

Improving Heart Health and Well Being for Indigenous Peoples

MARCH 14TH, 2019

**WITH
JEFF READING**





Construction of St. Paul's was completed in the early 1930s.



New Construction of St. Paul's Hospital.



Globe and Mail editorial
**Truth and Reconciliation: Genocide or not,
Canada authored this story.**

Published Tuesday, Jun. 02 2015, 7:00 PM EDT | Last updated Wednesday, Jun. 03 2015, 5:21 AM EDT



Photo: Library and Archives Canada, George Dawson. Alert Bay, British Columbia, school, 1885.
The federal government has estimated that over 150,000 students attended Canada's residential schools.



Reconciliation and Health

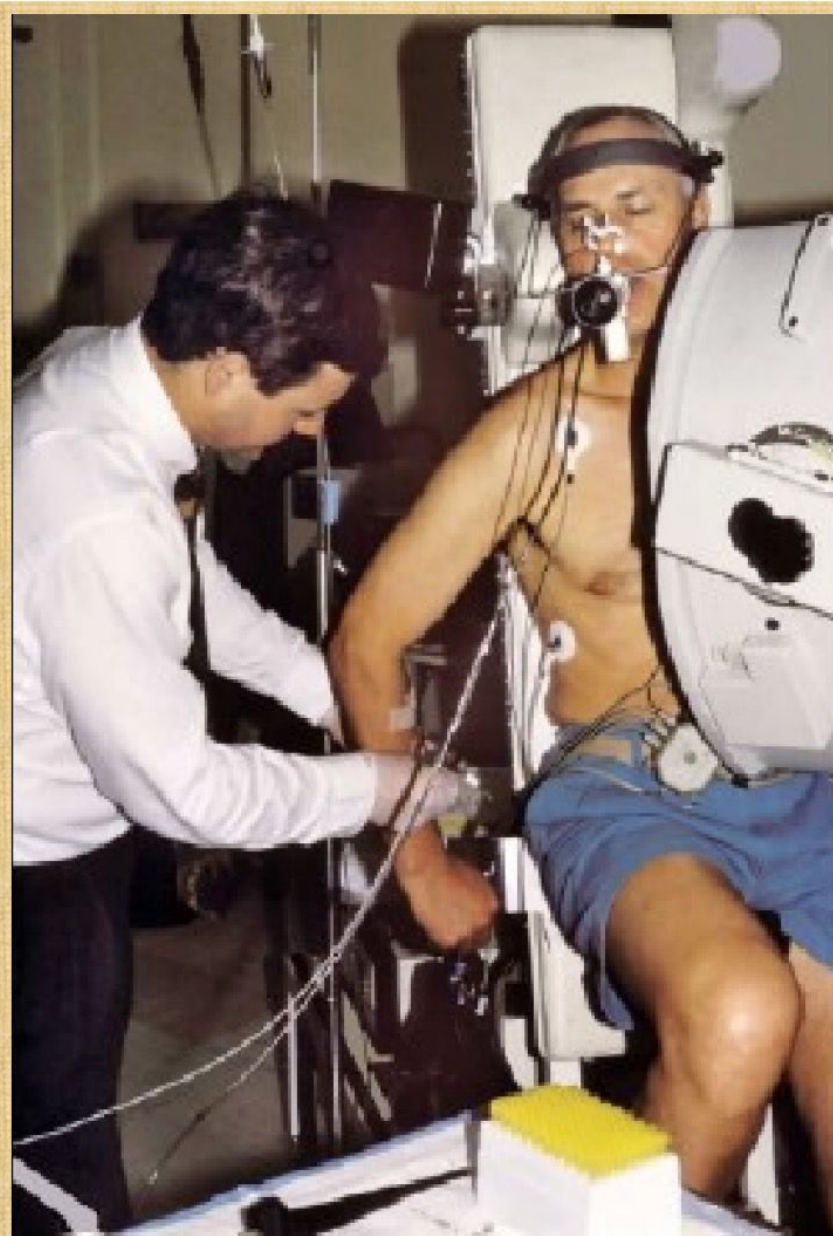
“When reconciliation is talked about, we often talk about sharing history. We talk about sharing recommendations and stories from the commission, and those are all very powerful things.

But when you look at what reconciliation is, it's the changing of two different groups, often on opposite sides to become something better. It's not just about empowerment of First Nations and First Nations patients; it's about empowerment of you. To be better allies and to find your place in the Canadian fabric that doesn't exclude indigenous peoples.”



