

Researching Gender Inequalities in Health and Environment

**Transdisciplinary methods to better
understand complex relations between
gender, environment, health and well-being**

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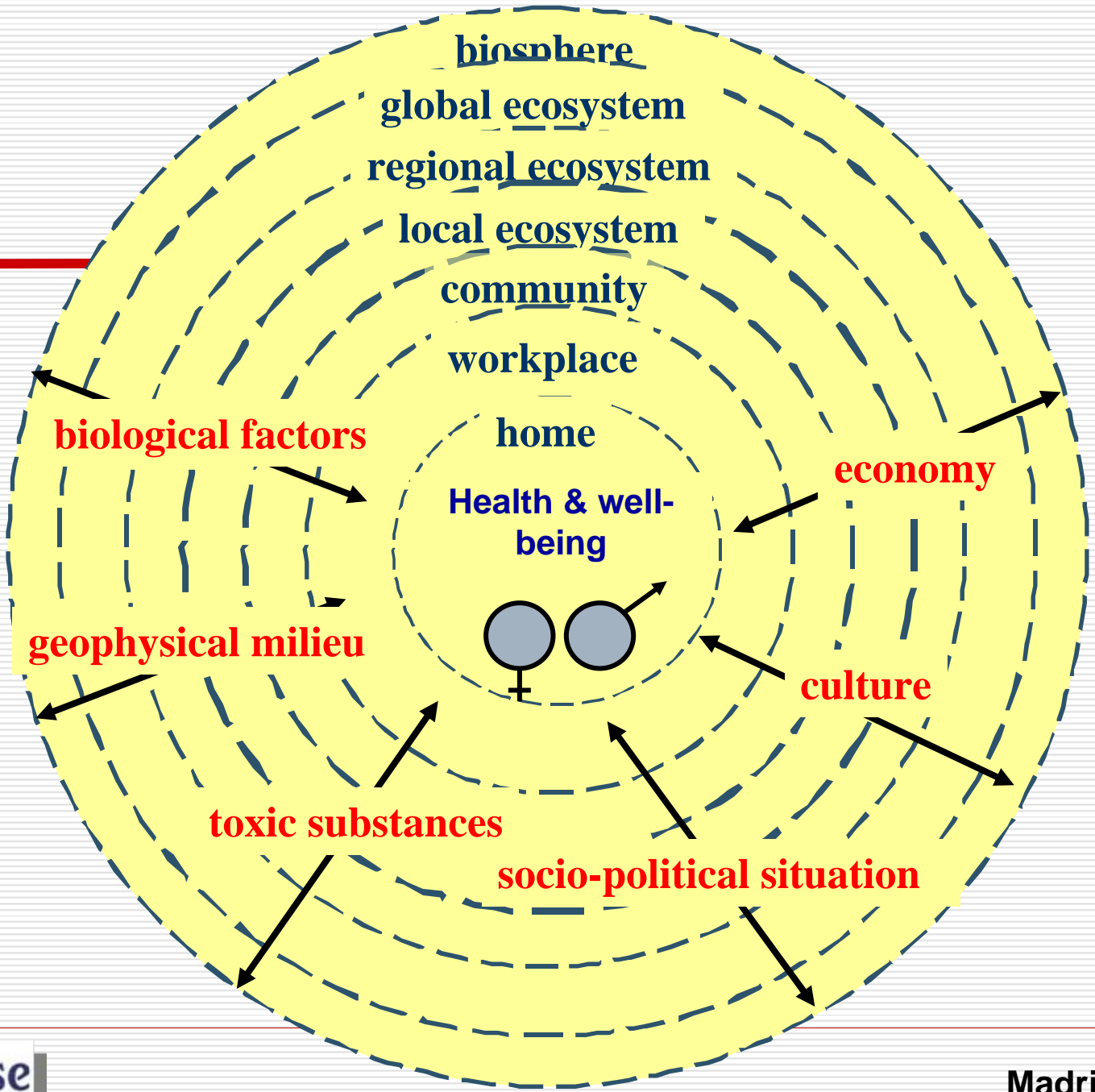
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**Centre for Interdisciplinary Research in Biology, Health,
Society and Environment (CINBIOSE)**

