



Northern Housing Forum 2018

Forum Summary Report

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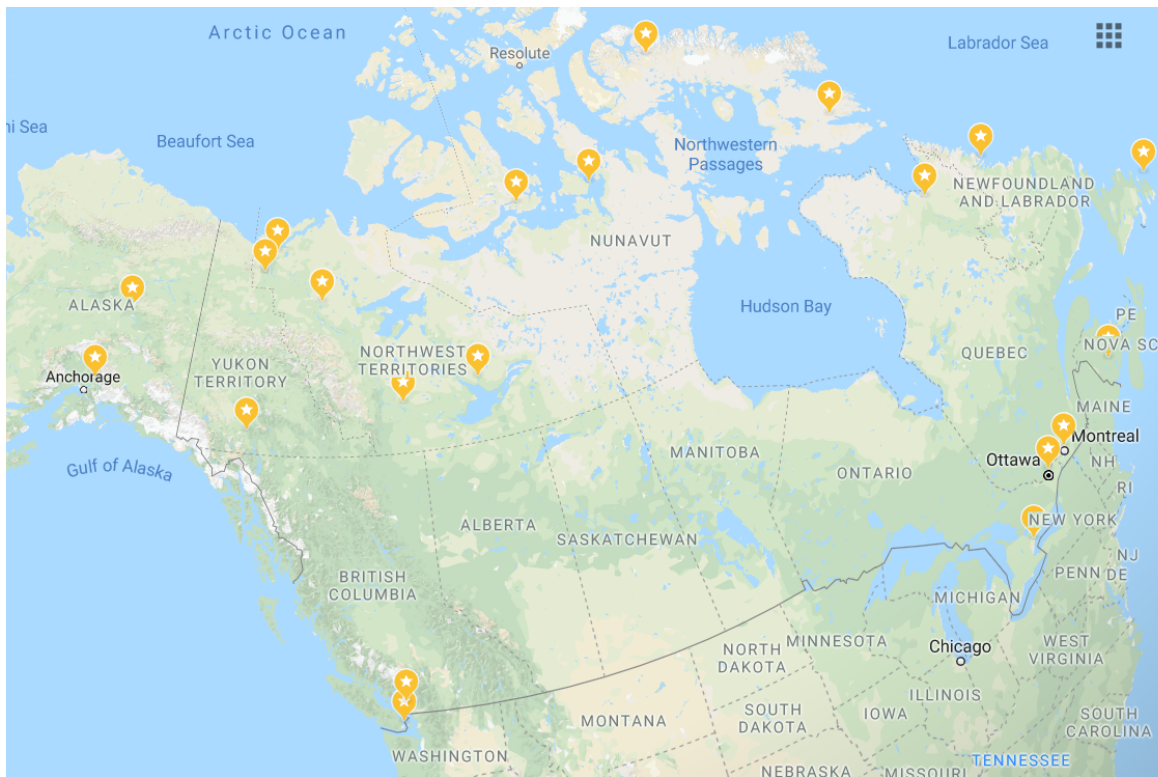


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1 Introduction

On May 1-3, 2018, representatives from across Northern Canada, Alaska, and Southern Canada gathered in Yellowknife, Northwest Territories for the **Northern Housing Forum**, hosted by Polar Knowledge Canada. Participants not only represented a vast geography, depicted on the map below, but also a diversity of experience and expertise in social, technical, and financial housing themes.



The meeting objectives were:

- To strengthen collaboration across disciplines to focus on holistic approaches to northern housing challenges;
- To gather and build upon existing best practices from across the North to provide solutions to technical, social, and financial northern housing barriers; and,
- To provide realistic recommendations to governments, housing corporations, and northern communities to inform their next-generation housing design and implementation decisions moving forward.

The three-day forum included a mix of presentations, small group discussions, and plenary discussions. Days 1 and 2 included concurrent sessions on three themes – Social, Financial, and Technical – after which participants came together for multi-disciplinary discussions to advance the ideas generated in the concurrent sessions.

Polar Knowledge Canada led a collaborative planning approach to develop the meeting objectives and agenda, including the formation of Working Groups for each theme (Social, Financial, Technical). Working Groups held two teleconference meetings in the months preceding the forum to establish the two-to-three discussion topics and presentations for the concurrent sessions.

