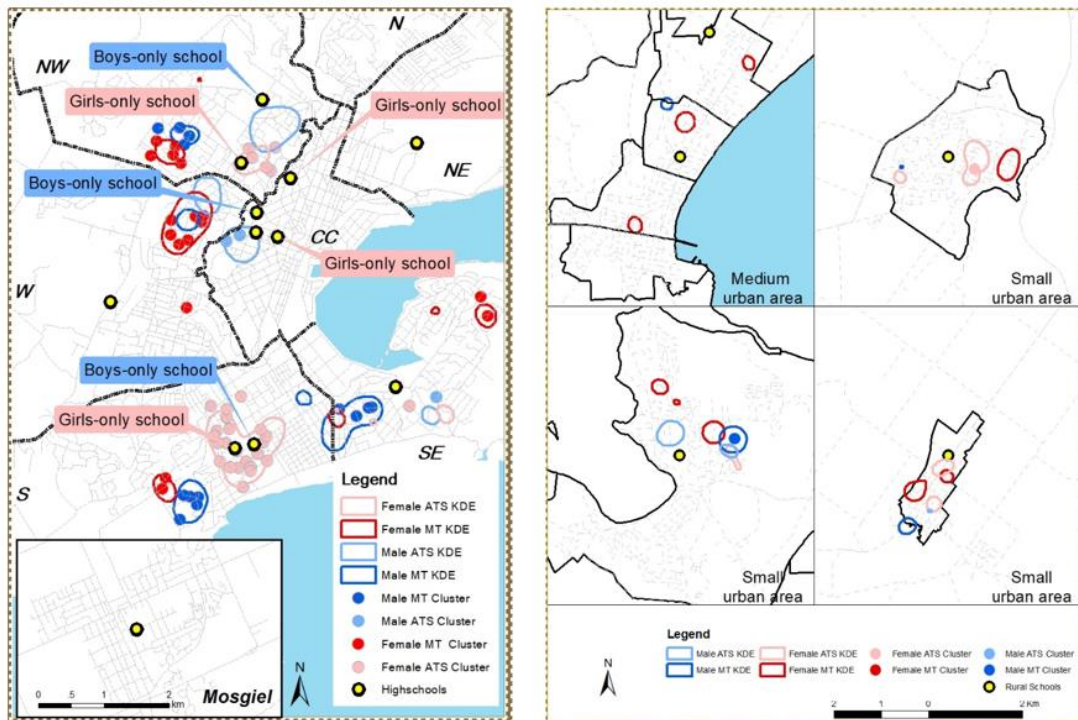


Lunchtime Seminar Series



Spatial distribution of active transport to school and its factors across different urbanisation settings in Otago, New Zealand

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Active transport to school (ATS) is a convenient way for adolescents to reach their daily physical activity levels. Spatial analysis is useful in understanding human activities and adolescents' use of ATS geographically. This study applied exploratory spatial analysis in examining the associations of ATS and ATS factors between urban and rural areas in Otago, New Zealand.

Kernel Density Estimation (KDE) was used to derive distribution maps of transport mode patterns and ATS factors in different urbanisation settings: large urban area (Dunedin, 11 high schools), medium urban areas (2 schools), small urban areas (5 schools) and rural settlements (5 schools). Local Indicators of Spatial Association (LISA) verified the spatial patterns found. This study used data collected from participants of the Built Environment and Active Transport to School (BEATS) Study (1,478 valid data records) and BEATS Rural Study (995 valid data records). This study focused on ATS factors including distance, gender, home neighbourhood deprivation index, car ownership, residential density, and intersection density.