

# Helping Parents Increase Children's Physical Activity

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# Outline

- § The Problem
- § What are the barriers to providing opportunities for physical activity at home?
- § What are facilitators to increasing children's physical activity?
- § Ideas and resources for parents
- § Emerging strategies that could be useful for parents

# Definitions of “physical activity” and “exercise”

- § “Physical activity” refers to any body movement that burns calories, whether it’s for work or play, daily chores, or the daily commute.
- § “Exercise,” a subcategory of physical activity, refers to “planned, structured, and repetitive” activities aimed at improving physical fitness and health.
- § Researchers sometimes use the terms “leisure-time physical activity” or “recreational physical activity” as synonyms for exercise.

Reference: Caspersen CJ, et al. Physical activity, exercise, and physical fitness: definitions and distinctions for health-related research. [Public Health Rep.](#) 1985; 100:126-31.

# Definition of Sedentary behavior

- § Any awake activity characterized by an energy expenditure  $\leq 1.5$  metabolic equivalents *and* a sitting or reclining posture.
- § Any time a person is awake and sitting or lying down, they are usually engaging in sedentary behavior.
- § Common sedentary behaviors include TV viewing, video game playing, computer use (collective termed “screen time”).

Citation: Sedentary Behaviour Research Network. 2012. Standardized use of the terms “sedentary” and “sedentary behaviours”. *Appl Physiol Nutr Metab.* 37: 540–542.

# The Problem

- § Both low PA and high sedentary behavior (screen time) are associated with childhood obesity.
- § PA and sedentary behavior might not necessarily counteract each other so both need to be addressed.
- § Children today are less physically active and spend more screen time than previous generations.
- § As children get older, their PA drops off dramatically.
- § Fewer than one in five high school students meet the current recommendations of 60 minutes of daily PA
- § Girls are less likely to be physically active than boys.
- § African-American and Hispanic adolescent girls are the least likely to be physically active

## The Problem (cont.)

- § Almost half of US children ages 2 through 15 exceed screen time recommendations
- § 71% of children ages 8-18 have a TV in their bedroom, and 50% have a video game player in their room.
- § Children ages 8-18 spend about 8 eight hours a day of total media time
- § Mobile media is driving increased consumption.
  - Among 8- to 18-year-olds: 66% have cell phones, and 76% have MP3 players.
- § Black and Hispanic children spend far more time with media than White children do
  - 4½ hours more media daily; 2-2.5 hours more TV daily

*Generation M<sup>2</sup>: Media in the Lives of 8- to 18-Year-Olds,*  
<http://www.kff.org/entmedia/entmedia012010nr.cfm>

# Healthy Homes... Healthy Families

- § Developing tailored home environment interventions to address childhood obesity. R21-NIDDK
- § Purpose: To help low income parents of **2-5 year old children** develop new lifestyles and create supportive home environments to promote healthful eating and physical activity in their children.
- § 38% parents/48% children Latino; 15% children Black; 17% mixed race
- § Baseline finding: 71% homes have 3 or more TVs; **72% of children have TV in bedroom**

# Parents' barriers for helping children be more physically active

- § Lack of awareness (think children are more active than they really are)
- § Time costs/hectic schedules
- § Lack of information about locations/resources for PA
- § Lack of transportation
- § Lack of support from family/friends
- § Child preference for sedentary activities
- § Safety for outdoor play/walking to school (traffic, crime, etc.)
- § Dollar costs (Equipment, fees, memberships)
- § Practicality/time cost for walking to school
- § Lack of affordable and accessible recreation facilities
- § Difficulty with changing habits
- § Difficulty with monitoring child behavior
- § Weather
- § Social norms



# Children's barriers for being more physically active

- § Preferences and priorities
- § Feeling lack of competence/self efficacy (especially for sports)
- § Bad Weather
- § Lack of spare time
- § Low caregiver motivation
- § Family life and parental support (e.g. parents' lack of current participation in, or enthusiasm for, sports and exercise);
- § Restricted access to opportunities for participation in sport or exercise (e.g. lack of means for safe travel; lack of facilities; cost)
- § Restricted access to opportunities for participating in unstructured forms of PA (e.g. busy traffic; threat of crime; threat of intimidation by older children; and neglect of local play areas).
- § Lack of equipment (bikes, swing set, basketball hoops, etc.)
- § Social norms

