

Case for the Final Round

Evaluation Plan for the Vancouver Public Bikeshare Program

June 10, 2013

Welcome to the Final Round of the 2013 Case Competition!

We thank Dr. Meghan Winters, Assistant Professor, Faculty of Health Sciences, Simon Fraser University and Moreno Zanotto, MSc Candidate, Faculty of Health Sciences, Simon Fraser University, for the information provided to support this case. We also thank the City of Vancouver. This Request for Proposals (RFP) was developed for the Student Evaluation Case Competition for educational purposes and does not entail any commitment on the part of CES, CESEF, Simon Fraser University or the City of Vancouver.

Scenario

Your consulting firm has been asked to respond to the attached Request for Proposals issued by the City of Vancouver for the evaluation plan for **the Vancouver Public Bikeshare Program**.

The Director of Evaluation, City of Vancouver, along with an evaluation advisory group (a.k.a. the judges for the final round) has requested a briefing from the three consulting teams that have been invited to submit proposals.

They are interested in learning about the evaluation design and overall approach you propose for conducting this evaluation and the evidence you expect will be generated by the evaluation and how these will be used to support conclusions about the program's design, delivery and achievement of program objectives. Based on the presentations, they will 'award the contract' and select the winning team for the 2013 Student Case Competition.

We look forward to your presentation later today!

Rules for the Final Round

1. Coaches must not communicate with their teams once the case document has been distributed to the team.
2. Teams may use the Internet to search outside resources but may not consult with any individuals or organizations.
3. Organizers may interrupt teams briefly to take pictures of members at work preparing their presentation..
4. Presentations should be no longer than 20 minutes. A time-keeper will give warning as the end of the presentation period approaches.
5. Teams may present in either or both official languages. Judges will ask questions in the team's language(s) of choice.
6. The judges will have up to ten minutes after the presentation to ask questions of the team.

Judging Criteria for the Final Round

The following criteria will be used for judging the presentations:

Criteria
Demonstration of an understanding of the program, including a logic model
Appropriateness of the overall evaluation approach, evaluation design, data collection and analysis plan
Attention to evaluation requirements as outlined in Section 4.0 of the RFP
Quality of the plan to assess the equity of accessing and using the program
Attention to anticipated challenges in conducting the evaluation
Quality of the presentation (clarity, flow of information, persuasiveness, interaction with the judges) and team members' involvement and collaboration in presentation and Q & A session.

Questions or Problems

To communicate with organizers during the competition, please contact one of the following:

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Request for Proposals:

**Evaluation of the Vancouver
Public Bikeshare Program**

June 10, 2013

1.0 Overview of Public Bikeshare Programs

Despite evidence of health, environmental and economic benefits, and significant research and policy efforts to promote it as a population health strategy globally, cycling has low and uneven uptake in North America. In Canada, cycling rates increase with decreasing income, but rates are still low, likely in part due to gender and age barriers to cycling. In North America, cyclists are typically male, aged 20-40 years – in stark contrast with the spread across age and gender in European cyclists. Changing travel behaviour at the population level, and particularly across diverse demographic groups, requires innovative policy and programmatic interventions. One such example is the **Vancouver Public Bikeshare Program**.

Public Bikeshare Systems, now widely deployed throughout the world, increase access to and use of bicycles by placing docking stations throughout a city, enabling individuals to make one way trips by bicycle for minimal fees. Such interventions can increase cycling but also walking and transit use, as they help provide efficient connections to and from transit networks, and increase time competitiveness of sustainable modes compared with personal motor vehicles. The systems use adjustable “city-style” bicycles, which are easy to ride for people of all abilities. Since the launch of the pioneer program in Lyon, France in 2005, over 100 public bikeshare programs have been implemented internationally. Public bikeshare programs remove certain barriers to bicycle ownership, including concern for theft or vandalism, lack of parking or storage, and maintenance requirements. The programs are becoming ubiquitous in urban centres, and increasingly massive in scope. The largest in the world is in Hangzhou, China, where over 240,000 trips are made daily on the 50,000 public bikeshare bicycles, and there are plans for expansion to 175,000 bicycles by 2020. Canada is part of this global trend: the first public bikeshare system began in Montreal in 2009 (now with 5,000 bicycles), and in 2011 programs were launched in Ottawa (100 bicycles) and Toronto (1,000 bicycles).

