CIHR IRSC

Aboriginal Health

The CIHR Institute

CIHR's Institute of Aboriginal Peoples' Health, headed by Scientific Director Dr. Jeff Reading, is leading a national advanced research agenda in the area of Aboriginal health, building capacity among First Nations, Inuit and Métis communities, and supporting partnerships and alliances among Aboriginal communities and non-Aboriginal health research organizations at the local, regional, national and international levels. The Institute is based at the University of Victoria. Through its work, Canada is taking an international leadership role in improving the health of indigenous peoples in Canada and globally.

Recognizing that in the past, some Aboriginal communities have had negative experiences with health research, the Institute of Aboriginal Peoples' Health conducts its research with and, where possible, by Aboriginal people. The Institute works in partnership with the public and private sectors to develop strategies and activities that address disparities in Aboriginal health. It has also embarked on collaborations with international partners including Circumpolar northern countries, Australia, New Zealand, Mexico and the United States to develop international research priorities, share scientific expertise and research capacity-building approaches.

About the Canadian Institutes of Health Research

The Canadian Institutes of Health Research is the Government of Canada's agency for health research. Its objective is to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products, and a strengthened Canadian health care system. Composed of 13 Institutes, CIHR provides leadership and support to close to 10,000 researchers and trainees in every province of Canada. For more information visit www.cihr-irsc.gc.ca

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 $14.6 million in 2004-05 in Aboriginal health research across Canada.

The facts

Life expectancy and the burden of disease for Aboriginal Canadians differs from other Canadians. From the data that are available we know the following:

- In 2002 the United Nations quality of life index ranked Canada as one of the top five countries in the world. However, the native reserve conditions in Canada were described as deplorable.[1]
- In 2000, Canadians' life expectancy was 76.3 years for males and 81.8 years for females. In comparison, First Nations males and females had life expectancies that were 7.4 and 5.2 years shorter.[2]
- The infant mortality rate among First Nations in 2000 was 6.4 deaths per 1,000 live births, compared to the Canadian infant mortality rate of 5.5.[3]
- In 2000, the rate of pertussis (whooping cough) for First Nations was two times higher than the general population.[3]
- The tuberculosis rate among First Nations people is 6.2 times higher than in the general population.[4]
- Diabetes is 2.7 times more prevalent among First Nations than in the general population.[5]
- First Nations peoples on reserves have reported rates of heart diseases 16% higher than the general population.[5]
- Aboriginal people living off-reserve have lower levels of education and income and higher rates of smoking, drinking and obesity compared to the Canadian population.[5]

Research finding solutions to Aboriginal peoples' health

- A new diagnostic test can tell couples if they carry a gene called *cirhin* that is responsible for North American Indian childhood cirrhosis. This serious liver disease occurs only in certain Aboriginal communities in Quebec. Fewer than half the children born with the condition since 1970 are still alive. Couples who both carry *cirhin* have a one-in-four chance of passing the disease to each of their children. The gene was found and the diagnostic test developed by a CIHR-funded team from Montreal's Sainte-Justine Hospital.

- After four years of participating in the Kahnawake Schools Diabetes Prevention Program, Mohawk children in Grades 4 to 6 decreased their consumption of high-fat foods and white sugar. Fruits also decreased. The research, conducted by a CIHR-funded team led by Dr. Ann Macaulay of McGill University, illustrates the complexity of food choice and suggests that nutrition education target the need to reflect newly available food items.

