

Review of Community Health Issues

KEYYASK GENERATION PROJECT EIS

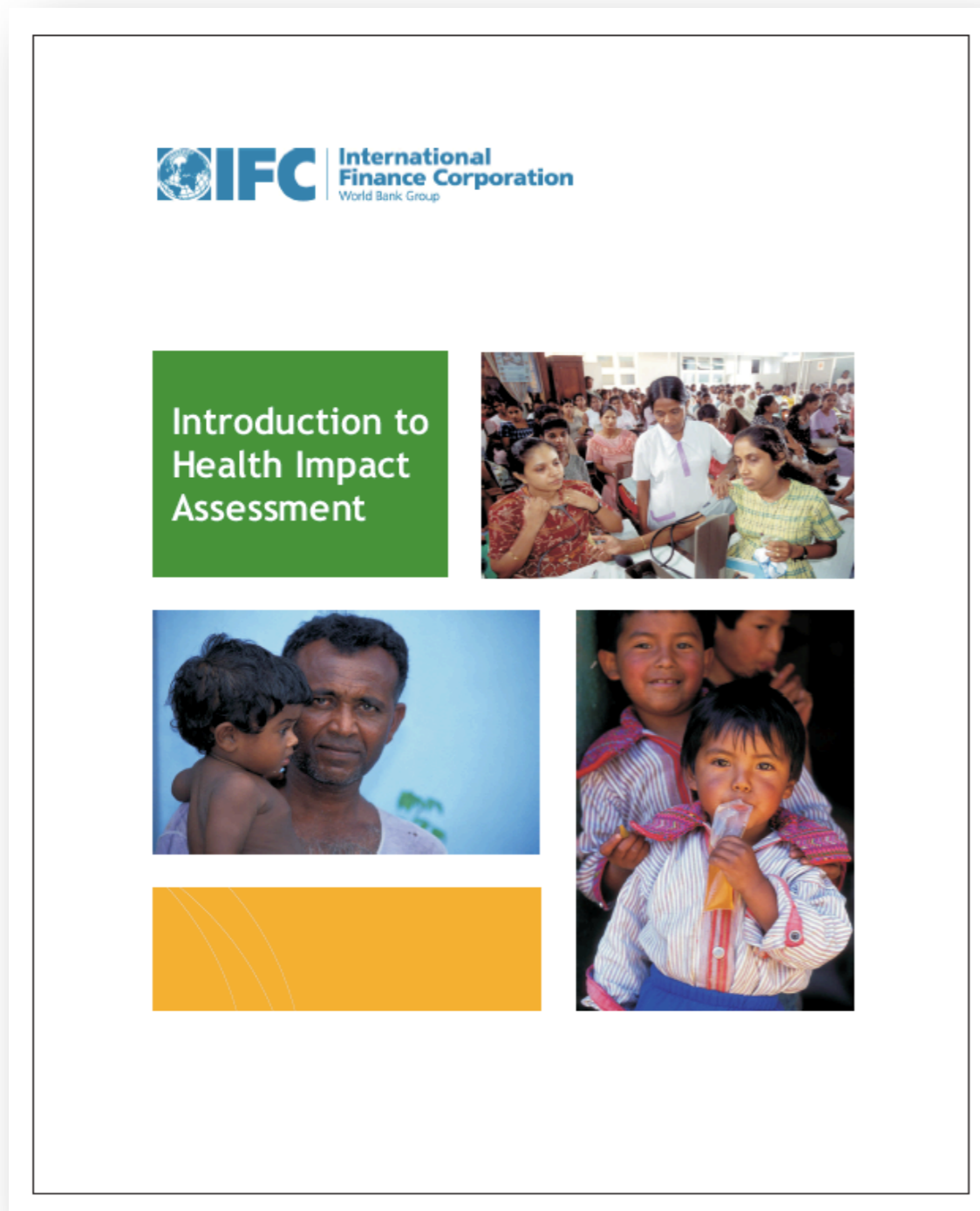
Murray Lee, MD MPH

Health Impact Assessment (HIA)

“a combination of procedures, methods and tools by which a policy, a program or project may be judged as to its potential effects on the health of a population and the distribution of effects within the population”


GOTHENBURG CONSENSUS PAPER, 1999

Health Impact Assessment (HIA) — Endorsement




INTERNATIONAL LENDING AGENCIES

Health Impact Assessment (HIA) — Endorsement




Impact Assessment

November 2004



Health, Safety and Environment HSE

Shell Health, Safety and Environment Panel



SPE 127008

Conducting Effective Health Impact Assessments in the Oil and Gas Industry
Kenneth Satin & Allison Stock; Chevron Energy Technology Company