## Barriers to reducing screen time

- § Lack of awareness - Parents underestimate how much screen time children are engaging in
- § Time costs for monitoring/easier for parents
- § Difficulty with changing habits
- § Parity with other family members
- § Child preferences
- § Access: High access to media, low access to portable play equipment (especially true for low income children)

# Children's views about what helps them take part in physical activity

- § Feeling competent/confident in ability
- § Aspects of physical activity that children value
  - Choice of exercise opportunities
  - PA as a means to having fun and spending time with friends
  - Sense of belonging to a team, enjoyment of competitiveness, and feelings of achievement
- § Support
  - Supportive, encouraging and inspiring family
  - Provision of practical support by parents
  - Opportunity to do things with other family members
  - Siblings and friends who are active
- § Greater access to opportunities for participating in PA
  - Owning a car; Having a garden; Having equipment/local facilities, etc.

# Facilitators to increasing children's physical activity

- § Parents do feel that it is their responsibility
- § The more time children spend outdoors, the higher their activity levels.
- § Parental role modeling – change in own PA behaviors

# Healthy Homes... Healthy Families

- § 62% of parents say their kids never see them walk instead of drive to get places
- § 70% of parents say their kids never see them exercising

## Parent's role modeling helps

- § The Framingham Children's Study found that the children of active mothers were twice as likely to be active as children of inactive mothers.
- § When both parents were active, children were **5.8 times** more likely to be active than the children of two sedentary parents.

Moore LL et al. Influence of parents' physical activity levels on activity levels of young children. *J Pediatr* 1991, 118:p.215-219.

# Facilitators to increasing children's physical activity

- § Parental support (e.g. transporting the child, observing the PA, providing equipment)
- § Parental encouragement and reinforcement of child's PA
- § Parents playing/exercising with their children
- § Parents who realize the importance of physical activity may offer even greater support. Focus on health.
- § Arranging access to after-school or community sports and activity programs
- § Enlisting outside support from friends and other family members
- § Making behavior changes gradually
- § Access to physical activity programs/facilities
- § Provide a choice of active toys and choice of activities

# Providing active toys

- § When there was only one toy to play with, boys engaged in 1.3 times longer active play than the girls
- § When children were provided access to a choice of active toys, physically active play time increased by nearly 200% for girls, compared to an increase of just 42% for boys.

[DM Feda](#) et al. Effect of increasing the choice of active options on children's physically active play. [Journal of Science and Medicine in Sport](#). [Volume 15, Issue 4](#), July 2012, Pages 334–340



# Facilitators to reducing screen time

§ Parenting skills – Kids are not in charge. Privilege not a right.

§ Set limits/rules

- Only about 3 in 10 young people say they have rules about how much time they can spend watching TV (28%) or playing video games (30%), or on computer (36%).
- When parents *do* set limits, children spend less time with media - Those with *any* media rules consume nearly 3 hours less media per day than those with no rules.

§ Take TV out of children's bedrooms

- Children without a TV in their room spend 1.5 hours less a day watching TV than those with TV

§ Turn off the TV

- In homes where the TV is left on most of the time, kid watch 1.5 hours more TV

§ Not eating in front of the TV

§ Availability of alternatives to TV which are acceptable to the child

§ If parents watch less TV

- Adolescents whose parents watch TV > 2 hours a day are more than twice as likely to be physically inactive as those children whose parents watch less.

# Ideas to empower families

- § Monitor daily activities for one week. Identify at least three 30-minute time slots you could use for PA. Put on calendar.
- § Set goals for family PA:  
[http://www.letsmove.gov/sites/letsmove.gov/files/Goal\\_Tracking.pdf](http://www.letsmove.gov/sites/letsmove.gov/files/Goal_Tracking.pdf)
- § Join a national or local physical activity challenge.
  - <https://www.presidentschallenge.org/>
  - <http://school.fueluptoplay60.com/playbook/play.php?id=15812266>
  - <http://www.dshs.state.tx.us/wellness/agency2.shtm>
  - <http://www.fitfamilychallenge.com/>
- § Do things outside. Find affordable outdoor activities nearby.
  - <http://www.letsmove.gov/where-go>
  - <http://www.letsmove.gov/what-do>

# Ideas to empower families (cont.)

## § Physical activity doesn't have to be "exercise" or "sports"

- Incorporate physical activity into your day: Take the stairs instead of the elevator, Park further away and walk.
- Walk around the block as a family after a meal.
- Put on the music and dance at home
- Play tag or other active games as a family
- Include children in family activities like walking the dog, washing the car, or mowing the lawn.
- Take turns letting each family member pick an active weekend activity: family park day, swim day, bike day.
- Plan social activities with friends involving PA.

