Role of Health in Hydraulic Fracturing Activities in Alberta

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Introductions

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Overview of Presentation

- Roles of Alberta Health and Alberta Health Services in oil & gas development
- Response to residents’ concerns related to oil & gas development in the Cochrane area
- Challenges and opportunities related to greater health involvement in oil & gas development
Role of Alberta Health

• Develops and implements provincial policy on improving the wellness of Albertans by protecting and promoting health.
• Develops and implements environmental public health policies and actions on issues related to environmental contaminants and health.
• Supports the Chief Medical Officer of Health's ability to get important public health messages to Albertans.
• Investigates health concerns related to oil & gas development
• Reviews & evaluates the health component of EIAs
Role of Alberta Health Services

• Operational responsibility for the delivery of health services to the residents of Alberta
• Under the Regional Health Authorities Act there is a duty to protect and promote health while under the Public Health Act there is a duty to investigate potential threats to health
• Involved in reviewing the emergency response plans that oil & gas companies are required to do
• Involved in investigation of health concerns related to oil & gas development
Capacity of AH & AHS

- Specialized scientific & medical expertise
- Environmental Public Health Inspectors/Advisors familiar with emergency response planning, ambient air quality, water quality, soil contamination, and noise (zone & centralized)
- Health has limited internal capacity for ambient & contaminant monitoring & laboratory analysis
- Rely on Alberta Environment & Sustainable Resource Development (AESRD) for collection and analysis of ambient air, soil & water analysis (beyond basic bacterial & chemical analysis)
- Epidemiological capacity to review health services utilization data and cancer registry data
- Issue specific specialized studies
Areas Currently Evolving

- Relationship between the new Alberta Energy Regulator (AER) and Alberta Health & Alberta Health Services
- Updating of the Environmental Public Health Field Manual for Oil & Gas Activities in Alberta
- Health’s role in “plays approvals” versus individual well applications
- Changing roles of AESRD
- Development of unconventional oil & gas regulation
Oil & Gas Health Concerns in Cochrane – Lochend Area

• Group of local residents wrote letter to CEO of AHS expressing concerns that there was a “public health disaster” as a result of oil & gas wells being developed with hydraulic fracturing
• Letter described health effects being experienced by residents as well as concerns about air and water quality
• AHS Public Health met with residents to identify their specific health concerns and issues
Oil & Gas Health Concerns in Cochrane – Lochend Area (cont.)

• Issues identified by residents in order of priority: health concerns; air emissions; effect on water quality; herd health and seismic activity

• Arrangements made for health assessments for interested residents

• Review of health services utilization data and cancer registry data for the population that residents felt was most impacted

• Engagement with other government agencies (ERB and AESRD)
Current Situation

• Health assessment – residents have gone for assessment, most recent action has been to link them to toxicology clinic to collate their information
• No significant concerns from health services utilization and cancer registry data reviews (small population)
• Concerns over air emissions have reduced as flaring has decreased with pipeline infrastructure being put in place
• Concerns remain with flaring of fracking fluid at time of well completion
Current Situation/Next Steps

• Concerns with increases in herd mortality – veterinarian did not see an unusual pattern
• Concerns with water quality and aquifer being affected by fracking fluids such biocides

Next Steps
• Multi stakeholder working group to identify air quality monitoring parameters
• Identification of recommended parameters for water quality monitoring
Potential Learning from Hydraulic Fracturing

• Importance of preventive approach
• Importance of open & transparent processes
  – Fracking fluids, equipment functioning & monitoring
  – Very difficult to rebuild trust once it has been lost
• Health involvement needs to be earlier rather than later
• Health Impact Assessments can be an effective way to identify potential health & social impacts that development plans will need to address
  – Issues of concern to Lochend residents could be predicted and interventions identified
Potential Learning from Hydraulic Fracturing

- Play approval approach needs to allow for effective health involvement in earlier stages of review and approvals
- Open access to monitoring and testing results to enable health to fulfill its responsibilities
- Timing of development in relationship to pipeline infrastructure to minimize flaring
- Rapid and clearly defined mechanism for response to complaints about process upsets or potential non compliance with regulations
Potential Learning from Hydraulic Fracturing

- Access to required expertise, equipment & laboratory support
- Access to required data for health impact assessments
  - May require specific collection in conjunction with proponent
- Intensity and frequency of activity has increased with accompanying increase in potential impacts
- Concept of health vs. illness – can help identify potential issues earlier
- Potential changes to legislation
  - Workplace Health & Safety (new processes – new exposures such as silica)
  - Foreign workers
Potential Learning from Oil and Gas Development Generally

• Potential impact on local human & physical infrastructure
  – Availability & cost of housing
  – Availability of health professionals (demand & diversion to industry position)

• Social disruption
  – Drugs, alcohol, gambling
  – Sexually transmitted diseases
  – Domestic violence & sexual assault

• Injuries
  – Workplace, Motor Vehicle
Questions?