

FITFUTURE[®]

United Way of Tarrant County

*A Community Participatory Project
to Reduce and Prevent Childhood
Obesity*

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Study Objectives

- Children: Reduce overweight/obesity
 - Minimum of 5% by 2009
 - BMI (body mass index) and body fat indices
- Families
 - Increase physical activity
 - Improve nutrition
- Our proposal:
 - Community-Based Participatory Approach

Research Model

- Participatory Action Research
 - Community-Based Participatory Research
 - Participatory Research
 - Action Research
 - Empowerment Research
- Foundation is Relationships

Participatory Research

- Participant input is critical to success
 - Democratic, non-coercive
 - Participants determine purpose & outcome
- Modest, respectful attitude
 - Curious about participant perspective
 - Eager to learn from participant
- IS NOT:
 - Trying “to get another group of people to do what YOU think is best for them.”

Participatory Process

- Formal (2) and informal (10-12) meetings with Mitchell teachers, principal, counselor
- Formal meeting with Logan teachers to discuss measurement plans
- Feedback and meetings with parent leaders
 - **Innovators** in Diffusion of Innovations model
- Entire school is included whenever possible

The Intervention

- Weekly student nutrition and physical activity class with Registered Dietitian during school
 - Emphasis is on exercise, motivation and implementing of daily activities.
 - Shapedown curriculum—available nationwide
- Monthly nutrition and physical activity class at school in the evening for parents/families
- Work toward a healthier school and community

Cultural Sensitivity

- Shapedown Curriculum addresses cultural views
 - Perspectives, values, and preferences
 - Foods, dietary restrictions
 - Physical activities, etc.
- Multi-cultural team



Participants



Demographics

	<u>Mitchell</u>	<u>Logan (control)</u>
Gender		
Male	26 (59%)	21 (53%)
Female	18 (41%)	19 (47%)
Ethnicity		
African American	25 (57%)	30 (75%)
Hispanic	17 (39%)	10 (25%)
Non-Hisp. White	2 (5%)	0
Age	8.7 yrs	8.7 yrs

Recruitment

- 75.4% (46/61) of third grade students at Mitchell Boulevard Elementary School enrolled
- 61.7% (42/68) of third grade students at Logan Elementary School enrolled
- Labor and resource intensive process

Nutrition Education

- Taste of Spring Cooking Class
 - 10 families attended
 - Resource materials on healthy lifestyles
 - Cooking demonstrations with guest participation
- Parent Education class “Shake the Salt Habit”
 - 5 families attended
 - Educational information presented regarding salt content in foods
 - Techniques on how to flavor food without adding additional salt
- Kids in the Kitchen
 - A program of the Junior League of Fort Worth
 - Families rotated among stations to learn about healthy

Increased Physical Activity

- After-school program primarily provided assistance with homework
- Limited physical activities available because of lack of sports equipment
- Now, after-school activities include:
 - basketball, softball, soccer, football, jump rope, dodge ball, hula hoop, scooter races and kickball four days a week.

Increased Physical Activity

- Running Club
 - Led by Dr. Rudy Herrera
 - Students practiced after school 3 days a week
- Cowtown Marathon February 24
- Rise & Shine 5K April 22
- Walking trail measured inside Mitchell Elementary
 - One mile long
 - Encouraged schoolwide participation teachers and staff
- Aerobics classes for families held at school
 - Tuesdays and Thursday evenings
 - Taught by one of the teachers

Increased Physical Activity

- YMCA
 - Subsidized memberships for Mitchell families
 - \$10/month for family
 - Kid Zone, Karate, Dance, all other facilities
- First Tee Foundation
 - Golf and life skills
 - After school once per week
- Mitchell soccer club
 - Equipment purchased
 - Father willing to coach
- Spring Field Day
 - All grade levels at Mitchell Elementary School (approximately 460 students)

Creating Awareness

- Parent education newsletter
 - Highlights parent education classes
 - Advertises upcoming events
 - Distributed to local churches
- Media coverage
 - JPS
 - FWISD
 - Channel 8
 - Star-Telegram
 - United Way