## § In the winter, visit the local shopping mall and walk.

## § Share rides to sports/PA activities with friends

## § Give boys and girls toys that encourage physical activity like balls, kites, Frisbees, and jump ropes.

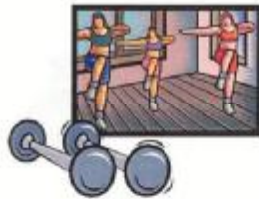
## § Reward kids for physical activity and with physical activity

# Ideas to empower families (cont.)

- § Log media time, then set rules:  
[http://www.letsmove.gov/sites/letsmove.gov/files/Screen\\_Time\\_Log.pdf](http://www.letsmove.gov/sites/letsmove.gov/files/Screen_Time_Log.pdf)
- § Make a new house rule: no sitting still during television commercials.
- § Join a Campaign to turn off TV:
  - <http://whole9life.com/2011/04/kill-your-tv/>
  - <http://whole9life.com/2011/05/instead-of-tv/>
- § Get an aerobic dance or exercise tape for kids and exercise together.
- § Join your school PTO, school improvement team or school health and wellness committee to advocate for changes to increase PA at schools
  - <http://www.actionforhealthykids.org/for-schools/resources/files/parentadvocacytoolkit.pdf>
- § Do a neighborhood PA assessment and advocate for environmental changes
  - <http://www.network-toolbox.cdph.ca.gov/en/HandPAAssessment.asp>

# Community resource guide: Advocating for beneficial community changes

Learn about affordable health clubs



✚ Jessie (Andre') Thompson, Boxing Center, 302 N 10<sup>th</sup> Street, Wilmington, 341-7837 or 341-7872

✚ The Boxing Center offers strength training, low & high impact aerobics classes, kickboxing, funky jazz, and Tae Bo classes. \$40/year for city residents and \$75/year for non-city residents.

✚ Mary Jones, Senior Center, 2222 S College Road, Wilmington, 341-7253

✚ The Senior Center offers aerobics, volleyball, tennis, a nature trail, softball, and water aerobics, for people 55+. Contact Mary Jones to learn more about these programs.

Ask for safer traffic patterns in your neighborhood

✚ Gene Johnson, 341-0300  
Department of Transportation;  
Traffic Services

✚ Call to make suggestions about ways to make your neighborhood safer for walking or riding a bike.

Get a sidewalk repaired or built

✚ For sidewalk repair: Streets Division of Public Services, 341-7879  
✚ For new sidewalk: Skipper Thunderberg, 341-5899

✚ Call to report a broken sidewalk, or to ask for a new sidewalk in your neighborhood.

Start a community watch in your neighborhood, to make it safer for walking or riding a bike.

✚ Linda Rawley, 343-3600  
Wilmington Police Department,  
✚ Sergeant Lockamy, 341-4266  
Sheriff's Department

✚ A community watch is all about neighbors looking out for each other. Call to find out how to start a neighborhood community watch.

Report a stray animal in your neighborhood

✚ Animal Control, 341-4197

✚ Call this number to report a stray animal.

Get a streetlight bulb replaced

✚ Karen Dixon, 341-7893

✚ Call to request a bulb replacement to help make your neighborhood safer for walking.

