



Canadian Nurses for
Health and the Environment



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Empowering Canadian Nursing's Voice in Environmental Health

2016 CNA BIENNIAL CONVENTION

Table of Contents

Topic	Section Name	Duration
1.	The interconnectedness of environmental and human health	8 mins
2.	Environmental health as a foundation for primary health care	7 mins
3.	CNHE environmental competencies and curriculum	10 mins
4.	Q & A	5 mins



PART 1:

The interconnectedness of environmental and human health



Health Interconnection

The natural environment is considered to be an important and interconnected **determinant of health**.

Currently, many ecological issues demand societal attention, including climate change, food safety, medical waste, and exposure to toxic contaminants and pollutants. Critical Issues that influence the health of our natural environment impact all of the determinants of health in many ways.



The Canadian Nurses for Health and the Environment - Infirmieres et Infirmiers pour la Sante et l'Environnement (CNHE/IISE) represents Registered Nurses dedicated to the improvement of environmental health across all domains of nursing practice, policy, research and education.

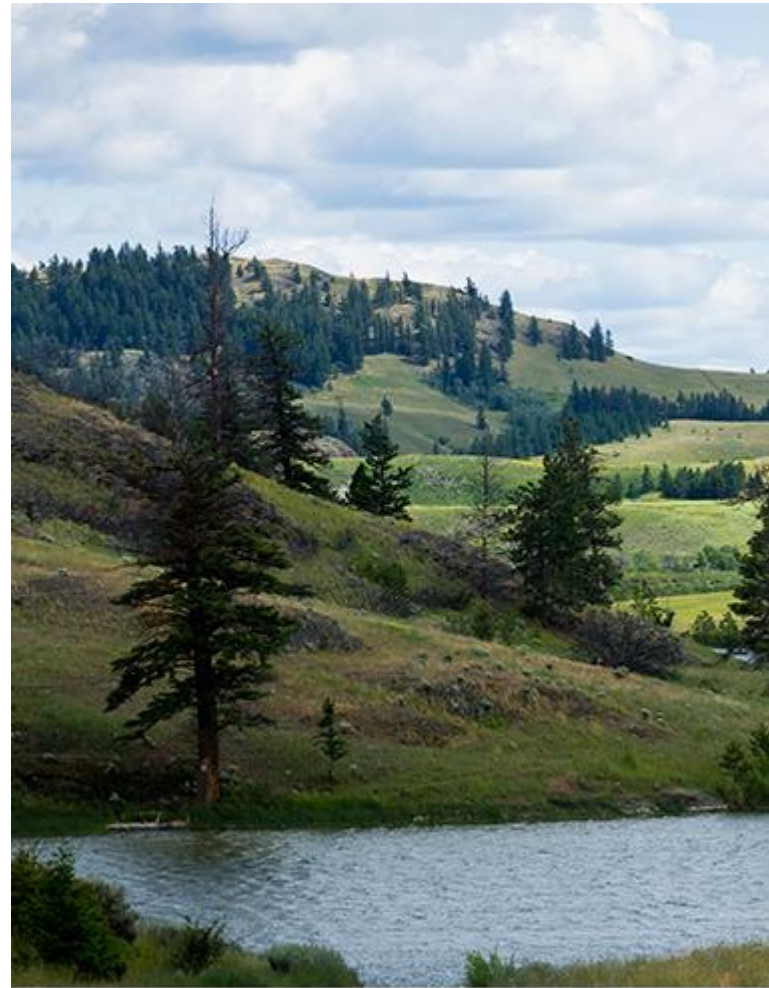


Ecological Determinants

- Oxygen
- Water
- Food
- Ozone layer that protects Earth's surface from high levels of UV radiation;
- Nitrogen and phosphorus cycles that circulate nutrients needed for plants and thus for all our food;
- Systems to detoxify wastes through natural processes; and
- Abundant fertile soil, fresh water and marine aquatic systems to grow food and other plants.
- Abundant energy
- Reasonably stable global climate with temperatures conducive to human and other life forms.

SOURCE: Canadian Public Health Association (2015).
[Global Change and Public Health: Addressing the Ecological Determinants of Health. P.3.](#)

Expanding the DoH



Global Urbanization

For the first time in human history we now live in an urban world.

