

Integrating Health Impact Assessment into the U.S. EIS process: Examples from Alaskan Oil Development and Implications for U.S. Policy

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Aaron Wernham, MD, MS
Alaska Inter-Tribal Council
Fellow, Columbia University IMAP
Washington, DC
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aawernham@pol.net





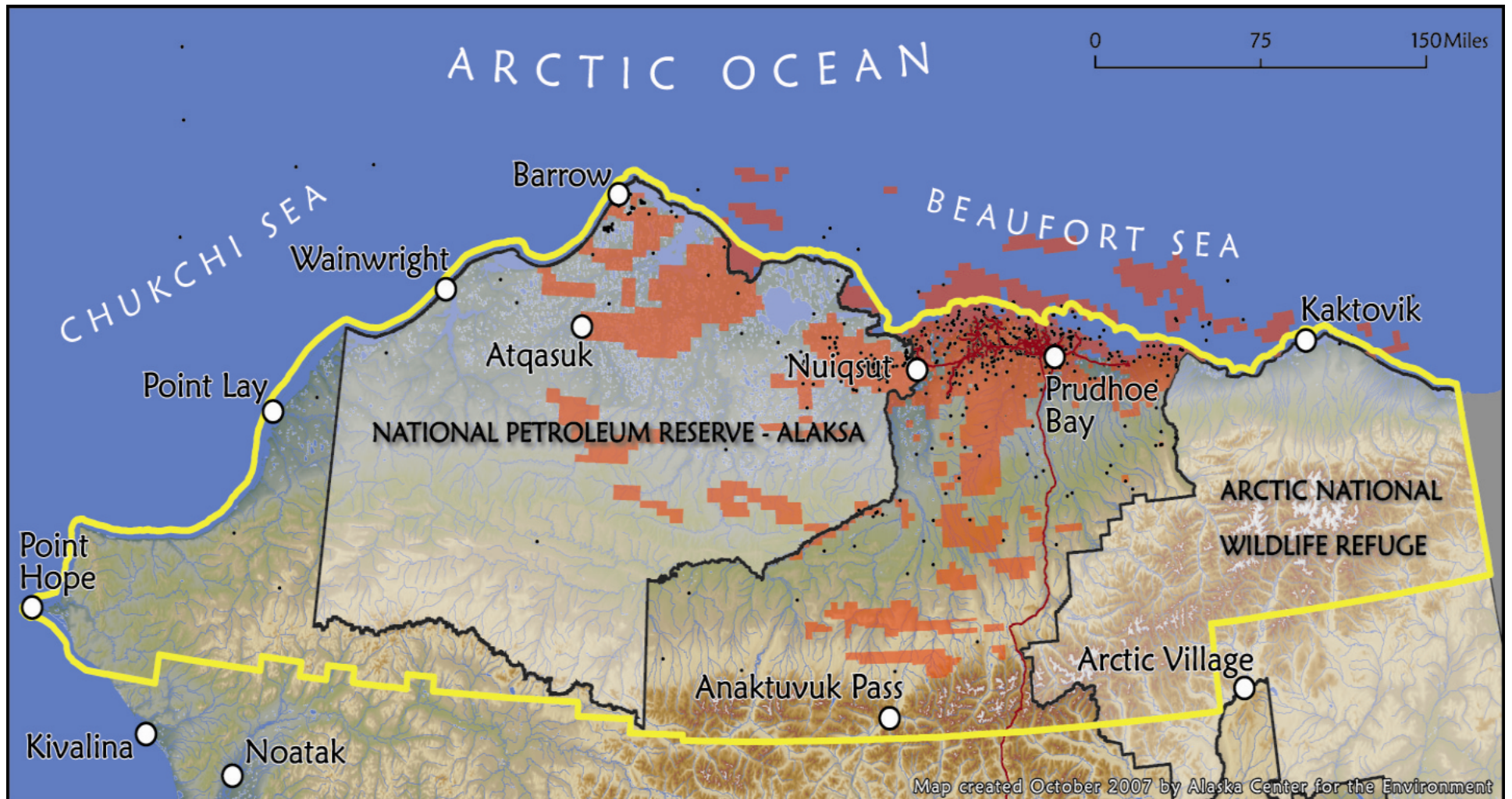
North Slope:

Villages in relation to existing development



North Slope:

Villages in relation to active leasing and exploration





The Problem

- ❑ Dozens of EISs since construction of Trans-Alaska Pipeline
- ❑ Marked changes in social conditions, economy, employment, culture, and environment
- ❑ Abundant public testimony on health impacts

But...