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Abstract

Health impact assessments (HIAs) have been used for a number of years in the public sector to assess the potential for impacts associated with urban redevelopment projects. HIAs can also serve as a valuable tool in the evaluation of capital projects in the oil and gas sector. Conducting HIAs for industry capital projects, however, is not common and few people or organizations have experience performing HIAs in this context. While some guidance about HIAs is available, the focus is more on what HIAs are all about rather than how to perform one. These circumstances led us to develop HIA practices that are compatible with the generally accepted practices reported by others, but are nonetheless customized to meet our business requirements and expectations regarding HIAs. This paper discusses the elements of our HIA practices that we believe are key to producing effective HIAs. These include involving the “right people” at the right time, and HIA training to create a pool of health experts to support the process.

Introduction

Health impact assessments (HIAs) have been used for a number of years in the public sector to assess the potential for impacts of urban redevelopment projects. The general model used to perform HIAs consists of following framework: screening, scoping, impact analysis, developing a management plan, and stakeholder engagement. Extending HIAs to the industrial sector, particularly the oil and gas industry, has grown over recent years. However, while the framework of the general model used for urban development extends easily to industrial HIAs, the health issues that need to be considered for HIAs carried out in many parts of the world where oil and gas projects occur do not follow directly. Because of this, guidance for conducting HIAs for industry projects has grown and evolved rapidly. Early guidance focused on “what” an HIA is. In more recent years, guidance has supplemented the “what” with “how to” information. Still, much of the guidance is fairly basic and generic and we found that it did not meet the needs of our company. Our experiences over the last several years have allowed us to develop practices that share the core elements of traditional HIAs, address the relevant health issues, and are flexible so that their implementation can be adapted to the circumstances and complexity of a given project.

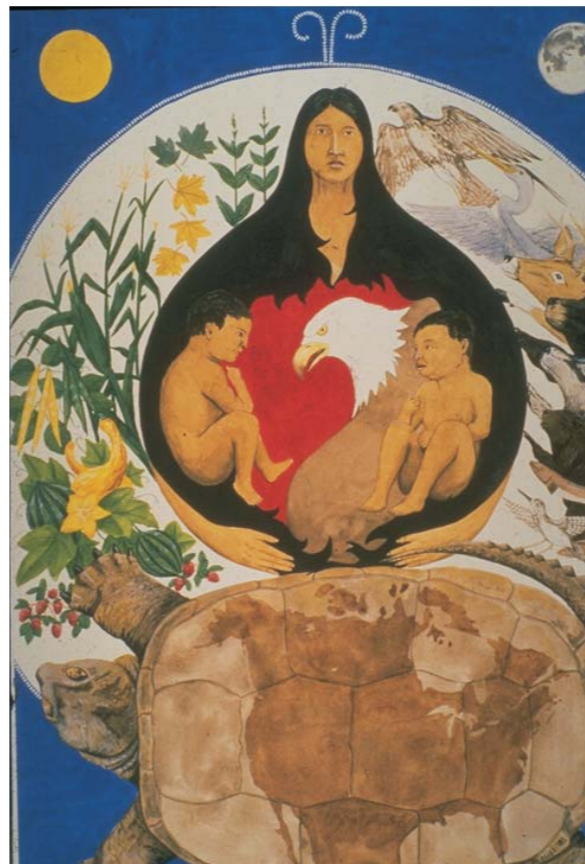
In this paper, we review our HIA practices with an eye towards identifying the key elements that contribute to the creation of an