Globally, the 50% mark was passed early in the 21st century.

by 2050 it is expected that the urban population will be 67% of the total population,

Reaching 86% in more developed regions and 64% in less developed regions.

SOURCE: Canadian Public Health Association (2015). [Global Change and Public Health: Addressing the Ecological Determinants of Health –The Report in Brief.](#) P.40.

Rural Areas Endangered



Some Global Impacts

Of Environmental Changes....

“Table 1 shows the estimated numbers of people, globally, at risk from selected major examples of the adverse health impacts of global environmental changes.

From this it is apparent that there are a many impacts stemming from a variety of causes, and that the numbers of people at risk is very large, ranging from hundreds of millions into the billions of people.”

SOURCE: Canadian Public Health Association (2015). [Global Change and Public Health: Addressing the Ecological Determinants of Health –The Report in Brief](#). P.50.

Table 1: The global estimated numbers of people at risk from selected major examples of the adverse health impacts of global environmental changes

Source: Global Environmental Change & Human Health, 2007 ¹¹⁸

Category of health risk	Size/proportion of populations at risk	Types of GECs involved
Malaria	40% of world population	Climate change and land use change
Dengue fever	3 billion	Climate change, urbanisation, world trade
Diarrhoeal diseases (associated with water quality/quantity)	1 billion people	Climate change, land cover change, pollution, irrigation and freshwater shortage, urbanisation
Malnutrition (especially food shortages)	840 million	Climate change, land use, freshwater shortage, biodiversity change
Health consequences of desertification: malnutrition; respiratory diseases; impacts of population displacement	250 million people	Climate change, land use, land cover change
Skin cancer, eye disorders, immune system depression	Mid-high latitude populations (1-2 billion)	Stratospheric ozone depletion



Human Impact on the Environment

“In recent decades, the impact of human activity on the natural environment and its ecosystems has been so profound that it has given rise to the term Anthropocene, popularized by Nobel prize-winning chemist Paul Crutzen, delimiting a shift into a new geological epoch, in which human activity has become the dominant force for environmental change.

Anthropogenic pressures, demographic change, and resulting changes in production and consumption patterns are also among the factors that contribute to biodiversity loss, ill-health and disease emergence. These pressures have shown a great acceleration, especially in the past 50 years.”

SOURCE: WHO (2015) [Connecting Global Priorities: Biodiversity and Human Health, Summary of the State of Knowledge Review](#), P. 37.



Biodiversity, Species Extinction



Biodiversity contributes to important ecological determinants of health, including water and air quality, food security, microbial diversity in the human microbiome, infectious disease control, pharmaceuticals and traditional medicines and mental, physical and cultural wellbeing.

SOURCE: WHO (2015) [Connecting Global Priorities: Biodiversity and Human Health, Summary of the State of Knowledge Review](#), .

Air and Water Quality are in Jeopardy



The role of nurses in environmental health:

- assessing and communicating risks of environmental hazards to individuals, families and communities;
- advocating for policies that protect health by preventing exposure to those hazards and promoting sustainability;
- producing nursing science, including interdisciplinary research, related to environmental health issues.

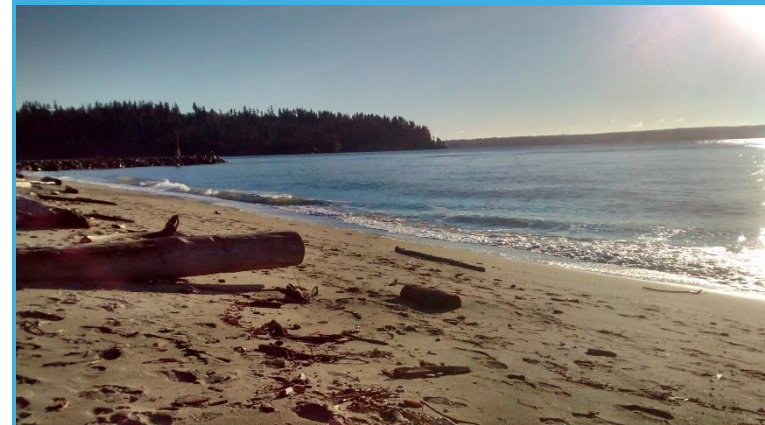
SOURCE: CNA, 2009 [Nurses and Environmental Health Position Statement](#), p.1.



Why is Environmental Health important for nurses?

