Overview
The BEATS Study is based on contemporary ecological models for active transport (walking or cycling) that identify individual, social, environmental, and policy influences on behaviour. The study is designed to advance scientific knowledge and provide service to the government, local community and schools.

The BEATS Study spans the fields of exercise science, health, transportation, environment and education. The study is founded on a multidisciplinary approach and multi-sector collaborations between secondary schools, city council, community, and academia.

Progress to date
- Surveyed 1780 students from all 12 Dunedin secondary schools
- Surveyed over 350 parents of secondary school students
- Conducted 18 focus groups with students, parents and teachers
- Conducted 12 interviews with school principals

Comprehensive dissemination of findings
The links to publications are available on the BEATS Study website: www.otago.ac.nz/beats/publications
One dozen research articles reporting findings from the BEATS Study are currently in preparation.

Funding

Report prepared by Dr Sandra Mandic on behalf of the BEATS Research Team. Dunedin, New Zealand, August 2017.
### BEATS Study Protocol Article

This article describes research methodology for the entire BEATS Study.


### BEATS Study Planning and Implementation

This article provides “a look behind the scenes” from vision to implementation of the BEATS Study: study design, the establishment of research and community collaborations, planning and preparation for data collection, study implementation and knowledge dissemination.


### Clustering of (Un)Healthy Behaviors in Adolescents from Dunedin, New Zealand

The findings from the BEATS Study show that few Dunedin adolescents met recommended health behaviour guidelines, yet two-thirds had a healthy weight. This study identified six clusters based on health behaviours and weight status. Clusters had distinct sociodemographic and lifestyle characteristics. These findings suggest that future public health strategies for adolescents should be comprehensive and consider socioeconomic structural factors.

Sandra Mandic, Enrique García Bengoechea, Kirsten J Coppell, John C Spence. Clustering of (un)healthy behaviors in adolescents from Dunedin, New Zealand. American Journal of Health Behavior. 2017;41(3):266-275 DOI: [https://doi.org/10.5993/AJHB.41.3.6](https://doi.org/10.5993/AJHB.41.3.6) [Full article](https://doi.org/10.5993/AJHB.41.3.6)

### Adolescents Perceptions of Walking versus Cycling to School

The findings from the BEATS Study show that low rates of cycling to school in New Zealand adolescents may be context-specific. This article shows that 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. Therefore, more supportive physical and social environments are required for promoting cycling to school among Dunedin adolescents.

This article presents findings from BEATS Study focus groups with adolescents and parents. Key findings relate to perceived safety, implicit messages, and social norms. 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 and on-road experiences. Overcoming concerns through behavioural and cultural interventions coupled with up-skilling and infrastructure changes may present a pathway to increasing rates of cycling.

Little is known about adolescents’ attitudes towards cycle skills training. The BEATS Study results showed that over a third of adolescents perceived that cycle skills training could make them safer in traffic. Enjoyment, usefulness and desire to cycle were associated with a positive attitude. Parental cycling behaviour and school’s encouragement were also important. Schools may be an appropriate setting for provision of cycle skills training to adolescents.

Without school zoning, half of Dunedin adolescents enrolled in the closest school. Distance to school and importance of school’s proximity influenced school choice. Co-educational school status and peer feedback were also important. Adolescents attending their closest school had five times higher rates of active transport. These findings suggest that school choice has implications for education, health, transport and environment.
Going Forward

The BEATS Research Team is currently planning and designing extensions of the BEATS Study.

**BEATS-R (2018-2020)**

The BEATS Rural Study (BEATS-R) will examine active transport to school in adolescents living in rural Otago using the published BEATS Study methodology and conceptual framework. This study will examine individual, social, environmental, and policy influences on rural adolescents’ transport to school. BEATS-R will generate valuable rural-specific data to inform future interventions for built environment change, education campaigns, and policy development in rural areas.

**BEATS-2 (2019-2021)**

Collected BEATS Study data provide comprehensive baseline data on adolescents’ and parental perceptions of active transport to school in Dunedin. During 2014-2017, several Dunedin neighbourhoods have been undergoing on-road and off-road cycling infrastructure construction, including neighbourhoods of several schools. BEATS-2 will use the original BEATS Study research methodology to examine the effects of the cycling infrastructure construction on active transport to school in Dunedin adolescents.

**International Symposium in 2017**

As a result of the BEATS Study work and collaborations, members of the BEATS Research Team have organized the International Symposium Active Living and Environment: Towards a Healthier and More Sustainable Future (Symposium website: www.otago.ac.nz/active-living-2017/).

The goal of this symposium is to facilitate and grow an international, multidisciplinary and multi-sector dialogue. Symposium themes include Health, Transportation, Environment and Sustainability.

This symposium has 18 invited speakers (11 from New Zealand and 7 presenters from overseas including UK, Spain, Australia, Canada, & U.S.A.). The list of invited speakers is available online: www.otago.ac.nz/active-living-2017/programme-and-speakers/

Finalized Symposium Program is also available: www.otago.ac.nz/active-living-2017/otago644038.pdf

Registrations are now open: https://secure-www.otago.ac.nz/conferences/active-living-2017/

We invite you to join us!

**BEATS Study Updates: Sign up for our newsletter**

In 2016, we started a quarterly newsletter from the Active Living Laboratory to provide regular updates about our work and the BEATS Study publications. Previous issues of the newsletters are available on the laboratory website: www.otago.ac.nz/active-living/research/publications

Newsletter sign up is available online: www.goo.gl/jtqdAo

**Acknowledgments**

The BEATS Study is a collaboration between Dunedin Secondary Schools’ Partnership, Dunedin City Council and University of Otago. We acknowledge great support and contribution of all members of our research team, advisory board, research personnel (research assistants, students and volunteers), and all participating schools, adolescents, parents, teachers and school principals.

The BEATS Research Team 2016/2017

www.otago.ac.nz/beats