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Novel approaches to understanding child health and built environments

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Built environments can have significant and enduring impacts on children's physical activity behaviours including active transport and independent mobility, ultimately impacting body size. Yet, little is actually known of the ways children use urban space and the types and characteristics of places that are important to children. Neighbourhoods for active kids is a cross-sectional study of 1102 children aged 9-12 years, residing in Auckland, New Zealand. Children completed an online participatory geographic information systems survey to capture spatially-linked information about neighbourhood perceptions, use and experiences from the child's perspective. Destinations marked by children were classified for their primary purpose and the distance from home calculated. For each destination, children reported contextual information about that setting. Children's body size and physical activity were objectively assessed and parents completed a telephone survey for socio-demographic information. This presentation will explore the differing spatial patterns of time use in the dataset, drawing from the neighbourhood mapping activity and examine the relationships between these patterns of time use and body size in children. This process provides a more complete picture of health behaviors and context (e.g., active transport with friends) than investigating one variable alone (e.g., activity) and ignoring the context in which the behavior occurs. Cluster analysis and visualization approaches will be used to explore multidimensional patterns of time use in association with body size. Study findings provide new insights and contributions to the field of environments and health, particularly around environmental perceptions and travel modes to destinations.

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