Health Impact Assessment (HIA) — Endorsement



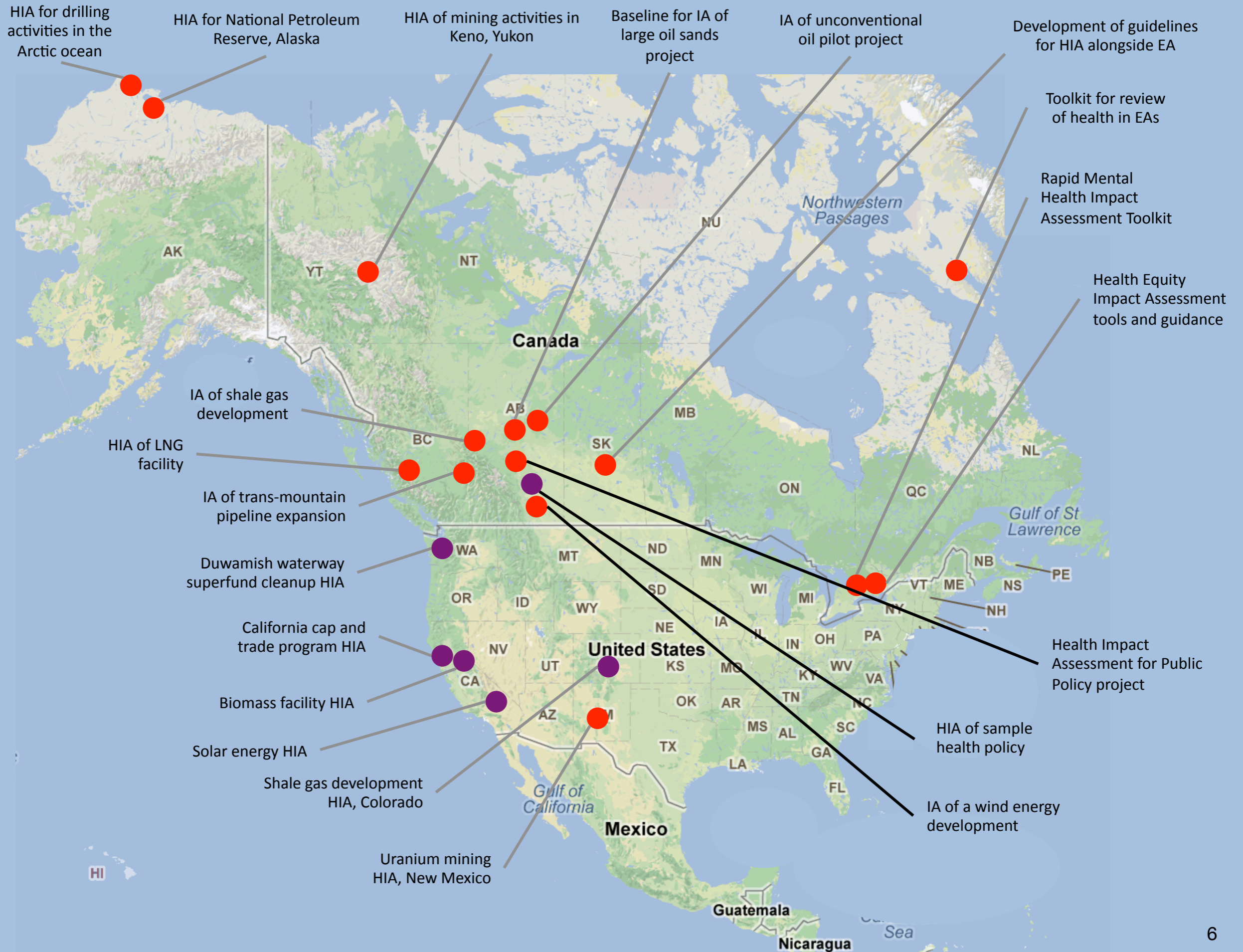
Canadian Handbook on Health Impact Assessment:

Volume 1: The Basics



Canada

HEALTH CANADA



Keeyask EIS Review — methodology

SCOPE OF HEALTH IMPACTS

Estimation of the range of potential impacts using best-practice guidelines, professional standards, work-experience, literature and stakeholder commentary

SEARCH AND REVIEW OF EIS

Review of EIS documents to assess the degree to which the above health impacts were addressed. Focus on the *Socio-Economic Environment, Resource Use and Heritage Resources Supporting Volume*

Areas of Potential Health Effect - Keeyask

ECONOMIC CHANGE

INFECTIOUS DISEASE TRANSMISSION

DIET AND NUTRITION

INJURY AND PUBLIC SAFETY

STRESS AND MENTAL WELL-BEING

EMERGENCY MEDICAL RESPONSE

HEALTH CARE SERVICE PROVISION

ABORIGINAL PEOPLE'S HEALTH

Areas of Potential Health Effect

ECONOMIC CHANGE

INFECTIOUS DISEASE TRANSMISSION

DIET AND NUTRITION

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HEALTH CARE SERVICE PROVISION

ABORIGINAL PEOPLE'S HEALTH

Employment and income can lead to health benefits for a local population. However, many communities have also experienced increases in drug and alcohol use and commensurate increases in prostitution, violence, and crime. This trend is particularly strong where social changes stem from rapid economic change or demographic shifts that result from resource development projects.

Areas of Potential Health Effect

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Infectious disease in the context of development projects in Canada results from an influx of people (e.g., a project construction workforce) moving temporarily into a rural or remote area, combined with high density or overcrowding in homes or camps. Respiratory and gastrointestinal disease transmission is a concern; increases in sexually transmitted infection rates are very common.

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Where a project affects the availability of or access to wildlife, there may be implications for diet and nutrition among people who depend on the wildlife as a food source, including First Nations communities. Contamination of wildlife is a separate issue that may affect health outcomes; perceived contamination (with or without “real” contamination occurring) may also change dietary behaviours and drive nutritional outcomes.