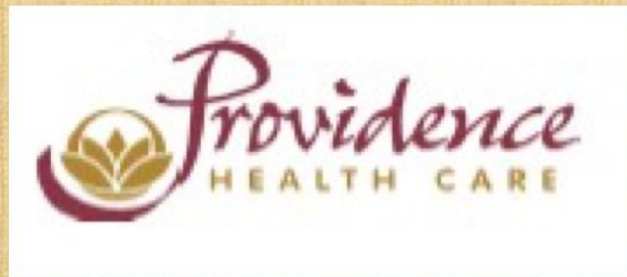
Dr. Alika LaFontaine, President, Indigenous Physicians Association of Canada. Canadian Medical Association Annual General Meeting, August 20th, 2016

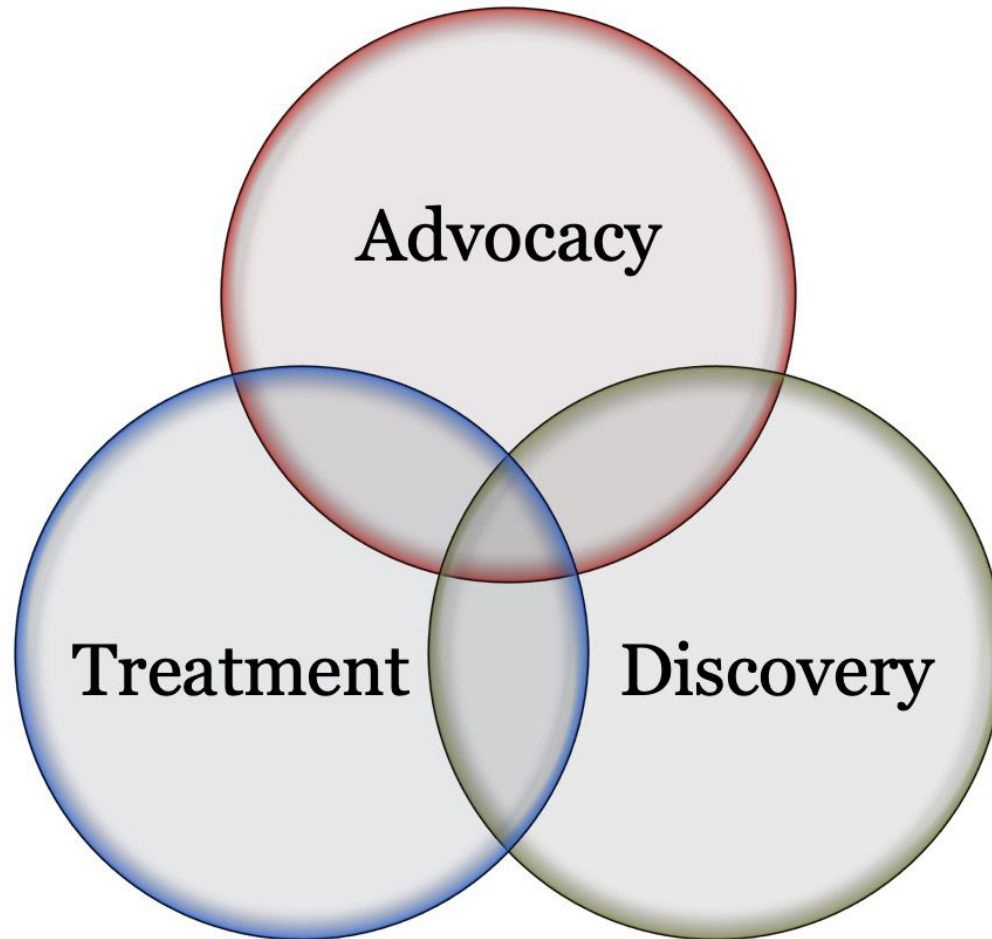




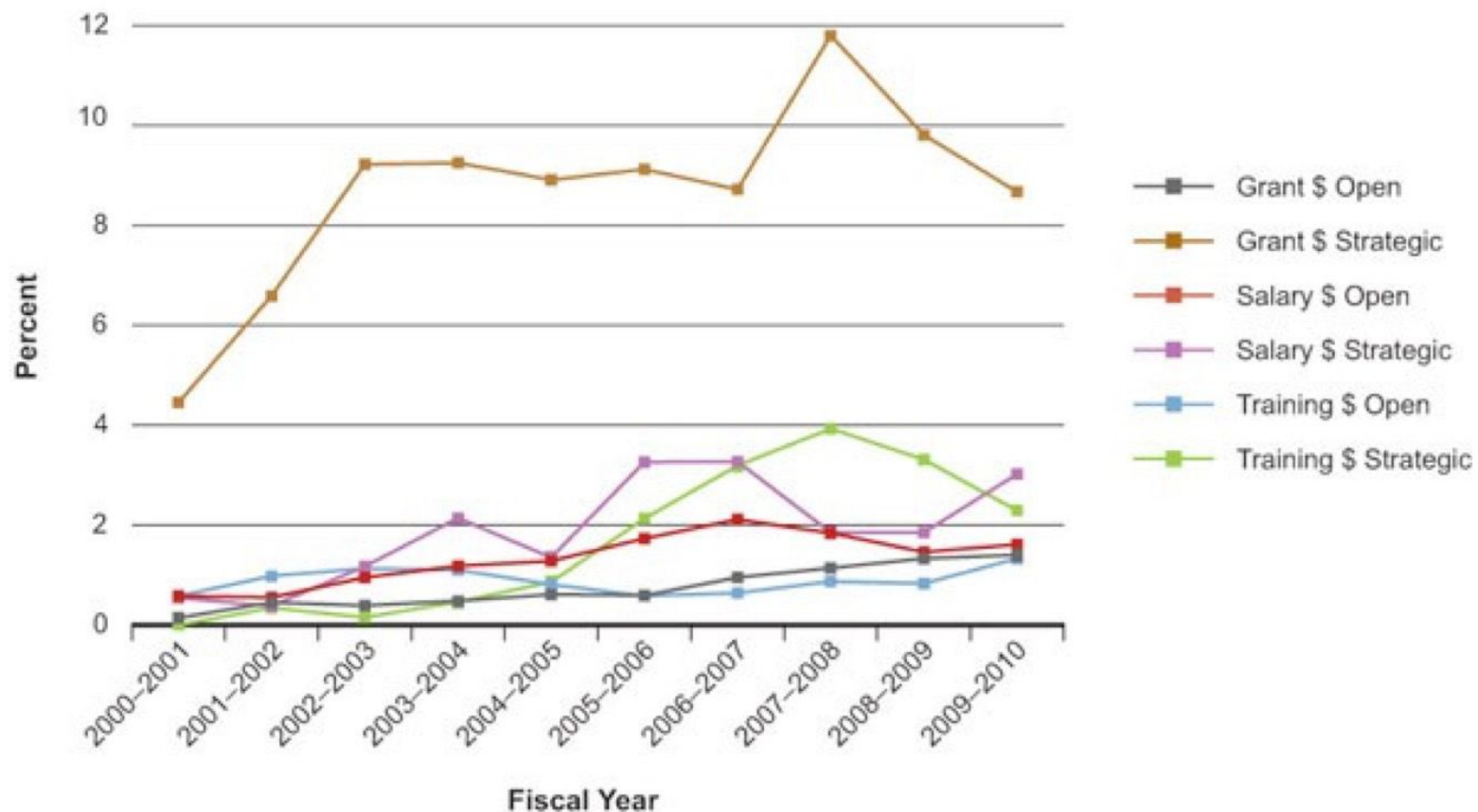
*First Nations Health Authority of BC Chair in
Heart Health and Wellness at St. Paul's
Hospital Cardiology, Providence Health Care
and Director, I-HEART*

Academic: Professor SFU, Emeritus Prof U. Victoria, Adjunct UBC Kinesiology, U of T Dalla Lana Public Health