This report provides a summary of the forum, including forum presentations, small group discussions, and plenary discussions, as organized below:

- Section 2 – Opening Remarks and Plenary Presentation Highlights
- Section 3 – Technical Theme
- Section 4 – Social Theme
- Section 5 – Financial Theme
- Section 6 – Integrated Concepts
- Appendix A – Agenda
- Appendix B – List of Participants
- Appendix C – Presentation Summaries

The NWT Housing Corporation hosted a half-day meeting on April 30th focused on ventilation. Four presentations provided information on advances in ventilation, including the work and research being undertaken related to heat and energy-recovery ventilation equipment for extreme climates. This meeting was outside the scope of the Northern Housing Forum and is not summarized in this report. Please contact the NWT Housing Corporation for additional information.

2 Opening Remarks and Plenary Presentation Highlights

Opening remarks were provided by David Scott, President and CEO of Polar Knowledge Canada, Paul Betsina, Business Development Manager with the Det'on Cho Corporation, Linda Bussey, a City of Yellowknife Councillor, Tom Williams, President & CEO of the NWT Housing Corporation, and Jennifer Sokol of Polar Knowledge Canada.

Three plenary presentations followed the opening remarks. A fourth plenary presentation occurred on the morning of Day 3. Appendix C provides a summary of all forum presentations, organized by session.

Common themes woven throughout the opening remarks and plenary presentations included the urgency of solving overcrowding and homelessness across the north, as well as the need to address these and other housing challenges through an integrated and holistic approach, one that places people at the centre of housing design, construction, and maintenance. The holistic approach to housing design and construction considers wellness, health, culture, affordability, security, energy-efficiency, and homeowner use of space. Homes that meet the needs of residents increase their wellbeing and are culturally appropriate. Use of the best, practical, and proven technologies appropriate for the northern environment promotes occupant health and energy-efficiency.

Community engagement and grass-roots approaches are vital to this holistic concept, to understand housing needs, to build culturally appropriate homes, and to facilitate housing options based on diverse needs. Engagement and the ability to influence housing design increase occupants' pride in, and responsibility over, their home.

Flexible design (e.g. movement of walls; houses on sleds) allows for adaptation to meet northern realities. The northern housing shortage also warrants efficient designs and construction. Multiplex designs allow for increased cost effectiveness and can help meet the housing needs of a community if appropriately designed.

3 Technical Theme

Of the three concurrent sessions, the Technical session included the most forum participants, with approximately 45-50 individuals. The two pre-selected topics for the session were New Construction and Retrofit, and each topic included three presentations as summarized below and in Appendix C.

New Construction:

1. Building envelope design best practices and challenges for mould mitigation (Jeff Atchison, Dillon Consulting)
2. Strategies to reach passive house and near-net-zero homes in Canada's far North (Elyse Henderson, RDH Building Science Inc.)
3. Tiered Energy Codes (Rizwan Ullah, Natural Research Council)

Retrofit:

1. Illustrated Guide for Northern Housing Retrofits (Graham Finch, RDH Building Science Inc)
2. Nunavut Housing – Mould Root Cause Analysis, Air Quality Monitoring and SIP Performance Program (Tyler Barkhouse, Dillon Consulting)
3. Into the wild: Implementing weatherization projects in rural Alaska (Dan Berube, Fairwinds Energy Alaska)

Participants had an opportunity to discuss in small groups their ideas for technical best practices / solutions, after which participants discussed three best practices / solutions in greater detail in multidisciplinary discussions.

3.1 DISCUSSION OUTCOMES

3.1.1 Net-Zero Homes

The feasibility of net-zero/near-net-zero homes was discussed during the technical session. A net-zero home is one that uses as much energy as it can produce from on-site renewable energy.¹ The conclusions of the discussion were that the focus should be on building more houses to help address the chronic shortage, but to get as far to near-net-zero homes as possible and to work to achieve full net-zero at the community-level if that is a community goal. Ease of maintenance and replacement of equipment was noted as important.

3.1.2 Ideas Advanced in Multi-disciplinary Discussions

Three best practices / solutions selected for more focused discussion in multi-disciplinary small groups included:

- a. A simple, standardized, holistic, integrated new home/multiplex design that incorporates improved elements (insulation, windows, ventilation).
- b. A comprehensive checklist/protocol/tool to assess home condition, collect data, and determine priorities using a triage approach.
- c. Building local capacity to build and maintain homes, including tenant awareness.