# Emerging strategies

- § Pedometers
- § Devices to limit TV and computer time
- § Active video games
- § Cell phone apps
- § Devices for Sneakers
- § New venues – SkyZone

# The Fitbit Wireless Trainer



# Screen Time Manager: High Tech





# Screen time manager: Low tech



# Cell phone controls

TODAY: JULY 14, 2008 / [HELP](#) / [CHANGE HISTORY](#)

## Family Allowances

BILLING CYCLE: JUN 30TH – JUL 29TH

**Minutes** | Messages | Downloads | Schedule | Allowed Numbers

Manage minute allowances for each line by moving the sliding bar below. Your plan includes 700 Whenever Minutes®

**Plan Whenever Minutes®**  
Used: 240  
Remaining: 435

0 175 350 525 675 700

240

Total Allowances

**Judy**  
Used: 130  
Remaining: 145

0 175 275 350 525 700

130 145

[View Details Page](#) | [+ MORE OPTIONS](#)

**Judy** | **David** | **Emma** | **Brandon**

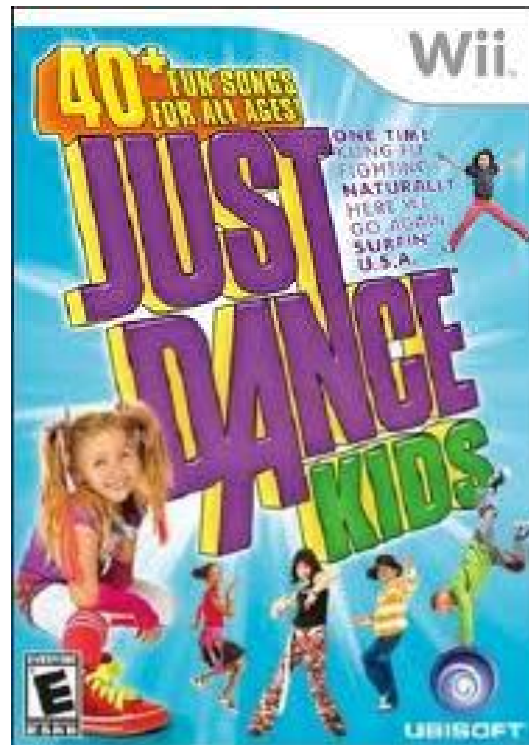
75 / 200 | 20 / 100 | 15 / 100

[MANAGE MINUTES](#) | [MANAGE MINUTES](#) | [MANAGE MINUTES](#)

VIEW:  INDIVIDUAL  ALL

[save](#) | [discard changes](#)

# Active video games



# Nike+ iPod Sport Kit



# First Lady Michelle Obama's Cell Phone Apps for Healthy Kids

- § Rhythmatics Kids for Android: “It’s like Guitar Hero for running” — Walk, jog, or run in pace with the beat of the music, matching each step on time. With your mobile device secure, match your footsteps to the rhythm. Earn personal high scores and share them!
- § Work It Off! For Android: Teaches children the correlation between the calories they eat and the calories they burn. The user verbally speaks a food into the phone and is given activity options to Work It Off!

<http://appsforhealthykids.com/>

<http://mobihealthnews.com/8368/mobile-apps-for-obamas-apps-for-healthy-kids/>

# Places to be active



Image from: <http://www.skyzonesports.com/providence>

## Emerging strategies (cont.)

### § Built Environmental/policy changes

- community gardens
- safe walking–biking routes to schools
- park revitalization
- youth programs
- joint use (after-hours community access to school grounds for recreation)

## Active Living Policy and Environment Strategy Ratings

Strategies	Community Guide Rating	1 <sup>st</sup> Tier Effective	2 <sup>nd</sup> Tier Effective	Promising	Emerging	Subcommittee Feedback
Community design	Recommended ( <u>Community-scale urban design and land use policies</u> )	X				Good evidence
School physical activity policies & environments	Recommended ( <u>Enhanced school-based physical education</u> )	X				Variation by strategy
Street design	Recommended ( <u>Street-scale urban design and land use policies</u> )	X				Good evidence
Availability of parks & recreation facilities	Recommended ( <u>Creation of or enhanced access to places for physical activity combined with informational outreach activities</u> )	X				Good evidence (PA) Little evidence (obesity)
Point of decision prompts	Recommended ( <u>Point-of-decision prompts to encourage use of stairs</u> )	X				Good evidence (stair use); Little evidence (PA, obesity)
Transportation	Insufficient Evidence ( <u>Transportation and travel policies and practices</u> )		X			Good evidence (PA) Little evidence (obesity)
Childcare physical activity			X			Good evidence
Safe Routes to School				X		Some evidence
Traffic safety				X		(Rated by staff)
Interpersonal safety				X		(Rated by staff)
Screen time	<b>Policy and environmental strategies are not reviewed</b>				X	Little evidence
School wellness					X	Little evidence



