
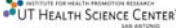


A Community-Driven Approach to Physical Activity Promotion for Adolescent Girls Using Text Messaging and Social Media

Supported by the National Institute on Minority Health and Health Disparities (R24MD005096)

Laura Esparza, MS, CHES
October 31, 2011

Obesity in Latino Youth

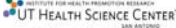
Youth – boys & girls, 2-19 years

	Non-Hispanic White	Latino
30.7% overweight		38% overweight
14.6% obese		20.9% obese

Adolescent girls (12-19 years)


	Non-Hispanic White	Latino
Obesity	14.5%	19.9%
Extreme Obesity	9.1%	14.1%

Source: Ogden, 2008






What we know:

- Obesity increases risk for many serious health problems
- Physical activity is a critical part of the issue
- Girls (especially adolescents) do not get enough physical activity




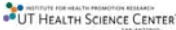
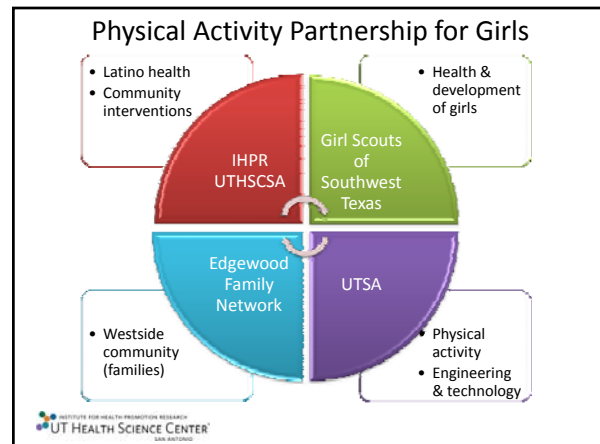
Factors Contributing to Physical Inactivity

- Media-dominated lifestyle
- Transportation
- Urban/suburban infrastructure
- Reduced participation in PE


Remaining questions...

- What would it take to help girls be more active?
- As a community, what can we do to support girls' desires to be physically active?






Formative Assessments

- Community Stakeholder Survey
N=25
- Photovoice (girls)
N=40 (10 completers)
- Focus Groups (parents)
N=32 (4 groups)
- Media Survey (girls)
N=110




Teen Cell Phone Use (National)



- 3 out of 4 teens ages 12-17 years own a cell phone
- 1 out of 3 teens sends >100 text messages a day (=3000 texts/month)
- Girls send/receive more texts than boys


Source: *Teens and Mobile Phones*,
Pew Internet & American Life Project (2010)




Media Survey

Objectives:

- Characterize media behavior and physical activity of girls
- Inform physical activity intervention incorporating cell phones or other technologies



Surveyed:
N=110 girls (11-14yrs)
from San Antonio's
Westside neighborhoods


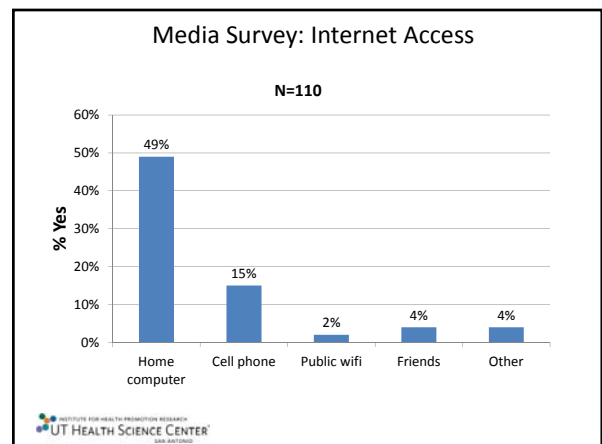
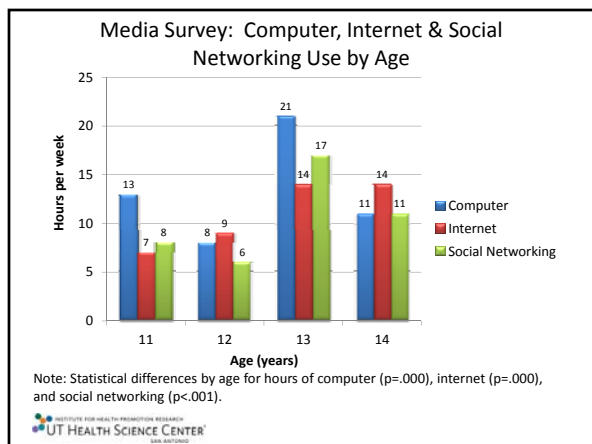


Media Survey Findings: Cell Phones

- Phones are important part of girls' lives
- Cell phone ownership differs by age


	11-year-olds	14-year-olds
Own cell phone	39%	76%
Cell phone use*	18 hrs/week	58 hrs/week

*Cell phone use includes talking, texting, listening to music, browsing internet

Media Survey Findings: Social Media

- Internet and social networking sites are popular among older girls, accessed mainly through home computer (rather than mobile phones or computers outside the home)




Most popular social media sites

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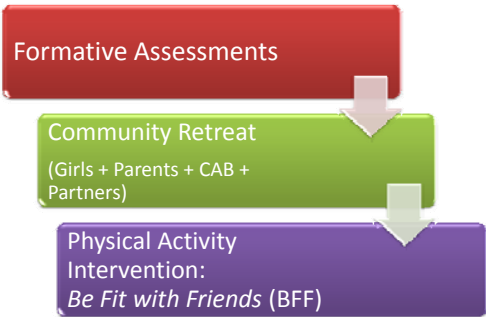
Media Survey Conclusion

Use of cell phones and social networking holds promise as an effective strategy for engaging girls in improving individual PA behaviors.



