

BEYOND SUSTAINABILITY

The Power of Indigenous
Healthy Energy Homes



Artwork: Janna Wale



When you think of a healthy home, what do you think of in one word?

Context

Colonial policies created 'one-size-fits-all' community housing, resulting in energy insecurity, and overcrowded and culturally inappropriate housing, not designed for local climates.



Challenges

Implications

Consequences

Insufficient funding/financing

Poor building practices

Strained maintenance capacity

Best practices for community governance and management not widely shared

Unable to build enough homes

Buildings built to minimum standards resulting in higher long-term costs

Unclear how to set and enforce high building standards

Unable to perform regular maintenance

Extra stress (moisture, general wear, energy use) on existing buildings

Unable to properly engage community in building design

Unhealthy - homes have mould, air quality and other issues

Overcrowded - not enough homes for community members

Unaffordable - high energy consumption make homes costly to operate

Unsustainable - buildings do not last as long as they should

Uncomfortable - poor heating, ventilation etc.

Culturally inappropriate - do not reflect the community's needs

Health Impacts from Poor Housing

- Respiratory and infectious diseases (e.g. asthma, tuberculosis);
- Worsening of chronic diseases (e.g. arthritis, diabetes);
- Nutritional deficiencies and food insecurity;
- Elevated mental health disorders;
- Sleep disruption and deprivation;
- Hypothermia and heat-related illnesses;
- Increased risk of injury;

These impacts are exacerbated by climate change and a growing population.



Which health impacts from poor housing do you most often see in your work or research?

IN SUMMARY



Healthy Energy Homes Concept

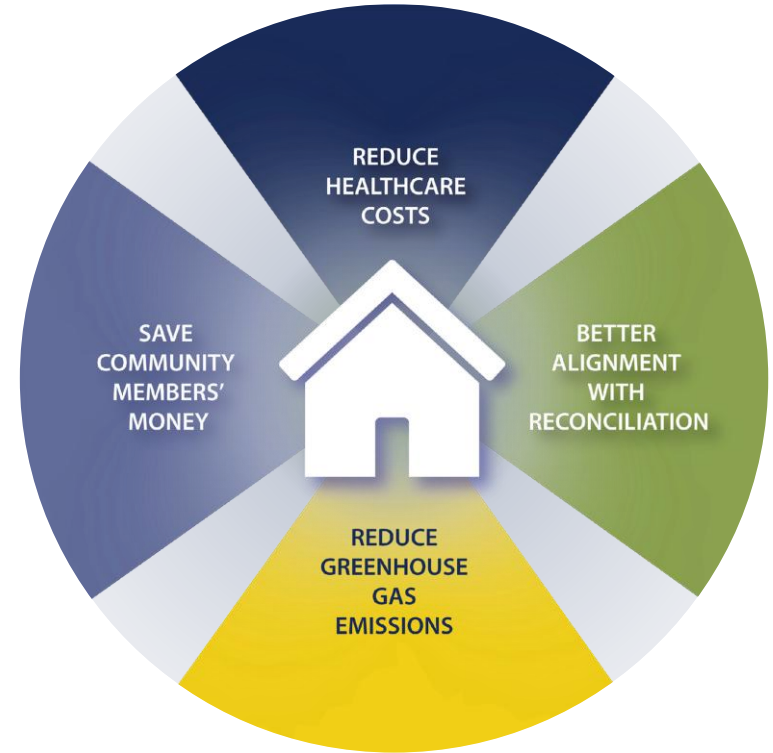
- Energy efficient, climate resilient, and support the long term well-being of inhabitants;
- Holistic approach centered on the human and community dimensions of housing, energy efficiency, cultural values and greenhouse gas reductions;
- A preventative public health intervention.



Photo courtesy of Siksika First Nation.

What are the nested benefits of a Healthy Energy Home?

- Drive action
- Human and community-centered approach
- Space for culture
- Energy efficient
- Reduce greenhouse gases



Common Health Stressors

Health Issues

Energy Efficiency Measures

How They Help

Benefits

Formaldehyde
Carbon Monoxide
Other VOCs

Particulates
Radon

Humidity
Condensation
Extreme Heat
Extreme Cold

Dust & Allergens
Mold

Pests
Bacterial Agents

Asthma
COPD
Bronchitis
Nasal Allergies
Colds
Rhinitis
Headaches
Heart Disease
Hypertension
Sinusitis
Fatigue
Anxiety & Stress
Heat and Cold
Illness & Death
Mental Illness

Insulation
Air Sealing

Heating and Cooling System Upgrades

Ventilation

Efficient Cooking Appliances

Filter Air & Ventilate

Remove Indoor Triggers

Regulate Indoor Temperature & Humidity

Strengthen Barriers to Outdoor Triggers

Reduced Hospital or Medical Visits

Improved Comfort and Safety

Reduced School & Work Absences

Lower Energy and Medical Costs

Improved Mental Health and Well-being

Barriers to Delivering Healthy Energy Homes

- **Governance and Policy**
 - Lack of policy integration;
 - Fragmented and siloed responsibilities;
 - Unclear and overlapping accountabilities.
- **Funding Challenges**
 - Short-term;
 - Inflexible.
- **Capacity & Measurement Gaps**
 - Limited administrative and technical capacity in community;
 - Lack of metrics linking housing to health outcomes.



Photo Credit: Indigenous Clean Energy

A New Approach



Photo Credit: Indigenous Clean Energy

- Coordinated, Indigenous-led approach to Indigenous housing.
- Demonstrate value through metrics.
- Improve Indigenous health outcomes by increasing access to energy efficient housing through policy.
- Holistic view of housing issues and solutions.



What primary role do you think environmental public health professionals should play in addressing inadequate Indigenous housing?

Healthy Energy Homes in Action

- Indigenous Clean Energy Project Accelerator & Air Quality Monitoring
- Case Study: Heiltsuk Nation



Looking towards the community from the government dock in Bella Bella, B.C., on Tuesday, October 25, 2022.
THE CANADIAN PRESS/Chad Hipolito

Phase 2: Policy Analysis Report

- Identifies key policy barriers;
- Provides actionable policy recommendations;
- Full report coming December 2025.



Photo Credit: Indigenous Clean Energy

Conclusion

- Poor housing is a public health issue;
- Healthy Energy Homes offer co-benefits;
- Coordinated policy change is needed;
- Public health professionals have a critical role to play.



Photo Credit: Indigenous Clean Energy. Home Energy Housing Experiences.

Questions?

