

BEATS Research Findings: Implications and Stakeholders

Summary of results from published BEATS journal articles, implications of the results and relevant stakeholders:

Published BEATS findings	Implications of study findings	Stakeholders
The BEATS Study Protocol article ¹ describes research methodology for the initial BEATS Study.	The same research methodology with additional components has been used for subsequent BEATS projects.	<ul style="list-style-type: none"> • Research/academic community
BEATS Study Planning and Implementation article ² offers “a look behind the scene” from vision to implementation of the initial BEATS Study: study design, the establishment of research and community collaborations, planning and preparation for data collection, study implementation and knowledge dissemination.	This article has been of great interest for other researchers as well as public health professionals who are working on implementing research projects and/or health promotion initiatives in the community.	<ul style="list-style-type: none"> • Research/academic community • Public health professionals
Self-reported physical activity data showed that few Dunedin adolescents met recommended health behaviour guidelines, yet two-thirds had a healthy weight. ³ We identified six clusters based on health behaviours and weight status. Clusters had distinct sociodemographic and lifestyle characteristics.	Future public health strategies for adolescents should be comprehensive and consider socioeconomic structural factors.	<ul style="list-style-type: none"> • Ministry of Health • Public health professionals • Schools • Research/academic community
Low rates of cycling to school in New Zealand adolescents may be context-specific. ⁴ Compared to walking, cycling to school among Dunedin adolescents was less common and perceived as less safe. Cycling also received less social and infrastructure support.	More supportive physical and social environments are required for promoting cycling to school among Dunedin adolescents.	<ul style="list-style-type: none"> • Ministry of Transport • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
Key findings from student and parental focus groups regarding their perceptions of cycling to school ⁵ related to perceived safety, implicit messages and social norms.	Overcoming concerns through behavioural and cultural interventions coupled with up-skilling and infrastructure changes may present a pathway to increasing rates of cycling.	<ul style="list-style-type: none"> • Ministry of Transport • New Zealand Transport Agency • Dunedin City Council • Schools

<p>A complex range of factors contributed to perceived safety of cycling, including features and perceptions of the built environment, traffic safety, previous cycling experiences and adolescents' cycling skills.</p>		<ul style="list-style-type: none"> • Research/academic community
<p>Over one third of adolescents perceived that cycle skills training could make them safer in traffic.⁶ Enjoyment, usefulness and desire to cycle were associated with a positive attitude towards the training. Parental cycling behaviour and school's encouragement were also important.</p>	<p>Schools may be an appropriate setting for provision of cycle skills training for adolescents.</p>	<ul style="list-style-type: none"> • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
<p>Parents perceived cycle skills training would make their adolescents safer in traffic.⁷ Having fewer vehicles at home and parental perceptions that cycling to school is important but unsafe were also associated with favourable perceptions of cycling skills training. Parents thought adolescents would benefit from such training at their school.</p>	<p>Future interventions should capitalise on parental interest in cycle skills training for adolescents. Schools may be an appropriate setting for provision of cycle skills training for adolescents.</p>	<ul style="list-style-type: none"> • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
<p>Examination of intrapersonal factors related to adolescents' cycling to school in Dunedin versus Christchurch showed that despite higher rates of cycling to school in Christchurch, attitudes towards cycling to school were similar in both cities.⁸ Norms, capability, autonomy and intention to cycle were lower in Dunedin. Norms were the dominant influence for cycling to school in Christchurch and attitude was dominant in Dunedin.</p>	<p>Norms, social needs and capability are relevant for adolescents' cycling initiatives.</p>	<ul style="list-style-type: none"> • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
<p>School bag weight was perceived as a barrier for active transport to school by both adolescents and their parents.²⁶</p> <p>Heavy school bags were seen as a greater barrier for cycling versus walking. Active transport users were less likely to perceive their school bag as too heavy.</p> <p>On average, adolescents' school bags weighed 5.6 kg. Actual school bag weights did not differ by mode of transport to school.</p>	<p>Future active transport to school interventions should consider school bag weights.</p>	<ul style="list-style-type: none"> • Ministry of Health • Ministry of Education • Public health professionals • Schools • Research/academic community

<p>Among Dunedin adolescents, 22% stated they would cycle to school more often if helmet use was not mandatory.⁹ Greater distance to school and school route being perceived as boring were identified as significant factors. Ethnicity, social norms and cycling often with friends also emerged as significant factors.</p>	<p>These findings can be used to design educational interventions among adolescents to raise awareness that wearing a bicycle helmet provides protection from head injuries.</p>	<ul style="list-style-type: none"> • New Zealand Transport Agency • Schools • Research/academic community
<p>BEATS Study data were included in a New Zealand meta-analysis of built environment associates of active school travel in children and adolescents.¹⁰ The results showed that distance to school was the strongest predictor of active travel to school. Increased street connectivity around schools was related to active travel to school. Dwelling density and school socioeconomic status were negatively associated with active travel to school.</p>	<p>These findings suggest that distance to school is a key consideration for school zoning and catchment policies.</p>	<ul style="list-style-type: none"> • Ministry of Transport • Ministry of Health • Ministry of Education • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
<p>Results from objectively measured physical activity (using activity meters)¹¹ showed that nearly half of adolescents using active transport to school (alone or in combination with motorised modes) met physical activity recommendations compared to only one third of motorised transport users.</p> <p>Physical activity differences by transport modes were observed in girls, on school days and during school commute times.</p>	<p>Combined active and motorised transport to school is also a plausible way to increase adolescent girls' physical activity when active transport only is not feasible.</p>	<ul style="list-style-type: none"> • Ministry of Health • Ministry of Education • Ministry of Transport • New Zealand Transport Agency • Dunedin City Council • Schools • Research/academic community
<p>An optimal distance for walking to school in Dunedin adolescents is ≤ 2.25 km.¹²</p> <p>Adolescents' perceived walking safety was the strongest correlate of active transport to school, whereas the near-school built environment was not correlated with active transport to school.¹²</p>	<p>Adolescents' perceptions of walking safety should be considered as part of comprehensive efforts to encourage active transport.</p>	<ul style="list-style-type: none"> • Ministry of Transport • New Zealand Transport Agency • Ministry of Health • Ministry of Education • Dunedin City Council • Schools • Research/academic community
<p>The most common reasons for school choice in Dunedin included: preference for a co-educational school, school's facilities, positive comments from parents/students and friends' enrolment.¹³</p>	<p>These findings suggest that social factors and school programmes/facilities rather than proximity to home influence school choice decisions in Dunedin.</p>	<ul style="list-style-type: none"> • Dunedin Secondary Schools' Partnership • Ministry of Education • Schools • Research/academic community

<p>Reasons for school choice differed by who was making the decision (student, parent, or student and parent together).¹³</p>		
<p>Without school zoning, half of Dunedin adolescents enrolled in the closest school.¹⁴ Distance to school and importance of school's proximity influenced school choice.¹⁴ Co-educational school status and peer feedback were also important.¹⁴ Adolescents attending their closest school had five times higher rates of active transport compared to their peers who attended a distant school.¹⁴</p>	<p>School choice has important implications not only for education, but also for health, transport and environment.</p>	<ul style="list-style-type: none"> • Ministry of Education • Ministry of Health • Ministry of Transport • New Zealand Transport Agency • Dunedin Secondary Schools' Partnership • Schools • Research/academic community

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