Executive Summary

The City of Cambridge received a grant, from the Massachusetts Executive Office of Transportation renewable over three years, to conduct a pilot social marketing program in Cambridge. The City plans to carry out the pilot program in a different neighborhood each year, and if the results warrant its continuation, to carry it out throughout the city. In 2009, the first year, the program was tested among Cambridgeport residents, with the goal of shifting 10% of their drive-alone trips to more sustainable modes.

Year one of the pilot project included naming and branding the program, resulting in the CitySmart program name and logo.

CitySmart used direct mail, outreach events, posters and electronic media to reach out to residents in the target neighborhood. These efforts were supported with a series of neighborhood walks, rides and tours designed to spread information about the program and to give residents a chance to try out new modes in a comfortable setting (for example, during a guided bicycle tour).

Interested residents were encouraged to order a free information kit, which included neighborhood-specific information about transportation options. In addition to this basic kit, participants could select kits on walking, bicycling, transit and carpooling. Each kit contained detailed information about services and amenities available in and near the target neighborhood, plus helpful tools such as pedometers, transit pass holders, or bicycle reflector sets.

A random telephone survey before the program outreach began set a baseline for transportation mode splits, and a follow-up survey of mode splits measured the program results. An online qualitative survey was also sent by email to participating households concurrent with the follow-up phone survey. Results of the surveys indicate a shift of 3.8% of drive-alone trips to more sustainable modes, primarily from increases in walking and carpooling trips, as well as a small increase in bicycle ownership by the end of the pilot project.

I learned a lot about Cambridge through this program, I was informed of all events in the neighborhood, encouraged not to drive as much so I started walking and using public transportation and it’s actually a lot of fun.

-CitySmart participant
Program overview

The intent of the CitySmart pilot project was to test the effectiveness of social marketing on residents’ transportation choices.

Goals

- Reach 10% of households in the target neighborhood
- Deliver 800-1000 information kits
- Connect with each household at least 3 times through marketing and events
- Effect a 10% shift away from drive-alone trips

Program summary

The CitySmart pilot project used social marketing techniques to encourage residents of the target neighborhood to shift drive-alone trips to more sustainable transportation modes. A baseline was set using a random telephone survey, and then a variety of outreach tools – collectively referred to as the intervention - were used before a follow-up survey measured results. The social marketing campaign used the following tools:

- Initial mailing (newsletter and order form) to all residential addresses in the target neighborhood
- Information kits for each mode, packaged in reusable grocery tote bags and delivered by bicycle to residents who requested them
- A series of supporting events to promote the program and encourage residents to try walking, bicycling, transit and ridesharing
- Reminder campaign including doorhangers, sidewalk handouts, posters and a postcard mailing.

CitySmart staff based this pilot project on similar projects implemented in Europe, Australia and the United States. The primary models were Portland, Oregon’s Travel Smart program and St. Paul, Minnesota’s Smart Trips program. These cities had refined the original model developed by the German program SocialData to exclude the more work-intensive steps such as home visits, and costly steps such as thank you gifts for non-participants, yet had maintained similar success rates.

CitySmart is operating with significantly fewer resources than Portland had for its program. Portland, for example, employs 4.1 FTE of staff plus 3 part time (32 hours per week) administrative staff working exclusively on filling orders. The Portland program has an annual budget of $589,000, including staff time and staff overhead. The Cambridge program operated with less than 1 FTE, and a budget of just over $100,000, including staff time. Given that most municipalities will have much more limited resources than Portland, CitySmart may provide a much more replicable model for other communities.
Neighborhood selection

The pilot project is designed as a three-year grant program, funded by Massachusetts DOT and federal funds. As the first year of the pilot required additional steps such as branding, naming, developing basic materials, and other tasks which will not need to be replicated in future years, the CitySmart team looked for a target neighborhood with some beneficial characteristics for a start-up. The Cambridgeport neighborhood was viewed as a prime starting location due to:

- existing neighborhood organizations, one with a “green” mission
- an ideal number of households and total population
- existing transportation options including subway access, walkability, bus routes and bicycle facilities
- mixed-use development with many retail, commercial and restaurant services nearby
- base location of transportation options programs and advocacy groups such as GoLoco and Livable Streets Alliance
- compact, flat geography ideal for maximizing materials delivery and reminder campaigns (posters, doorhangers)

Partners

Working with our outreach coordinator intern, the following groups assisted in project planning, providing information kit materials, including articles and links in newsletters, and/or events staffing:

- Cambridge Arts Council
- Cambridge Bicycle Committee
- Cambridge Pedestrian Committee
- Charles River TMA
- Economic Development Division
- GoLoco
- Green Streets Initiative
- Greenport
- Harvard University
- Healthy Living Cambridge/Cambridge Health Alliance
- Livable Streets Alliance
- MassBike
- MassRides/Safe Routes to School
- MBTA
- Urban Adventours
- Walk Boston
- ZipCar

Daniel and his team of volunteers did a great job. The programs were excellent and continue to deserve the full support of the community.

-CitySmart Participant
Survey process

The CitySmart pilot program evaluation is based, in large part, on the results of a baseline and follow-up survey. The paired surveys asked similar before and after questions about each respondent’s trips and mode choice for the previous day. Additional questions helped to identify a household’s range of options including access to motor vehicles, bicycles and parking. In the follow up survey, we also asked respondents about various elements of the CitySmart program.

Our contractor used a random selection of Cambridgeport telephone numbers to comprise the survey sample. One difficulty with surveying by telephone is the increasing number of households with no landline telephone service. As more households shift to cell phones or voice-over-internet communication, they become unavailable for random telephone surveying. If these households are not representative of the neighborhood as a whole (for example, if they are more wealthy, or their average age is much younger), the survey results could be skewed. Our survey results are based on 373 respondents in the baseline survey and 400 respondents in the follow-up survey. Both survey samples were taken from the neighborhood as a whole, and not limited to just those households who had participated in CitySmart.

As part of the CitySmart follow-up evaluation, households who participated in CitySmart were also asked to complete a qualitative survey online. This survey allowed for more open-ended responses, and asked for opinions about the value of various items in the information kits and event programming. The online survey received 102 responses.

Promotional Materials

Initial Newsletter – contained helpful tips on each mode, a basic calendar of events, descriptions of each information kit, and ordering information. The newsletter was mailed to more than 5,300 residential addresses.

Postcard order form – contained simplified order form, and was sent to addresses which hadn’t yet requested an information kit delivery. The postcards were mailed to approximately 4,900 addresses.

Doorhangers – contained brief explanation of the program and directions to the program website for ordering information. The doorhangers were distributed to approximately 1,100 residential addresses.

Information kits

Participants were encouraged to request one or all of the information kits available. Every delivery included a basic kit with general program and services information. Information kits about each mode were included as requested so that each household got the information of interest to them.
Available kits included the following materials:

Basic kit – contained a *Getting Around Cambridge* multi-modal map and map scale overlay, updated calendar of events, citywide map of seasonal farmers’ market locations, ZipCar carsharing information, local business guide, energy efficiency information, and information for car owners.

Walking information kit – contained a pedometer and flashlight/keyring, plus walking tips, an article on walking in Cambridge, and WalkBoston and GreenStreets Initiative program information.

Bicycling information kit – contained a bicycle reflector set and tire patch kit, plus regional bicycle map, bicycling tips, MassBike and Urban Adventours information. Residents who indicated that they did not have bicycle helmets also received information on getting a free helmet from CitySmart.

Transit information kit – contained a transit pass keyring and scanning radio, plus MBTA route and schedule information, transit maps, EZRide shuttle information and Harvard M2 shuttle information. Residents who indicated that they did not have a Charlie Card for MBTA fare discounts also received a programmable Charlie Card.

Carpooling information kit – contained a calendar and notepad, plus carpooling tips and information from MassRIDES and GoLoco.

Kids’ kit – contained informational coloring books and tips, stickers, reflectors, chalk and crayons.

