

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

27 May 2015



# Contribution to Mould Problems

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## 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)

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GUIDELINES



EFFECTIVENESS

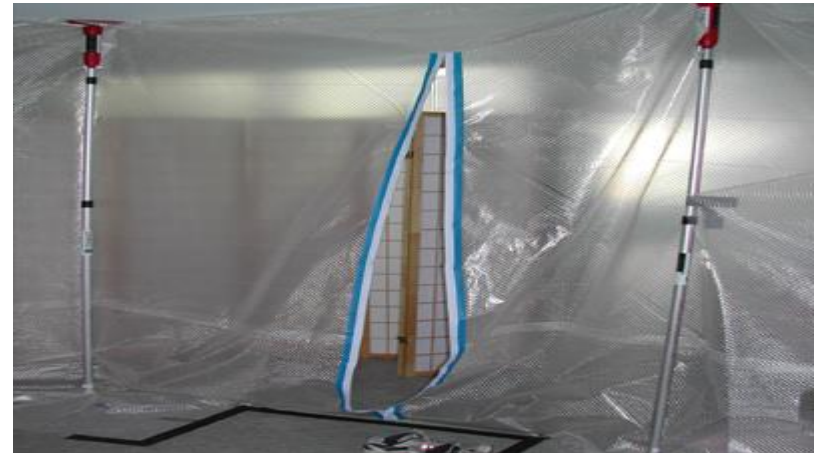


PREVENTION



# 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**



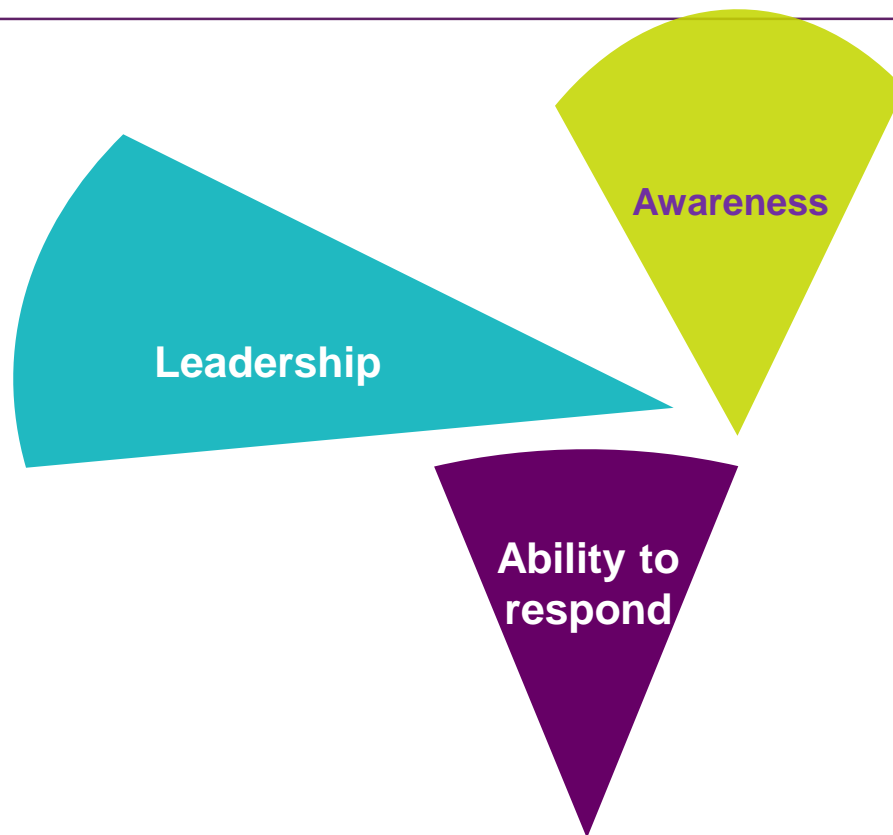
**Funding Mechanisms**



# Building Capacity and Support

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- ▶ 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

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- ▶ 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

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- ▶ 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



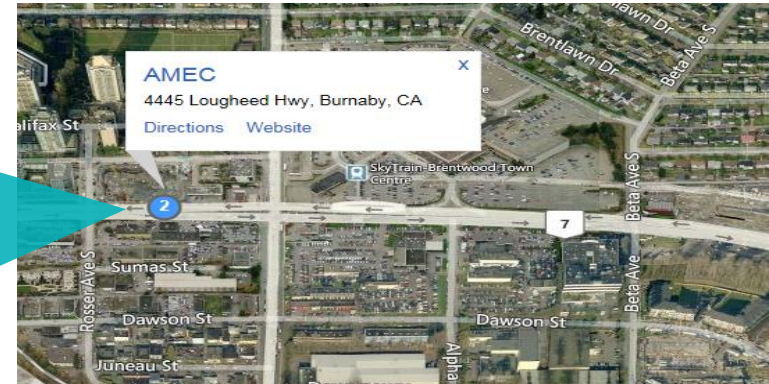
Focus on  
fixing NOT  
testing

Tools and  
guidance  
documents are  
available

Better housing is  
possible, but  
need funds and  
expertise

# Contact Information

OHS Group Burnaby  
4445 Lougheed Highway, #600  
604-295-8277  
mona.shum@amecfw.com  
amecfw.com



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Thank you