¹ NRCan, 2018. NetZero: future building standards. URL: <http://www.nrcan.gc.ca/energy/efficiency/homes/20581>.

3.1.2.1 Holistic Home/Multiplex Design

A solution / best practice that integrates several concepts related to housing design is the adoption of a **simple, standardized, holistic, integrated new home/multiplex design that incorporates improved elements**.

Simple and Standardized: in regions such as Nunavut, with significant current and projected future housing shortages, there is a need to focus on cost efficiency – one way to do this is to decrease the complexity of the build (“state of industry vs. state of art,” Gary Wong’s presentation). Another means to increase cost efficiency is to standardize designs for easier replication. ‘Repeatable design’ can mean the use of common elements across different housing types, such as windows, toilets, or HVAC systems, as well as the use of repeatable housing types and envelopes.

Holistic: a common message emphasized by Forum participants was the importance of using a holistic approach to design and construction of the home/multiplex. Holistic design incorporates the ways in which the residents live and use their homes (e.g. adequate storage for subsistence foods and seasonal clothing). It incorporates health, wellness, comfort, and culture. To increase holistic design, there needs to be some flexibility over design elements. Homeowners/tenants should be integrated into the design process, for example to help design the layout and colour scheme of the unit. The benefits of involving residents are two-fold: 1) homes that meet the needs of residents increase their wellbeing and, 2) engagement and influence in design increases their pride in, and responsibility over, their home. A variety of construction products would be required to be on hand (e.g. paints, flooring).

Integrated: an integrated design approach is one in which there is communication between design teams and those who maintain the homes, to ensure that design elements / systems are continually improved based on lived experience. Building prototypes of houses is one way to test designs and integrate learnings into the construction of new buildings.

Improved elements: keeping in mind cost efficiency, participants and presenters emphasized the importance of sourcing and using materials, technologies, and systems that are energy-efficient and Arctic appropriate (e.g. insulation, windows, ventilation, water and sewage systems). The concept of flexibility in design and structure was also stressed – for example, the ability to move interior walls or add / remove rooms, or the ability to adjust foundations or move houses to different locations. Flexibility allows for residents to adapt to changing environments and housing needs.

Building Codes

The multidisciplinary group also discussed the importance of building codes / standards being realistic and incorporating the “human element given unique contexts”. It was noted that standards can influence available funding, which may limit the desire to build homes above the base level.

Example

In collaboration with the Cold Climate Housing Research Center, the Alaska Native Tribal Health Consortium integrated new innovations and designs into the design and building of a home in Oscarville, Alaska. ANTHC/CCHRC engaged with the future occupants on their needs, such as storage. The **focus was on needs versus wants**, and design options were provided (e.g. occupants were able to select the paint colours).

Resources referenced by participants:

Good Building Practice for Northern Facilities:

http://www.pws.gov.nt.ca/sites/pws/files/good_building_practice_for_northern_facilities.pdf

3.1.2.2 Comprehensive Checklist

A second solution that resulted from the Technical sessions is a comprehensive checklist/protocol to assess home condition, collect data, and determine priorities using a triage approach.

Key characteristics of a comprehensive **checklist / protocol** include:

- Holistic, to address multiple components and potential issues;
- Simple, allowing individuals with little training or expertise to conduct the assessment;
- Thorough, to investigate the root cause of an issue (i.e. the reality of what is really going on in the house); and,
- Consistent, for possible use across regions and jurisdictions, while remaining adaptable to regional needs.

Example

The Nunavut Housing Corporation is currently implementing an integrated system that uses an **online platform for conducting assessments**. It is a live database with the ability to upload photos and allows for the assessment of **multiple components/phases**, including new construction, energy efficiency (using thermal imagery), mould, and monitoring. The system uses a standardized approach with a **simplified design**, and generates work orders to address issues of concern.

The benefits of implementing this type of checklist include:

- Improving the understanding of how occupants are using their homes;
- Reducing the requirement for experts to conduct site visits; and,
- Improving the ability to 'triage' the most severe issues/problems (e.g. health and safety, structural integrity, energy efficiency).

Proper initial assessment prioritizes needs and identifies the best use of funds and the required expertise. Having more people trained to do unit condition ratings / initial assessments would increase the number of houses assessed.