Public uptake and enthusiasm for many bikeshare programs have been excellent; however, to date, there has been limited evaluation of the population-level impacts of these programs on travel behaviour and health, and specifically on which segments of the population benefit from such programs. North American and Australian research shows travel preferences and cycling choices vary by gender and age, with women and older individuals having more concern for safety. Moreover, supportive cycling infrastructure is typically not located in disadvantaged neighbourhoods, but instead in more privileged neighbourhoods, a situation resulting from longstanding inequities in land use, housing, and transportation.

2.0 Development of the Vancouver Public Bikeshare Program

As an environmentally-based population health intervention to increase active transportation, the City of Vancouver is considering the launch of a public bikeshare program in downtown Vancouver – the **Vancouver Public Bikeshare Program**. The aims of the program are to support active living, extend the reach of transit and walking trips, replace vehicle and transit trips, and trigger participation in cycling more broadly. The year-round program will deploy approximately 1,000 bicycles in the city core at stations 300m to 500m apart. User costs are to be on par with programs elsewhere: annual memberships are approximately \$90 per year (~the cost of a monthly transit pass in Vancouver) with single-day options for tourists or infrequent users. Membership allows rentals under 30 minutes at no cost. With links to rapid transit, the program is expected to serve not only the downtown population (105,000 residents) but commuters (over 150,000 employees downtown) and tourists. Bikeshare riders may be members with monthly or annual memberships or casual users who purchase single or multi-day passes). In all cases, credit cards are required for use.

A unique aspect of the **Vancouver Public Bikeshare Program** is that all users will be required to wear helmets. The program will include helmet vending machines. British Columbia (BC) is one of four Canadian provinces with all-ages helmet legislation: this legislation has complicated the introduction of a public bikeshare program in Vancouver. The other programs in Canada are in provinces (Quebec and Ontario) that do not legislate helmet use for adults. Helmet legislation is long debated as a barrier to uptake in cycling, and is also seen as a potential threat to the success of public bikeshares in BC.

Only two of the over 300 public bikeshare programs in the world are actively operating in jurisdictions with compulsory helmet laws, both of which are in Australia. The first public bikeshare program was launched in Melbourne (launched in June 2010 with 51 stations and 600 bicycles) and the second is located in Brisbane (started October 2010 with 150 stations, and 2,000 bicycles). In Melbourne, BikeShare users have 3 options: bring their personal helmet; purchase or rent a subsidized helmet (\$5 and \$2, respectively) at local 7-Eleven and grocery outlets; or purchase a helmet as part of an annual subscription. However, these efforts have failed to substantially improve system use, which remains low by international standards. The Melbourne program has 600 bicycles at 50 stations, but a usage of approximately only 70 trips per day. In Brisbane, CityCycle users must either bring their personal helmets or use one of the 650 courtesy helmets attached to the bikes. Theft is a major issue with these courtesy helmets, with 1,500 helmets (or 70% of helmets) having gone missing in one year. The average number of trips per bicycle in Australian programs is a mere 5%-10% of internationally reported averages. Attempts by the system operator to redress this problem have been largely unsuccessful.

A recent initiative to address helmet access is rental helmet 'vending machines' at docking stations. Prototype helmet vending machines were launched at two docking stations in Melbourne. These provided higher accessibility to helmets by being located nearer the point of bicycle rental, thus improving ease and convenience of helmet availability. The costs/affordability of helmet rental was the same as the retail options above. However, the bicycle rental and helmet rental systems were not fully integrated, necessitating a second purchase transaction. Returns must be made to a local retailer participating in the helmet provision scheme and not to the vending machine themselves. With limited implementation (2/50 stations), and the logistical complications, evidence on the effectiveness of these helmet vending machines on improving helmet access and system use is unknown.

