DESIGNING PROGRAMS FOR SUCCESS:

Designing a Behavioral Program in NY – Changing Recycling & Energy Behaviors

BECC 10/19/2015, Sacramento
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THE STEPS

Figure E.1: The “Flow” of the Toolkit and Decision-making/Implementation for a Social Marketing Campaign

Source: Skumatz & Freeman, “Getting the Most from Colorado’s Recycling Programs & Infrastructure – Social Marketing Toolkit”, 2011
MAKING IT COME TOGETHER

A story of theory, Plan A, and Plan B

- Thanks to Tompkins County, NYSERDA; research & real

Steps:

- Background:
- ID Targets & Barriers:
- Plan:
  - Experiment / Quasi (Neighborhoods):
  - Measurement Plan: Baseline & On-going
  - Plan & Refine Interventions:
    - Stakeholder feedback
- Implement interventions:
- On-going measurement:
- Analysis and conclusions
- Refinement and on-going
MAKING IT COME TOGETHER - BACKGROUND

- Background:
  - Similar work in Colorado, New England, and Chicago area – knowledge of impacts, strategies, costs
  - Goals in recycling & energy / linkages
  - Challenges in measuring energy... a concern
    - Partnerships for recycling measurement

- Focus on elements missing in other projects
  - Cost
  - Retention / persistence
  - Cost-effectiveness (C/E)
  - Relative C/E

Source: Skumatz & Freeman, “Getting the Most from Colorado’s Recycling Programs & Infrastructure – Social Marketing Toolkit”, 2011
MAKING IT COME TOGETHER – GOALS & MEASUREMENT

ID targets & barriers:
- County / under-recovery of plastics after 3 yrs; value
- Increased recovery floats all boats + plastic focus
- Energy behaviors secondary

ID Targets:

<table>
<thead>
<tr>
<th>Target</th>
<th>Theory</th>
<th>Plan A</th>
<th>Plan B</th>
<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy: ~2-3% savings, 1 yr</td>
<td>Neighborhood measurement &amp; Individual</td>
<td>Neighborhood data only</td>
<td>Behavior change – 5-10% net increase in 2 target behaviors (cold wash, therm 1-2°)</td>
<td>Severe Utility data access problems; data loggers $</td>
</tr>
<tr>
<td>Recycling: 7-10% all recyclables tons relative to control, 2 yr</td>
<td>Neighborhood measurement</td>
<td>Originally recycling percent change</td>
<td>Modified to recycling only basis; considered partic goals but not possible (cluster of ununiform cans)</td>
<td>EOW week recyc coll’n; trash routes not same as recyc</td>
</tr>
<tr>
<td>Recycling: Decreased 1-7 in sort (20%), 2 yr</td>
<td>Waste Sort pre/post difference</td>
<td>Added; plastic issue later</td>
<td>Same</td>
<td>Seasonal always an issue</td>
</tr>
</tbody>
</table>
## MAKING IT COME TOGETHER – MEASUREMENT & RETENTION PLAN

<table>
<thead>
<tr>
<th>Target</th>
<th>Theory</th>
<th>Plan A</th>
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<th>Issues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quasi-experimental design with 3 neighborhoods</td>
<td>Suggests adding one baseline neighborhood for Hawthorne</td>
<td>Adding 4th neighbor-hood</td>
<td>County looking for 4th “similar” neighborhood; otherwise 3</td>
<td>Measurement needs to follow recycling trucks; similarities OK</td>
</tr>
<tr>
<td>Baseline tons &amp; waste composition (WC)</td>
<td>Pre period trash &amp; recy trucks by neighborhood; 3 pre-WCs</td>
<td>4 neighborhoods; omitted trash tons</td>
<td>Same</td>
<td>Some seasonal issues, hence relative to baseline</td>
</tr>
<tr>
<td>Baseline energy behavior</td>
<td>Baseline survey in 1,2,3</td>
<td>No survey in 4th / Hawthorne</td>
<td>Same</td>
<td>E &amp; R behaviors; attitudes/demog</td>
</tr>
<tr>
<td>On-going measurement - recyc</td>
<td>Truck tons by neighborhood, EOW on-going+EOM 2yrs</td>
<td>Add 4th neighbor-hood; deleted trash</td>
<td>Must interrupt routes/ not “clean”; additional cost</td>
<td>“Power” considerations; cost for on-going</td>
</tr>
<tr>
<td>On-going energy behavior</td>
<td>Prefer neighborhood energy reads / n.a.</td>
<td>Pre/post survey only; plus 12, 24 mos,</td>
<td>Same</td>
<td>Consistent with revisions to data &amp; goals...</td>
</tr>
</tbody>
</table>
MAKING IT COME TOGETHER - TRACKING