3.1.2.3 Develop Local Capacity

The third solution/best practice discussed by participants in the multidisciplinary session, and which drew the most number of participants, is to **develop local capacity to build and maintain homes**. As several groups noted, the focus should not just be on building homes, but also on involving local labour, building communities, and investing in the future.

Opportunities to build capacity including:

- Prioritizing local labour in construction, potentially through contract requirements (e.g. employment targets (50%) for the participation of Northern residents of Indigenous heritage)
- Training local residents in housing development and maintenance, by using tradespeople/contractors as teachers or mentors for example, and encourage local labourers to become the teachers of subsequent construction projects

- Taking advantage of existing or establish new apprenticeship programs, such as those run by [Aurora College](#) (e.g. Apprenticeship Carpenter, Apprenticeship Electrician, Apprenticeship Housing Maintainer)
- Introducing job shadowing, potentially as a requirement within construction contracts
- Involving the homeowner in the construction of the house (e.g. Habitat for Humanity model; or as a requirement of occupancy)
- Building similar styles of homes, with minor variations year to year, to enable the use of the same skill sets²
- Educating youth on housing construction and maintenance; for example, through job demonstrations in schools
- Educating homeowners / tenants on systems and maintenance; for example, through user-friendly homeownership and awareness guides (e.g. tenant handbook; humidity measurement instructions)

Ted Trindell, an Elder of Fort Simpson NWT once said, "Too early we get old, too late we get smart". Pass on our knowledge to the youth.

- Robert Hardisty, Acting Technical Manager, Nahendeh District Office, NWT Housing Corporation

Success factors include:

- Working with the community, through community and or regional-level governments and organizations (e.g. local housing authorities, Indigenous community organizations)
- Hiring motivated individuals committed to the community
- Obtaining long-term funding for capacity building programs
- Establishing partnerships, broadly around capacity building, but also specifically for paying local wages
- Recognizing and adapting to cultural differences between out-of-town and local capacity
- Developing long-term training plans
- Allowing additional time for contractors to work with, and help train, community members

Barriers to developing local capacity include:

- Shortage of personnel
- Shortage of childcare, particularly in small communities
- Lack of funding to build comprehensive training programs
- Different work styles/approaches of external contractors and local employees (e.g. length of work day can be longer for those not local to the community)
- Modular homes, which do not require local labour and can have a negative impact on local economies
- Broader social issues, such as low literacy in English and health concerns

² The cultural appropriateness of this suggestion would need to be considered on a case-by-case basis

Example

The Northwest Territories Housing Corporation offers a four-module program called **STEP - Solutions to Education Persons** - focused on educating people to acquire the skills needed to be successful homeowners (at this time, this program is only available in English). The four modules are:

- Financial Skills I: Budgeting
- Financial Skills II: Banking and Credit
- Home Purchase
- Home Maintenance / Repair

For more information visit: <http://nwthc.gov.nt.ca/node/16>

4 Social Theme

The three pre-selected topics for the session were:

1. Housing and supports for homeless and vulnerable people in small, remote communities;
2. Engagement with Communities: Design, delivery and maintenance in the life cycle of a house; and,
3. Housing and supports for homeless and vulnerable people in Northern Cities.

There were two presentations, summarized below and in Appendix C.

1. Why research matters? Methodology as best practice in understanding hidden homelessness (Deatra Walsh, Government of Nunavut)
2. Northern homelessness, northern solutions: Identifying best practices in addressing homelessness and housing insecurity in the Canadian North (Julia Christensen, Memorial University)

Participants had an opportunity to discuss in small groups their ideas for best practices / solutions related to the topics. While there are distinctions between the forms and causes of homelessness in rural and urban communities, participants recognized the linkages between the issues that contribute to homelessness in small, remote communities and the issues that contribute to homelessness in Northern Cities. Likewise, the solutions to address homelessness in small, remote communities are similar to those in Northern Cities. The issues/solutions are integrated. Therefore, the third discussion topic – on housing and supports for people who are homeless or at a high level of risk of homelessness in Northern Cities – became a plenary discussion that drew out observations related to the systemic factors of homelessness and rural-to-city migration, and potential solutions to homelessness.

Section 4.1 provides an integrated summary of the subsequent multidisciplinary discussions.

