Plans for Further Evaluation of Environmental Exposures to Metals in Flin Flon and Creighton

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Summary from December 2007 Presentation to CAC

- A preliminary health assessment of the 2006 Manitoba Conservation Soil Study findings indicated need for further assessment but likely the immediate health risk is low.
- From other communities with similar industries it is quite possible that there is no measurable human health problems linked to the kind of soil exposures in Creighton and Flin Flon.
- The Human Health Risk Assessment process will help define the need for future action.

Environmental Health Assessment

Human Health Risk Assessment (Exposure Assessment)

Emission Sources

Environmental Concentrations

Human Exposure

Internal Dose

Health Effects

Biological Testing

Community Health Status

Effects Assessment

Assessment

Current Human Health Risk Assessment (HHRA)

 Determining the potential for human health risk from exposure to metals – includes current and lifetime risk from all potential sources based on mathematical models

Biological testing

- Involves the testing of human tissues (blood, urine, etc) for the metals of concern
- Biological testing can be used as an additional method to evaluate human exposures to metals and to validate the findings of the HHRA
- The results of the HHRA will determine if and where biological monitoring may be useful (what metals, where, what age groups).

Timing of Biological Testing

- Most accurate time to evaluate potential environmental metal exposure is late summer or early fall - a time of maximal exposure to soil.
- We have been preparing for the possibility of an evaluation over past few months
- Planning is now occurring for the potential of a community evaluation in the fall of 2009 as the next opportunity would be fall of 2010

Next Steps

- The Independent Expert Review Panel will review and validate the methods and findings of the HHRA. Changes to the preliminary report may occur based on their scientific review.
- Preparations for biological testing:
 - 1) Expand the team
 - 2) Plan for the community evaluation
 - 3) Communication

Developing the Team

The evaluation will be overseen by a subcommittee of Technical Advisory Committee (TAC) which reports to the TAC

- Includes
 - Manitoba Health and Healthy Living
 - Saskatchewan Ministry of Health
 - Health Canada
 - Manitoba Conservation
 - Saskatchewan Ministry of Environment

The Evaluation Team

- The leads for the evaluation have been determined
 - Expertise included: medical, biological testing, human health risk assessment, public and environmental health, epidemiology
- Supporting Team:
 - Field team lead and coordination
 - Epidemiologist
 - Communications
- Field team

Steps to an Evaluation of Environmental Contaminant Exposure

- 1) Develop plan (rationale, approach)
- Peer review of protocol
- 3) Review and input from CAC
- 4) Human ethics submission: early June
- 5) Decision to proceed: what, where, who: July
- 6) Public communication
- 7) Implementation: late September early October