

Community Capacity Building in Conducting Health Impact Assessments

Roy E. Kwiatkowski,
Director, Environmental Health Research Division (EHRD),
First Nations and Inuit Health Branch, Health Canada, Canada
roy_kwiatkowski@hc-sc.gc.ca
1919A, Jeanne Mace Building
Tunney's Pasture, Ottawa, Ontario, Canada
K1A 0K9

Abstract:

Indigenous communities that may be directly affected by a development project, program or policy decision should be involved from the outset in the Health Impact Assessment (HIA) conducted for that project, program or policy. Their close connection to, and additional reliance on, the natural environment can unfortunately increase their risk to negative health outcomes. This paper will highlight activities within the Environmental Health Research Division, First Nations and Inuit Health Branch of Health Canada to inform and involve local Indigenous communities in Health Impact Assessment activities and decision-making.

Introduction:

Since 1987, with the release of the report by the World Commission on Environment and Development entitled: *Our Common Future*, the concept of sustainable development has become central to the continued long term economic prosperity throughout the world. However, the growth of a global industrial, chemical, technological and informational society has had and continues to have profound effects on human health and on the environment. The linkages between human health and ecosystems' health are numerous and vital. The most significant trend observed over the last 100 years has been typified by a demographic explosion and the marked deterioration of many ecosystems around the world. The Earth's population has undergone a five-fold increase in less than a century and the demand for fresh water, arable land, and energy, mineral and other resources has often outstripped the capacity of ecosystems to regenerate them. Human beings are taking up more and more space, harming other species and interfering with the ability of air, soil and water to renew themselves (Keating et al, 1997).

It is also important to note that many services which we derive from our ecosystems, such as water and air purification, waste recycling and food production are rarely recognized in our national accounts, whose best known statistic is the gross domestic product or GDP. In current economic thinking, the fact that a dollar value is not attached

to ecosystems sometimes means that decision-makers give these considerations little or not attention. This persists despite the fact that ecosystems provide services that are irreplaceable, such as ground water and the atmosphere itself (Goodland, 1995). With the world down turn in the economy, world poverty is expected to increase by 46 million people in 2009 (World Bank, 2009). With a rising demand for jobs, jobs, jobs; it can be anticipated that in the near term at least, the demand for unrestricted development will greatly increase in both developed and developing countries.

Environmental Impact Assessment (EIA) is a comprehensive planning process: to predict the effects of a proposed project, program or policy; to identify mitigative measures to minimize significant negative effects; to obtain public input; and, to provide a useful framework for follow-up and monitoring. In 1996 the International Study on the Effectiveness of Environmental Assessment (Sadler 1996) identified social and health impact assessment as areas that are not considered or are inadequately treated in project environmental impact assessment. There has been a tendency in health impact studies to set up curative services to deal with the health problems created by a project instead of setting in place appropriate preventive strategies as an integral part of the original development (Sloff, 1995). Steinemann (2000) estimated that 90-95% of all EIAs lacked appropriate health and safety assessment. Significant progress has been made in building HIA capacity. Many countries have incorporated the need to integrate HIA within and EIA; HIA training courses have been developed; HIA guidance material and handbooks exist; and financial institutions are requiring funding recipients to carry out both EIAs and HIAs. Yet, more needs to be done. The most common reasons provided for not including or having a poorly done human health impact assessment include: lack of expertise; scarce resources; lack of time; lack of available baseline data; or, the assumption that a good environmental impact assessment would also ensure the health and well-being of those impacted (Burdge 2002, Morrison-Saunders *et al* 2003, Birley 2007)

Human activities and all our social constructs are a subsystem of the natural environment and are intrinsically dependent on the health of ecosystems. Human health is therefore embedded in and intimately dependent on the natural environment as well. However, environmental quality is only one variable affecting human health. A comprehensive definition of health, such as that provided by the World Health Organization (1967), "*a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity*", acknowledges the influence of the multitude of human social constructs and their complex inter-relationships and that the influence of political, social, cultural, spiritual and economic elements are all crucial determinants of human health. The interplay amongst these and the feedbacks developed between them and the natural environment weaves a complex web of factors determining our quality of life, health and well-being. We need to manage human activities to recognize this complexity and evolve societies which can monitor, learn, respond and adapt rather than try to manage and control nature. A properly designed impact assessment that integrates health, well-being, social and environmental considerations generates a holistic assessment. It reduces duplication of data and information resources, avoids potential inconsistencies, and enhances financial efficiency, strengths, complementarities and the

value of health, social and environmental sciences in proposed projects, program or policy decision-making (Rattle and Kwiatkowski, 2003)

