CITY OF CAMBRIDGE
MASSACHUSETTS

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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 2010, the second year, the program was tested among North Cambridge residents, with the goal of shifting 10% of their drive-alone trips to more sustainable modes.

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 CitySmart presence at several existing neighborhood events, in combination with a small number of CitySmart-specific events. CitySmart events were 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 7% of private vehicle trips (due to a reduction in carpool trips, offsetting an increase in drive-alone trips) to more sustainable modes, despite a surprising increase in drive-alone trips. Transit use and walking increased slightly to help account for the drop in private vehicle trips.
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 an average of 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 flyers in retail locations, 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

A truly awesome collection of maps and other information on biking and walking and riding the T.

- CitySmart participant
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 North Cambridge neighborhood was selected for our second year due to:

- an ideal number of households and total population
- existing transportation options including subway and commuter rail access, walkability, bus routes and bicycle facilities
- mixed-use development with many retail, commercial and restaurant services nearby
- Slightly higher car ownership rates and lower population density from year one target neighborhood, providing some areas to compare and contrast effectiveness

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
- Economic Development Division
- Green Streets Initiative
- Healthy Living Cambridge/Cambridge Health Alliance
- Livable Streets Alliance
- MassBike
- MassRides
- MBTA
- Urban Adventours
- Walk Boston
- ZipCar

I love the bag and the water bottle, I think Park(ing) Day is fantastic, and I used the transit info a fair amount.

-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 North Cambridge 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. In the case of our telephone surveys, the median age of respondents was approximately 55, whereas 2000 census data for the neighborhood would imply that the average age of adults (excluding the population under age 18) is more likely in the 40 to 45 range. This discrepancy could indicate that younger adult residents are underrepresented in the phone survey results.

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 126 responses.

Promotional Materials

Initial Newsletter – contained helpful tips on each mode, a resource list of transportation services, a basic calendar of events, descriptions of each information kit, and ordering information. The newsletter was mailed to more than 5,400 residential addresses.

Postcard order form – contained simplified order form, and was sent to addresses which hadn’t yet requested an information kit delivery.
postcards were mailed to approximately 5,000 addresses.

Sidewalk handouts – contained brief explanation of the program and order form, along with a small item such as a granola bar or bike reflector. These handouts were distributed to approximately 500 pedestrians and bicyclists in the target neighborhood.

Information kits

Participants were encouraged to request one or more 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, information on upcoming events, citywide map of seasonal farmers’ market locations, ZipCar carsharing information, local business guide and coupons, energy efficiency information, and information for car owners.

Walking information kit – contained a pedometer and reusable water bottle, plus walking tips, an article on walking in Cambridge, and WalkBoston program information.

Bicycling information kit – contained a bicycle reflector set and tire patch kit, plus regional bicycle map, bicycling tips, local coupons, 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, plus MBTA route and schedule information, transit maps, and GreenStreets Initiative 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 flashlight keyring, plus carpooling tips and information from MassRIDES.

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

Information kits were delivered to 806 households, or 15% of the target neighborhood, meeting our goal for kit delivery (800 to 1000) and exceeding our goal of reaching 10% of neighborhood households.

*I have the map on my fridge.*

- CitySmart participant
Events

Based on challenges experienced with events in the first year of the pilot program, primarily as a result of poor weather, the CitySmart team focused more on existing neighborhood events in the second year. The number of CitySmart-specific events was far fewer in 2010, including a kickoff event, two bike tours, and a celebration of Park(ing) Day. The official program kickoff, in a neighborhood school building, was a family event that included information tables, children’s bicycle activities, music and refreshments.

In addition, the CitySmart team held an onsite information kit event at a large apartment building. This was a new initiative in 2010, and worked well enough to warrant continuation and expansion in 2011. CitySmart staff were stationed in the main lobby, with order forms and full Information kit supplies. Interested residents were able to fill out an order form and immediately receive their customized information kits. In a 90 minute event, 30 information kits were requested and distributed.

Some outreach was in conjunction with already existing events, such as hosting an information table at Cambridge Open Studios or neighborhood planning meetings, and regional and Citywide bicycle rides. CitySmart staff also used existing events such as StoryWalk, Summer in the City and nearby Danehy Park Family Day, as opportunities to talk with residents about the program and take orders for information kits.