4.1 DISCUSSION OUTCOMES

4.1.1 Ideas Advanced in Multi-disciplinary Discussions

Three best practices / solutions selected for more focused discussion in multi-disciplinary small groups included:

- a) Supportive housing models: using existing resources and mobilizing partnerships
- b) Appropriate and adaptive engagement to address local needs
- c) Researching and documenting factors of homelessness for adequate response

4.1.1.1 Supportive Housing Models

Supportive housing is a model in which services and supports are often brought to individuals as opposed to individuals needing to seek out services and supports on their own. This housing model helps people who have difficulty living independently or maintaining their housing.³ It addresses the root causes and re-occurring pathways to housing insecurity and may include a mix of different units and clientele (youth, seniors, people with disabilities, etc.).

³ The Social Housing Registry of Ottawa, *Supportive Housing*, 2014.

Success factors of supportive housing include:

- Knowing what does not work.
- Recognizing that homelessness exists in different forms at different stages in different communities.
- Identifying vulnerable populations/individuals, their contexts (i.e. why they are experiencing homelessness), and their needs to match with available supportive housing units. A one-size-fits-all approach does not reflect the needs of vulnerable individuals.
- Engaging with communities to determine community needs and to develop a place-based approach. Facilitate discussions on community solutions to create the opportunity of community readiness.
- Mobilizing partnerships between different service providers to coordinate resources and provide multi-disciplinary support teams.
- Mobilizing private-public partnerships between social program providers and private owners / landlords.
- Building on local capacity to deliver social services.
- Utilizing existing resources, including social programs and physical resources, like unused stock.
- Building meaningful connections and relationships between service providers and recipients.
- Creating a safe space for cultural identity within supportive housing units (e.g. traditional language and on the land programs).
- Desegregating individuals with an increased focus on communities and families.

Barriers to establishing supportive housing include:

- Lack of support staff and programs, particularly in small remote communities.
- Few if any private owners/landlords to establish private-public partnerships.

4.1.1.2 Appropriate and adaptive engagement to address local needs

Engagement was a common theme throughout the three-day Forum. It was a focused discussion under the Social Theme, which led to the solution/best practice of “**Appropriate and adaptive engagement to address local needs**”, further discussed in the multidisciplinary session. Discussion highlights from the two sessions are integrated below, organized by the three main phases of engagement: Pre-engagement, Engagement, and Post-engagement.

Pre-engagement

A first step in pre-engagement is to identify the goal of engagement, and to then identify the engagement approach. The engagement technique/approach (e.g. community meal, survey, etc.) also depends on the community’s preferred method of engagement, resulting in more decision-making to the community, and the unique aspects of a community – language, culture, and the state of readiness to engagement. Each community is unique.

“Culturally relevant engagement from the outset will lead to culturally appropriate relationships.” (Forum participant)

Additional factors for success in pre-engagement include a commitment to engagement within the lead organizations – for example, through an engagement policy and/or plan – as well as working with a housing/engagement coordinator from the community in question. Housing authorities, or local housing organizations, are key actors in liaising with communities. Participants emphasized the importance of building meaningful relationships with community members to ensure effective engagement.

Engagement

Participants and presenters highlighted the use of design charrettes for Northern housing engagements. A design charrette is a collaborative session in which a group of designers draft designs to explore and share a diversity of design ideas. Regardless of the engagement approach used:

- Ask the right questions, based on needs and lived experiences. Listen to ensure what is built addresses those needs (e.g. designing a bigger door to accommodate wild game);
- Ensure two-way information exchange;
- Engage different actors in the community, including elders and youth; and,
- Empower the community to focus on its strengths.

Meaningful engagement processes to design and build a home can take a long time – upwards of 3 years.

Post-engagement

Successful engagement initiatives include an element of follow-up – organizations report back to participants what they have heard, and act on recommendations and comments received. It is also important to learn from each engagement to improve and adapt approaches. One group recommended that a review of previous design charrettes be conducted to determine the best practices and analyze the impacts of the engagement approach. A participant suggested integrating this research question into Nunatsiavut's social/cultural monitoring program.

Examples

The Cold Climate Housing Research Center engages with community members to design and build houses that meet the needs of the communities. Their approach, through design charrettes and other engagement methods, is to go to the community, **bring food, listen first, and empower community members by asking about strengths**, then asking about needs.

Resources referenced by participants:

iap² – International Association for Public Participation <https://www.iap2.org/>

4.1.1.3 Researching and documenting factors of homelessness

The third best practice / solution that emerged from the Social theme was '**Researching and documenting factors of homelessness**'. The multi-disciplinary discussion identified systemic housing issues / contributing factors and several current gaps in research, summarized below.

