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### *Understanding Barriers to Sport in Hamilton, ON*

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#### **Project Summary**

This study uses a random group of adults in Hamilton, ON to determine what barriers to sport are preventing adults from being active through sport. The research using data from a questionnaire that was part of a larger study called the Hamilton Active Living Study or HALStudy. This questionnaire data was used to address three key objectives: (1) To understand the differences in the socio-demographics between participants in sport and non-participants in sport; (2) To understand what barriers to sport exist in the city of Hamilton; and (3) To understand how barriers to organized and unorganized sport influence different sub-groups of people. These objectives were addressed using various statistical analyses to determine that vulnerable populations are most at risk of facing barriers to sport, and personal preferences, time constraints, and accessibility are the key barriers to sport for this sample. Future research is needed to further examine the accessibility barriers to determine if they are identified because of true observed accessibility or based on the perception of accessibility.

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#### **Research methods**

The data used for this study comes from the Hamilton Active Living Study (HALStudy). The purpose of the HALStudy was to learn about people's participation in physical activity and the barriers preventing people from participating in additional physical activity. The sample was collected from May to September 2010 in Hamilton, Ontario, Canada. The final dataset had 201 subjects living in 40 neighborhoods. There were three components to the HALStudy: an upfront interview, a seven-day time-use diary with passive global positioning system (GPS) tracking, and a personal questionnaire. The primary data used in this study comes from the personal questionnaire, which is a detailed survey that included questions about socio-demographics and sport. Data analysis methods used in this study include difference-in-means test (Objective 1), ANOVA (Objective 1), exploratory factor analysis (Objective 2), and binary probit models (Objective 3).

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#### **Research results**

**Objective 1: To understand the differences in the socio-demographics between participants in sport and non-participants in sport.** Results show that participants in sport are more likely to be in higher income households (\$60,000 to \$79,999). Non-participants are more likely to be in lower income households (\$20,000 to \$39,999). Participants are more likely to be a student, than not a student. Those with a degree from a post-secondary institution are more likely to be participants. Those without a driver's license are more likely to be non-participants. Finally, households with more children are more likely to be a non-participant.

**Objective 2: To understand what barriers to sport exist in the city of Hamilton.** Results show that there are two key barriers to sport in Hamilton common among non-participants: accessibility to facilities and sport preferences. Accessibility to facilities shows that being able to easily travel to sport facilities is essential to ensure individuals can participate in sport regularly. Furthermore, this is a measure of perceived accessibility, so in areas in the city where perception and observed accessibility do not match, recreation providers need to promote their facilities and programs designed for adults and seniors. Sport preferences show that some people simply do not like sports, and would prefer to do nothing, or other activities. With these individuals,

recreation providers should highlight the diversity of what they have to offer, as there would be a better chance to find programs that are of interest.

**Objective 3: To understand how barriers to organized and unorganized sport influence different sub-groups.**

Time barriers are indicated as a problem for employed individuals and parents, while those who are not single and are young do not indicate them being a problem. Senior Citizens and low income residents indicate that health concerns are a serious barrier to all sport participation, but people who are young, single, or employed rarely indicate that they have any health concerns. Accessibility to organized sport facilities and programs prevents transit users from participating in sports, while accessibility is not a barrier for unorganized sports.

**Limitations.** This study provides an observation of the barriers to sport in Hamilton, ON using a representative sample. Although the results show some interesting findings, the sample size is small due to cost (financial and time), limiting the complexity of analysis that can be done. Despite this limitation, the sample was collected using a stratified-random approach, whereby subjects were recruited through random phone calls from 40 neighbourhoods that were stratified by income and walkability. Additionally, the resulting sample has been found to be representative of the city of Hamilton.

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**Policy implications**

The findings of this study identify the barriers to sport and the characteristics of both participants and non-participants. This study has policy implications that can benefit both local organizations and government. Local recreational sport providers can help provide adults with opportunities to be active through sport, by providing and promoting sports that adults of all skill levels can enjoy. In particular, providing low cost opportunities for the vulnerable populations, such as those with low income, mobility constraints, and lower education levels, can help reduce these barriers significantly. Accessibility barriers can be minimized by providing free transportation to facilities, such as the YMCA, to allow those who may not have access to a car to travel to the facilities and programs much easier. Finally, developing family-oriented sports that allow whole families to participate together, may allow larger families to be more active in sports minimizing the time barriers they face.

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**Next steps**

One of the major questions raised by this research is how accessibility to sport facilities relates to the observed availability in an individual's neighbourhood. This will allow researchers to understand if the barrier to accessibility is due to perception or due to an actual void of opportunities. If there really is a lack of accessibility, policy makers can determine how to complement existing infrastructure to increase accessibility. In contrast, if the facilities and programs do exist, the recreational programmers need to promote the programs to get adults engaged in sport and minimize the barriers that are perceived.

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**Key stakeholders and benefits**

- City of Hamilton Recreation Division
- City of Hamilton City Hall
- YMCA of Hamilton, Burlington, Brantford
- Boys and Girls Club of Hamilton