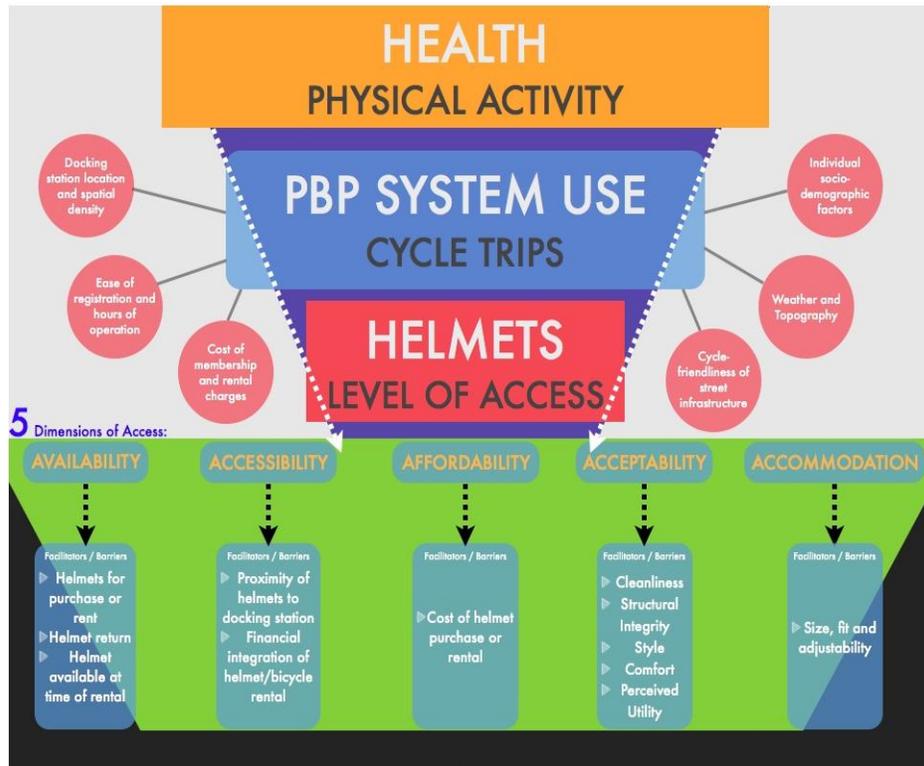
3.0 Conceptualizing Access

Zanotto (2012) has adapted a health care access model developed by Penchansky and Thomas (1981) for public bikeshare programs. The model proposes five dimensions of access that can be applied to helmet use:

- Availability (helmets available for rental);
- Accessibility (proximity of helmet rental to bicycle rental station);
- Affordability (financial cost);
- Acceptability (cleanliness, structural integrity, and style); and
- Accommodation (fit).

Figure 1 (next page) illustrates these 5 dimensions of access applied to helmet use. These dimensions should be integrated into the evaluation of the PBP.

Figure 1: Theoretical Framework of Rental Helmet Access, Factors Influencing Public Bikeshare Program Use, and Health.



4.0 Evaluation Requirements

The City of Vancouver is asking you to develop a proposal for the evaluation of the Vancouver Public Bikeshare Program. The evaluation report will be submitted one year after initial program implementation. The evaluation should focus on the uptake of the program, the health, environmental, and economic impacts of the program, and the identification of barriers and facilitators to the program and the use of helmet vending machines. The City is particularly interested in assessing the equity of the program in terms of equal access to the program and helmets and equal use of helmets and bikes. The City of Vancouver is also interested in how the outcomes compare with other similar bikeshare programs in Canada.

The presentation should include:

1. A demonstration of your understanding of the program objectives and design (supported by a logic model)
2. An evaluation plan, including:
 - a) A matrix of evaluation questions, indicators (evidence needed to address each question), data sources, and data collection methods - the matrix must be tailored to the program

- b) Identification of the factors (internal and external to the program) that might influence program results and equity issues and how you would assess these
3. Types of analysis that you propose for the data collected, including equity-related analyses; and
4. Potential challenges in conducting the evaluation (e.g., ethical, political, cultural, implementation) and how you would address these.

4.1 Standards

The Canadian Evaluation Society *Code of Conduct for Program Evaluation*¹ is the standard used by the Government of Canada.

4.2 Budget

Teams are not expected to present a budget for this assignment. However to help you in understanding the anticipated scope of the evaluation, a budget of \$50,000 has been allocated to cover an estimated 70-80 consulting days.

References

- Penchansky, R & Thomas, J.W. (1981). The concept of access: definition and relationship to consumer satisfaction. *Medical Care*, 2, 127-140.
- Zanotto, M (2012). Unpublished MSc Thesis Proposal. Simon Fraser University.

¹ Available on the CES website at www.evaluationcanada.ca