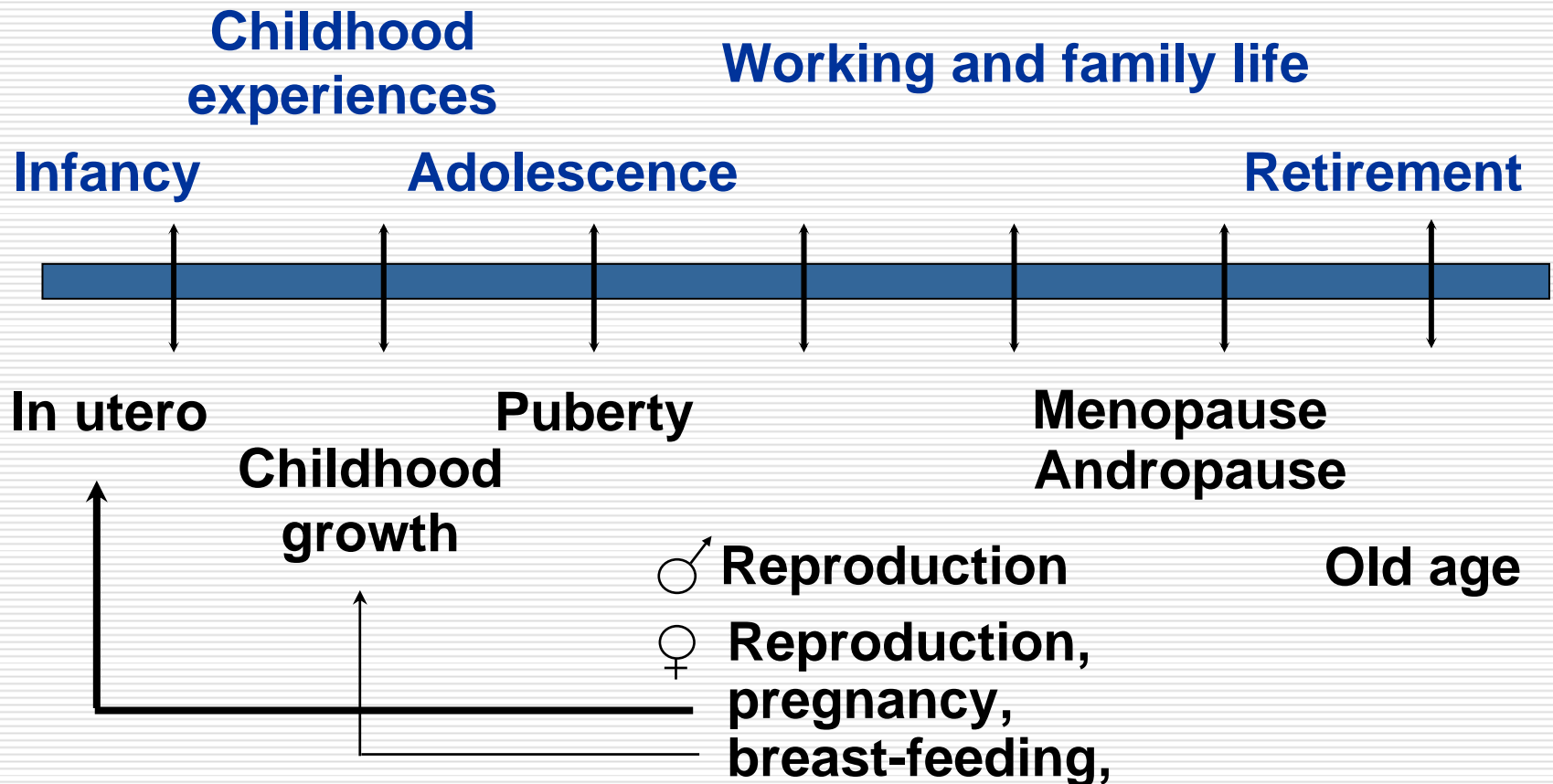
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Rio Declaration on Environment and Development (1992)

“Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature”



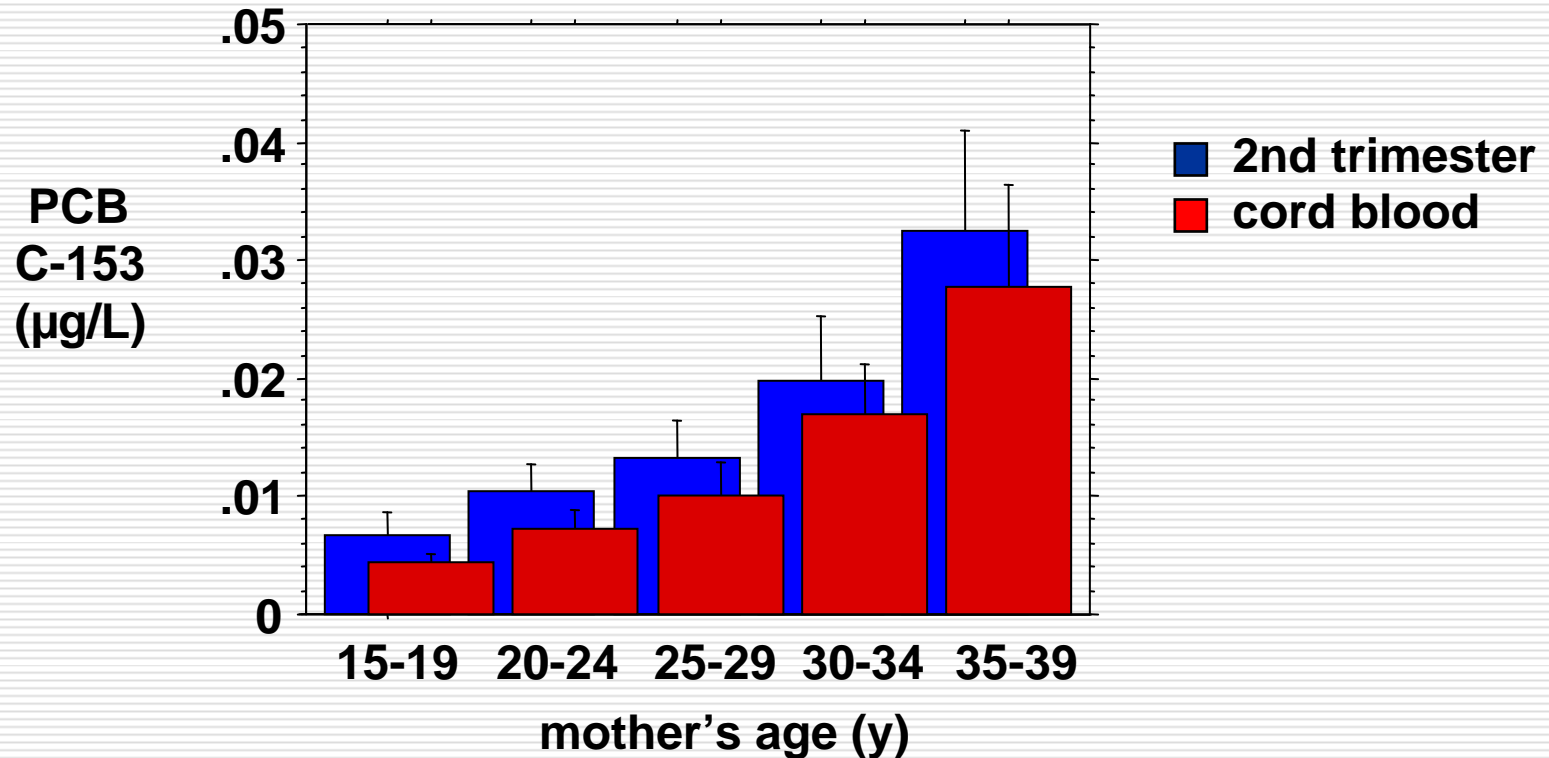
Sex and gender across the life span



In utero and childhood exposure

- *In utero* and/or childhood exposure to a large number of toxic substances (Pb, Hg, As, Mn, PCBs, pesticides) can affect children's behaviour and/or intellectual capacities
- How do these effects on growing children add further burden to parenting and parents' health?
- There is increasing information on the effects of contaminants on children's growth and puberty.
- What are the biological and social consequences of these changes on girls' and boys' behaviour?

Changing demographics and *in utero* exposure: results from a study of pregnant women in Québec



- Women are having their first child later in life and breastfeeding for longer periods.

A dilemma for pregnant and breast-feeding women

- ❑ Healthful foods, such as fish, can contain high levels of contaminants.
- ❑ Breast-feeding is known to be extremely beneficial, but breast milk contains persistent pollutants.
- ❑ Several studies demonstrate the positive effects of fish consumption and breast-feeding on neurodevelopment and the negative effects of contaminants (particularly *in utero* exposures).
- ❑ Breast-feeding duration is an important predictor of persistent organic pollutant levels in children up to 25y
- ❑ **How do we study these complex situations with a view to maximizing benefits and minimizing toxic risks?**

