

COMMUNITY HEALTH ISSUES

Related to Manitoba Hydro's Needs For and
Alternatives to (NFAT) Preferred Development
Plan

Marla Orenstein, M.Sc.
Habitat Health Impact Consulting Corp.
April 28, 2014

OBJECTIVE

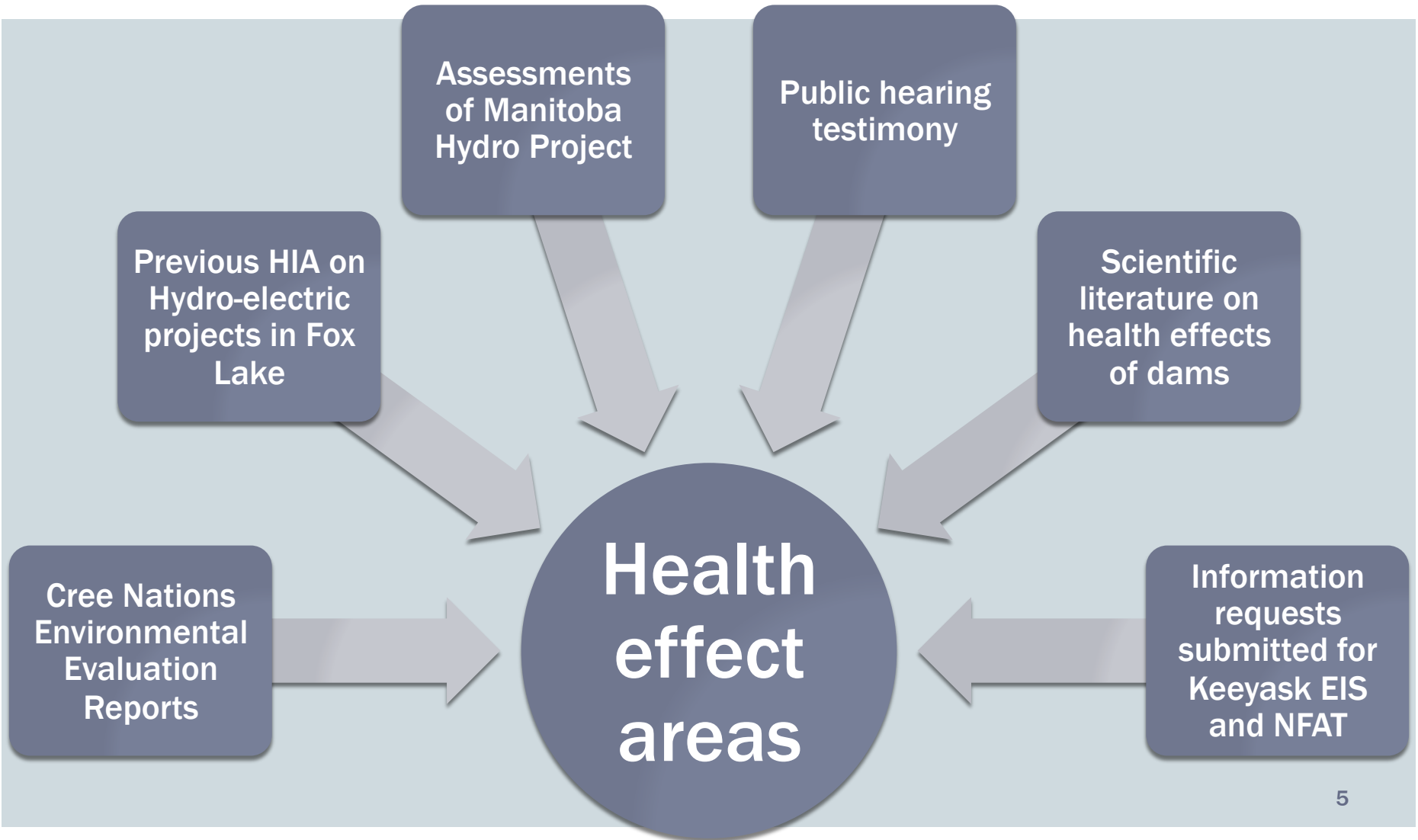
- **To identify and explain the health issues that could be expected to result from a project of the type that Manitoba Hydro is proposing, with specific reference to the cultural and geographic context of Manitoba.**

CORE MESSAGES

- **1. There are pre-existing health vulnerabilities in the region.**
- **2. Potential health risks exist from the Project.**
- **3. Potential health opportunities also exist – but are less certain in terms of their realization.**
- **4. Equity is a central issue.**

METHODS / APPROACH

DATA SOURCES



#1

THERE ARE
PRE-EXISTING HEALTH
VULNERABILITIES IN
THE REGION.



