

IMPACT OF A SCHOOL-BASED CYCLING EDUCATION AND ENCOURAGEMENT INITIATIVE ON ACTIVE TRANSPORTATION TO SCHOOL

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BACKGROUND

- ❖ In Canada, over 90% of children and youth are insufficiently active (1, 2).
- ❖ Active transportation to school (ATS) can provide an important source of PA (3), however there has been a consistent decline in the prevalence of ATS (4).
- ❖ In Canada, only 25-35% of Canadian youth engage in ATS (5), and most research has focused on walking with less attention given to cycling.
- ❖ Cycling to school provides similar health benefits and enables ATS from further distances, but faces certain barriers such as lack of proper bike/road safety training and parental perceptions of safety risks.

PURPOSE

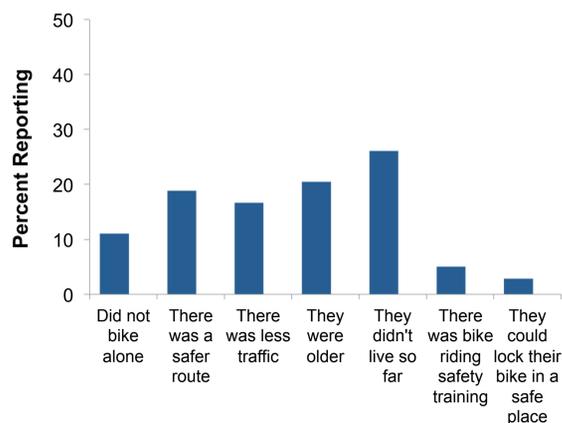
- ❖ To examine the impact of a week-long cycling education and encouragement initiative on ATS of elementary students.



SETTING

- ❖ An elementary school from Junior Kindergarten to Grade 6, in a small city in Northeastern Ontario, Canada (population 54,000).
- ❖ The school was engaged in a School Travel Planning (STP) process with the local public health unit. Previous STP family surveys reported on parental perceptions of their children cycling to school.

Figure 1. Parental facilitators for cycling to school



METHODS

Bike Week Activities

- ❖ Students from Grades 1 to 6 participated in a week-long cycling education program offered during physical education classes.
- ❖ Cycling education included road safety skills (e.g. rules of the road, road signs), helmet fitting and handling skills (e.g. straight line riding, arm signals).
- ❖ The week-long event culminated in a bike rodeo.

Participants and Procedures

- ❖ Students ($N=341$) from Grades 1-6 participated in a valid and reliable hands-up survey (6) to determine travel mode to school.
- ❖ Surveys were conducted over three consecutive days, and the results from the three days were averaged.
- ❖ Data were collected in April 2016 (pre-initiative) and June 2016 (the week following the initiative).

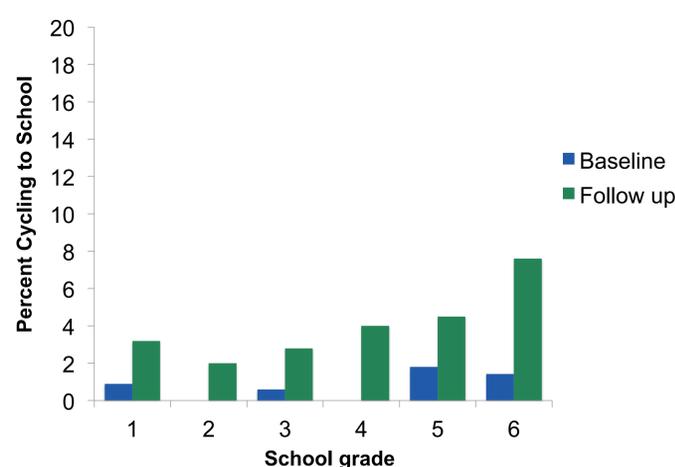
Data Analysis

- ❖ A paired sample t-test was used to determine change in cycling to school over time.

RESULTS

- ❖ There was a significant increase ($p=0.004$) in cycling to school post-initiative (4%) compared to pre-initiative (1%).
- ❖ A greater increase in cycling to school was noted among students in grades 4, 5 and 6.

Figure 2. Percent students cycling to school by school grade



DISCUSSION

- ❖ Parents often cite safety concerns as a barrier to active transportation to school and but having the skills and ability to safely ride a bicycle is positively correlated with cycling to school (7).
- ❖ Challenges with modifying the built environment to increase safety may be encountered (e.g. cost, time, political will). Therefore, initiatives that provide cycling education, encouragement and support are recommended (8).
- ❖ Schools represent an ideal setting to offer cycling education and encouragement programs as they reach a diverse population.

CONCLUSIONS

- ❖ Findings from this study suggest a school-based single-component cycling education and encouragement initiative can have a positive impact on increasing ATS behaviours among youth.
- ❖ Including focused initiatives as part of a broader ATS program, such as School Travel Planning, is likely to yield beneficial results for all modes of ATS.



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