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Increases in traffic-related injuries and fatalities can occur where there is a project-related increase in the volume of traffic. Changes in patterns of land use can affect the safety of traditional economic activities.

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Stress and mental well-being are commonly affected in a subset of local residents. The degree to which effects manifest is affected by a number of project factors including economic change, impacts on cultural resources, work stress and perceived contamination.

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Emergency response planning for a large project usually involves drawing on emergency response capabilities in the region, such as ground and air ambulance, emergency care and tertiary care. The way in which emergency response is coordinated or carried out will have an impact on the availability of services for other stakeholders.

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Several challenges facing health care service providers may be exacerbated by temporary or permanent project attributes. These challenges include a larger population that requires service; increased need for certain services (generally emergency services and drug/alcohol treatment); and difficulty in recruiting or retaining health personnel due to strained working conditions or a decrease in affordable or available housing.

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The health of Aboriginal peoples can be directly impacted by project developments when projects located on or near Aboriginal traditional lands and communities and when projects affect ecosystem components that are highly valued by Aboriginal populations. Effects on health need to be examined from a perspective that resonates with the Cree and Métis communities and which takes into account already existing health inequities.

What the Keeyask EIS Did Well

BROAD DEFINITION OF HEALTH

**INFORMATION ON HEALTH OUTCOMES AND
DETERMINANTS**

**PREDICTION OF POTENTIAL HEALTH
IMPACTS THAT MAY BE ASSOCIATED WITH
THE PROJECT**

**INCLUSION OF KCN'S COMMUNITY
PERSPECTIVES ON HEALTH AND WELL-BEING**

**MITIGATION MEASURES THAT ARE
PROTECTIVE OF HEALTH**

What the Keeyask EIS Did Well

BROAD DEFINITION OF HEALTH

INFORMATION ON HEALTH OUTCOMES AND DETERMINANTS

PREDICTION OF POTENTIAL HEALTH IMPACTS THAT MAY BE ASSOCIATED WITH THE PROJECT

INCLUSION OF KCN'S COMMUNITY PERSPECTIVES ON HEALTH AND WELL-BEING

MITIGATION MEASURES THAT ARE PROTECTIVE OF HEALTH

- Included a table outlining determinants of health and identifies Aboriginal status as a key determinant of health
- This section also describes *mino pimatisowin* – the Cree concept of well-being.

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MITIGATION MEASURES THAT ARE PROTECTIVE OF HEALTH

- Injury, diabetes, traffic, mental health, cardiovascular disease, physician visits, hospitalizations
- Crime, traditional resource use, racism
- Ambulance, fire, police, health and social services

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MITIGATION MEASURES THAT ARE PROTECTIVE OF HEALTH

- Alcohol/drugs, violence, injury, public safety, STIs, exposure to contamination, mental health
- Emergency services, health services
- Cree culture, Aboriginal health and wellness

What the Keeyask EIS Did Well

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MITIGATION MEASURES THAT ARE PROTECTIVE OF HEALTH

- Health determinants among Aboriginal populations
- Cultural indicators
- Aboriginal perspectives on health and well-being
- Key community concerns

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MITIGATION MEASURES THAT ARE PROTECTIVE OF HEALTH

- Public safety
- Worker interaction with communities
- Loss to cultural landscape
- Impacts to emergency medical response and health care services

Gaps in the Keeyask EIS

IMPACTS ASSOCIATED WITH ECONOMIC CHANGE

- **Baseline data** on community-level indicators of alcohol and drug misuse were not presented
- **Health benefits** associated with higher income during operation phase were discussed but not specified
- **Equity** — the distribution of impacts on different income groups was not thoroughly addressed

Gaps in the Keeyask EIS

INFECTIOUS DISEASE TRANSMISSION

- **Baseline data** on sexually transmitted infections were not provided
- **Infectious disease** associated with water quality, crowded living conditions and work camp settings were not addressed
- **Mitigation measures** to control camp-related diseases or the spread of STIs were not explored

Gaps in the Keeyask EIS

DIET AND NUTRITION

- **Baseline data** on food insecurity were not provided
- **Health risks** and negative impacts associated with changes in food availability were not specifically addressed

Gaps in the Keeyask EIS

INJURY AND PUBLIC SAFETY

- **Baseline data** on injury were not provided (accident rates were)

Gaps in the Keeyask EIS

ABORIGINAL PEOPLE'S HEALTH

- **Cultural landscapes** — changes to the physical environment will affect the transmission of cultural knowledge. The impacts of acculturation on health and mental well-being were not discussed
- **Health benefits** of traditional culture and spirituality were noted but not discussed
- **Inequity** and its health impacts were not specifically addressed