Utilizing Text Messages to Engage Low-Income Parents in Child Nutrition

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Who Texts?

• U.S. adults
  – 91% own a cell phone (Pew, 2013)
    – 56% smart phone
    – 80% use text messages

• Lower income audiences (Smith, 2011)
  – 78% of those who make <$30,000

• Racial and ethnic minorities (Pew, 2013)
  – 93% of Black and 88% of Latino persons use cell phones

• Parents (Ahlers-Schmidt et al., 2010)
  – 96% can receive text messages, 81% have unlimited texting plans

TEXT2BHEALTHY
FOOD AND FUN! TEXTING TIPS FOR FAMILIES
Maryland FSNE (Year 3) Cell Characteristics

- 99.57% had a cell phone
- 96.54% can send and receive text messages
- 85% had a cell with email/internet
- 93% have unlimited plan:

Text Plan Type
- Unlimited
- Monthly fee
- Per message fee

(n=231)
Promising Findings

- Increase in health knowledge
  - Sexual health (Lim et al, 2011)
  - Cervical cancer screening (Lee et al., 2014)
- Increase in positive health behaviors
  - Child immunization (Stockwell et al., 2012; Brown et al., 2014)
  - Smoking cessation rates (Free et al., 2011; Rodgers et al., 2005; Whittaker et al., 2012)
  - Physical activity (Lau et al., 2011)
  - Adherence to appointment schedules (Koshy et al., 2008; da Costa, 2010)
Benefits of Text Messages

• Access to a diverse audience (DHHS, 2013)
  – Hard-to-reach populations
• Relatively low cost to researchers and participants (Fjeldsoe et al., 2009)
• Easily and quickly sent to a large audience
• Perceived as personal and informal (Gold et al., 2010)
• Easy to incorporate into everyday life
  – Remote (for researchers)
  – Instant & in context (for participants)
  – Reduce participant burden (Marshall et al., 2013)
• Real-time, interactive evaluation
Text2BHealthy Program and Participants

- Reaches parents of elementary school children
- 2-3 community-specific text messages per week

<table>
<thead>
<tr>
<th>Year</th>
<th>Participants</th>
<th>Retained</th>
<th>Schools</th>
<th>Counties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y1</td>
<td>203</td>
<td>14%</td>
<td>91%</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>2011-2012</td>
<td></td>
<td></td>
<td>4+Baltimore City</td>
</tr>
<tr>
<td>Y2</td>
<td>1149</td>
<td>25%</td>
<td>90%</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>2012-2013</td>
<td></td>
<td></td>
<td>6+Baltimore City</td>
</tr>
<tr>
<td>Y3</td>
<td>2473</td>
<td>33%</td>
<td>90%</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>2013-2014</td>
<td></td>
<td></td>
<td>8+Baltimore City</td>
</tr>
<tr>
<td>Y4*</td>
<td>2399</td>
<td>35%</td>
<td>99%</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>2014-2015</td>
<td></td>
<td></td>
<td>5+Baltimore City</td>
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</tbody>
</table>
Targeted Messages

- Elementary schools can help us to know about....
  - Retail
  - Recreation
  - Libraries
  - Weather
  - School schedules, testing, events
  - Lunch menus
  - Local events

.....without even knowing your name!
Fall is squash season! Acorn squash is on sale now at Giant. Try our Apple-Filled Squash recipe this weekend. Kids will love it! www.eatsmartmd.blogspot.com

Fresh berries like strawberries & blackberries are in season now. Visit the Catonsville Market for fresh local fruits & veggies. You can even use EBT cards!

Looking for Friday Fun? Take the family to the FREE Light the Night carnival at 16 Washington St, Cumberland. There will be a bounce house slide and much more!

Oakland Library hosts a Dr. Seuss Party Monday @ 630pm. Bring your child & get a free book! Call to register. While there, find a book on fruits & veggies!

Lansdowne K students had a lesson today on seeds, soil & sun. All students took home a newsletter. Check the backpack for more info on growing plants at home.

It's National School Lunch Week! To celebrate encourage your child to try a healthy food. Yough Glades is serving broccoli and orange wedges tomorrow!
Program Recruitment

• Backpack flyers
• Posters
• Incentives
• Events (paper, tablet enrollment)
• Pre/Post Survey-Recruitment Link
• Text2BHealthy Website
• School channels to promote
  – Newsletters, robocalls, parent nights, etc.

Green – self-enrollment method
Purple – manual enrollment method
Enrollment Barriers

• 26% of non-participants reported not knowing how to enroll or unsuccessful attempts to enroll
• Concern about cost of texting
• Apprehensive about program content
• Disabled short codes
• Knowledge of how to send a message to someone not in address book
• Enrollment of non-targeted individuals

*Consider Drop-Outs
# Enrollment by Method

<table>
<thead>
<tr>
<th>Enrollment Types</th>
<th>Year One</th>
<th>Year Two</th>
<th>Year Three</th>
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</thead>
<tbody>
<tr>
<td>Self-enrollment</td>
<td>187 (90.8%)</td>
<td>367 (31.9%)</td>
<td>311 (12.6%)</td>
</tr>
<tr>
<td>Manual enrollment</td>
<td>19 (9.2%)</td>
<td>778 (67.7%)</td>
<td>2128 (87.0%)</td>
</tr>
<tr>
<td>Web enrollment</td>
<td>N/A</td>
<td>4 (0.3%)</td>
<td>7 (0.4%)</td>
</tr>
<tr>
<td>Total enrollment</td>
<td>206</td>
<td>1149</td>
<td>2446</td>
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Text2BHealthy Evaluation

• **Years 1-3:**
  – School-wide pre then post survey
  – Texted questions
  – Focus groups
  – Non-Text2BHealthy schools

• **Current Year 4:**
  – Participant self-selected and incentivized pre then post surveys and texted questions
  – Non-Text2BHealthy schools
Approximately 40% of T2BH parents say their child is eating a wider variety of fruits and vegetables.

Almost 40% of T2BH parents are eating fruits and veggies as snacks more often at the end of the year than they were at the beginning, and 74% of parents are now eating fruits and vegetables as snacks often or every day!

52% of T2BH parents report eating 2 or more vegetables at the main meal often or every day, and 47% of parents say their child is doing the same.

n=93
Last week, we sent a New Year’s food & fitness challenge. Text back with your family’s goal.

New Year's Eval Total Responses

- Eat Healthy: 50%
- Get more P.A.: 38.10%
- We don't have a goal yet: 11.95%

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Recommendations for Implementation

• Seek substantial buy-in from partners
  – Can help reach audience, promote and incentivize enrollment, and connect program to other activities

• In-person enrollment is critical!
  – Offer to collect mobile phone numbers and manage enrollment for parents; have alternatives

• Focus group test materials, messages
  – Widespread use of cell phones (smart phones, in particular) and text messaging
  – Suggestions for appropriate messages (no textisms, personalized)
  – Preferences for timing of messages
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