Vulnerable communities that are most likely to be affected by ecological changes should be involved throughout the entire project, program or policy-focused assessment process, not as an after thought (WHO, 2005). A difficulty faced by Canada's Indigenous communities is the very size and complexity of the Health Impact and Environmental Impact Assessments (reports of hundreds to thousands of pages are the norm). Many Indigenous communities identify local environmental health concerns about a proposed development project in their area, but do not know where to obtain baseline information or knowledge regarding the environmental health outcomes associated with the development project. A major hurdle preventing this from happening is the fact that those impacted communities are largely unaware of what environmental health data already exists or how to access it; or how to integrate western based scientific data which exists within industrial, territorial, provincial or federal data bases with local Tradition Knowledge (gathered at the community level over hundreds or thousands of years and adapted to local culture and environment).

Though consultation is highly desirable, meaningful consultations within small isolated communities where unemployment is high; education levels low; and mistrust between community and government/industry is high, presents a significant challenge. Community consultations in HIAs/EIAs, before any irrevocable decisions are made, ensure that the views of the impacted community are known and considered when important decisions regarding the project, program or policy are taken. Within Thailand, the Thai National Health Act (BE 2550) of 2007 ensures the right of Thai people to demand a HIA be conducted and to participate in the HIA process. An important aspect to effective public participation in any process is the extent to which participants are able to exercise power in decision making (Whitmore and Kerans, 1988). Participation and power must be part of the same process. The fundamental point is that participation without redistribution of power is an empty and frustrating process for the powerless (Arntsein, 1971).

Indigenous Community Engagement into HIA/EIA

The World Health Organization's 1967 and 1984 definitions of health suggests a holistic interpretation of health linking the complex interrelationships between social, economic, political and cultural health determinants with the natural environment. The Environmental Research Division's research and capacity building activities are geared toward strengthening Indigenous communities abilities to accurately define health risks, trends and emerging issues; effectively design and carry out research; and support self-governance of Indigenous communities. Thus communities are partners in developing research questions, gathering data and identifying solutions. ERD is particularly interested in pursuing research efforts that utilize community-based participatory and traditionally-based methodologies. These two approaches to research encourage the type of meaningful collaboration between communities and researchers that is thought to

stimulate community healing, and to empower, motivate and activate change. Other examples of activities meant to build capacity of Indigenous communities to interpret, to use, and to participate in the research include supporting training opportunities for community and academic researchers, facilitating partnerships between researchers and communities, and developing guidelines for community-based research. ERD has learned that it is fundamental to focus on community priorities and needs and that meaningful community involvement and partnership is critical at all stages of the HIA/EIA assessment process. Recognition and integration of traditional methods is imperative, as is an understanding, by all stakeholders including the researchers, of Indigenous values, principles, approaches and ideas.

HIA has evolved significantly over the last three decades. Within Canada, Indigenous peoples have asked repeatedly for inclusive rather than exclusive assessments. This creates a trusting relationship providing opportunity for community feedback and evaluation of the HIA/EIA conducted by outsiders, resulting in a true community engagement in the HIA/EIA process. Knowledge translation to community members is integrated into project activities, presenting research designs and research outcomes. This creates a trusting research relationship providing opportunity for community feedback and evaluation of the EIAs and HIAs conducted by outsiders; resulting in a true community engagement in the EIA/HIA process.

The Environmental Health Research Division has initiated over the last several years a number of initiatives to allow Indigenous communities the ability to truly engage (inclusive) in HIA/EIA rather than be subjected to HIA/EIA (exclusive) assessments done by outside experts, government officials and/or industry. The concept of Indigenous engagement has gained acceptance not only in HIA/EIA, but as well in many government-decision making processes. The United Nations 2007 Declaration on the Rights of Indigenous Peoples (United Nations 2007) states:

“States shall consult and cooperate in good faith with the indigenous peoples concerned through their own representative institutions in order to obtain their free and informed consent prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources.”

There is a need for research and capacity building activities geared towards strengthening Indigenous communities’ abilities to accurately define health risks, trends and emerging issues; effectively design and carry out research; and support self-governance of Indigenous communities. Communities must be partners in developing research questions, gathering data and identifying solutions.