Information kits were delivered to 599 households. This was less than our goal for kit delivery (800 to 1000) but exceeded our goal of reaching 10% of neighborhood households (11%).

**Events**

Together with its partner organizations, CitySmart designed a robust calendar of events from May through September. These events varied in theme, day of the week, and scope in order to engage the widest spectrum of participants’ interests. The official program kickoff was a family event in a neighborhood park that included information tables, children’s bicycle activities, walking, music and a family bicycle tour.

Other events included theme-based walking, bicycling...
tours and classes, and a bus trip to the Museum of Fine Arts. Events were scheduled at various times on weekends and weeknights and targeted all age levels, from families with children to seniors. Some events were held in conjunction with already existing events, such as walking and bicycling tours of Cambridge Open Studios and a bicycle ride to an outdoor movie night planned by the Cambridge Arts Council. CitySmart staff also used existing events such as Hoops and Health, National Night Out, and a block party, as opportunities to talk with residents about the program and take orders for information kits.

Unfortunately, the weather was often uncooperative. There were 24 days with rainfall in the month of June and a surprising 31 days with rainfall in July. Some events were held despite the weather and suffered poor turnouts. Other events were canceled outright. While the weather improved in August, the momentum for events was lost. In all, the seven events that were held only resulted in 76 households requesting information kits.

Information kit distribution

CitySmart contracted with the bicycle delivery service Metro Pedal Power to deliver the kits via tricycle trucks. The kits were packaged in large red reusable grocery tote bags with the CitySmart label. Metro Pedal Power delivered the tote bags to the front door of smaller buildings, and to the lobby of larger complexes. Deliveries were generally scheduled for Monday evenings, in the hope of reaching residents who worked standard shifts during the day. If no one was home for the delivery, however, it was left at the door. The high visibility of the tote bags served as a reminder to neighbors to turn in their own order forms.

Measurements

There were 599 orders for kits, representing 11.2% of households. Average household size in Cambridgeport (2000 census) is 2.1, indicating that the 599 kits reached approximately 1250 residents.

The requests included 599 basic kits, 481 walking kits, 433 transit kits, 273 bicycling kits, 145 rideshare kits, and 180 kids’ kits.

The initial newsletter was mailed to all residential addresses in Cambridgeport (approximately 5,300). The follow-up reminder postcard was mailed to all households that had not responded to the initial mailing (approximately 4,900). Doorhangers were posted at 1,100 homes, and 100 reminder...
poster/cards were placed in large apartment buildings. About 250 “quick start” ordering kits were handed out on sidewalks and in parks. These activities translate to 2.2 contacts per household. Additional contacts were made at informational outreach events, through partner newsletters and e-blasts, and through posters placed throughout the neighborhood.

As we do not have exact measurements for such things as how many times each poster was viewed, or how many people saw the delivery vehicle, our online email survey provides some useful estimates. The online survey revealed that 8.0% of respondents saw event flyers and 4.4% remembered seeing information from partner agencies. In addition, 12.7% saw Metro Pedal Power deliveries taking place, and 10.5% reported seeing CitySmart team members at CitySmart events. Ninety-three respondents indicated that they saw CitySmart messaging a total of 276 times, for an average of 3.0 times per household.

Outreach also included a “refer a friend” campaign, and 12.7% of respondents indicated that they learned about CitySmart through a relative, neighbor, coworker or friend. An additional 9.2% learned of CitySmart through the City of Cambridge website.

Comparing the quantifiable outreach such as mailings and handouts with data from the participant survey, it seems reasonable to conclude that the CitySmart pilot was successful in its goal to reach each household with CitySmart messaging an average of 3 times. That our online respondents also recalled a large variety of our outreach tools illustrates success in branding the CitySmart program.

Results

To set a baseline mode split, a telephone survey contractor conducted a random survey of Cambridgeport residents in April, 2009. In October 2009, another random telephone survey was conducted to determine any change in mode split. As a share of all trips, drive-alone trips decreased from 26% in the pre-program survey, to 25% in the post-program survey. The relative change (1% of the original 26%) represents a 3.8% reduction in drive-alone trips.

