

Public Health Ontario (PHO)

“For almost all of the indicators that we’ve chosen, disadvantaged Ontarians bear a disproportionate burden of poorer health, disease and premature death. This reality must be acknowledged and addressed more directly in health policy and health service planning and delivery.”

Dr. Arlene King, 2011 Annual Report of the Chief Medical Officer of Health of Ontario

Research snapshot

[Public Health Ontario](#) (PHO) is a Crown corporation dedicated to protecting and promoting the health of all Ontarians and reducing inequities in health. As a hub organization, PHO links public health practitioners, frontline health workers and researchers to scientific intelligence from around the world. In 2012, PHO provided Ontario’s Chief Medical Officer of Health, Dr. Arlene King, with analysis she used to inform her [2011 Annual Report](#) to the Legislative Assembly of Ontario.

Dr. King asked PHO to focus on the relationship between measures of the population’s health and what are often called the “social determinants of health” – factors like income, housing and education. PHO used the Ontario Marginalization Index (ON-Marg) to examine the relationship between material deprivation and specific health outcomes. Results indicated a relationship between areas with high levels of material deprivation and negative health outcomes including preventable mortality and low birth weight.

Research impacts

The information PHO derived using ON-Marg directly informed the 2011 Annual Report from the Medical Officer of Health to the Ontario legislature. The report uses 12 health indicators to define how healthy we are and, among other disparities, considers where material deprivation, as defined by ON-Marg, is contributing to health inequities in Ontario. It emphasizes the fact that, for almost all indicators, “disadvantaged Ontarians bear a disproportionate burden of poorer health, disease and premature death.” The report was submitted to the legislature in February, 2013, and reflects Dr. King’s desire to broaden the province-wide conversation about addressing health disparities and promoting healthy communities for everyone.

Why ON-Marg?

ON-Marg captures information other sources do not. As PHO’s lead epidemiologist Jeremy Herring explains, “For example, when you go to the hospital, they don’t ask you about your income or if your house is in a state of disrepair. These are the kinds of things that are built into ON-Marg.”

Herring also points out that each dimension within ON-Marg captures several different concepts. For example, the “material deprivation” dimension of ON-Marg encompasses indicators including education rates; proportion of households living in dwellings in need of major repair and proportion of the population living on low incomes.

PHO also developed productive relationships with research scientists from the Centre for Research on Inner City Health, who helped analysts make best use of ON-Marg.

Tips for other users of ON-Marg

Build in time for knowledge transfer. “The information you get using ON-Marg is very powerful,” says Ruth Sanderson, manager of analytic services for PHO. “Prepare yourself to spend a little time to interpret this for a lay audience if that’s what you need to do. We’re thinking about info-graphics to explain some of these complex ideas.”

Future work with ON-Marg

PHO will be incorporating ON-Marg into their interactive on-line health status tools to help public health units across the province develop population-level interventions within their health regions.

Interviews conducted with Ruth Sanderson, manager, analytic services, Public Health Ontario and Jeremy Herring, epidemiologist lead, Public Health Ontario.