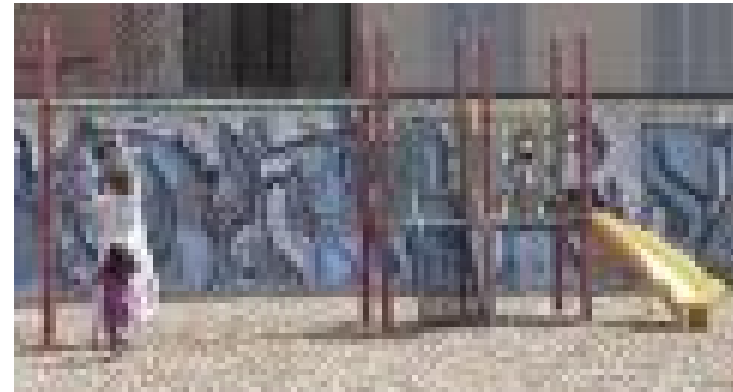


## § Playground Exit Interviews

§ With parents of 2-to-7 year-old children playing at newly renovated playgrounds

§ N=52

§ 60% Hispanic



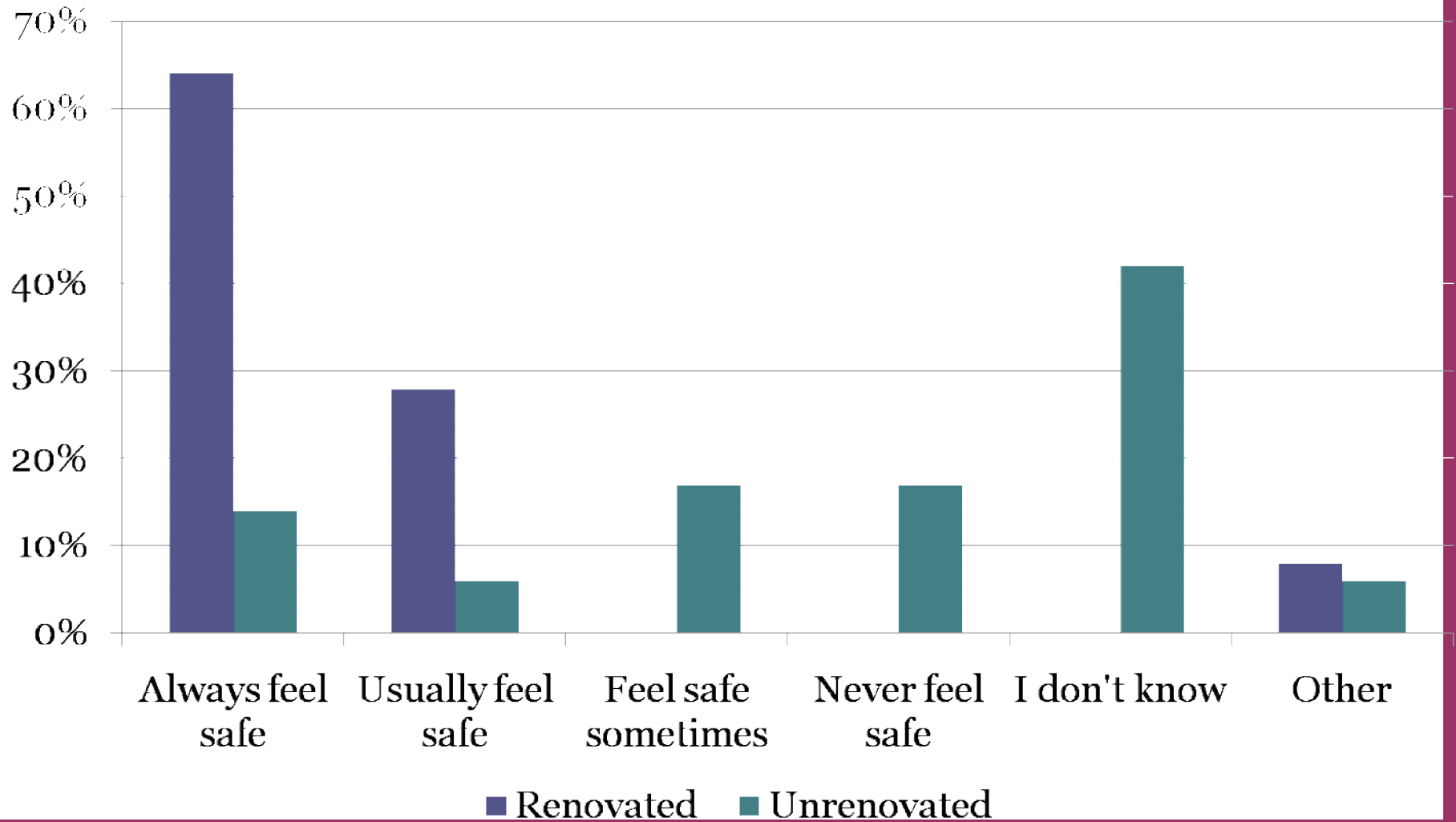
## § Neighborhood Intercept Interviews

§ With parents walking around a neighborhood near two playgrounds in need of renovation

