Indoor air quality issues in First Nations and Inuit communities in Canada

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Why look at the state of knowledge?

- National picture of First Nations environmental health
- Identify Needs & Gaps
Background

• Aboriginals account for 3.8% of the total pop. of Canada

• Aboriginals include First Nations (60%), Métis (33%) and Inuit (4%)

• All are young, fast-growing pop., nearly 6 times faster than non-Aboriginal pop.

Inappropriate Housing

- Housing shortage
- Culturally unfit houses
- Overcrowding
- Poor ventilation
- Moisture build-up
- Biological contamination (mould)
- ETS, wood heating
- Chemical contaminants (CO₂, lead)
Health issues

• Elderly, young children and chronically ill most vulnerable.

• Communicable diseases (TB), respiratory diseases, otitis media, allergies
Gaps

• Lack of data on indoor air as a determinant of health

• Two relevant studies demonstrated an association
Chisabi community, people living in houses with mould had (Harris Giraldo et al., 2000):

- 3 times greater risk of developing sinus problems,
- 2.2 times greater risk of having a chronic cough with sputum,
- 3.5 times greater risk of having a chronic runny nose
- 1.9 times of developing depression

When the community was moved away from these houses, people reported improvement in their health.
Kovesi et al (2007) studied how reduced ventilation was associated with LRTI in Inuit children (Qikigtaaluk).

Reduced ventilation and crowding may contribute to the observed excess of LRTI.

Unclear whether reduced ventilation and crowding are a risk marker (reflecting association) or a risk factor (reflecting causation).
Poor Indoor Air Quality

Main factors of Poor IAQ:
- Insufficient funding
- Improper construction
- Inadequate ventilation
- Overcrowding
- Lack of ownership on reserve
- Lack of proper maintenance
- Culturally unfit houses
Gaps

- Extent of mould contamination nationally not known
- Total cost of dealing with problem not known
- Jurisdictional ambiguity and challenges
- More community case and intervention studies are needed
Research with Aboriginal Communities

Any research must be one not only for, but also with, and preferably by affected Aboriginal communities and persons.
Partnership models

Guidelines:
• Guidelines for Health Research involving Aboriginal People (CIHR at: http://www.cihr-irsc.gc.ca/e/29339.html)
• Local guidelines (Northwest Territories)

Papers such as:
• “Ethic of Aboriginal Research” (Castellano MB, 2004 J Abor Health 98-114).
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Thank you

Questions?