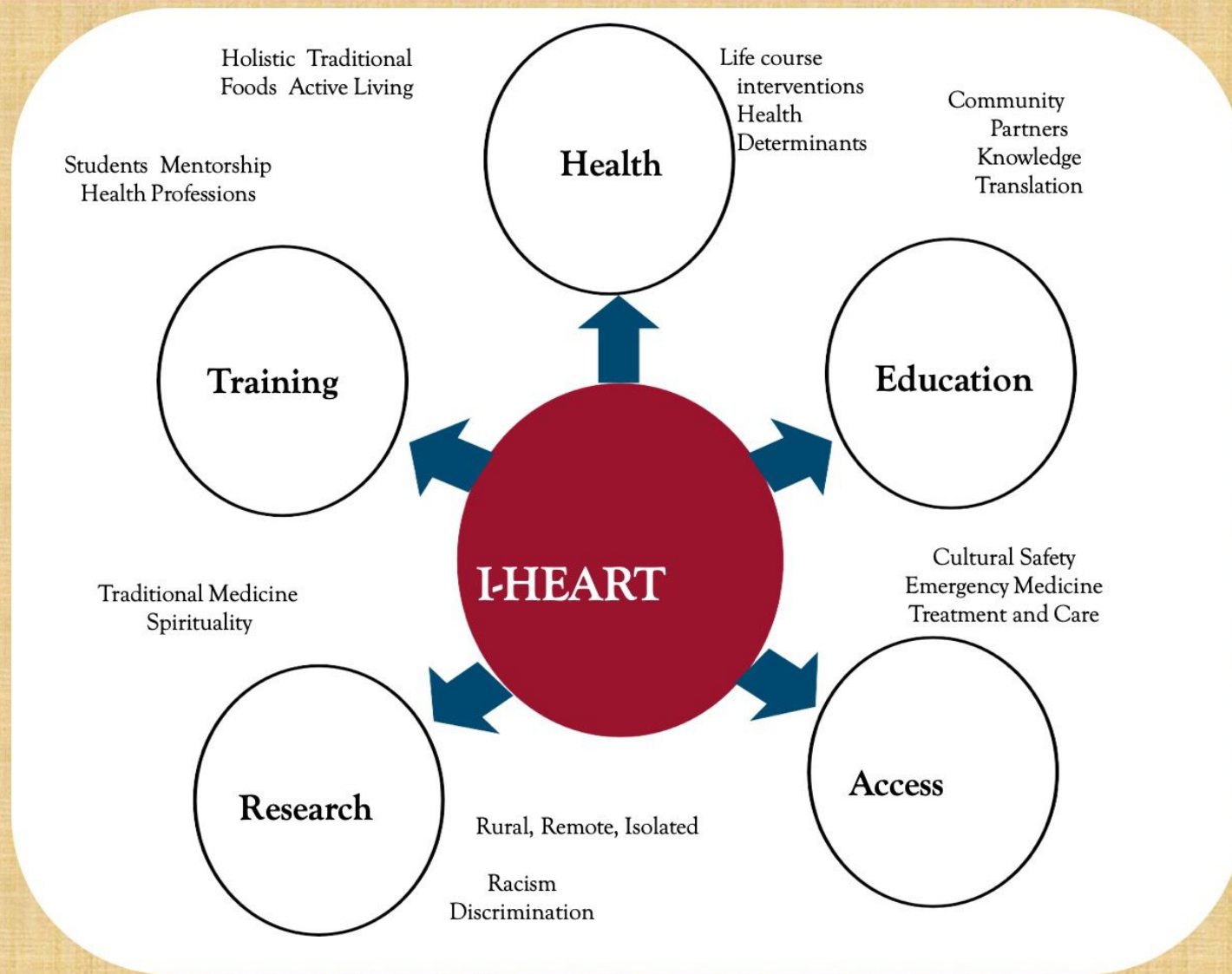


CIHR funding for Aboriginal health research – percentage of total CIHR expenditures related to IAPH mandate areas over time



Indigenous Heart Health and Well-being

- Supporting Indigenous Talent and Research Careers
 - Mentorship networks
 - Network support for trainees
- Engaging Indigenous Knowledge
 - Culturally safe research
- Mobilize Knowledge and Partnerships for Reconciliation
 - FNHA, Providence
- Foster Mutually Respectful Relationships
 - Reconciliation



**Dr. Alan Bernstein (Founding President and CEO) and
13 inaugural scientific directors of the Canadian Institutes of
Health Research The Originals - Les Originaux (2000)**





ANTI-SHREDDER TACKLES SPY FILES

A computer program could reassemble notes from the East German Stasi.
www.nature.com/news

Rules tightened for aboriginal studies

Canada's main funding agency for health research has adopted ethics guidelines for studies involving the estimated one million indigenous people in the country.

Researchers and tribal leaders are optimistic that the guidelines will help to speed up the investigation of health problems among Canadian aboriginals, whose life expectancy has been estimated to be between five and eight years shorter than that of other Canadians. This is due in part to a greater susceptibility to diabetes, cardiovascular disease and mental-health problems.

The guidelines — the first to offer a comprehensive framework for researchers working with aboriginal communities — state that scientists should focus on the collective interests of the community in planning their studies. For example, they must obtain consent for projects from the community involved, as well as from individuals. Biological samples should be considered "on loan" to the researcher, and the community should have the opportunity to review the conclusions drawn from the data.

"This is a big step forward," says Alan Bernstein, president of the Canadian Institutes of Health Research (CIHR), the main federal funding agency for health research and the author of the guidelines.

Until now, Canadian researchers working with indigenous people have relied on



Improved rules could speed up research into indigenous health.

the guidance in a 1998 human research ethics statement issued by the Tri-Council (see *Nature* 395, 420; 1998), a body comprising three federal research agencies, of which the CIHR is one. Ethicists have said that its comments on indigenous peoples are inadequate, and agencies have long recognized the need to beef up the guidance.

"Standards were quite uneven across the country," says Jeff Reading, scientific director of the Institute of Aboriginal Peoples' Health (IAPH), which is part of the CIHR.

The guidelines were prepared by the Ethics Office of the CIHR and the IAPH, in partnership with the aboriginal communities of First Nations, Inuit and Métis. A working group

surveyed the research guidelines developed in other countries and by aboriginal groups to explore the issues raised by research involving aboriginal people.

Although the recommendations are not legally binding, health researchers and institutions funded by the CIHR will be required to follow them.