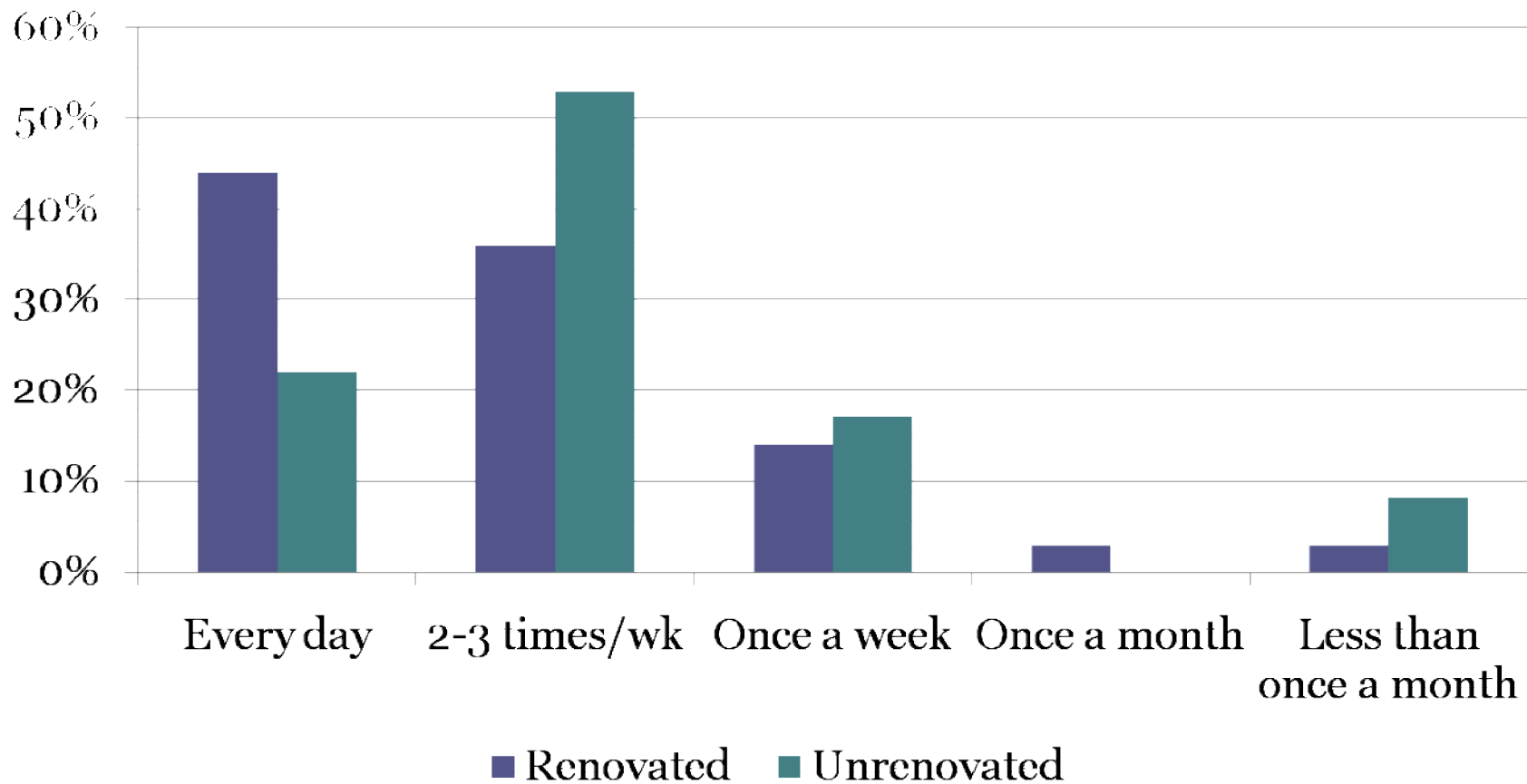
§ N=46

§ 72% Hispanic

