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Lay Summary of Evaluating Causal Relationships between Built Environment Characteristics, Health Care Utilization Patterns, and Costs in British Columbia.

The evidence linking physical inactivity with increased health care costs is strong. Likewise, the links between the built environment and both physical activity and obesity have been well described. However, the relative contribution of the built environment to health care utilization costs via physical activity has not been well examined. Given that physical activity is a major contributor to weight status, it is also important to investigate the aforementioned relationship as mediated by BMI. Such a study could provide insights into potential health care savings associated with built environment changes to encourage physical activity, which is important in light of fiscal health care challenges. Cost-benefit models used for transportation decisions fail to capture these costs, and prevent full evaluation of the relative cost-effectiveness of transit, roadway, bikeway, and sidewalk investments. The proposed study will link administrative database to BC Generations Project cohort as well as to a database of built environment features (walkability, bikeability, regional accessibility) in order to enumerate these costs in British Columbia, providing a model that can be used elsewhere. The Vancouver region's variation in built environment features is greater than in nearly all other places in Canada, making this an ideal study setting.