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[1] Beavon, D. and Cooke, M. (2003) *An Application of the United Nations Human Development Index to Registered Indians in Canada, 1996,* in White J.P., Maxim, P.S. and Beavon, D. (eds.) *Aboriginal Conditions: Research as a Foundation For Public Policy.* Vancouver: University of British Columbia Press, 2003.
[2] Indian and Northern Affairs Canada 2003
[3] Health Canada (First Nations and Inuit Health Branch), 2000
[4] Health Canada: *Tuberculosis in First Nations Communities*, 2000
[5] Statistics Canada: *Aboriginal Peoples' Survey 2001, Canadian Community Health Survey, 2000/01*

- Dr. Chris Furgal of the CIHR-funded Centre for Inuit Health and Changing Environment conducted research on how knowledge about contaminants affects peoples' behaviour. Research results indicate that pregnant women in two Inuit communities are eating a healthier diet. They are being provided with fresh arctic char as part of the "Children of Tomorrow" program. Encouraging women to eat arctic char while they are pregnant reduces their exposure to pollutants while ensuring they receive the key nutrients they and their children need. Dr. Furgall found that older men, rather than women of childbearing age, were changing their eating habits to avoid contaminants, while some people who thought they had changed their eating habits to avoid contaminants actually did not.

- Inuit men are protected against prostate cancer by a traditional diet rich in fish, according to research carried out by CIHR-supported Dr. Eric Dewailly. The finding was part of a research initiative to examine the risks and benefits of country foods, including the problems of contaminants in food.

In the pipeline … Building careers, building hope

CIHR's Institute of Aboriginal Peoples' Health is developing researchers and providing continued support for scientific careers through the Aboriginal Capacity and Developmental Research Environments Program (ACADRE). To date, eight centres have been established, in Manitoba, Alberta, Ontario (Ottawa and Toronto), British Columbia, Quebec, Nova Scotia and Saskatchewan. These centres constitute a national network of research centres dedicated to conducting and advancing capacity in Aboriginal health research.

Although there are demonstrated pockets of excellence in Aboriginal health research in Canada, this field requires the systemic development of both human resources and supportive research environments in order to ensure continued growth and broad regional development. The centres provide opportunities for Aboriginal students to enter the field of health research, and ensure continued growth of human resources and research environments in Aboriginal health research across Canada. An advisory board with a majority of Aboriginal members governs each centre to ensure that an Aboriginal viewpoint on issues of illness and wellness is included and that the needs of the community are respected.

To be successful in acquiring an ACADRE centre grant, applicants must demonstrate a combination of scientific merit and community partnerships. Each applicant must identify up to three major health research themes that the centre will develop as areas of primary excellence. The Institute of Aboriginal Peoples' Health intends to establish additional ACADRE centres in the future.

The researchers … Dr. Janet Smylie: A first-class researcher in Aboriginal health

Dr. Janet Smylie is an Aboriginal (Métis) physician who is making a difference. Holder of a university appointment at the University of Saskatchewan, she has made the transition from clinician teacher to clinician investigator, after receiving two research fellowships and a CIHR operating grant as principal investigator in 2004.

One of her goals is to ensure that health research leads to health benefits for Aboriginal people. Her CIHR operating grant project, entitled 'Indigenous Knowledge and Knowledge Translation', is developing a framework for the communication of health research information based on the perspectives of Aboriginal community members and Aboriginal knowledge specialists. The goal of the grant is to work with Aboriginal communities to identify one or more models by which research and technology can be effectively translated into community practices for better health outcomes. The models are tested by the development, implementation and evaluation of a public health intervention in each participant community.

Dr. Smylie's first research fellowship was within the TUTOR program. TUTOR stands for Trans-disciplinary Understanding and Training on Research, a joint initiative of CIHR, the University of Western Ontario, and Dalhousie University. The second was a senior research fellowship in the history of Aboriginal health and medicine, jointly funded by CIHR's Institute of Aboriginal Peoples' Health, and Associated Medical Services Incorporated. In both fellowships, the focus was on health surveillance for young Aboriginal families and maternal-child health.

In addition to being an accomplished researcher, Dr. Smylie serves as Director of the Indigenous Peoples' Health Research Centre (IPHRC), a partnership between First Nations University of Canada, the University of Regina and the University of Saskatchewan, with broad support from various health boards and Aboriginal health organizations. IPHRC is supported by CIHR's Institute of Aboriginal Peoples' Health through the Institute's flagship ACADRE program.

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