- Detailed cost tracking for each intervention wave – design, material & labor cost (separately tracked) plus measurement costs
  - For scaling up
  - For cost-effectiveness calculations
  - Compare to impacts in tonnage tracking for waves

Table E.1 | Outreach / Delivery Costs Per Household
(excluding design work, all time “valued”, including volunteer)

<table>
<thead>
<tr>
<th></th>
<th>Cost Household $25/hr</th>
<th>Cost Household $45/hr</th>
<th>Residential Recall</th>
<th>Impact on Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bill Inserts</td>
<td>$0.03 to $0.05</td>
<td>$0.05 - $0.08</td>
<td>Not tested</td>
<td>Not tested</td>
</tr>
<tr>
<td>Cart Hangers</td>
<td>$0.46 to $0.76</td>
<td>$0.74 - $1.20</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>$0.53 to $0.58</td>
<td>$0.61 - $0.66</td>
<td>High</td>
<td>Medium</td>
</tr>
<tr>
<td>Door to Door Outreach</td>
<td>$3.50 to $4.00</td>
<td>$5.20 - $11.75</td>
<td>Medium</td>
<td>High</td>
</tr>
<tr>
<td>Email</td>
<td>$0.00 to $0.01</td>
<td>$0.00 to $0.01</td>
<td>High</td>
<td>Medium to High</td>
</tr>
<tr>
<td>Newspaper/Radio</td>
<td>Depends</td>
<td>Depends</td>
<td>Not tested</td>
<td>Not tested</td>
</tr>
<tr>
<td>Phone Calls</td>
<td>$0.65 to $0.73</td>
<td>$1.08 - $1.23</td>
<td>Low</td>
<td>Low</td>
</tr>
</tbody>
</table>

Source: Skumatz & Freeman, “Getting the Most from Colorado’s Recycling Programs & Infrastructure – Social Marketing Toolkit”, 2011
MAKING IT COME TOGETHER – MESSAGING & INTERVENTIONS

- Plan Interventions / Refine with focus groups+
- Messaging: 5 or fewer behaviors
  - Habit – Writing down behavior change plan – building in behavior change; commitment
  - Information / address barriers (knowledge of plastics, space, add bath recy, SS, current weak performance, GHG)

- Elements preferred:
  - Public facing commitment – yard signs* / updatable decals on carts (up to 5 behaviors)* / window sticker / card
  - Collateral on carts*, doors, & mailed
  - Email, text, phone calls priority / challenges vs. competitions
  - Web site / club

- Behaviors first, then barriers & motivations, 2 rounds of behaviors
MAKING IT COME TOGETHER – MESSAGING & INTERVENTIONS

- In-person interventions in 1 neighborhood; same collateral with walk-through;
  - 2 visits; contact info
  - Prefer pairs
- ID barriers / refine terminology & logos with focus group
MAKING IT COME TOGETHER – NEXT STEPS

- Focus group & refine materials
- Training & tracking
  - Baseline sort
  - Baseline tracking underway
  - Baseline survey
- Expect 3 month blitz; ~4 touches
- On-going and Post-measurement & surveys
- Analysis of immediate attributable effects
  - Impacts, costs, cost-effectiveness (cost/impact)
- Post post tracking for 2 years
  - Retention & refined estimates of cost-effectiveness
- County uses lessons for more effective outreach
MAKING THE DESIGN COME TOGETHER

- A story of theory, Plan A, and Plan B
- Complexities in this location
- Energized stakeholders
- Hope some lessons useful to you
  - PLEASE include costs, cost-effectiveness, retention in your plan!!!
  - Save budget for the follow-up or you don’t know your C/E
- Stay tuned / next year’s BECC?
THANK YOU!!

Questions?

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