Burntwood Regional Health Authority

- Excludes areas around Churchill, Flin Flon, The Pas
- Population 47,000 (2008)
- 76% Aboriginal

General Health Measures

Health Indicator	Manitoba	BRHA
Life Expectancy (females)	81.5	76
Life expectancy (males)	76.3	69.7
Mortality (rate per 1,000)	8.0	14.3
Potential Years of Life Lost (per 100,000)	50.9	108.7
Preterm Births	8.2%	10.3%
Self-rated health (very good or excellent health)	54.1%	44.2%
Asthma	7.2%	11.6%
Arthritis	20.2%	21.9%
Hypertension	23.7%	35.4%
Ischemic Heart Disease	8.5%	11.8%
Diabetes (adults)	8.7%	21.4%
Diabetes (children)	0.4%	0.9%

Source: Burntwood Regional Health Authority, 2009.

Mental Health Measures

Health Indicator	Canada	Manitoba	BRHA
Self-rated mental health (very good or excellent health)	74.8%	73.5%	69.9%
Life Stress (“quite a lot”)	22.5%	19.4%	16.7%

Health-Related Behaviors

Health Indicator	Manitoba	BRHA
Smoking (adults)	22.0%	35.1%
Smoking (youth)	14.8%	26.2%
Exposed to 2ndhand smoke	7.9%	17.9%
Heavy Drinking	19.6%	26.1%
Overweight/obese (adults)	54.5%	72.4%
Overweight/obese (youth)	23.7%	34.9%

Source: Burntwood Regional Health Authority, 2009.

Health Care Service Provision

Health Indicator	Manitoba	BRHA
Ambulatory care sensitive conditions	13.5 per 1,000 people	43.1 per 1,000 people

- High physician turnover
- Limited appointment times
- Two communities not accessible by all-season roads.
- However, improvements across Burntwood as a whole in terms of primary care visits.

Conclusions:

- There are **existing health disparities** between the Burntwood Regional Health Authority and the rest of Manitoba.
- There are **pre-existing health vulnerabilities** in the region.