The relationship between researchers and aboriginal communities has been problematic in the past. So-called fly-in researchers would come into communities, take samples, and never be seen again. The issue was thrust into the public eye in 2000, when the Nuu-chah-nulth, a First Nations community living on Vancouver Island, British Columbia, discovered that DNA samples collected between 1982 and 1985 to study the high incidence of rheumatic disease in the community had been later used in other research projects, including an anthropological study that was not part of the original consent (R. H. Ward *et al. Proc. Natl Acad. Sci. USA* 88, 8720–8724; 1991).

Global genetics projects such as the Human Genome Diversity Project and the Geographic Project, which both explore human origins and migrations, have also met with opposition from aboriginal groups, partly because there were no obvious benefits to the community.

Hannah Hoag

IN KANTNER/COMBES

Canadian government pushed to protect land

Scientists from around the world have urged the Canadian government to take action to protect its northern landscapes. They claim that development is threatening one of the last great tracts of woods and wetlands on Earth.

In a 14 May letter delivered to Bob Mills, chair of the environment committee in Canada's House of Commons, 1,521 scientists from 51 countries asked the Canadian government to support the principles that were laid out in the 2003 Boreal Forest Conservation Framework.

That agreement between industry,

groups said that at least half of the 6 million square kilometres of boreal region should be off-limits to development, and the rest should be managed sustainably. The boreal region contains forest, wetland and

"Provincial governments are left free to support unlimited development."

other landscapes, and covers much of northern Canada.

The campaigners say that the region is crucial to ecosystems worldwide. It serves as a breeding

and is an important source of fresh water and the largest terrestrial carbon sink on Earth. So far, it has sequestered more than 180 billion tonnes of carbon.

One of the letter's signatories is Ken Caldeira, a climate modeller at the Carnegie Institution based at Stanford, California, who last month published a study suggesting that the total destruction of Canada's boreal forests would actually ease global warming (see *Nature*, doi:10.1038/news070409-2; 2007). Some say that press coverage of the study raised public doubts about the

"It is certainly something we are struggling with," says Jeff Wells, science adviser for the International Boreal Conservation campaign in Seattle, Washington.

Canadian prime minister Stephen Harper has said that he will designate almost 100,000 square kilometres of land in the Northwest Territories as protected, but those deals have yet to be finalized. That leaves provincial governments free to support unlimited development, says David Schindler, a boreal ecologist at the University of Alberta in Edmonton.



TRI-COUNCIL POLICY STATEMENT

Ethical Conduct for Research Involving Humans

2010

Canadian Institutes of Health Research
Natural Sciences and Engineering Research Council of Canada
Social Sciences and Humanities Research Council of Canada

Please cite this document as follows:

Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of Canada, *Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans*, December 2010.

