasing over the last several years.

"The benefits of walking include a reduction in colon cancer and

Department of Transportation in putting together some of the safe walking messages for pedestrians."

According to DOH, for people who are not regularly physically active, walking at least 30 minutes a day, five days a week is one of the best things they can do for their body and state of mind. Moderate to vigorous walking helps to relieve stress, gives the heart the workout that it needs, reduces the likelihood of high blood pressure, makes you feel good, and can help you look good too. They add that if you walked just 30 minutes a day, five days a week, after a year you could lose three to five pounds.

On Oahu, a community walk called HMSA Go Walk At Lunch is scheduled for Wednesday, April 18 at the state Capitol. The event is free, open to the public and takes place from 11 a.m. to 1 p.m. There will also be giveaways along the route which goes around the Capitol and Iolani Palace, totaling less than one mile.

Step It Up Hawaii is the latest component of the DOH's statewide health promotion campaign called Start Living Healthy, run by DOH's Healthy Hawaii Initiative and funded by Hawaii's tobacco settlement funds.

ysuhing@midweek.com

**The Young View** KATIE YOUNG



## GET IN STEP

Advertiser Apr. 18 107

### Furry friends make great walking companions

Here's our third weekly walking tip, as part of the Step It Up Hawaii campaign. Got a dog? Think of him as a walking machine with hair! An estimated 25 percent to 40 percent of dogs are overweight or obese, along with 30 percent of humans. The Humane Society of the United States recommends walking a dog twice a day. This is a great way for dog owners to reach their recommended 30-minute-a-day minimum of walking. Walking is more likely to be maintained if there is a

purpose — and that would be your dog. Many people take a brisk walk because it makes them feel good, relieves stress, and protects against obesity, heart disease, diabetes and breast cancer. When you arrive home from work, your buddy will be waiting for you. Isn't it time you started walking?

Next week: Walking in the tropics. For more information, go to [www.healthyhawaii.com](http://www.healthyhawaii.com).

— Drs. Jay Maddock and Bill Reger-Nash  
front pg Sect. 1 in Home

# Did we meet our goals?

- Passed Complete Streets – State and All Counties
- Extensive change in a predominately Native Hawaiian community
- 4<sup>th</sup> most active state in the US (58.5% meet guidelines)

START.  
LIVING.  
HEALTHY.



eating  
Better

Getting  
active

# DOH Objectives

- In 2012, the state legislature created a Childhood Obesity Task Force specifically to recommend policy solutions to obesity in Hawaii.
- Submitted 8 bills/resolutions for this session, several are passing through committee now.
- Senator Josh Green is our legislative champion.

# UH Objectives

- Over 30 publications related to HHI.
- Promoted to full Professor in 2009
- Panel speaker at ALR – Right now!

# DOE Objectives

- “You’ve got to understand we have different missions, ours is to educate the children, not keep them healthy” senior HDOE official in December 2012 at the Childhood Obesity Task Force Meeting.
- We still have a way to go.

# Capacity Development

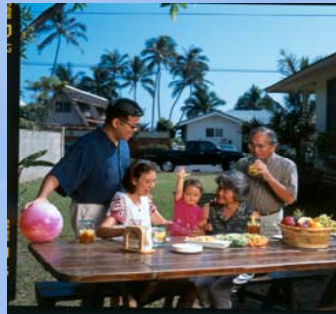
- Katie Richards



- Lehua Choy



- Jessica Yamauchi



- Katie Heinrich



# Mahalo