The environment is an important determinant of health and has a profound impact on why some people are healthy and others are not.

The CNA believes that the public expects nurses to be aware of and know how to promote Canadians' health in the context of environmental health issues.



Canadian Nurses for Health and
the Environment Education Event

<http://cnhe-iise.ca/>

PART 2:
Environmental health
as a foundation for
primary health care



How does PHC fit?

“Primary health care includes all services that play a part in health, such as income, housing, education, and environment.

Primary care is the element within primary health care that focuses on health care services, including health promotion, illness and injury prevention, and the diagnosis and treatment of illness and injury.”

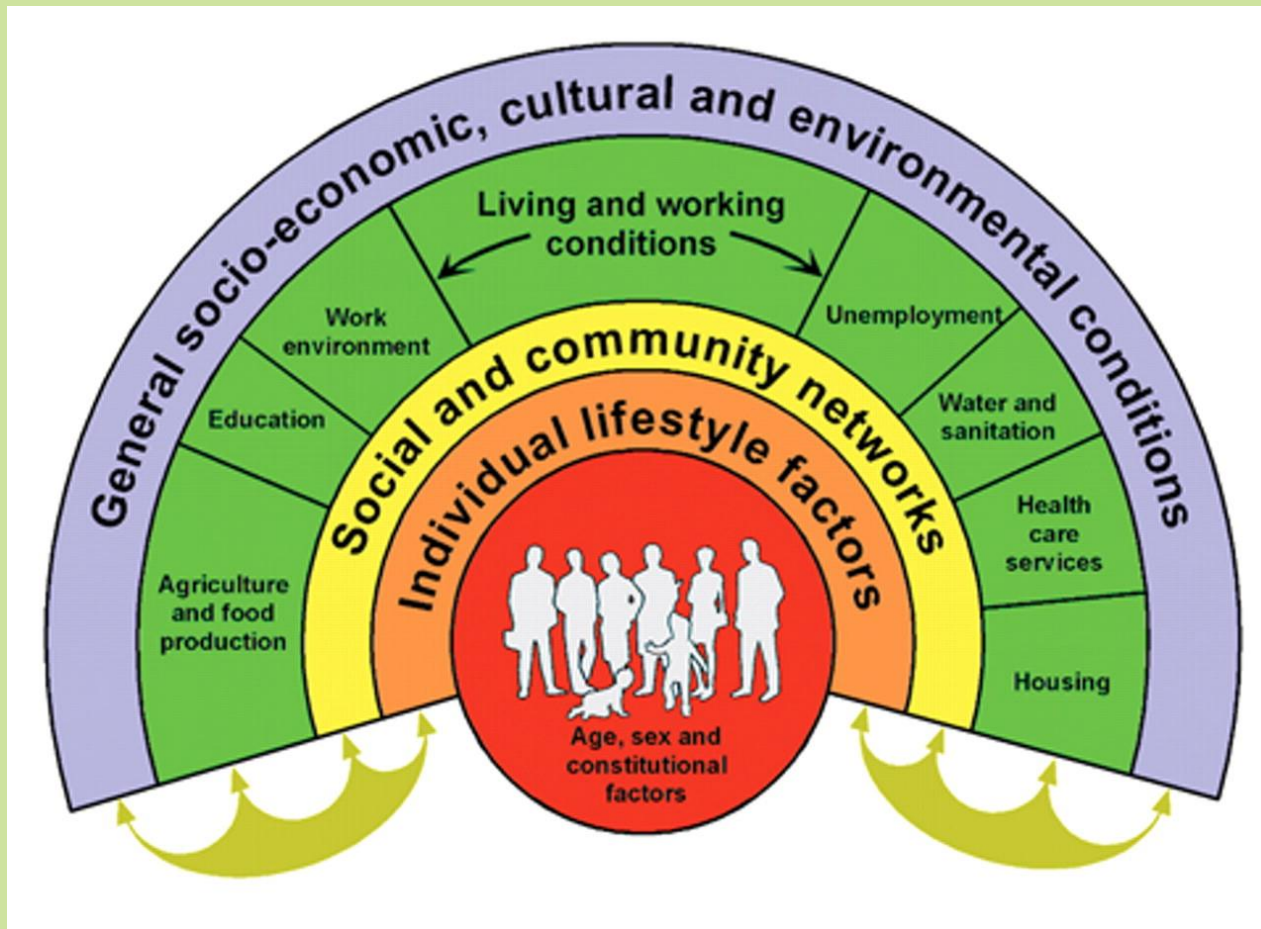
SOURCE: Govt of Canada. (2012). [About Primary Health Care](#), p. 1.