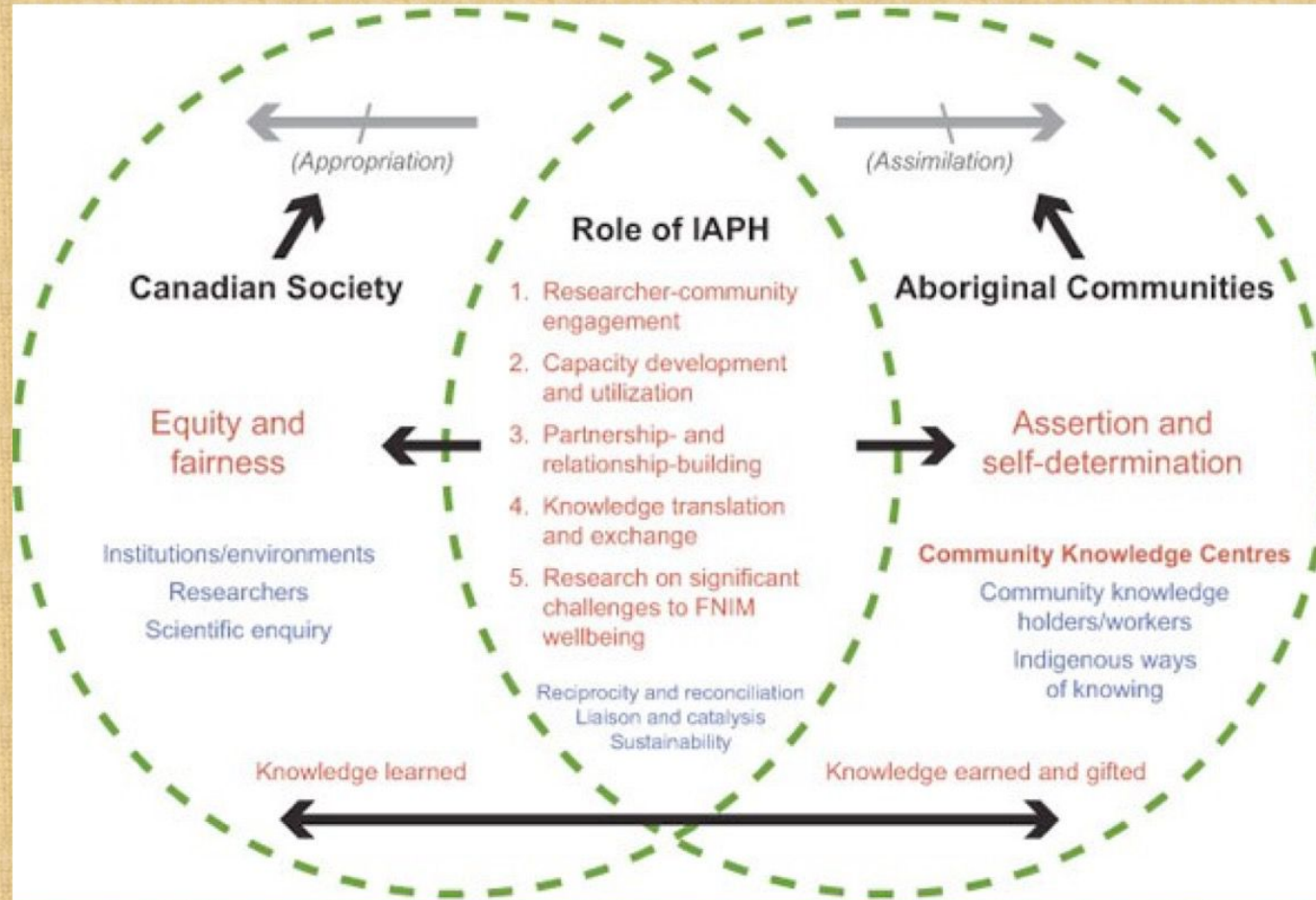
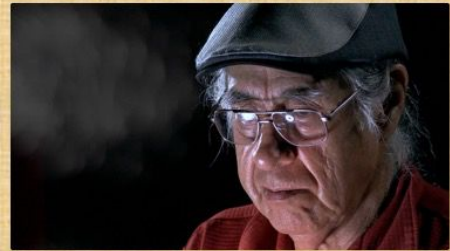
Note: For the most recent information on amendments, please consult the official online version of the TCPS at www.practh.ca/gccr.

Permission is granted to photocopy this material.

© Her Majesty the Queen in Right of Canada (2010)
Catalogue No. MR21-10/2010E-PDF
ISBN 978-1-100-17257-01



Two-eyed seeing – A model for co-advancement (Elder Albert Marshall)



Cardiovascular Care and Research

- **Quantitative and Qualitative**
 - Clinical guideline concordance
 - Administrative data linkage
 - **Clinician-patient engagement and decision making**
 - Severity of disease
 - Patient preference
 - Patient frailty and cognitive ability
 - Pharmacological contraindication
- **Qualitative**
 - Cultural context possible
 - Underlying interactions
 - Explanation of disparities as experienced by patients
Multi-dimensional including the 'lived experience'

