Whole child taken into account with new study

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If you've ever wondered where your children go when they leave the house, just ask Jason Gilliland.

Gilliland, Urban Development Program director in The University of Western Ontario's Faculty of Geography, takes a unique approach with his research looking at environmental influences on children's health issues.

"Our work is based on the idea that where you live matters. We've all heard the saying 'You are what you eat,' but it's also true that you are where you live," Gilliland says. His research analyzes the way communities are designed, looking specifically at potential barriers the built environment poses to healthy living.

One of the ways Gilliland studies these barriers is by tracking the movement of children in the London area.

As part of the Spatio-Temporal Exposure and Activity Monitoring (STEAM) project, Gilliland followed a sample of 80 children living in different London neighborhoods for one week in the winter and another week in the spring. Children were outfitted with a portable GPS, accelerometer and air pollution monitor to measure their physical activity and exposure to pollution in different areas.

Gilliland's study is the first in the world which has combined GPS tracking and accelerometer readings with an air pollution monitor. "By

identifying where they're exposed to these healthy or unhealthy things we can map the information and tell kids, parents and principals where the safer areas are."

The study focused on children in Grades 5-8, specifically because of the age group's level of independence and mobility. "It's a critical age when kids start to make their own decisions and can to walk to school on their own," Gilliland says. Recruiting willing participants wasn't a problem as researchers were met with a high level of enthusiasm. "They loved to do it, everyone wanted to be included. There were actually more volunteers than we had equipment to facilitate."

Surveys and interviews with children and their parents were part of the study's mixed methodology approach. Gilliland emphasizes the importance of giving children the opportunity to express their opinions about the neighborhoods where they live. "Children see things differently than we do," he says. "My kids inspire me. They give me a new lens through which to view the city, pointing things out that I would never see because I'm not 8 years old."

Going beyond the level of academic research and getting evidence into the hands of policymakers is an important goal for Gilliland. "A lot of researchers write articles to be published in journals for other academics to read, but I want to reach the city planners," he says. "It's about moving research off the shelf and providing policymakers with evidence they can use when making important decisions."

Gilliland's main initiative is to improve children's health and quality of life by informing the people who have the power to intervene, whether that means building more parks, changing junk food policies at schools or creating local farmers markets. The next step will be a larger study of more than 1,000 children from all over southwestern Ontario. "It's inspiring work," he says, "I really love what I do."