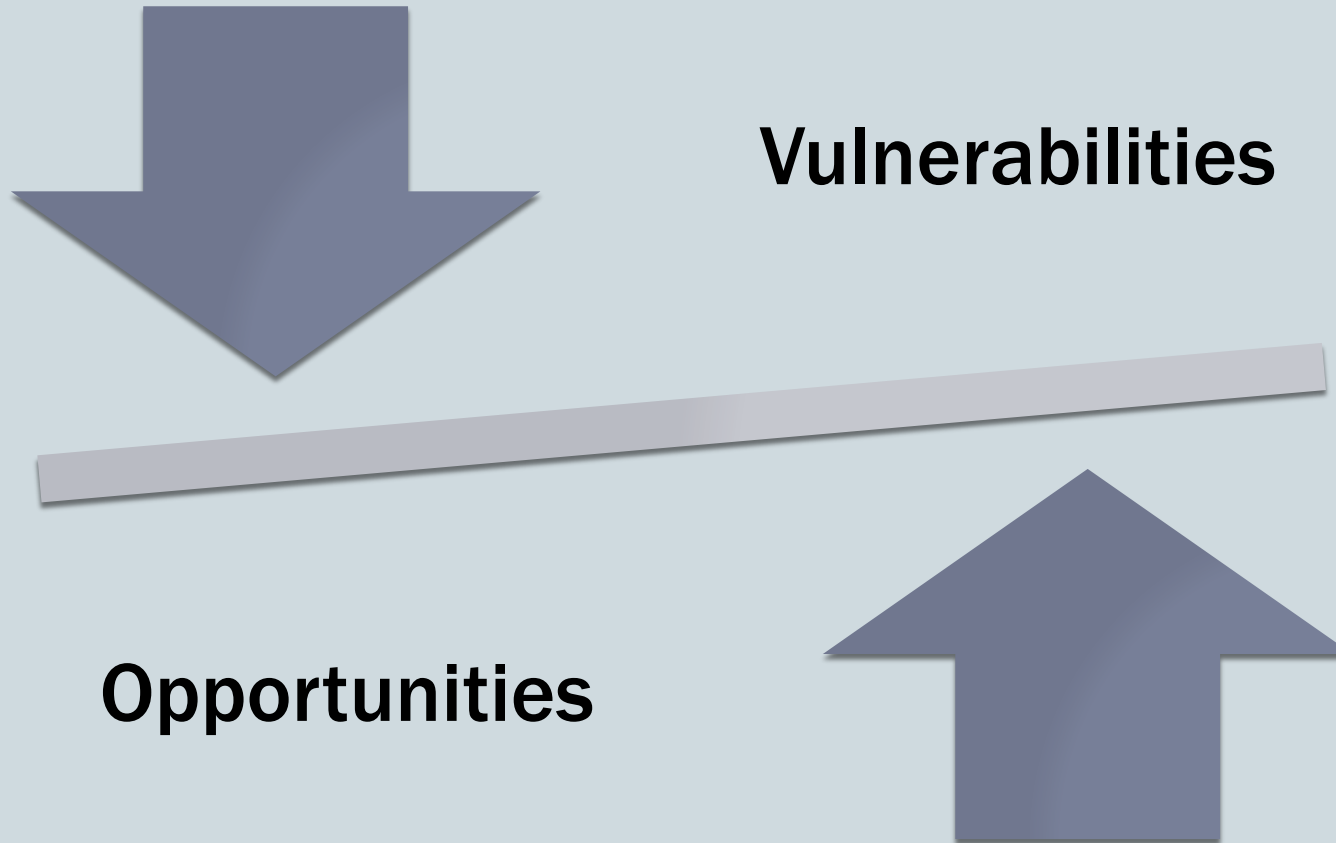
#2

POTENTIAL HEALTH
RISKS EXIST FROM THE
PROJECT.

#3

POTENTIAL HEALTH
OPPORTUNITIES ALSO
EXIST – BUT THEIR
REALIZATION IS LESS
CERTAIN.

WHY IS THIS IMPORTANT?



HEALTH EFFECT AREAS

- Health effects stemming from employment, income, economy
- Diet and nutrition
- Public safety in transportation
- Social environment
- Cultural landscape
- Health of the land/environmental resources
- Health care service provision
- Education and training
- Housing
- Health inequity

HEALTH EFFECTS STEMMING FROM EMPLOYMENT, INCOME & ECONOMY

Areas of opportunity

- **Employment for KCN members > access to safe and healthy housing, food security and improved mental health.**
- **Revenue or profit-sharing > improvements in community programs, social services, health care and education.**

Areas of vulnerability

- **Boom and bust cycles**
- **Lost revenue from hunting, trapping**
- **Work culture that supports heavy drinking or drug use post-shift**

DIET AND NUTRITION

Areas of opportunity

- Food security could be enhanced via jobs/income
- Components of the AEAs may support food security through maintenance of fish consumption

Areas of vulnerability

- Offsetting programs in AEAs are not fully tested for effectiveness in offsetting reduced availability of fish, other foods
- Exposure to methylmercury
- Concern about exposure may lead to decreased fish consumption
- Influx increasing food and housing costs

PUBLIC SAFETY IN TRANSPORTATION

Areas of opportunity

- Road improvements on PR 280
- MH Water Management Plan: working with KCNs around safety of travel on waterways

Areas of vulnerability

- Increased traffic levels > risk of collision, injury
- Continued changes to Nelson river > risk of drowning, other accidents

SOCIAL ENVIRONMENT

Areas of opportunity

- **Economic growth or industry funding could support social structures.**
- **AEAs: programs to mitigate adverse effects on social structures.**
- **Potential of revenue from project investment to enhance community capacity**

