

Housing, Health and the Aboriginal Peoples of Canada – Mould Remediation

27 May 2015



Contribution to Mould Problems

Substandard Housing

- ▶ High water table/high flood probability
 - ▶ Poor grading, drainage
 - ▶ Crawlspace under water table
 - ▶ Unfinished basements damp
- ▶ Building envelope issues
- ▶ Laundry with no exterior venting
- ▶ Poor window/door installation
- ▶ Improper/poor insulation
- ▶ No kitchen/bathroom exhaust fans

Occupancy Contribution

- ▶ Maintenance
 - ▶ Not reporting/dealing with leaks immediately
 - ▶ Examples: toilets needing resealing, cabinet sinks leaking
- ▶ Using damp basements for storage
- ▶ Overcrowding

NCCEH Remediation Evidence Review (2014)



GUIDELINES

A graphic for 'GUIDELINES' featuring a teal triangle at the top and a purple and yellow shape at the bottom. A photograph of a residential area with houses and utility poles is visible through a central cutout.



EFFECTIVENESS

A graphic for 'EFFECTIVENESS' featuring a teal triangle at the top and a purple and yellow shape at the bottom. A photograph of a wall with peeling paint and a window is visible through a central cutout.

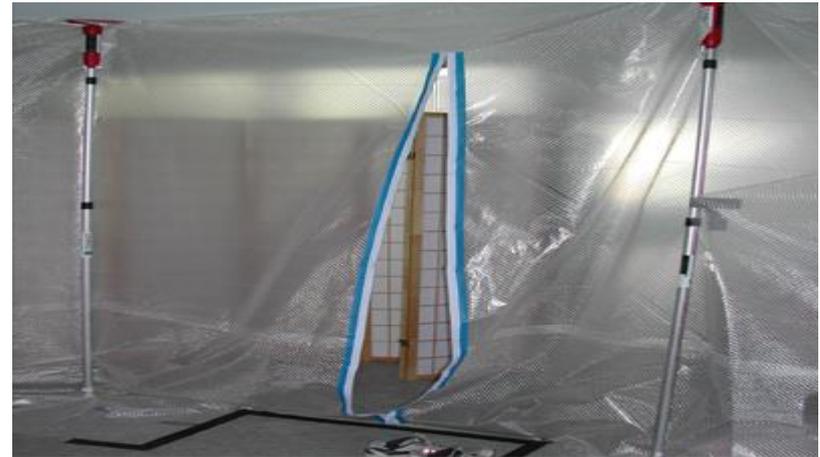


PREVENTION

A graphic for 'PREVENTION' featuring a teal triangle at the top and a purple and yellow shape at the bottom. A photograph of a construction site with a building under construction is visible through a central cutout.

NCCEH Evidence Review Summary

- ▶ Fix the water source
- ▶ Remediation Guidelines Agree
 - ▶ At varying levels of suspect visible mould
 - ▶ PPE
 - ▶ Containment
- ▶ Remediation effective
- ▶ Prevention is key after remediation
 - ▶ Building envelope
 - ▶ Insulation
 - ▶ Use of exhaust fans
 - ▶ Occupancy controls



Case Studies (CMHC and AADNC)

- ▶ Innu Takuaikan Uashat mak Mani-Utenam First Nation
- ▶ Ahousaht First Nation
- ▶ Tsartlip First Nation
- ▶ Wikwemikong Unceded Indian Reserve
- ▶ Membertou First Nation
- ▶ Eel River Bar First Nation
- ▶ Cowichan Tribe
- ▶ Kahnawake First Nation
- ▶ Tk'emlúps te Secwépemc
- ▶ Mohawks of the Bay of Quinte
- ▶ Lac La Ronge