Primary health care should be:



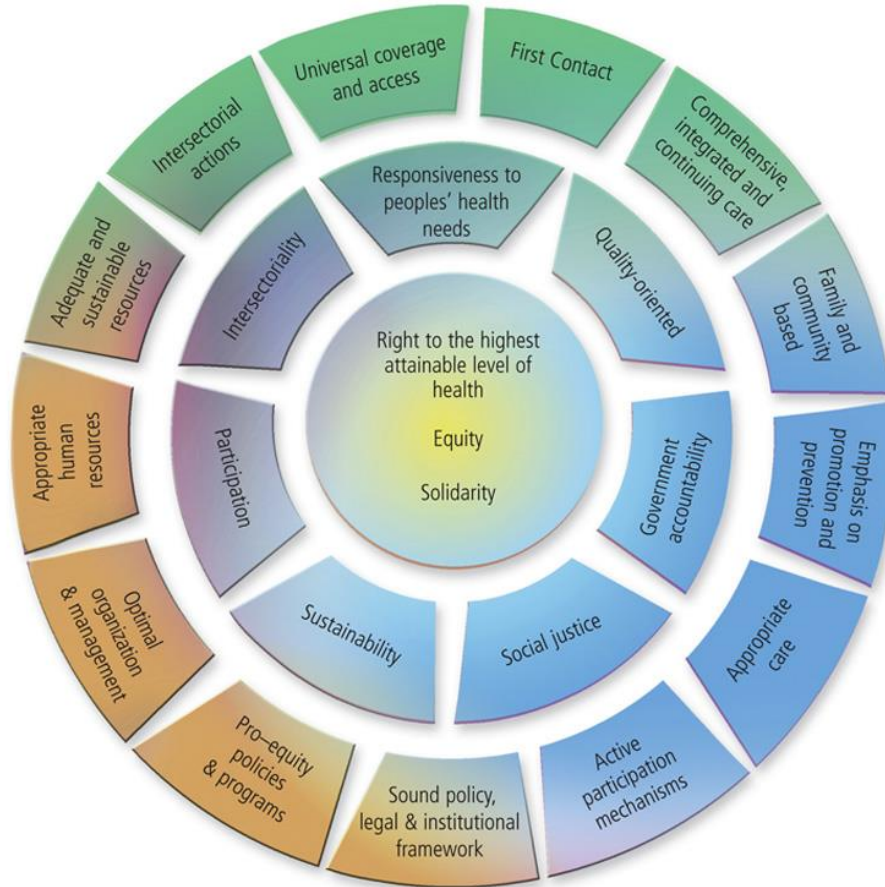
- patient and family centred,
- accessible,
- effective,
- efficient,
- safe,
- Coordinated,
- and population-health oriented.





“The PHC approach means being attentive to and addressing the many factors in the social, economic and physical environments that affect health – from diet, income and schooling, to relationships, housing, workplaces, culture and environmental quality.” (CNA, 2005, [Primary Health Care: A Summary of the Issues](#), p. 1).

Figure 1: Core Values, Principles and Elements in a PHC-Based Health System



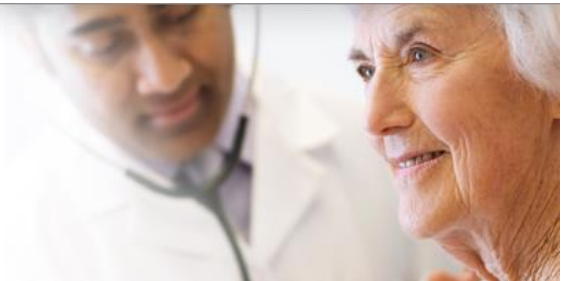
SOURCE: WHO (2009). [Progress in Primary Health care in the Americas](#).



Primary Health Care in Canada

A Chartbook of Selected Indicator Results, 2016

[Read more](#)



Health Sector Responsibility

“We call on individuals working in the health sector to both model and advocate for environmentally responsible approaches to delivering health care without compromising patient safety and care.”