Systemic issues / contributing factors of homelessness:

- There is a lack of suitable housing across the North, especially in Nunavut, which has led to overcrowding and homelessness (hidden or not). Contributing factors in the housing shortage include:
 - Cost of building in remote Northern areas
 - Lack of contractors and limited capacity to build houses
 - Short construction season
 - Over-housed individuals [i.e. some people are over-housed because they do not move out of their accommodations after their situations change (e.g. children move out)]
- The stigma attached to social housing may prevent people from moving into social housing units. For example, one participant from Fort Simpson noted that a duplex was recently

converted into four bachelor style units, but the units have sat empty since January 2018; this may be because of the stigma of homelessness.

Suggestions / Ideas to address systemic issues and contributing factors:

- Ship ready-made components for rapid assembly.
- Develop a long-term plan for when various stages of construction will occur.
- Build 'flexible' houses (e.g. units that can be easily split / re-joined) to adapt as the household and community changes.
- Disassociate the term "homeless" from social housing units.
- Consider housing as a "social determinant of health" in order to enhance cooperation and collaboration amongst departments, Indigenous governments, other orders of government, NGOs, etc.

Key research questions:

- What are the causes of homelessness, at a community level? For example, is it a lack of housing, a lack of financing, and/or a lack of human capacity for social services and support? Understanding the causes allows for targeted and focused solutions.
- How do we make capital move faster to build more houses faster?
- How can we increase capacity to build year-round? For example, would building within a large enclosed space be logistically / financially feasible in Northern communities? What construction techniques would allow the construction of certain parts of the house during the winter?
- Would tiny homes work in the North?
 - Do people want to live in tiny homes?
 - Would building code requirements allow for their use, including the consideration of energy efficiency?
- How are developers working with governments to address Northern barriers / challenges?

5 Financial Theme

Of the three concurrent sessions, the Financial session included the fewest forum participants, with approximately 16 individuals. The three pre-selected topics for the session were:

1. Limited interest from private developers;
2. High costs of development; and,
3. Approaches to address lack of credit scores.

There were two presentations, summarized below and in Appendix C.

1. Improved credit ratings: A new approach (Murray Rowe, Forrest Green RMC)
2. Financial capacity skills: The future of work and the future of finance (Meaghan Daly, Forward Vision Games)

Participants had an opportunity to discuss in small groups their ideas for best practices / solutions related to each topic, after which participants discussed three best practices / solutions in greater detail in multidisciplinary discussions. Section 5.1 provides a summary of the discussions.

5.1 DISCUSSION OUTCOMES

The following solutions / best practices resulted from the three Financial group discussions held on Days 1 and 2:

Limited interest from private capital providers

1. Share the decision-making framework on how each region operates for capital providers
2. Learn from high-capacity framework from the QRC (Qikiqtaaluk Corporation) or other regional development corporations
3. Develop new financial models to reflect impact of government capital involvement

High cost of development

1. Share data costs for building and maintenance, include financial impacts to create a cost of capital overlaid on the process
2. Amend building codes to Northern realities
3. Building capacity or develop certification scheme through RFP projects

Approaches to address the lack of credit scores

1. Financial training programs (e.g. Inuit Tapiriit Kanatami (ITK) junior economic club, integration of programming in school curriculums)
2. Rental payment history shared with banks and/or financial institutions to obtain credit (individual and community/organization)
3. Financial capacity development at community and leadership level

5.1.1 Ideas Advanced in Multi-disciplinary Discussions

The multidisciplinary discussions focussed on three best practices / solutions:

1. Financial training programs, example: ITK junior economic club, integration of programming in school curriculums.
2. Data costs shared for building & maintenance, accounting for the entire cost of building a home.

3. Different options for financing homes (community-based approaches) outside social housing & private ownership.

5.1.1.1 Financial Training Programs

Financial literacy is one solution to help address the lack of credit scores in the North, but its benefits go beyond credit scores. More broadly, building financial capacity within communities is the goal.

Success factors of financial training programs include:

- Developing a strategy to characterize the participants and the method of delivery (e.g. community events; school curriculum).
- Partnering with Indigenous organizations to understand their goals for developing financial literacy and to build the literacy program.
- Training students with the hope that information is shared with other members of the household.
- Looking beyond the participant and seeking to improve financial literacy of the whole community.
- Utilizing existing community training programs.

