



Population Health



The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. Through CIHR, the Government of Canada invested approximately \$49.9 million across Canada in 2006-2007 in research on population and public health issues.

The Facts

- Population health research takes a broad approach to understanding the factors that affect human health at individual, community and societal levels. Population health researchers focus on protecting populations from hazards in the environment; preventing disease and injury; and promoting health.
- Factors such as income and social status, education and literacy, employment, working conditions, social support networks and social and physical environments are important determinants of health at the population level.
- Here are some examples of how these factors can affect health:
 - Low birth weight infants are at increased risk for developing many diseases later in life, as well as for delays in development. Low birth weight children from privileged backgrounds, however, still have a developmental advantage over normal birth weight children from under-privileged backgrounds.
 - Smoking, obesity, high stress, low household income and low sense of community belonging all have significant negative effects on health status.
 - Individuals who lack control over their work environment are more likely to develop and die from cardiovascular disease.



About CIHR

The Canadian Institutes of Health Research (CIHR) is the Government of Canada's agency for health research. CIHR's mission is to create new scientific knowledge and to catalyze its translation into improved health, more effective health services and products, and a strengthened Canadian health-care system. Composed of 13 Institutes, CIHR provides leadership and support to more than 11,000 health researchers and trainees across Canada.

Finding Solutions

Scared smokeless

Smokers do pay attention to large, vivid warning labels on cigarette packages. A recent study by Dr. David Hammond at the University of Waterloo found that smokers exposed to large, graphic warnings on cigarette labels were more likely to be aware of the risks of smoking than people exposed to small, text-only warnings. Smokers who had to look at pictorial warnings every time they reached for a cigarette were also more likely to think about quitting. This CIHR-funded study suggests that warning labels are effective and that cigarette packages may be a good place to include contact information for smoking cessation services.

Male circumcision prevents HIV transmission

Researchers estimate that HIV infection rates in sub-Saharan Africa could be reduced by up to two-thirds if male circumcision becomes standard practice. An international team of researchers, including Dr. Stephen Moses at the University of Manitoba, conducted a large study in Kisumu, Kenya, where 18% of the men and 25% of the women are HIV positive. Dr. Moses found that circumcised men in that community were 53% less likely to contract the deadly virus than uncircumcised men. The project, co-funded by CIHR, confirms the findings of several previous studies. The findings of these studies have collectively resulted in the World Health Organization developing recommendations regarding male circumcision.

How healthy is your neighbourhood?

Where you live can affect your health. Dr. Nancy Ross, a CIHR-funded researcher at McGill University, has shown that the condition of your neighbourhood influences your health in a number of ways, including your body mass index (BMI). A BMI is a good estimate of your total body fat. In a study of Canada's 27 largest urban areas, Dr. Ross found that men and women living in communities with low education levels had higher BMIs than those living in highly educated communities. These findings highlight the importance of looking at health issues from a community perspective.



The Researchers

Dr. Penny Hawe – Ounce for ounce, which form of prevention is best?

Urban planners, park designers, arts and culture organizers – according to Dr. Penny Hawe of the University of Calgary, these are just a few professions that belong to the health system for the simple reason that they influence our health and well-being.

“Creating meaning in peoples' lives has a real health impact. We're now able to measure and quantify the value of seemingly wacky concepts like quality of life, sense of identity and social networks,” she says.

Public health programs help address these factors by changing the everyday environment to make it more supportive of good health for everyone.

“If the environment is alienating, trying to spend anytime on health is just like a drop in the ocean – it won't help,” Dr. Hawe points out.

Dr. Hawe is the Markin Chair in Health and Society and Director of the CIHR-funded Population Health Intervention Research Centre at the University of Calgary. She sees her role as helping support public health practitioners by making sure they have the tools to properly evaluate and measure the results of their work. She insists that prevention programs must be required to show the same level of evidence demanded of treatment programs, such as new drugs or medical procedures.

“It's our job as scientists to test if preventive interventions at the population level create an effective investment pathway, to arrest premature mortality and spiraling health care costs,” Dr. Hawe says.

The alternative, she says, waiting for people to get sick and then treating them, can no longer be afforded.



For more information, go to
www.healthresearchatwork.cihr-irsc.gc.ca
2006-2007