CitySmart operated with considerably fewer resources than Portland. Also, CitySmart started with much a lower baseline for single occupant trips than in St. Paul. These may be factors in the more limited mode shift obtained in Cambridge. Another factor may be limitations in the media outlets in Cambridge, as we do not have a local daily newspaper and many residents rely on the regional daily newspaper instead. It is also possible that the neighborhood’s initial high percentage of non-SOV trips and low vehicle ownership left fewer easy opportunities for mode shifts.

I’ve been telling all my neighbors about the program and encouraging them to check it out.

- CitySmart participant
Comparison of Social Marketing baselines

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<tbody>
<tr>
<td># of target households</td>
<td>5,300</td>
<td>24,000</td>
<td>7,580</td>
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<tr>
<td>Vehicle ownership</td>
<td>1.0 cars per hh</td>
<td>1.9* cars per hh</td>
<td>1.58 cars per hh</td>
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<tr>
<td>Baseline SOV share</td>
<td>26%</td>
<td>62%</td>
<td>57%</td>
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* citywide figure

Carpooling had the greatest mode share increase of 17.6%, rising from 17% of trips in the pre-program survey to 20% of trips after the program.

Walking increased slightly, from 37% to 38%.

Bicycling remained constant, but bicycle ownership increased slightly, from 65% to 66% of surveyed households. Most of this increase appears to be among children’s bicycles.

Transit trips remained constant or showed slight decreases between the baseline and follow-up surveys.

Trip mode by percent of all trip segments

When comparing mode shift by trip purpose, the drive-alone share remained constant in baseline and follow-up surveys for work trips and leisure trips. However, the drive-alone mode-share dropped 7.7% for shopping trips (26% to 24%) and 30.6% for personal business trips (36% to 25%). Oddly, the drive-alone share increased slightly (from 28% to 29%) for trips made for fitness or exercise.
Thirty-six percent of respondents in the follow-up survey felt that they were walking more than they had been six months before, and 20% felt that they were driving alone less than they had been six months before. These figures are not borne out by the aggregate trip data, but data sorted by trip purpose may show why people feel this way. Fourteen percent of respondents thought that they were bicycling more, and 23% thought that they were using public transit more often, but survey data show that these modes remained fairly constant between the two surveys.

While the trip data may not show substantial changes in these modes, the fact that people believe they are changing may indicate more awareness of their need to change, and may be a precursor to further mode shifts.

Program identity

In the follow-up telephone survey, 44% of respondents recalled reading, seeing or hearing about the CitySmart program. Of those, 97% were able to describe the purpose of the CitySmart program with a good amount of accuracy.

In the online survey, participants were asked to rate the importance of various statements about CitySmart program, in relation to their decision to sign up. Most important appear to be “CitySmart kits are free” (55% identified this as Very Important) and “It will help me have less of an impact on the environment” (53%). Least important appears to be “It will help me save money on transportation expenses” (22%). The relative importance of cost savings vs. environmentalism seems to be the opposite of much conventional wisdom on behavior change, but is consistent with some more recent data from energy efficiency programs.

Lessons Learned

- Direct mail was by far our most successful outreach effort, in terms of reach, response and the less-intensive nature of the effort. In future years, more of the budget should be directed at printing direct mail pieces and postage.
- Order forms should include the program end date.
- Follow-up survey should be done earlier in the fall in order to capture more bike/walk trips in nicer weather. (The timeline for year one wouldn’t allow this, but much of the set-up work does not need to be duplicated in year two).
- St Paul Smart Trips staff told us they had similar turnouts for events, even though their weather was not so bad. Their surveys indicated that people valued knowing that there were events, though they didn’t have time to participate themselves. In our informal survey of participants, nearly 10% said they did not attend events due to bad weather, but more than half said they did...

There’s so much I love about it. From the wisely chosen free stuff to the fact that the kits were delivered by bike.

- CitySmart Participant

There’s so much I love about it. From the wisely chosen free stuff to the fact that the kits were delivered by bike.