Promising Practices



Building Capacity



Renovating Old Homes



Building New Homes

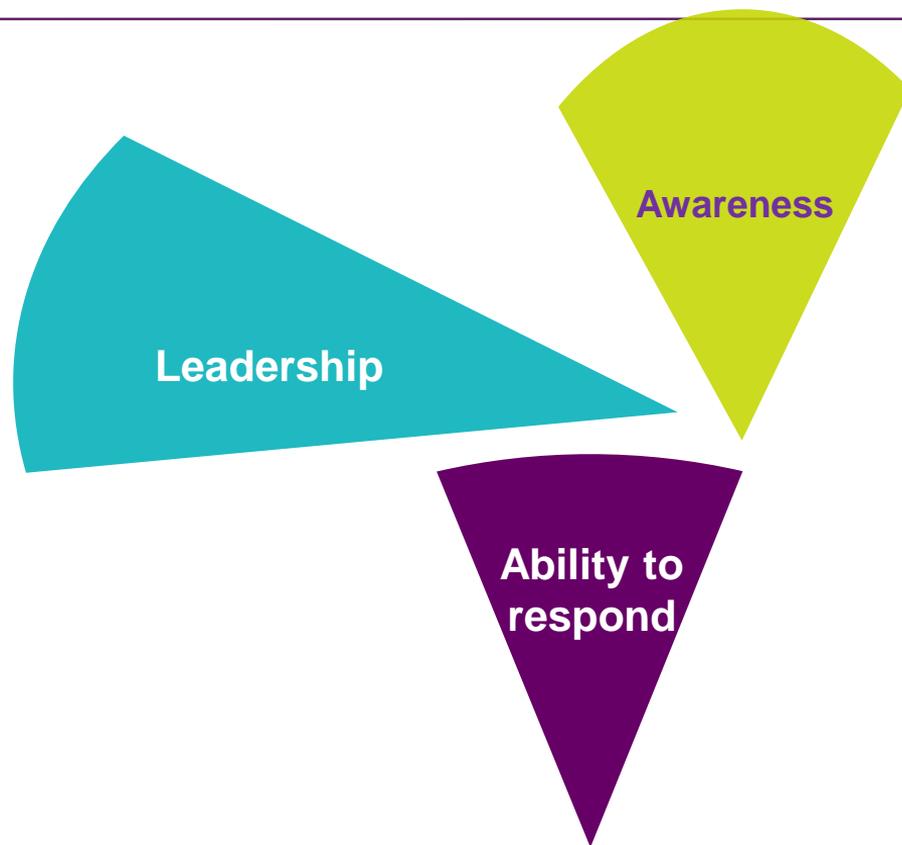


Funding Mechanisms



Building Capacity and Support

- ▶ Obtaining support of Chief and Council (commitment to National Building Code performance, leadership to foster change)
- ▶ Establishing housing manager and housing committee to build priorities in the community
- ▶ Training of local FN community members in mould inspection, mould remediation, construction, and basic repairs
- ▶ Encouragement of homeowners to get involved in own renovation or remediation





Renovating Existing Homes

- ▶ Lifting homes and buildings
- ▶ Converting basements into livable spaces using insulated concrete form (ICF) foundations with waterproof membranes
- ▶ Replacing oriented strand board (OSB) with plywood and tar paper.
- ▶ Replacing metal windows with vinyl windows to reduce condensation.
- ▶ Selecting interior finishes that are moisture resistant
- ▶ Introducing blown-in insulation in attic



New foundation
lifted house

Installation in Old and New Homes

- ▶ Drains in mechanical rooms near hot water tanks
- ▶ Sump pits with submersible pumps
- ▶ Backflow preventers on sewers and drain tiles
- ▶ Heat recovery ventilators (HRVs) to prevent moisture build-up
- ▶ Mini-split heat pumps that promote better air movement
- ▶ ENERGY STAR ® windows
- ▶ Sloped sills for windows and doors wrap and flashing
- ▶ New siding with rain screens
- ▶ Overhangs over exterior door entries
- ▶ Kitchen/bathroom exhaust fans (or fixing)



Mini-split pumps



Building New Homes

- ▶ Bringing in modular housing units
- ▶ Ensuring that proper drainage is built-in, foundation is inspected
- ▶ Building buildings on slab with no crawlspaces or basements



Funding Mechanisms

- ▶ CMHC (on and off reserve)
 - ▶ Seed Funding
 - ▶ \$20,000 per home (50/50 grant/loan)
 - ▶ Proposal Development Funding
 - ▶ Up to \$100,000 (interest-free loans)
 - ▶ Non-Profit Housing Program
 - ▶ Residential Rehabilitation Assistance
- ▶ AANDC
 - ▶ First Nations Market Housing Fund
 - ▶ Canada Economic Action Plan Funding
- ▶ Other initiatives?

Final Thoughts



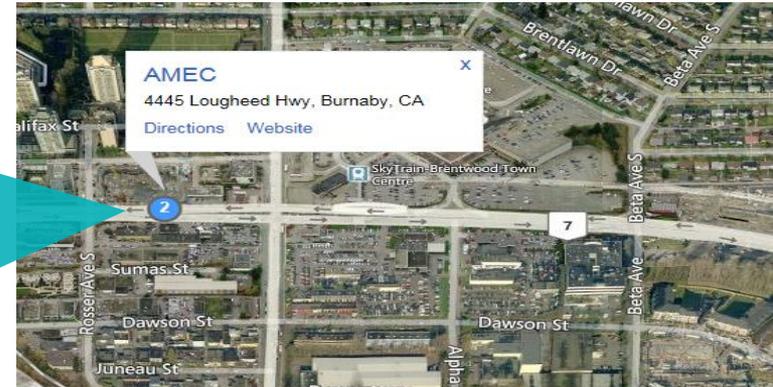
Focus on
fixing NOT
testing

Tools and
guidance
documents are
available

Better housing is
possible, but
need funds and
expertise

Contact Information

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Thank you