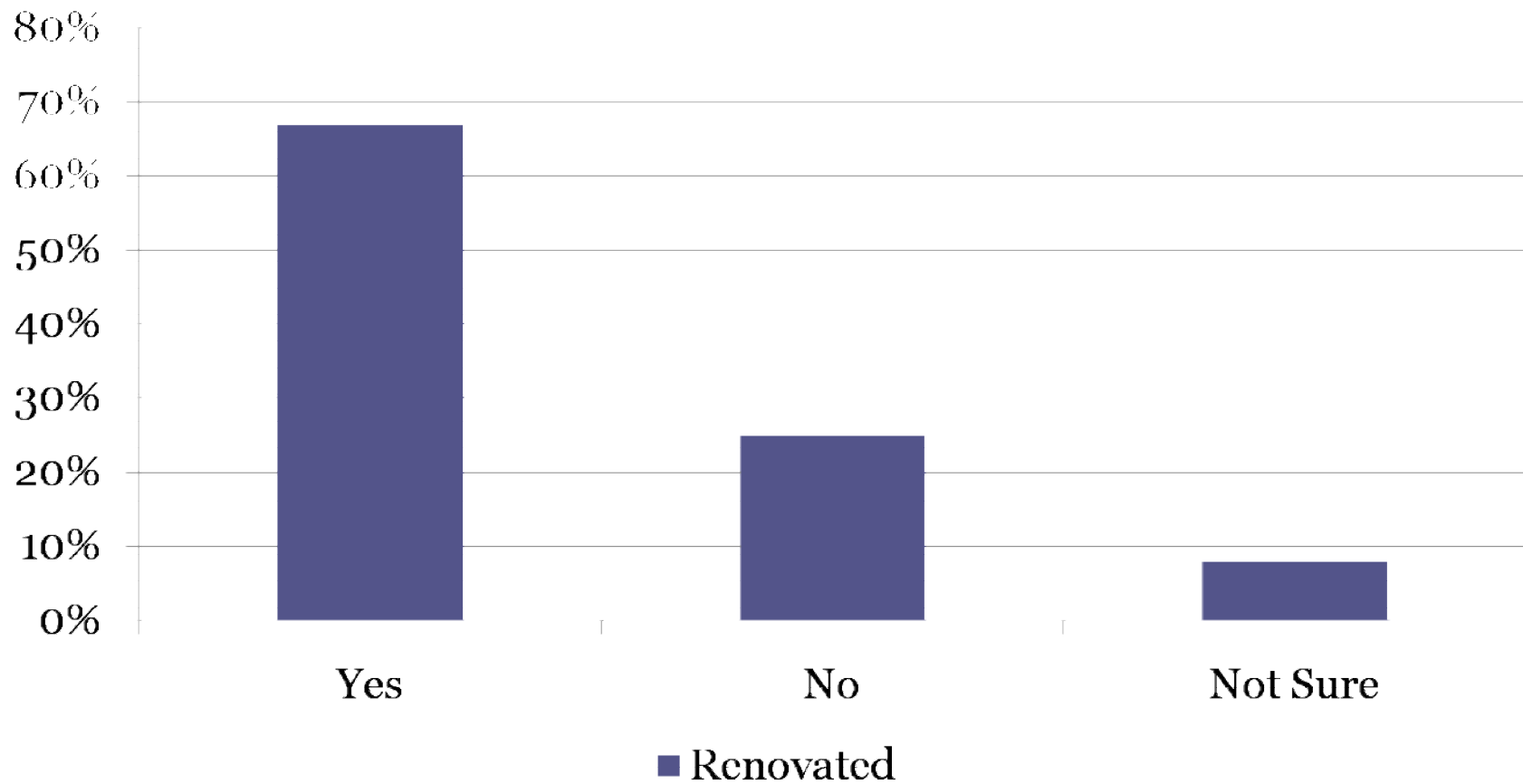
# How Safe Do You Feel At This Playground?