Community Change

- Mitchell Meals
 - Healthier alternative to pre-packaged value meals
 - Sold cheaper than their cheapest value meal
- Local restaurants
 - Texas Fried Chicken and Seafood
 - Owner agreed to add a Mitchell Meal to his menu
 - Chinese restaurant (same owner as Texas Fried Chicken and Seafood)
 - Commitment from owner to add a special section to menu offering healthier meals with nutritional information printed alongside description
- Dance classes scheduled to begin in Fall 2007 at local church led by students with TCU Dance program

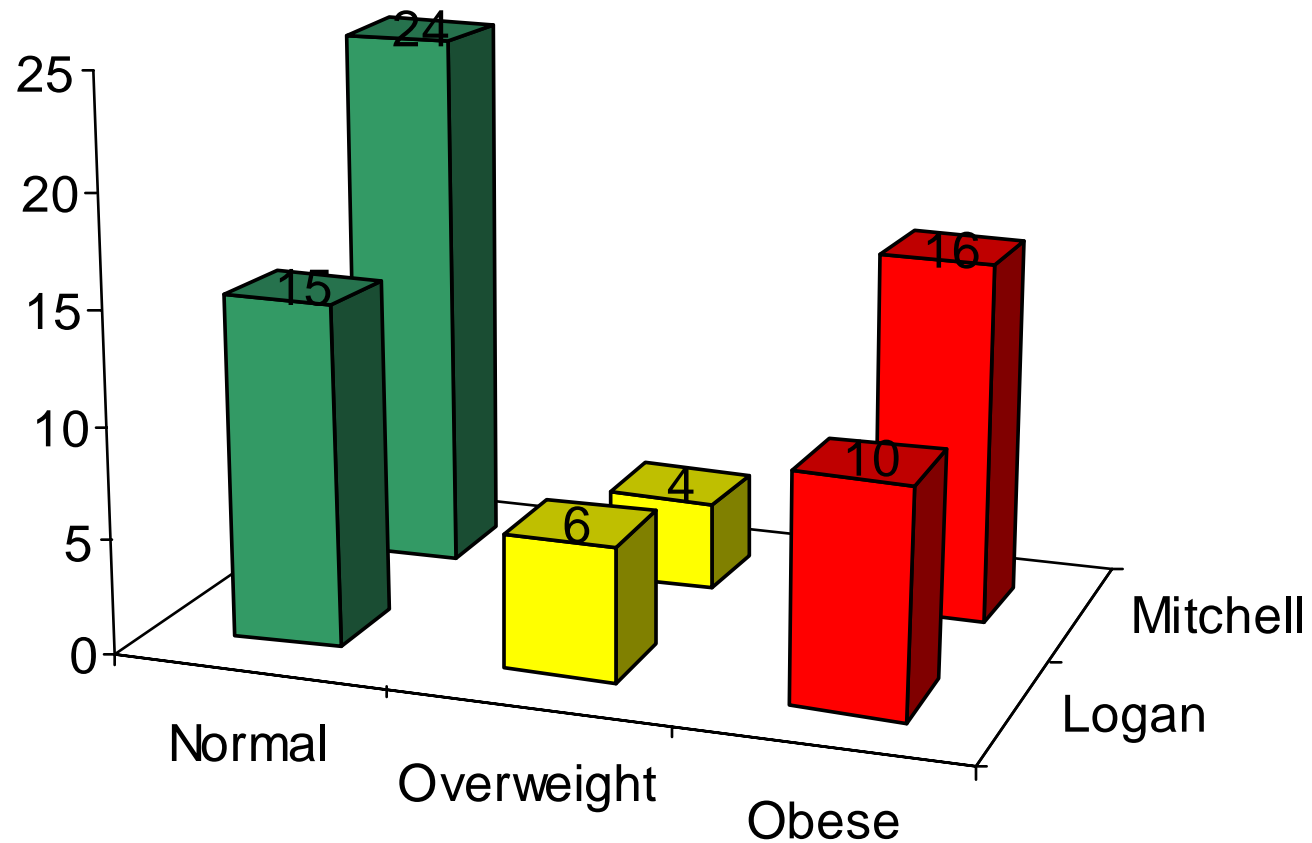
Community Change

- Get Up & Go Neighborhood Walk
 - Summer event to maintain participation, visibility in community
 - Community-wide participation
 - 1-mile walk through neighborhood on Saturday morning in June
 - Route included stop at midpoint at local YMCA
 - Route included passing through local park
 - Texas Bicycle Coalition
 - Promoted a safer route to school
 - Falcon Flyers Lake Dallas Jump Rope Team participated
 - Provide entertainment after the walk
 - Inspired principal and students to create school team
 - Jump rope team began practicing Fall 2007

- Get Up & Go Neighborhood Walk
 - Surrounding local businesses assisted with advertising