“We call on all health care organizations to pledge to minimize the negative impact of their activity on the environment and to seek solutions to existing barriers.”

SOURCE: CNA, 2009 [Toward an Environmentally Responsible Canadian Health Sector](#), p.2.

We Need to Be Involved!



Nurses Can Have An Impact!

“Nurses are uniquely qualified to bring information to the public on protection from environmental exposures. They have the assessment skills and scientific background to identify potential hazards, and the communication skills to explain the exposure, and how to reduce its risk, in an understandable way.”

Uniquely Qualified!



SOURCE: CNA, 2009 [Nurses and Environmental Health Position Statement](#), p.3.



PART 3:
CNHE environmental
competencies and
curriculum



Nursing Education

Nursing education, including basic and continuing education:

- enables nurses to consider environmental factors that may be contributing to poor health;
- understand environmental hazards and their impact on health;
- understand the role of individuals and communities in providing good stewardship of the environment;
- make recommendations about how to reduce or prevent exposures to environmental hazards;
- and conduct research on environmental health issues.

SOURCE: CNA (2009). [Nurses and Environmental Health Position Statement](#), p.3.

Preparing to Lead....



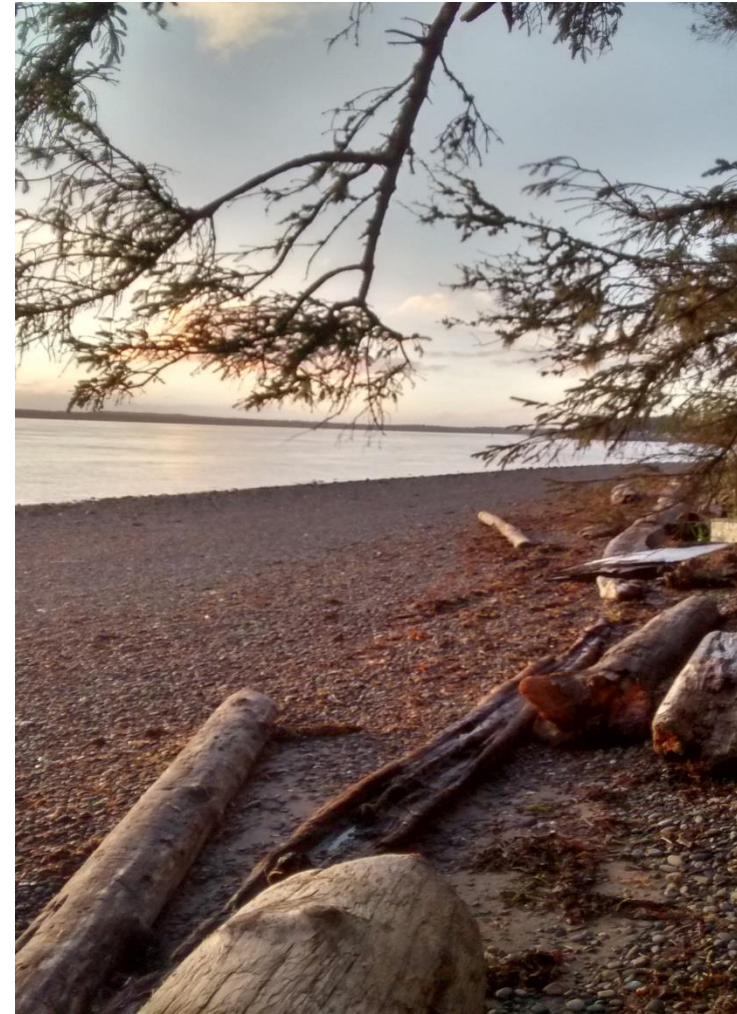
Environmental Scan

The Canadian Nurses for Health and the Environment is designing environmental competencies and curriculum to share with nurses and educators.

We are introducing this work to encourage engagement and explore ways that nursing can collaborate with others to support environmental health.

A CNHE initial environmental scan of Schools of Nursing is under development to gather information about existing resources and learning activities.