HIA/EIA assessments involving human health effects historically focused on exposure/risk to a single biological, chemical, radiological or physical agent. Recently within Risk Assessment (RA) there has been a trend to look at cumulative risk (from a biophysical perspective) with a growing recognition that a number of factors or determinants can affect health. Similarly within Risk Management (RM) there has been a

growing recognition that RM needs to take into account the views of those exposed to the risk, to ensure that the most important risks are addressed and mitigated. Those exposed to the risk have become more interested in being involved in the decision-making that affects them. Simply put, some individuals are reluctant to rely solely on government agencies to carry out RA and make RM decisions. In order for western science based RA/RM tools to be utilized within an Indigenous context, greater efforts must be made to integrate Indigenous knowledge and western scientific processes.

A number of initiatives specifically designed to enhance community participation in environmental health research and HIA/EIA are described in Kwiatkowski *et al* (2009). Highlights are:

1) Self Training/Web-Courses/University: *The Canadian Handbook on Health Impact Assessment* (Health Canada, 2004) promotes the integration of health into the implementation of environmental impact assessment and is freely available at the Health Canada web site. Negotiations are underway with the WHO to have two web courses funded by EHRD (the first an introductory course on HIA; the second a detailed 'how to' conduct an HIA for mining projects) freely available at the WHO HIA site in 2009. EHRD has funded the First Nations University (FNUUniv) to integrate HIA course work into two existing university courses (human environmental impact; contemporary indigenous health issues) and to develop in 2009 a stand alone course completely devoted to HIA and Indigenous communities.

2) Workshops/International Conferences: EHRD funds annual traditional foods workshops designed to address issues related to the traditional diet and environmental concerns specific to local communities. The North American TriNational (Canada, USA, Mexico) indigenous meeting allowed Indigenous peoples from the three countries to meet in Palenque, Mexico in 2008 to discuss environmental issues of concern to Indigenous peoples. EHRD funded 63 Indigenous Canadian representatives to participate and develop the Palenque Declaration: Message of the Living Spirit of the Convening of Indigenous Peoples for the Healing of Mother Earth (www.afn.ca).

3) Information Networks: EHRD has partnered with a number of Indigenous and University partners to contribute to the overall capacity of Indigenous communities to participate in environmental health research through three main dimensions: provide a central point of access for communities to find research findings, information about potential research partners and tools to engage in research; provide researchers, policymakers and Indigenous communities with a current picture of the state of knowledge of environmental health in Canada and produce a national needs assessment for Indigenous environmental health; and contribute to Indigenous research capacity that enables informed decision making on environmental health issues which impact on their communities.

4) Indigenous Research: EHRD funds indigenous participation in a number of environmental health research activities. The Northern Contaminants Program carries out research in response to concerns about human exposure to elevated levels of

contaminants in foods that are important to the traditional diets of northern Indigenous peoples; the National First Nations Environmental Contaminants Program funds Indigenous communities to assess the extent of their exposure to environmental contaminants and the potential for associated risk to their health and well-being; the Climate Change and Health Adaptation in Northern and Inuit Communities Program funds northern Indigenous communities to further develop an understanding of climate-weather-health relationships and health risks for northern communities; and, develop local community-based adaptive strategies.

Conclusions

Development projects are expected to have beneficial effects on health and well-being because they create jobs and provide other economic benefits that contribute to a better standard of living. Although there are exceptions, economic well-being has been repeatedly linked with longevity and other indicators of health because people with adequate incomes can afford to eat balanced diets and live healthier lifestyles. However, development projects also have the capacity to cause adverse effects on health and well-being at the individual and community level. Sometimes these effects are experienced by people who do not share in the project's benefits. One of the negative effects that can be associated with projects is related to physical health, such as mortality and morbidity from disease and injury. Social and community health may also be affected negatively where individuals face a loss of cultural identity and quality of life, social disruption and violence, and a breakdown of community and family support networks. Furthermore, socio-cultural well-being can be affected by increasing stress, anxiety, and feelings of alienation.

Mistrust among stakeholders represents a significant roadblock to effective decision-making and the development of effective environmental health options. If the information source is not trusted then the information itself will not be trusted, regardless of its quality. Reductionist approaches to communication/engagement are often unsuccessful because they fail to recognize that individuals are unique and communities are complex. There is no simple communication/engagement tool that works universally. A pan-Indigenous approach to consultations is not really appropriate. Although Indigenous peoples share a number of common cultural traits and values, each Nation or people have many distinctive beliefs, laws, customs, and traditions complete with local variations (Obomsawin 2007). When Indigenous knowledge is used in its original context, and in partnership with western science based knowledge, the combination is often much more powerful a tool than either used alone. It is not, however, an easy process, and within the field of HIA/EIA significantly more work is needed. HIA/EIA professionals are rapidly broadening their viewpoint from being focused on the traditional bio-physical health (clean air, water, food and soil) to a practice of ensuring well-being and overall health of the community. This changing perspective matches the attitudes of many Indigenous practices.