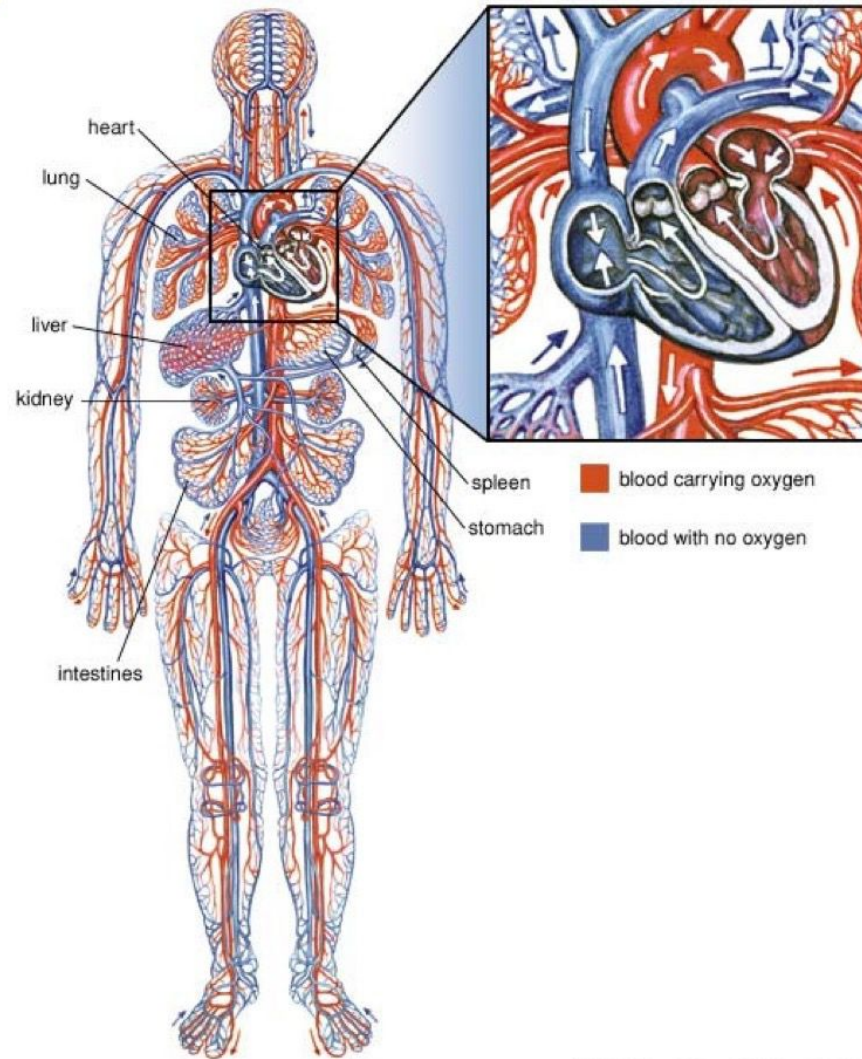
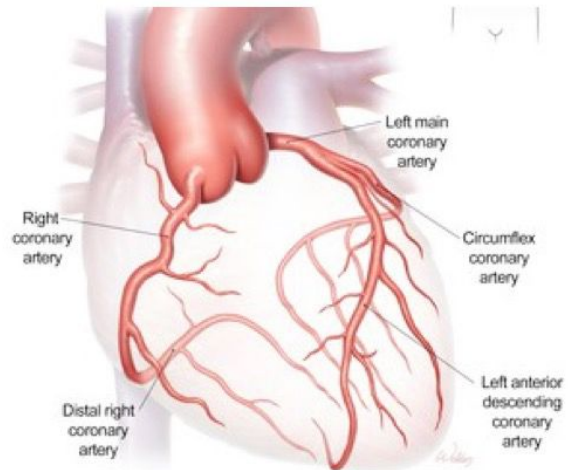


Cardiovascular Study Design Issues

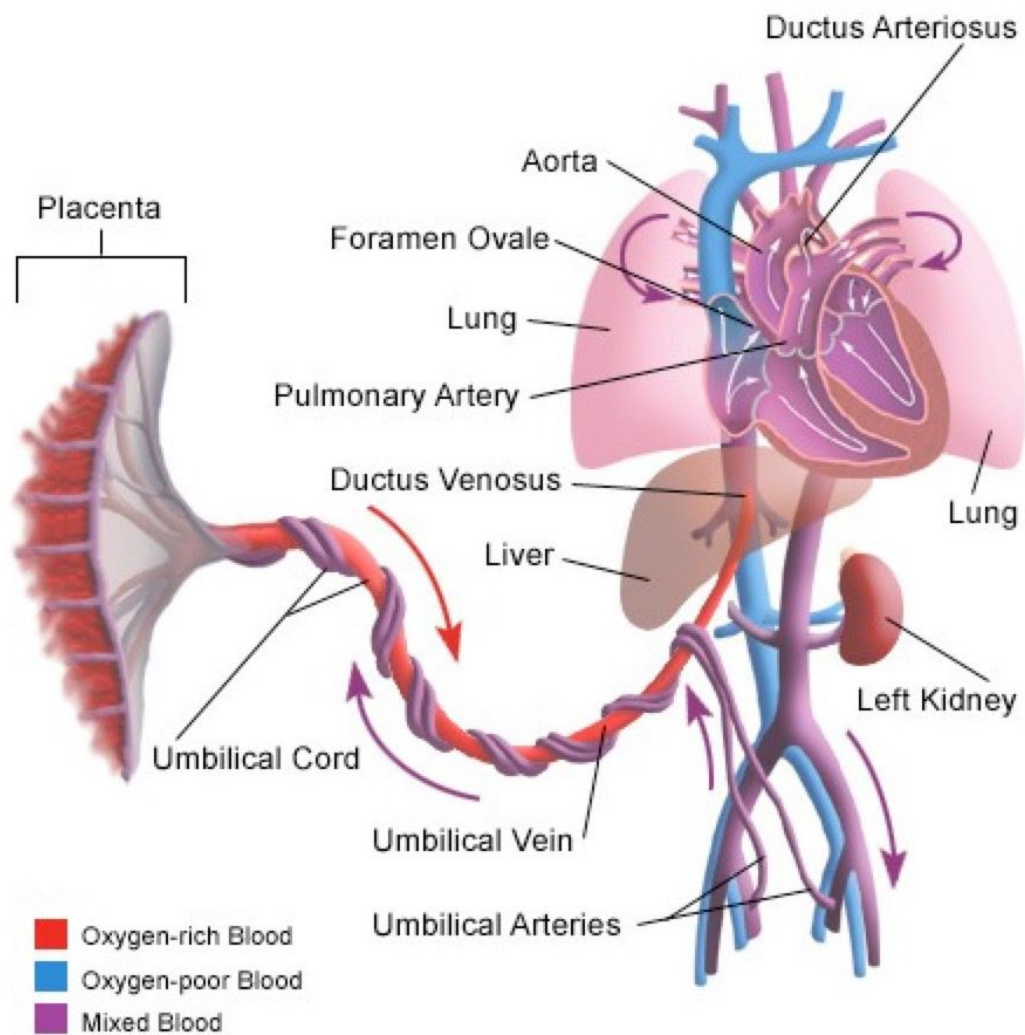
- Methodological studies
- Observational studies
 - Comparative observational studies
- Interventional studies