Areas of vulnerability

- **Social environments in Gillam, Thompson, KCN communities could become fractured or polarized**
- **Influx of workers / new residents**
- **Access to alcohol and drugs**

CULTURAL LANDSCAPE

Areas of opportunity

- **The Manitoba Hydro PDP provides support through Adverse Effects Agreements.**
 - (e.g. Cultural Sustainability Program for York Factory FN; Youth Wilderness Traditions, Cree Language, Gravesite Restoration, Lateral Violence, Alternative Resource Use Programs for Fox Lake Cree Nation; Traditional Learning/Lifestyle, Cree Language and the Museum and Oral Histories Program for the War Lake FN; Traditional Lifestyle Experience, TK Learning, Cree Language, and Museum and Oral Histories Program for the Tataskweyak Cree Nation)

Areas of vulnerability

- **Health vulnerabilities lie in the success of the aforementioned programs**

HEALTH OF THE LAND / ENVIRONMENTAL RESOURCES

Areas of opportunity

- **AEAs may offset some of the health vulnerabilities that arise from the environmental changes**
- **Resilience of the community and the strength gained from cultural ties represents a health opportunity**

Areas of vulnerability

- **AEAs have not been tested for effectiveness in maintaining the relationship between the land and the people.**
- **The mental health burden that is felt by KCN members by partnering with MH on projects that will inevitably alter the landscape forever.**

HEALTH CARE SERVICE PROVISION

Areas of opportunity

- **Financial benefits for communities used to support access to and quality of health care service provision**

Areas of vulnerability

- **Project-related influx increases demand**
- **Changes in usage patterns: Traffic-related injuries, serious workplace injuries, and consequences of alcohol and drug misuse in the community increase demand**
- **Retention and recruitment of medical staff**

EDUCATION AND TRAINING

Areas of opportunity

- The infusion of industry dollars into education and training opportunities can benefit both community residents (as they gain new skills and jobs) and industry (as it gains a stable base of skilled workers).

Areas of vulnerability

- Often the longer-term, more fulfilling jobs go to newcomers who have specific skills and expertise, rather than locals.
- Some individuals may choose to leave school early in order to work on the Manitoba Hydro projects.

HOUSING

Areas of opportunity

- **Financial benefits for KCN communities could be used to provide good quality, affordable housing to KCN members.**

Areas of vulnerability

- **In Thompson and Gillam, housing inflation will continue to increase as demand for housing increases.**
- **Family members could return to reserve communities in search of employment, leading to crowding.**
- **Displacement of low-middle income residents and even homelessness, which has severe health consequences, could increase.**