In all, 75 CitySmart information kit requests (9%) came as a result of event-based outreach.

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 scheduled at various times during the week, 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 and delivery tricycles served as a reminder to neighbors to turn in their own order forms.
Measurements

There were 806 orders for kits, representing 15% of households. Average household size in North Cambridge (2000 census) is 2.2, indicating that the 806 kits reached approximately 1775 residents.

The requests included 806 basic kits, 666 walking kits, 566 transit kits, 559 bicycling kits, 216 rideshare kits, and 258 kids’ kits.

The initial newsletter was mailed to all residential addresses in Cambridgeport (approximately 5,400). The follow-up reminder postcard was mailed to all households that had not responded to the initial mailing (approximately 5,000). About 500 “quick start” ordering kits were handed out on sidewalks and in parks. Additionally, 75 information kit requests came via outreach events, 14 through flyers and other media, and 24 through referrals. These quantifiable activities translate to 2.0 contacts per household.

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 7.8% of respondents saw CitySmart flyers and 8.4% remembered seeing information on the City website. In addition, 17.5% saw Metro Pedal Power deliveries taking place, 8.4% saw CitySmart shopping bags being used by others, and 5.9% reported seeing CitySmart team members at events. One hundred nineteen respondents indicated that they saw CitySmart messaging a total of 320 times, for an average of 2.7 times per household.

Additional exposure came via partner email newsletters, neighborhood blogs, and Park(ing) Day coverage including radio and newspaper coverage. An article on CitySmart was included in the 2010 issue of Cambridge Life magazine, of which 9,000 copies were distributed throughout Cambridge.

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, 2010. In October 2010, another random telephone survey was conducted to determine any change in mode split. Surprisingly, as a share of all trips, drive-alone trips increased from 29% in the pre-program survey, to 35% in the post-program survey. However, there was a decrease in the overall share of trips by private vehicle (drive alone and carpool) from 56% to 52%. The
relative change (4% of the original 56%) indicates a 7% shift away from private vehicle transportation. In the post-program survey, there was also a smaller share of respondents (67% as compared to 71% in the pre-program survey) who had used a private vehicle for any of the previous day’s trips.

Walking increased slightly, from 24% to 26%. Bicycling showed a slight decrease from 5% to 4% of trip segments. Of sustainable modes, transit had the greatest mode share increase, rising from 14% of trips in the pre-program survey to 17% of trips after the program, due to increased usage of bus and commuter rail. The increase in transit is encouraging because it may support one underlying theory to this project: that one barrier to transit use is a lack of information. By providing current copies of all North Cambridge bus routes, plus subway timetables and commuter rail Fitchburg Line information to households requesting transit info kits, we may have succeeded in removing that barrier for many residents.

Given the general improvements in program delivery, the results are puzzling. We experienced greater reach in our second year, with 806 information kits delivered, as compared to 599 in 2009. Marketing was more extensive and creative, with retail partners, the apartment lobby event, and Park(ing) Day. It is possible that external factors such as economy fluctuations or changes in traffic patterns made driving a more attractive option than it had been in the spring. Weather did not appear to be a factor.

However, the survey indicates that respondents perceive a reduction in their own drive alone habits. In the follow-up survey, all respondents who completed at least one trip by driving alone were asked whether they believe they drive alone more often, about the same, or less often than they did six months before. Seventeen percent felt they drove alone less often, and among those who were aware of CitySmart, 21% felt they drove alone less often.

All survey respondents were also asked whether they thought they were traveling by walking, transit or bicycling more often than 6 months ago. Thirty percent felt they were walking more often, 22% felt they were using public transportation more often, and 12% believed they were bicycling more often than they were six months before.

The perception of behavior change could be a pre-cursor to actual change. It is possible that with a longer study period, data would show more actual change. One issue to consider is that our model program, Portland, Oregon’s Smart Trips, uses a longer intervention period of 8 months, with initial and follow-up surveys scheduled one year apart. Annual surveys allow for comparison without seasonal variations.

Mode share details from baseline and followup survey data are outlined in the following graph.