Barriers to implement financial training:

- Connecting those in financial literacy with those working within or with the community (e.g. community liaisons).
- Funding for training is scattered. There are options through private sector programs, education curriculums, and existing training programs (e.g. worker readiness programs).

5.1.1.2 Sharing Data Costs

The small table discussions related to this solution / best practice were disparate and did not result in consistent themes. A few discussion highlights include:

- RSMMeans (a supplier of construction cost information) does not apply to the North; a Nunavut-based database exists.
- Assorted best practices:
 - Establishing tighter specifications, with well-defined unit costs at bid
 - Training regional labour
 - Training homeowners to extend lifecycle and reduce maintenance
 - Updating standards on a more frequent basis to meet current needs.
 - Having a cost accounting system, estimating system, and practical experience, while knowing costs per unit and costs per person/year; having in place a quality surveyor to catch all the details
 - Using standardized designs/units
 - Gathering and analyzing housing data through a unit condition rating; expertise to develop an updated form could come from maintenance staff, technicians, and building managers

5.1.1.3 Options for Financing Homes Outside Social Housing & Private Ownership

Participants focused their discussion on different options for funding or subsidizing home building and maintenance, as summarized below.

Habitat for Humanity: a 'hand-up' model whereby homes are sold at cost and not at market value, with in-kind labour required. This model is currently used in the North (e.g. one house has been built per year in Nunavut and the City of Yellowknife donates a property every two years for this purpose). Repaid loans provide capital for further builds. It requires endorsement by people in the community, volunteers to help build the houses, and the ability of homeowners to pay expenses.

Modular buildings: modular buildings (e.g. ATCO trailers) are used by industry in the North for offices and the housing of employees. One option is to convert unused trailers into houses – either by purchasing from industry or by seeking industry donations.

Rent to own: when a tenant's rent contributes to home purchasing.

Cooperatives: a cooperative model is one in which a cooperative or company owns the real estate, with membership through a purchase of a share in the cooperative. Shareholders then have the right to occupy a unit. There are examples of cooperatives in Yellowknife (Inukshuk Coop, Borealis Co-op), Fort Smith (Garden City Co-op) and Iqaluit (Hillside Housing). Incentive programs could be used to move people from social housing to cooperative models.

Co-housing: co-housing is a model in which residents typically own their individual homes/units, which are clustered around a common house or area with shared amenities (e.g. kitchen). Multiple parties put forward initial equity to build / purchase the co-housing units and then contribute to the maintenance of the house.

Home ownership: this is the most expensive model. It is difficult for home owners to maintain homes and to find buyers in remote communities. Home ownership models would encourage interest in home maintenance. NWT provides homeownership assistance through its PATH program – Providing Assistance for Territorial Homeownership. Another option is for organizations/entities (like an Indigenous community government) to own and maintain the community housing as a social enterprise, with houses passed down to future generations.

6 Integrated Concepts

The afternoon of Day 3 provided an opportunity for participants to reflect on what they had heard over the course of the forum and to integrate their observations into two different outputs:

- Statements of advice for decision-makers; and
- News articles five or ten-year's in the future.

6.1 ADVICE TO DECISION-MAKERS

Participants were asked to write on sticky notes their advice to decision-makers.

Today homes in the North are built using Southern building/design techniques, resulting in significant problems. **Northern-specific design standards** are required to address environment and culture requirements.

Implement greater **cultural safety** by empowering communities to take greater part in housing policy creation.

Action and **stable investment** is needed now to catch up with the gap and get ahead of the growth

Rely upon **evidence-based decision making** as much as possible.

Expertise and **capacity building takes time and mentorship**. Need long term, multi-year (10+ years) for capacity building, training and mentorship.

Flexibility with **building designs to reflect the needs and social wants of homeowner** and maintenance of homes (e.g., people will care more about a home they love)

Public-private partnerships with Inuit organizations/Band Councils to allocate land, increase capacity and raise capital

Measure success through a **lens of community empowerment rather than short-term quantifiable goal** (e.g., number of units built, number of homelessness reduced). This will lead to processes of true involvement of community members.

Coordinate federal housing funding. Allow for co-funding across departments to enable a **holistic approach to housing**.