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From Formative Assessments to Intervention




Formative Assessments

Community Retreat
(Girls + Parents + CAB + Partners)

Physical Activity Intervention:
Be Fit with Friends (BFF)

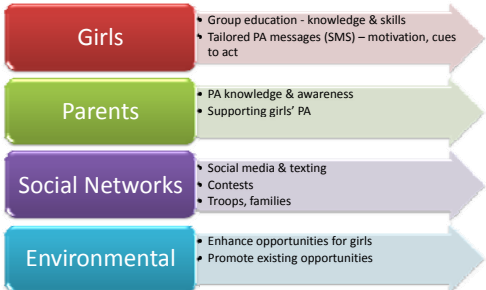
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Intervention Program



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Multi-Level Intervention



Girls

- Group education - knowledge & skills
- Tailored PA messages (SMS) – motivation, cues to act

Parents

- PA knowledge & awareness
- Supporting girls' PA

Social Networks

- Social media & texting
- Contests
- Troops, families

Environmental

- Enhance opportunities for girls
- Promote existing opportunities

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BFF Program Goals

- Study aims:
 - Meet the physical activity recommendation (60 min/day MVPA)
 - Engage in <2 hrs/day sedentary behavior (recreational screen time)
- Behavioral skills:
 - Activity monitoring
 - Goal-setting
 - Getting support for behavior change
- Provide opportunities in a safe, non-intimidating setting for girls to enjoy PA and develop new skills
- Connect girls and families with community resources that promote PA

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BFF Group Education

BFF Group Sessions

- 9 brief education sessions delivered in a group setting by a facilitator
- Draws on knowledge girls already have
- Discussion-focused and highly interactive

Physical Activity Mobile Units

- Introduce **fun** activities to do with **friends**
- Facilitators model active behaviors
- Reinforce concepts learned in *BFF* Sessions
- Active gaming + other





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Xbox 360 Kinect
Video Fitness

Communication Channels: SMS & Social Media

- **SMS** = Short Message Service
- **Broadcasts**: event reminders, cues to action, fit facts
- **Polls**: ask questions, get answers, share results






Facebook page

- Promote community events (date, time, maps)
- Share *BFF* participant photos
- Increase social support
- Positive reinforcement
- Encourage active behaviors

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Why SMS?


- Accessible on all cell phones
- Data connection not required
- Simple low-cost option, easy to use
- Popular among youth



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MessageSpace

- Home
- Create Login
- Participant Accounts
- Attributes
- Polling and Broadcast
- Grouping
- Message Scheduling
- Privacy Configuration
- Analytics
- About Us
- Contact Us
- Message History
- Sent Messages
- Pull Messages
- Received Messages
- Registration
- Register Participant



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MessageSpace

- Participant attributes
- Grouping
- Broadcasts
- Polls
- Messaging history

Personal Information

Participant ID: 3011g

First Name: (To protect privacy this field is hidden)

Last Name: (To protect privacy this field is hidden)

Primary Phone Number: +1210665xxxx Example: +1202209146

Attributes

Girl	1
Parent	0
SiteFacilitator#	0
Staff	0

Messages Sent To Participants | **Messages Received From Participants** | **Pull Response**

SMSNumber	MessageBody	Time	Status
+12106652995	Mtg from UT H&H Sci Ctr	10/12/2011 04:33	successfully sent
+12106652995	Many people fail in life, no	10/14/2011 06:03	successfully sent
+12106652995	UT H&H Sci Ctr Have you d	10/14/2011 08:08	successfully sent

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Lessons Learned: Text Messaging

- **Participants**
 - Of 30 enrolled participants, 26 received texts
 - 5 (19%) participated in 0 polls (2 of these dropped from study)
 - 21 participated in ≥ 1 poll
- **Polls**
 - 21 polls sent over 16-week intervention (14 knowledge assessments, 7 event evaluations)
 - 29% of girls responded to each poll
 - Girls who participated in polls responded to 7 polls (33%)
- **Text Messages**
 - A messaging plan is essential to ensure SMS message timing and content coincides with intervention activities

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Promote Community Events

Provide Positive Reinforcement

Be Fit with Friends
Don't forget to check us out this evening on Fox 29 at 9:30 during the The Spurs Sports show with Carmen H. Hayes.

Wall Photos

Be Fit with Friends
BFF Passport Points... We hope you had fun playing at our BFF Golf Open last week. Congrats on earning your next 30 points! Feel free to post golf event pictures from the event on our page and earn 5 extra points to your passport!

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Be Fit with Friends
Good afternoon ladies of BFF! Here's a idea to earn quick points to your BFF passport today... follow this easy-to-follow 10 minute workout video below. Enjoy and have an energetic Tuesday!

10 Minute Jump Start Cardio Workout
gdata.youtube.com

From <http://www.sparkpeople.com/>, a short cardio routine with our own Coach Nicole! You can do this routine at home, at the office or when traveling on the road. No equipment necessary! Head to <http://www.sparkpeople.com/category.cfm?id=6791> to purchase Cardio Blast with Coach Nicole!

Share Videos & Websites (skill-building)

Promote Interaction among Girls

Be Fit with Friends
Hey BFF girls - 10 of you went to Siclovía last month - what did you think? Would you go to the next Siclovía event?

Siclovía
We are getting close to announcing the next siclovía date. Stay tuned

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Lessons Learned: Facebook

- It's hard to get "liked" by middle school girls
- Girls' parents "liked" us more than the girls did
- Girls and parents liked seeing their photos online
- It's important to dedicate staff time to posting regularly and responding to posts promptly

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