It was a big encouragement to have so much information gathered together in one spot rather than have to look for it.

- CitySmart Participant

Now I am aware of different options to driving, and I am trying to walk more.

- CitySmart Participant
While the trip data may not show substantial improvements, the fact that people believe they are changing indicates awareness and desire to change, and may be a precursor to further mode shifts.

**Program identity**

In the follow-up telephone survey, 47% of respondents recalled reading, seeing or hearing about the CitySmart program (a slight increase from 44% in year one). Of those, 92% were able to describe the purpose of the CitySmart program with a good amount of accuracy.

In the online survey of CitySmart participants, 114 people responded to the question “To the best of your knowledge, what is the purpose of the CitySmart program?” All but one response included transportation and/or “green” themes.

**Lessons Learned**

- Once again, 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, the budget should continue to include direct mail pieces and postage. The reminder postcards should be sent out earlier than in the past (August & September). A July mailing would allow more time between the intervention and the follow-up survey, for participants to implement changes in their transportation routines.
Order forms might include some additional encouragement to act well before the program end date. For example, a note that “The first 800 households to respond will receive their free information kits” might imply that a timely response is necessary.

- Additional apartment building lobby events should be scheduled for year three. This effort in year two resulted in 30 information kit requests during a 90 minute outreach period. Setting up a robust schedule of apartment building events ahead of time will help with program reach in year three. If that schedule of events can be skewed toward the first half of the intervention period, it would also allow for greater opportunity for interested households to participate in CitySmart events and move toward more sustainable transportation.

- The CitySmart team was fortunate to have several volunteers available in our second year. These extra helpers worked at events, hung posters and flyers, organized bike tours, and made follow-up calls to participating households. Additional volunteers in year three would help extend the program’s reach.

Conclusion

The first two years of our pilot project were a good learning experience, with a mixture of success and challenges in the results. Several key initial tasks, such as naming and branding the program, contracting with a survey consultant and designing surveys, have been completed, allowing more time for outreach and implementation in the third year. This work provides a strong basis for our future efforts.

Despite an increase in drive-alone travel, as indicated by our surveys, modest improvements in trip mode choice are occurring among some modes, along with raised awareness of transportation options and their many benefits. Comparing this awareness with additional results, such as the reduction in percentage of people using a private car indicates potential for future behavior change even after the CitySmart program moves on to the next neighborhood.

The second year of this pilot project also allowed us to expand upon, and think more creatively about materials, outreach methods, and events. Lessons learned will help us to produce a more polished CitySmart program in the final grant year. For example, we learned that bringing the CitySmart kits to an apartment building, for onsite customization and instant delivery yielded strong results in a short time, while also saving on delivery costs. Of all of our outreach methods, mailings had the highest response rates despite very low time investment, leading us continue our focus on mailings in year three.

With the valuable learning experience and mixed results of CitySmart’s second year, we look forward to our third year, when we will bring CitySmart to East Cambridge for 2011.
Appendix A

Year Two Project Timeline

January 2010 – March 2010

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

April - May 2010

- Intern hiring and training
- Drafted, tested and completed baseline survey
- Updated newsletter articles and outreach materials
- Printed and mailed newsletter/order form
- Contacted local businesses to invite participation
- Continued work with partner agencies

June 2010

- Hosted Family Day kickoff event
- Began info kit delivery

July 2010

- Held two bicycle tour events, with the help of volunteers
- Attended additional community events to promote CitySmart
- Continued to receive requests for information kit delivery

August 2010

- Began mailing reminder postcards
- Began planning and outreach for Park(ing) Day event
- Continued information kit deliveries

September 2010

- Hosted Park(ing) Day event
- Received additional promotional help via media coverage of Park(ing) Day
- Held a CitySmart information kit event at a large apartment building
- Promoted CitySmart at additional community events
- Continued information kit deliveries

October 2010
• Completed information kit deliveries
• Consultant began follow-up survey

November 2010

• Completed follow-up survey
• Began debriefing and notes for next year

December 2010

• Received summary of follow-up survey results
• Began drafting year-end report
• Identified year 3 neighborhood

January 2011

• Report writing
• Planning for year 3