No systematic or comprehensive approach to public health in these EISs.



Alaska Inter-Tribal Council's Health Impact Assessment initiative:

- Partnership between Alaska Inter-Tribal Council, the North Slope Borough, and local Tribes, resulting in:
- 3 integrated HIA/EISs to date:
 - MMS Outer Continental Shelf Oil and Gas Leasing Program, 2007-2012 (PEIS)
 - MMS Chukchi Lease Sale 193
 - BLM Northeast NPR-A Supplemental EIS



HIA/EIS on the North Slope

Approach to Health Analysis:

- Social determinants of health as a conceptual model
- Descriptive analysis of potential health effects, using public testimony, literature review, and review of impacts predicted in other subsections of the EIS including:
 - Air quality
 - Water Quality
 - Economy
 - Employment
 - Subsistence
 - Sociocultural conditions

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Baseline health status

The baseline health status on the North Slope is characterized by substantial disparity as compared with the general population:

- **Overall mortality:** 1.4 times U.S. rate
- **Cancer:**
 - 50% increase since 1969; North slope now has highest incidence in Alaska
 - Mortality rate nearly twice U.S. rate
- **Pulmonary disease**
 - 192% increase in mortality since 1979; mortality now 3 times U.S. rate
- **Diabetes:**
 - Prevalence still lower than U.S., but incidence increasing substantially
- **Social pathology**
 - Dramatic increase in suicide rates since 1960. Suicide rate 4 times U.S. rate
 - Domestic violence rates extremely high
- **Injury**
 - Injury rate ~3.5 times U.S. rate
 - North Slope had highest rate of injury hospitalization in Alaska



HIA Results: specific areas of impact identified

1. Nutritional health: impacts to subsistence game → risk of:
 - Obesity, diabetes, metabolic syndrome
 - Hunger and Food Insecurity

2. Social Pathology (substance abuse, suicide, domestic violence, etc.)
 - a. *Adverse*:
 - large influx of outside workers
 - illicit drug importation
 - acculturation
 - loss of subsistence lands
 - economic downturn at the end of the project
 - b. *Positive*: employment, income

3. Injury

Tends to parallel social pathology; also related to a predicted increase in difficulty of hunting conditions



HIA Results: specific areas of impact identified

4. Contaminant-related concerns:

- Cancer
- Endocrine disease
- Pulmonary disease

5. Infectious disease: transmission between oil camps and neighboring communities



Recommendations:

Avenues to address health impacts through NEPA:

1. Mitigation required by regulatory agency
2. Mitigation implemented by community or industry
3. Altered development plans
4. Rejection of proposed activity



Mitigation Measures 1:

Included in DEIS as regulatory measures

1. HIA/Health Mitigation requirement for future development:
 - BLM would require health impact analysis AND institution of appropriate mitigation measures for any future development on leased areas
2. Monitoring
 - Monitor contaminants in game, forage, air and water
 - Monitor a selected series of health indicators
3. Control of contaminants (still under discussion)
 - Tighter emissions controls based on identified health disparities
4. Cultural orientation for workers



Mitigation Measures 2:

Measures supported by BLM but outside of its regulatory authority (focus on social determinants)

Nutrition

- Support for subsistence (community hunters, community freezers)
- Measures that support healthful store-bought diet

Employment:

- Local hire
- Subsistence-friendly work schedules

Economy: (promote economic diversification and stability)

- Startup business training/microeconomic projects
- Savings trust accounts
- Support for educational expenses