[Environmental Scan Link](#)

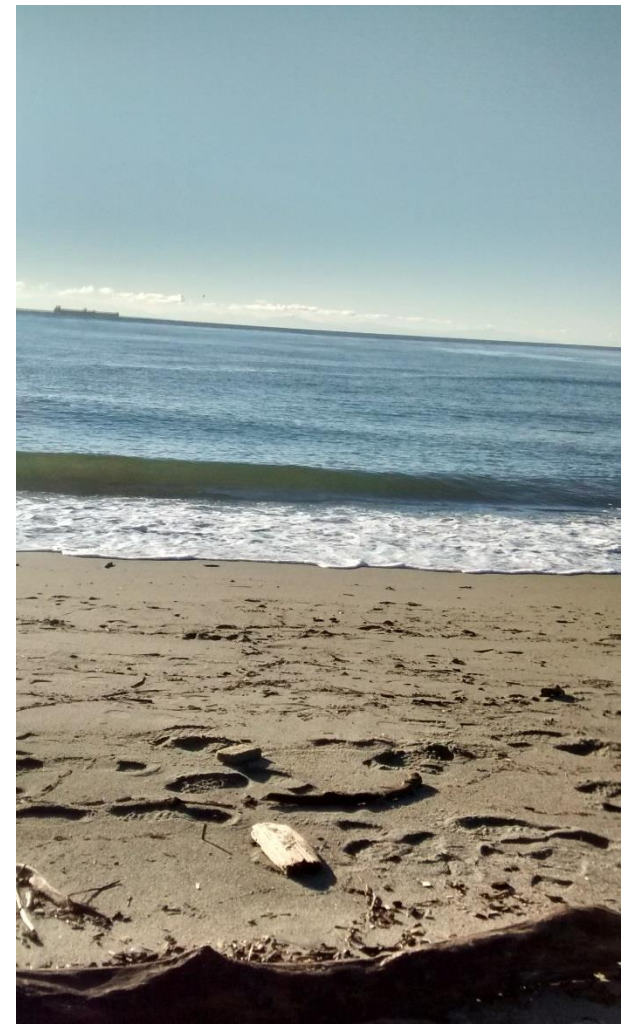


Initial Literature Review and Resource Scan

A Review of the Literature and Resource Scan is also being done to provide evidence of current tools available and enable a resource collection for nurses.



[Resource Collection Link](#)