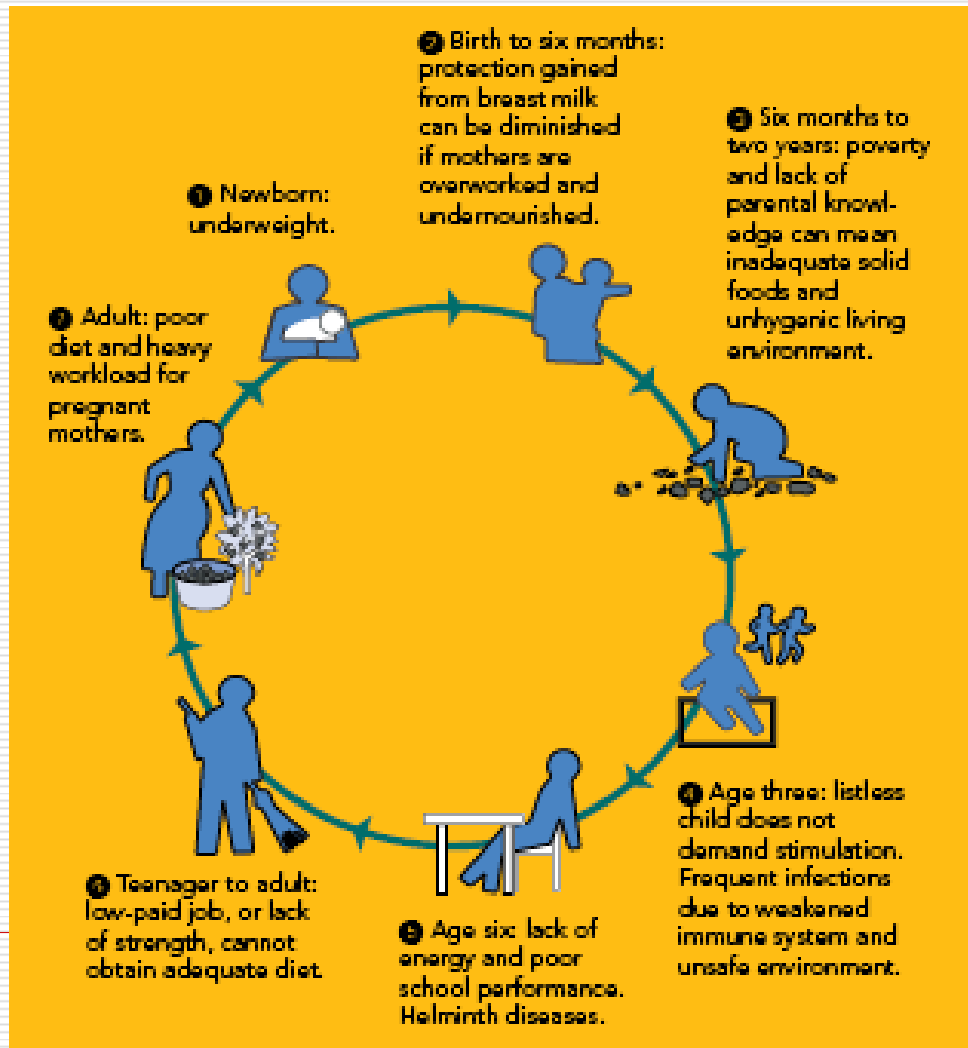
Adulthood

- Since studies consistently show higher exposures in poor neighbourhoods, how does exposure interact with the determinants of poverty, particularly for poor single parents?
- What are the pathways of exposure and how can they be reduced?
- Women's paid and unpaid work is often "invisible", while men are often required to take "risks" at work
- How do we make it visible and better understand the effects of the work and home environment on health and the conciliation of work and home?

Older age

- Recent studies indicate positive associations between serum organochlorines (PCBs, DDE) and diabetes.
- What are the consequences of these findings on women's health, aboriginal communities with high OCs, health promotion on lifestyle and reduction of sources of exposure?
- Information is accumulating on release of contaminant (Pb, others?) from bone at menopause..
- What are the health, and socio-economic consequences of increased contaminant release from bone storage on a declining nervous system?

The cycle of environmental disease



Using Indicators to Measure Progress on Children's Environmental Health (WHO, 2002)

Why do we not have more answers to questions on gender inequity in environment and health?

Social Sciences

- long-standing interest in questions concerning gender, stimulated by the feminist movement
- but, psycho-social determinants of health do not specifically include environment

