# Tool predicts if the air in your home can make you sick

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A UBC Okanagan graduate engineering student has developed an indoor environmental assessment tool that has the potential to reduce respiratory illness from household mold and dampness.

PhD candidate Craig Hostland's tool can compute various facts about your home to determine with a 95-per-cent probability whether or not the air you breathe could lead to respiratory problems. The model, which considers a home's construction type, maintenance characteristics, and history of moisture, can also pinpoint what renovations could improve the conditions that lead to illness, savings thousands in unneeded repairs.

"I found in my research that patients who may be stricken by the most severe effects of asthma can partially or fully recover their health through simple remediation of their residence," says Hostland, an engineer who specializes in health consequences of indoor molds. "The public health-care system can potentially save tens to hundreds of millions of dollars annually. I estimate there are almost 500 such patients in the interior health region alone and more than 3,000 in British Columbia who can be helped," Hostland says.

Hostland's paper, HEALTH2: A Holistic Environmental Assessment Tool, was presented in Halifax last week at the Canadian Society of Civil Engineering Annual Conference. It outlined the model underlying this tool and explained how it can be used to evaluate and rank mold, dampness and related indoor environmental conditions that are known to cause respiratory problems.

Hostland's research is based on residential environmental site inspections conducted in the Okanagan between 2007 and 2013, historical data, and published scientific studies.

Provided by University of British Columbia