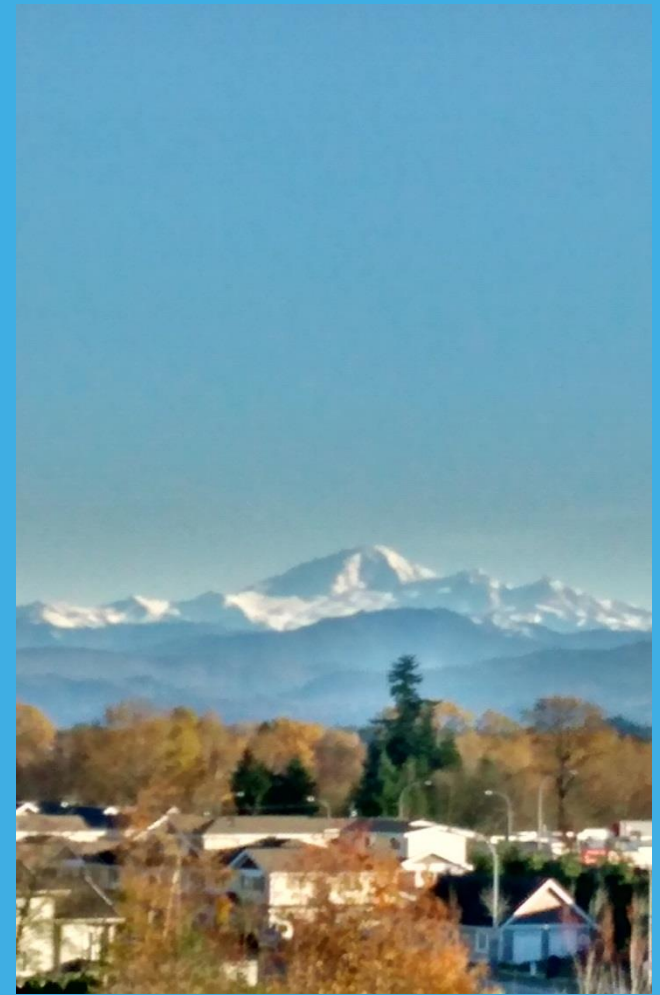


Initial Curriculum Topics

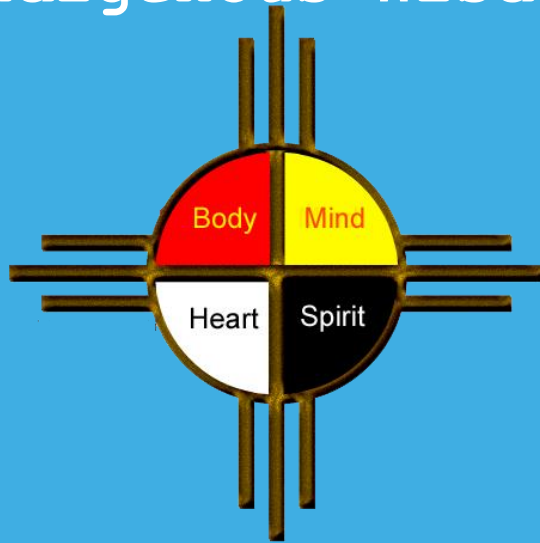
The CNHE is currently developing learning activities related to:

- ❖ Air Quality
- ❖ Water Quality
- ❖ Food Quality
- ❖ Climate Change
- ❖ Environmental Contaminants, Pollution, Ecotoxicity
- ❖ Resource Depletion
- ❖ Biodiversity and Species Extinction
- ❖ Radiation Exposure
- ❖ Healthcare Waste
- ❖ Green Healthcare Systems

[Curriculum Link](#)

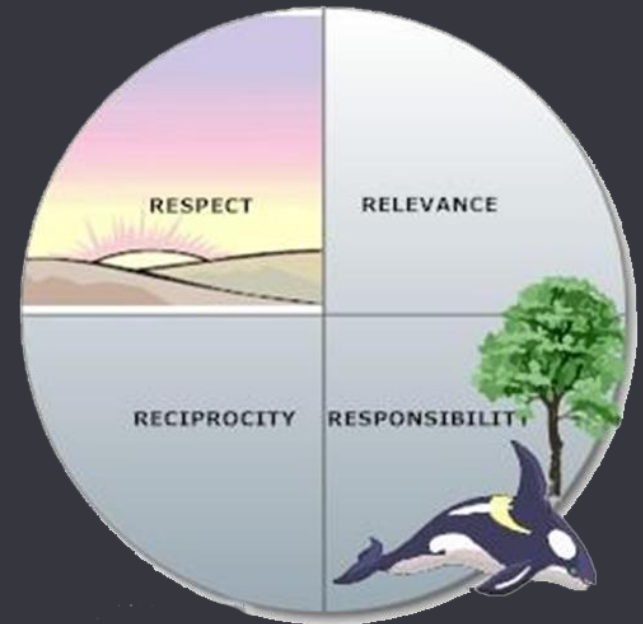


Indigenous Wisdom



The most logical source of sustainability wisdom that promotes ecological wholeness are traditional Indigenous teachings and philosophies. Nursing educational programs are beginning to incorporate Indigenous wisdom into curriculum to help evolve ecoliteracy and holistic care. These tenets are also being included in this environmental curriculum.

**Environmental Sustainability
is a Foundation**



Share Your Views

- ❖ The CNHE encourages all nurses and nurse educators to share their views on the focus and extent of this environmental curriculum.
- ❖ Please complete our survey to share your views on the scope, topics, resources, and mode of delivery.



[Survey Link](#)



Join the CNHE and the Working Group

We invite Nurse Educators to join the CNHE and become formal members of the Working Group.

We also encourage all nurses to add their voice to the mandate and focus of the CNHE and become members. As well, undergraduate nursing students can join for free!

Join us today at: <http://cnhe-iise.ca/membership.html>

CNHE/IISE members are part of a committed group, dedicated to taking a stand on environmental health issues that threaten the health and well-being of Canadians and the planet as a whole.



Contact the Authors

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Fiona Hanley, is a nursing teacher at Dawson College, Montreal. She is a Board member of the Canadian Nurses for Health and the Environment, a former CHNE President, and past member of the CNA Environmental Reference Group. She is dedicated to working towards the integration of environmental health issues into all aspects of nursing practice.

<http://cnhe-iise.ca/>



PART 4:
Questions?

**Join the CNHE and get
involved!!
<http://cnhe-iise.ca/>**