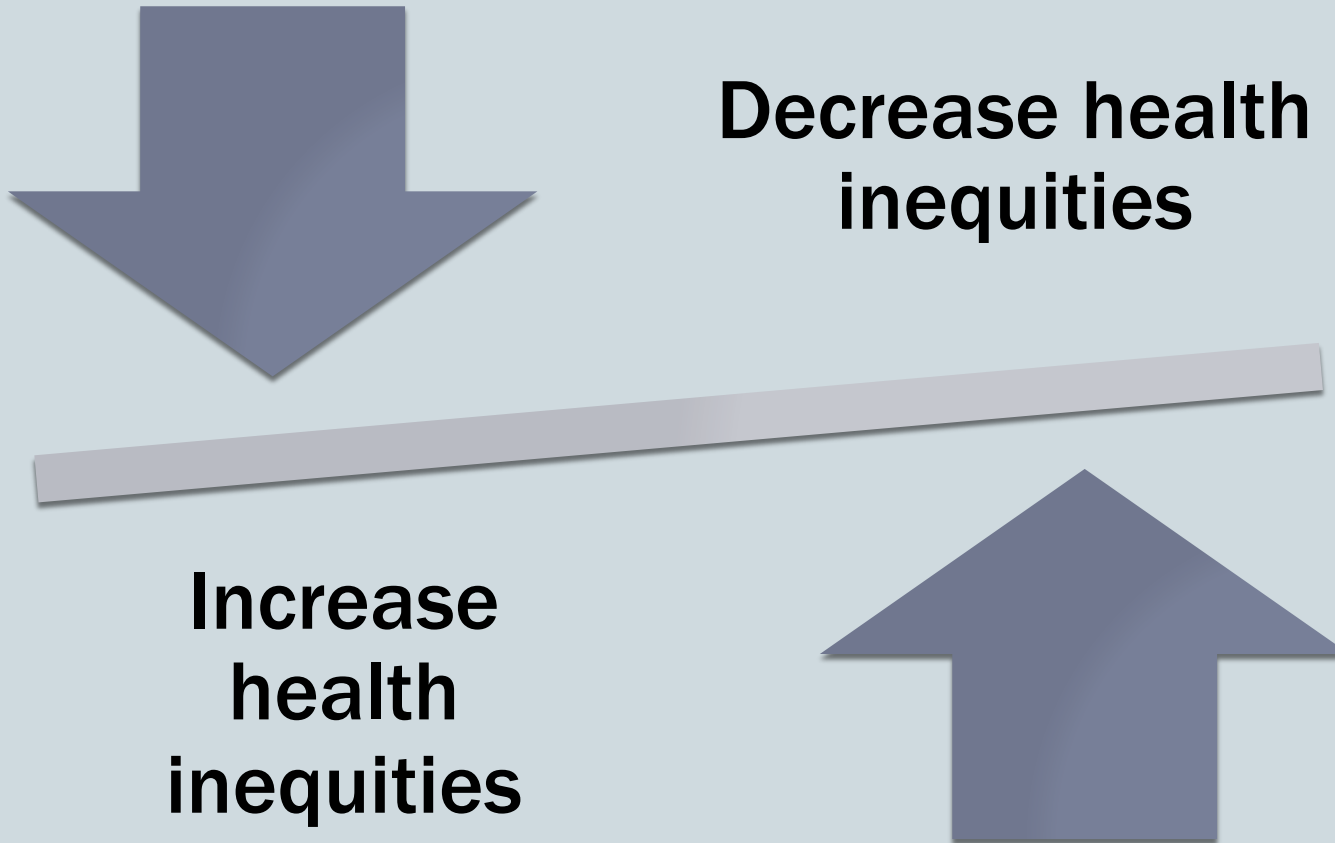
Conclusions:

- Potential health risks exist from the Project.
- Potential health co-benefits also exist.
- These risks and benefits generally flow from changes in the biophysical, social and economic environments.
- Historically, many adverse effects have manifested. Reports indicate that health opportunities are less certain to accompany development.

#4

HEALTH EQUITY IS A
CENTRAL ISSUE.

WHY IS THIS IMPORTANT?



Conclusions:

- The KCN communities are currently experiencing health inequities across a broad range of measures that include:
 - health outcomes such as injury, illness, life expectancy; and
 - key health supports such as housing, infrastructure and access to health services.
- With respect to the Manitoba Hydro Plans, health inequity may arise if the **distribution of the benefits of the development does not match the distribution of risk.**

DIFFERENCES AMONG ALTERNATIVES

Plan 1	Plan 4	Plan 14
<ul style="list-style-type: none"> • Current health trends will continue. • Few opportunities for Project-related benefits, BUT • Potential adverse impacts to the environment, cultural landscape, social environment, public safety and diet and nutrition would not occur 	<ul style="list-style-type: none"> • Potential for both positive and adverse effects on health • Health opportunities are highly dependent on the success of the JKDA partnership, Adverse Effects Agreements and the distribution of any revenue earned by the KCN communities • Potential adverse effects more certain 	<ul style="list-style-type: none"> • Main difference: Conawapa station. • To the extent that Conawapa additionally affects social and biophysical environments, associated health effects could also be expected. • Potential for partial mitigation of adverse health effects would depend on whether or not the JKDA and the AEA's are maintained and/or updated for Conawapa.

SUMMARY: CORE MESSAGES

- 1. There are pre-existing health vulnerabilities in the region.
- 2. Potential health risks exist from the Project.
- 3. Potential health opportunities also exist – but are less certain in terms of their realization.
- 4. Equity is a central issue.

Thank you.

Marla Orenstein
Habitat Health Impact Consulting Corp.
marla@habitatcorp.com
www.habitatcorp.com