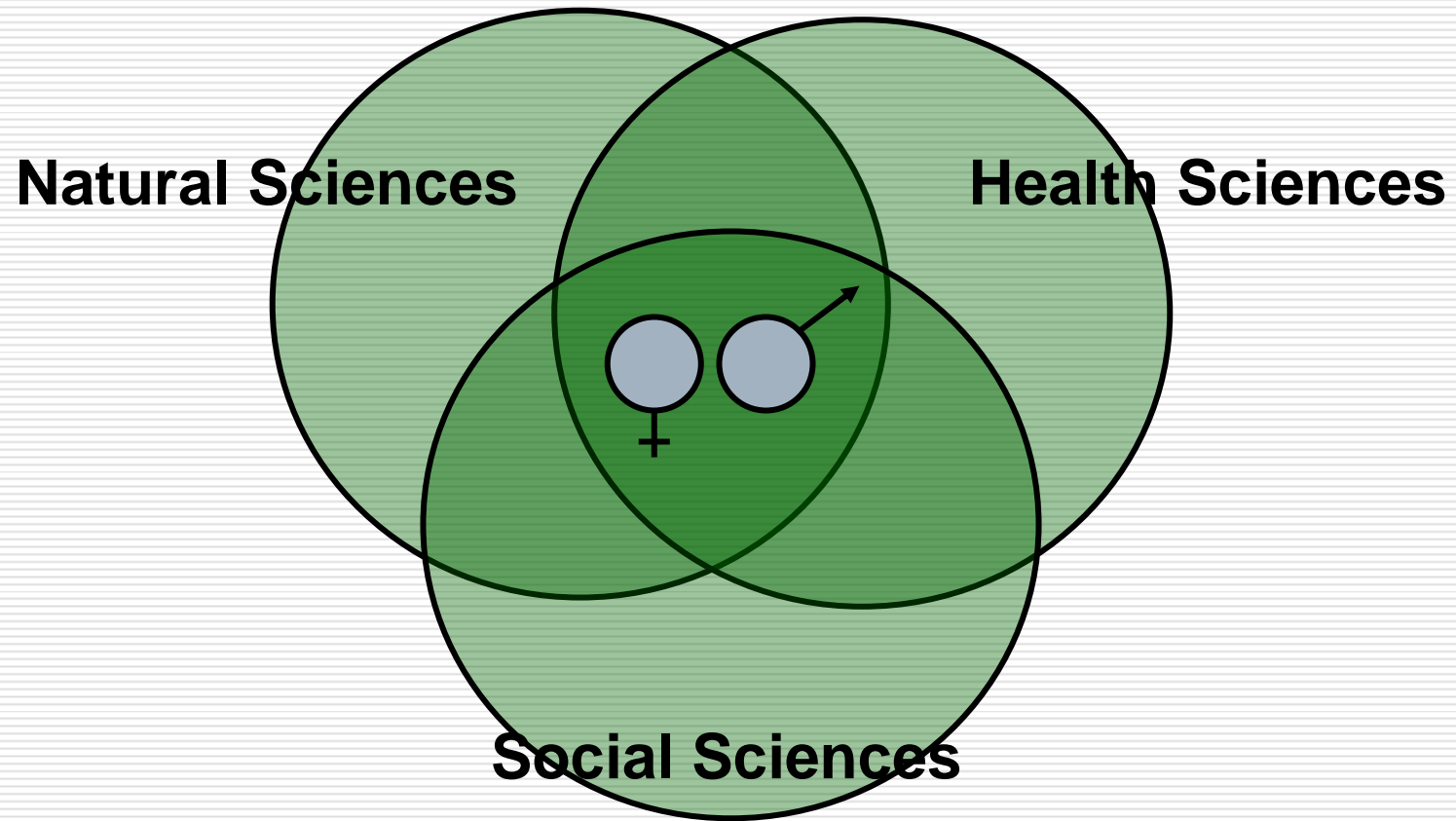
Natural Sciences

- little interest in gender/sex issues, including environmental sciences

Health Sciences

- mostly focused on reproduction and fetal outcomes
- major studies on exposure and effects have excluded women (ex. workplaces; pesticides and cancer)
- recent interest in gender/sex differences in exposure and health effects in human and animal studies (Vahter et al, 2007)