# How Often Do Children Play Outside?



# Has Child Been More Physically Active Since Playground Renovation?



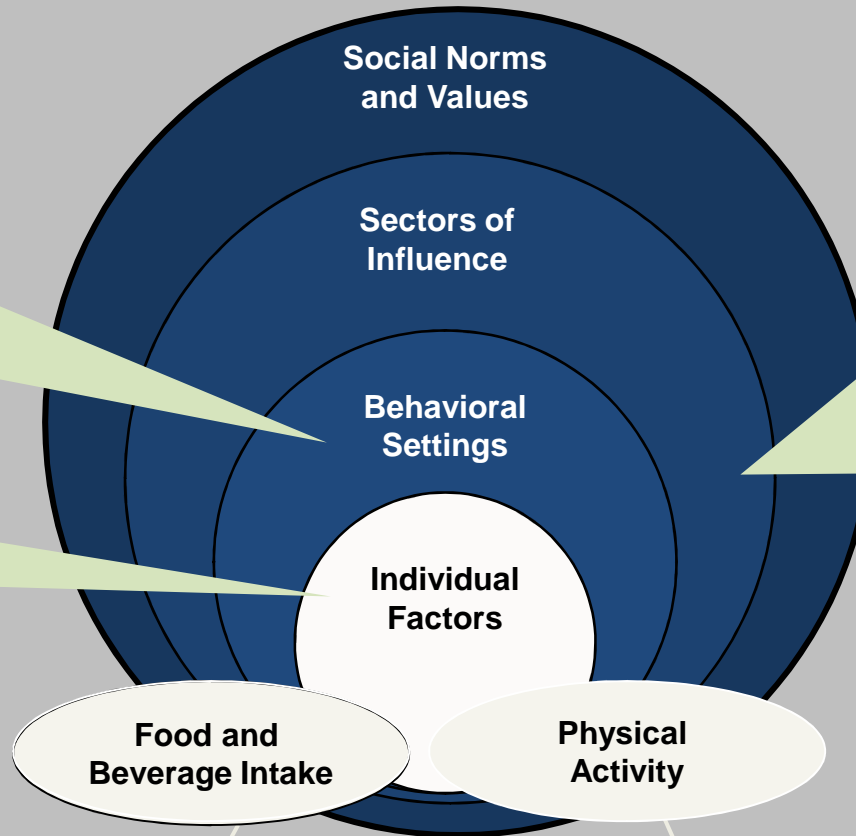
## Emerging strategies (cont.)

- § Community-based Participatory Research
- § Multiple level interventions (El Paso, Philadelphia, Somerville)
- § Translational/dissemination research
- § Training

# A Public Health Framework to Prevent and Control Overweight and Obesity

- § Home and Family
- § School
- § Community
- § Work Site
- § Healthcare

- § Genetics
- § Psychosocial
- § Other Personal Factors



- § Food and Beverage Industry
- § Agriculture
- § Education
- § Media
- § Government
- § Public Health Systems
- § Healthcare Industry
- § Business and Workers
- § Land Use and Transportation
- § Leisure and Recreation
- § Community- and Faith-based Organizations
- § Foundations and Other Funders



**Prevention of Overweight and Obesity  
Among Children, Adolescents, and Adults**

## A favorite parenting quote by Diane Loomans

"If I had my child to raise over again:  
I'd build self-esteem first and the house later  
I'd finger paint more and point the finger less  
I would do less correcting and more connecting  
I'd take my eyes off my watch and watch with my eyes  
I would care to know less and know to care more  
I'd take more hikes and fly more kites  
I'd stop playing serious and seriously play  
I would run through more fields and gaze at more stars  
I'd do more hugging and less tugging  
I'd see the oak tree in the acorn more often  
I would be firm less often and affirm much more  
I'd model less about the love of power  
And more about the power of love."