 - Councilwoman Hicks spoke and participated
 - YMCA held aerobics class and provided water available to the walkers during event on
 - City of Fort Worth
 - Other supporters
 - Fort Worth Public Health Department
 - Fort Worth Police
 - JPS Health Network

Results

Distribution of FitFuture Participants by BMI Category at baseline



Original cohort at Mitchell Elementary (N=41), adjusted for age

	November 2006	January 2007	April 2007
Mean BMI	20.19	20.28	20.75
African American (n=21)	19.89	20.13	20.66
Hispanic (n=18)	20.71	20.65	21.01
Male (n=24)	19.58	19.65	20.07
Female (n=17)	21.07	21.17	21.72
Percent Body Fat	20.36	20.65	20.37
African American (n=21)	18.97	19.32	18.73
Hispanic (n=18)	21.97	22.36	22.24
Male (n=24)	17.67 §	18.09 §	17.11 §
Female (n=17)	24.18	24.30	25.00

* Weighted by age in months

§ $p < 0.05$ for Kruskal-Wallis test

Original cohort at Logan Elementary (N=34), adjusted for age

	January 2007	April 2007
Mean BMI	19.98	21.26
African American (n=22)	19.45	20.99
Hispanic (n=12)	21.02	21.79
Male (n=19)	19.21	21.07
Female (n=15)	20.99	21.52
Percent Body Fat	20.09	20.56
African American (n=22)	18.87	18.73
Hispanic (n=12)	22.43	24.07
Male (n=19)	15.72 §	16.25 §
Female (n=15)	25.79	26.19