New alliances for health



A CIHR Team on Gender, Environment and Health

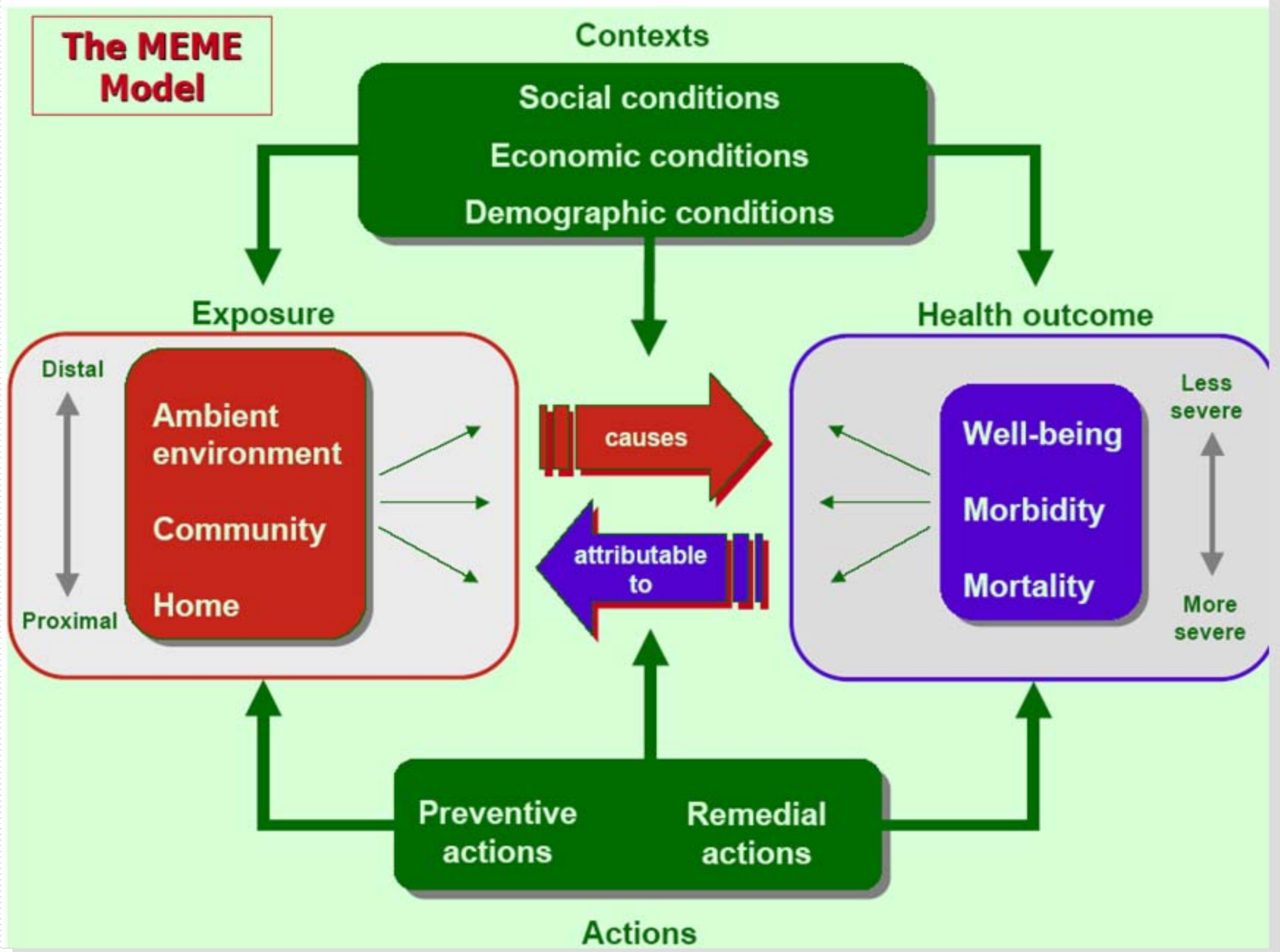
- A pan-Canadian interdisciplinary team with recognised expertise in occupational and environmental health

CIHR Team on Gender, Environment and Health: objectives

- ❑ **Develop innovative interdisciplinary quantitative and qualitative methods for integrating considerations in research in environment and health throughout the lifespan**
- ❑ **Gain new knowledge that demonstrates the scientific importance of integrating gender/sex considerations into environment and health research and intervention throughout the lifespan.**
- ❑ **Identify new research areas on interactions between s/g, environment and health that have not been addressed yet but are crucial for improvements in health and the health care system.**

CIHR Team on Gender, Environment and Health: who and how

- 22 researchers from across Canada + several NGO partners working on Women and Health issues
- Integrating gender/sex considerations into on-going research projects - facilitated through student scholarships
- Working groups to reflect on specific themes to advance our thinking on gender, environment and health
- Future: Multi-centre research program
- Web site launch Nov 19, 2009:
<http://www.geh.ges.uqam.ca>



Multiple exposures multiple effects model for children's environmental health (WHO, 2003)

Ecosystem approach to human health

- ❑ Recognises the dynamic interaction between socio-political, cultural and economic factors and the different components of the biogeochemical environment with human health and well-being.
- ❑ Considers **gender-based analyses** that and **participatory methods** can lead to better science and improve human health and the environment.
- ❑ Adopts a finality of proposing viable short, medium and long term solutions.
- ❑ Requires new methodologies to carry out interdisciplinary studies that will provide integrated action - oriented knowledge.