Culture

- Inupiat language education
- Community cultural plans

Built Environment

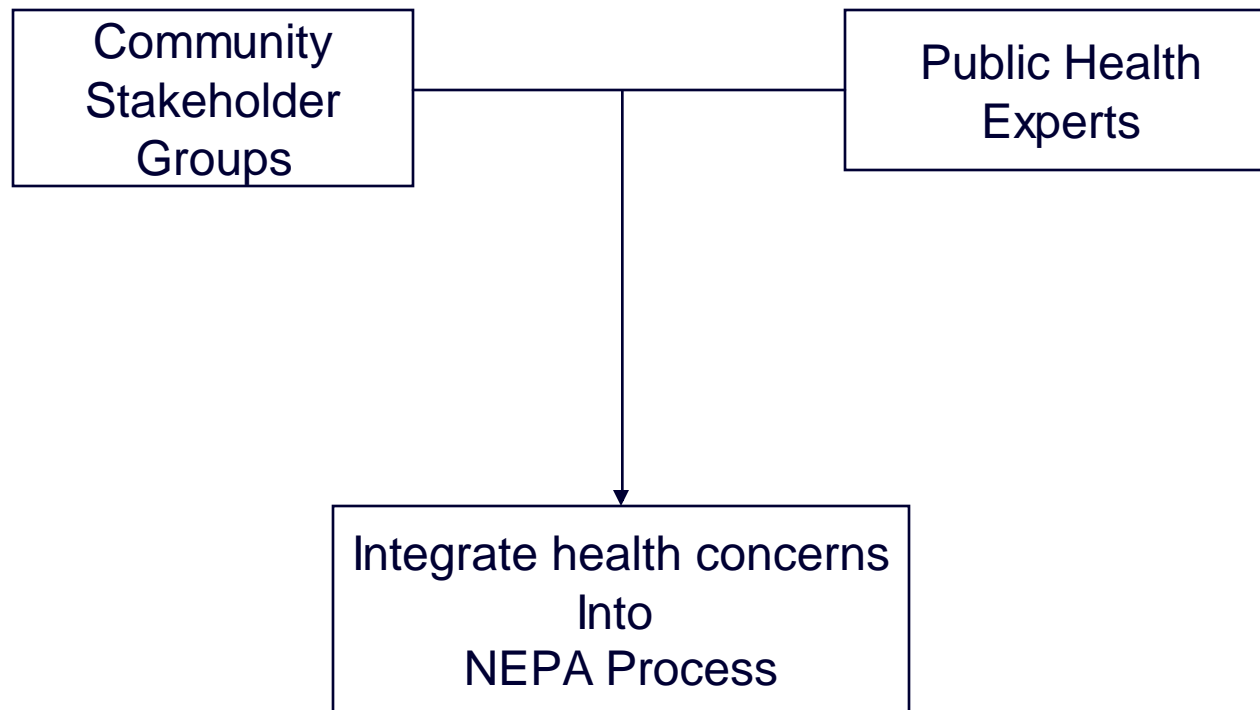
- Community control over location of camps, staging areas, roads, and access routes between villages and facilities.

Social Factors

- Compensation for added load on public services (fire, rescue, police, social services)

How to implement HIA within NEPA:

General Points: Key Ingredients





How to implement HIA within NEPA:

General Points: Statutory requirement to address health

“Health” mentioned 6 times, including:

- **Purpose: Sec. 2 [42 USC § 4321]:** stimulate the health and welfare of man
- **Sec. 101 [42 USC § 4331]:**
 1. assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings
 2. attain the widest range of beneficial uses of the environment without degradation, risk to health or safety...



How to implement HIA within NEPA:

General Points: Statutory requirement to address health

1. 40 C.F.R. 1508.8:

“Effects” includes ecological, aesthetic, historic, cultural, economic, social, or **health**, whether direct, indirect, or cumulative.”

2. 40 C.F.R. 1508.27 *Significantly*:

(b) Intensity: includes “ The degree to which the proposed action affects **public health or safety**.”



How to implement HIA within NEPA:

General Points: approaches to providing health input

Four avenues through which public can have input into the EIS process:

1. Public comment
2. Cooperating agency status
3. Government to government consultation
4. Litigation



How to implement HIA within NEPA: Basic arguments

1. Health analysis is required by NEPA
2. At present, the EIS does not address health concerns expressed by community members
3. HIA provides a well-tested method for accomplishing these goals

QUESTIONS?