- CitySmart Participant
not attend because of scheduling issues (42.9%) or lack of interest (10.7%) For year two, we plan to focus more on taking part in existing events that already draw a crowd and hold fewer events of our own. Family events seem to be the biggest draw for our stand-alone events.

- Order forms should include a question about total number of household members, to help us better gauge the reach of each delivery.

Conclusion

The first year of our pilot project was a good learning experience, and resulted in a modest mode shift. We have completed several of the key tasks, such as naming and branding the program, contracting with a survey consultant and designing surveys. This work provides a strong basis for our future efforts.

As indicated by our surveys, modest improvements in trip mode choice are occurring, along with raised awareness of transportation options and their many benefits. Comparing this awareness with additional results, such as the increase in bicycle ownership indicates likely future behavior change even after the CitySmart program moves on to the next neighborhood.

The first year of this pilot project also allowed us to test materials, outreach methods, events and logistics. Lessons learned will help us to produce a more streamlined CitySmart program in future years. For example, we learned that subcontracting information kit delivery to Metro Pedal Power worked well and freed up staff time, while at the same time increasing CitySmart visibility within the target neighborhood. Of all of our outreach methods, mailings had the highest response rates despite very low time investment, leading us to focus more on mailings in year two. We also learned that certain types of events draw more participants, and that using existing events and resources is effective.

Our initial pilot neighborhood selection had some pros and cons. The layout, mixed-use design and access to transportation options were assets. On the other hand, the population of the neighborhood appears to be well above average for baseline use of sustainable transportation modes, which may have made additional mode shift more difficult. Next year’s test neighborhood will be of similar population size but less compactly developed, and has higher car ownership rates. It will be interesting to see if these small differences will provide more scope for behavior change in year two.

With the valuable learning experience and modest success of CitySmart’s first year, we look forward to building on our momentum in 2010.
Appendix A

Timeline

August 2008 – January 2009

• Program set up
• Intern hiring process
• Initial contacts with potential partner agencies

January 2009

• Intern training
• Worked with branding consultants
• Continued work with partner agencies
• Began purchasing process for survey consultant
• Wrote first draft of baseline survey

February 2009

• Selected program name and logo
• Began drafting newsletter articles and outreach materials
• Outlined initial calendar of events
• Reviewed survey bids
• Selected bicycle delivery service and set basic delivery schedule

March 2009

• Continued work on printed materials
• Began purchasing of logoed items
• Executed contract for telephone survey consultant
• Worked with delivery service and developed plan for delivery logistics

April 2009

• Sent printed material files out for printing
• Finalized baseline survey text and completed pre-survey test
• Finalized mailing list

May 2009

• Mailed newsletters to residential addresses
• Received all printed materials and most logoed items
• Completed baseline survey and received raw data
• Attended or hosted 6 events to talk with residents
• Received first information kit orders over the last weekend in May

June 2009

• Received summary report on baseline survey
• Used posters throughout the neighborhood to advertise events and information kits
• Hosted 6 CitySmart events and attended 2 other existing events
• Began weekly delivery of information kits

July 2009

• Continued with neighborhood posters
• Used doorhangers as a reminder campaign
• Continued weekly delivery of information kits
• Hosted 6 CitySmart events and attended 2 other existing events
• Began using email list gleaned from order forms

August 2009

• Used “meet and greet” outreach during morning rush hour
• Began postcard reminder mailings
• Hosted 5 CitySmart events and attended 2 other existing events
• Continued outreach
• Continued weekly delivery of information kits

September 2009

• Began to update survey instrument for follow-up survey
• Completed reminder postcard campaign
• Hosted 2 CitySmart events and attended 2 other existing events
• Completed outreach for year one
• Continued weekly delivery of information kits
• Began debriefing and notes for next year

October 2009

• Continued weekly delivery of information kits
• Began follow-up survey

November 2009

• Completed follow-up survey
• Information kit requests trickle in and are delivered by hand

December 2009
• Received summary of follow-up survey results
• Began drafting year-end report
• Identified year 2 neighborhood

January 2010

• Report writing
• Planning for year 2