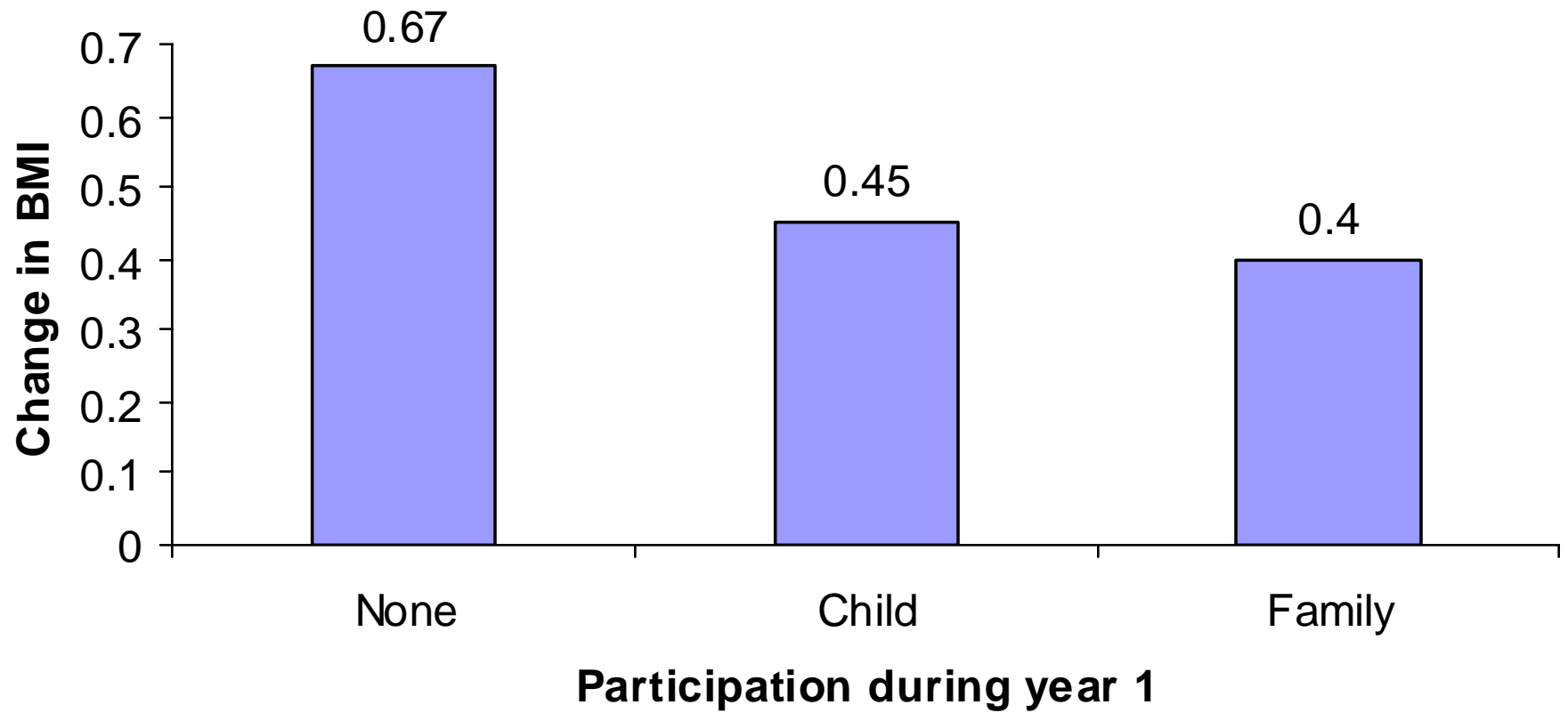
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Average pounds gained per child from January to April by BMI category in January, adjusted for age

Mitchell (n=41)		
Normal (n=20)	Overweight (n=7)	Obese (n=14)
1.06 lbs	2.08 lbs	2.13 lbs
Logan (n=34)		
Normal (n=15)	Overweight (n=7)	Obese (n=12)
1.52 lbs	1.97 lbs	1.87lbs

Year 1 Increase in BMI



Challenges

- Low parent participation at events
- Recruiting/organizing Parent Advisory Group
- Many families have not participated in any programming
 - Roughly 40% have done something with our program
- Continually brainstorming for strategies
 - Improve participation
 - Better fit for target population

Modifications

- Modifications in recruitment of parents for the Parent Advisory Group:
 - Teachers identifying and assisting in recruitment of active parents
 - Students as messengers
 - Phone calls to all parents
- Speaking to parents during all school and project events to encourage participation
- Personally calling participant's parents to solicit opinions on program, what changes could be made to increase their participation in the different parents/families activities, and what else we could do to assist them.
- Enlisting teachers in the program as role models for students and parents.

Successes

- Providing a menu of physical activities and educational opportunities for Mitchell families
- Recruiting over 75% of eligible children
- Stabilization of BMI increases at Mitchell
- Increased knowledge of healthy habits among students and parents
- Establishing networks and building relationships necessary for sustainability of project successes

Lessons Learned

Who are the participants?

- Students, parents, guardians, siblings: Families
- School: principal, teachers, counselor
- Churches, businesses, agencies, grocers
- Participant availability and participation
- “Building Research Through Relationships”
- Multiple IRBs: UNT, JPS, FWISD

Conclusions

- Biggest successes
 - Nutrition education in the classroom
 - Opportunities for families to do things never tried before
 - Positive vibe for the program
- Biggest setbacks
 - Lack of parent involvement
- Overall impression
 - Families stretched thin