The Environmental Health Research Division's strategic goals with regards to

Indigenous community capacity building are:

- Ensure inclusion and recognition of Indigenous values and Traditional Knowledge in HIA/EIA.
- Enhance capacity and infrastructure to advance Indigenous environmental health research.
- Facilitate and evaluate translation of Indigenous environmental health knowledge into policy and practice.
- Encourage strategic and Indigenously driven development planning.

“Treat the earth well; it was not given to you by your parents, it was loaned to you by your children. We do not inherit the earth from our Ancestors; we borrow it from our Children.”

Native American Teachings
Author unknown

References:

Arnstein, S, 1971. A Ladder of Citizen Participation. *Journal of the Royal Town Planning Institute*. 1971. ppgs 1-6..

Birely, M. 2007. A fault analysis for Health Impact Assessment procurement, competence, expectations and jurisdictions. *Impact Assessment and Project Appraisal* 25(4)281-289.

Burge, R. 2002. Why is social impact assessment the orphan of the assessment process: *Impact Assessment and Project Appraisal*. 21(4):313-321

Canadian Handbook on Health Impact Assessment. 2004. Ottawa, Minister of Supply and Services Canada, Cat. H46-2/04-343E. ISBN 0-662-36503-8

Goodland, R., and H. Daily. 1995. Environmental Sustainability. In: F. Vanclay and D.A. Bronstein (eds). *Environmental and Social Impact Assessment*. Chapter 14, ppg 303-322, Wiley, Rexdale, Ont.

Keating, M. 1997. *Global Change Program of the Royal Society, Canada and the State of the Planet: the Social, Economic and Environmental Trends that are Shaping our Lives*. Oxford University Press. 1977.

Kwiatkowski, R.E., C. Tikhonov, D. McClymont-Peace and C Bourassa. 2009. Canadian Indigenous Engagement and Capacity Building in Health Impact Assessment. *Impact Assessment and Project Appraisal* 27(1): 45-55.

Morrison-Saunders, A., J. Baker and J. Arts. 2003. Lessons from Practice: towards a successful EIA follow-up. *Impact Assessment and Project Appraisal* 21(1) 43-56

Obomsawin, R. 2007. Cultural Competency Syllabus First Nations Inuit Health Branch, Health Canada.

Rattle R and R.E. Kwiatkowski. 2003. Defining boundaries: health impact assessment and social impact assessment. In: Becker HA, Vanclay F., editors. *The International Handbook of Social Impact Assessment*. Northampton (MA): Edward Elgar publishing Ltd.; 2003. ISBN 1-84064-935-6.

Sadler, B. 1996. *Environmental Assessment in a Changing World Evaluating Practice to Improve Performance. Final Report of the International Study of the Effectiveness of Environmental Assessment*. Canadian Environmental Assessment Agency, Ottawa, Canada.

Sloff, R. 1995. Consultants Report. *Commonwealth Secretariat Expert group Meeting on Health Assessment as Part of Environmental Assessment*. Aberdeen, Scotland, 1-3 February, 1995 Commonwealth Secretariat Publications, Marlborough House, London, SW1Y 5HX, ISBN 0-85092-499-9

Steinemann, A. 2000. Rethinking human health impact assessment. *Environmental Impact Assessment Review* 20:627-645.

United Nations, 2007. Declaration on the Rights of Indigenous Peoples. Available at www.afn.ca Last accessed January 5, 2009.

Whitmore, E., and Kerans, P. 1988. *Environmental and Health Impact Assessment of Development Projects: A Handbook for Practitioners*. Elsevier Applied Science, London, England ISBN 1851665978, ppg. 131-158.

World Bank. 2009. *Swimming Against the Tide: How developing Countries are Coping with the Global Crises*. Background paper prepared by World Bank Staff for the G20 Fiancee Ministers and Central Bank Governors Meeting, Horshan, United Kingdom, March 13-14, 2009.

World Health Organization. 1967. The constitution of the World Health organization. *World Health Organization Chronicles* 1:29

World Health Organization. 1984. *Health Promotion: A Discussion Paper on the Concept and Principles*. World Health Organization Regional Office for Europe. Copenhagen, Denmark.

World Health Organization. 2005. *Ecosystems and Human Well-Being: Health Synthesis*. Report of the Millennium Ecosystem Assessment. ISBN 92 4 156309 5. WHO 2005.