Cardiac and Vascular System



Fetal Circulation



'I'm too young to die': the disease of disadvantage forcing Indigenous children to have open-heart surgery

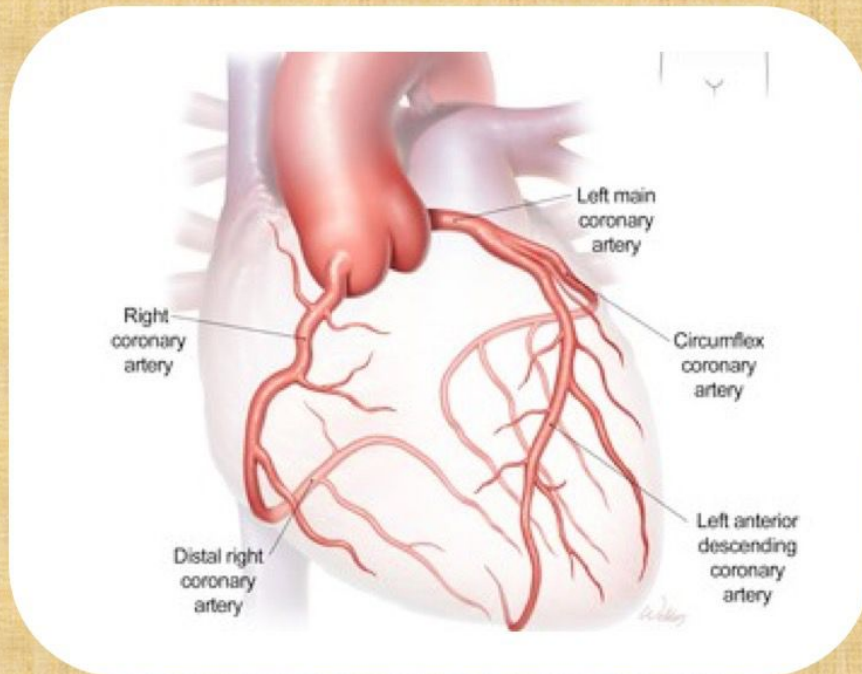
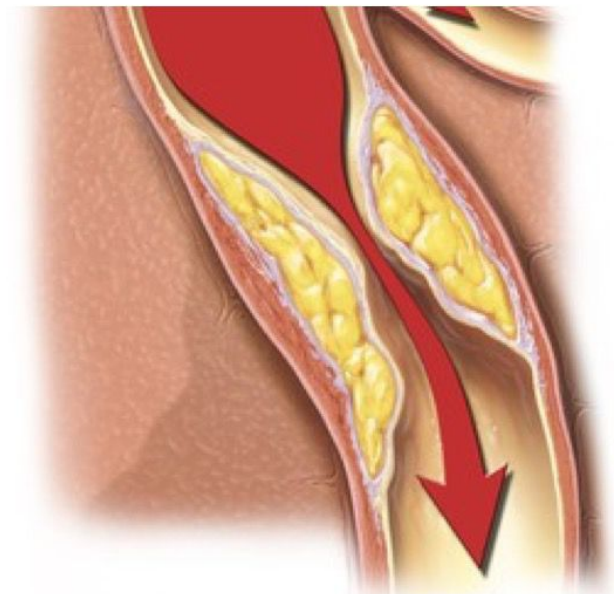
An entirely preventable condition called rheumatic heart disease is leaving Indigenous children with severe and irreversible heart damage

● [Podcast: Melissa Davey discusses the health emergency in the Tiwi Islands](#)



📷 Trenton Cunningham, now 10, who had open heart surgery when he was just seven years old to treat rheumatic heart disease, has a heart scan. Photograph: Mike Hill and Sue Collins





Normal ST segment

ST Depression