Community development and capacity building need to be a strategic priority for at least **seven generations** "in housing".

(1) **Decolonization**; (2) Reciprocal relationship building; (3) Community leadership, empowerment and capacity in all processes and outcomes; (4) Community wealth-based models; (5) **Regenerative economies**.

Provide the **space to play** with ideas and **grow**.

To make a house a home you need all 3 parts, remove one and it will not work, just like a fire. Must integrate them all or the project will fail: **Social (Discuss) – Financial (Plan) – Technical (Do)**

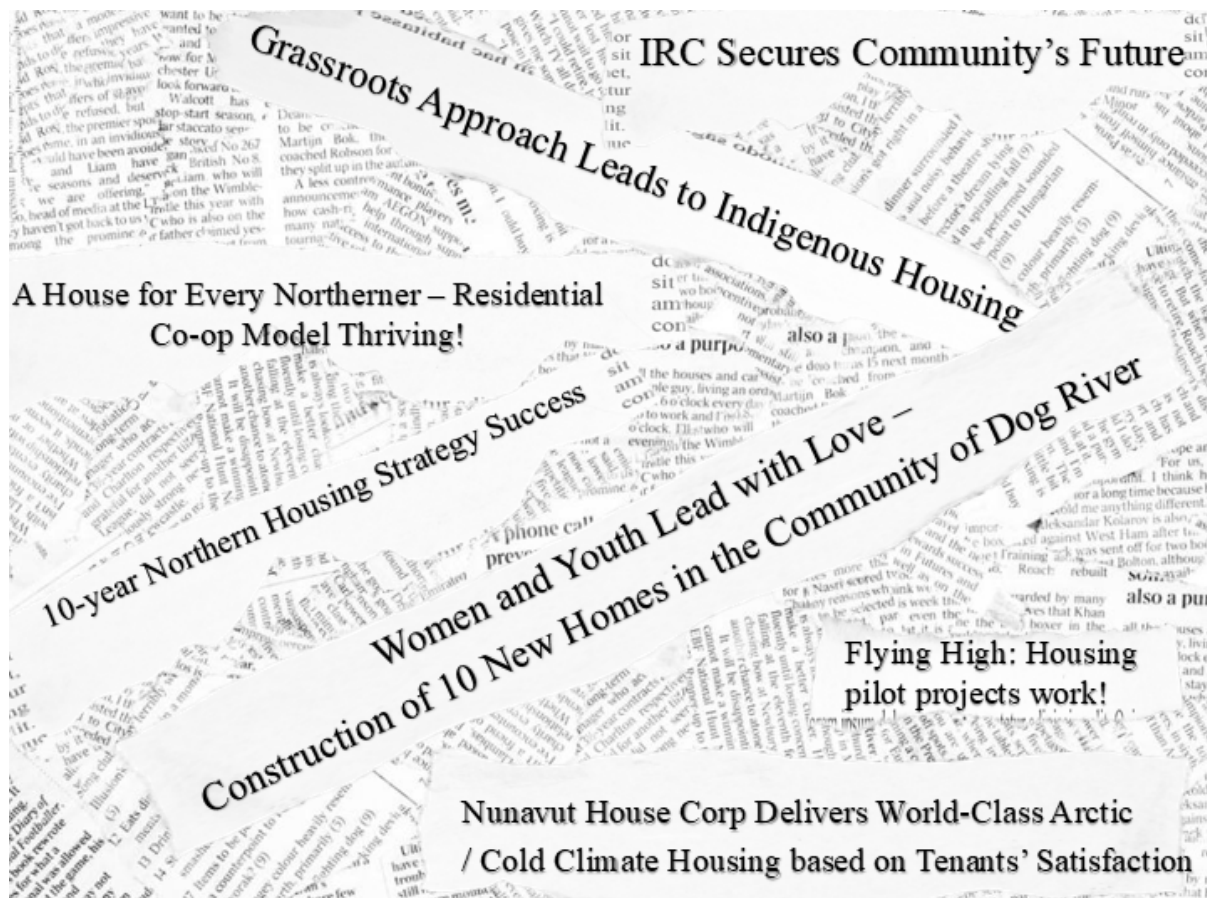
Use the concept of **Affordable Warmth** to drive adoption of energy-efficiency standards/regulations.

On the technical side, **solving the ventilation challenge is critical** on many fronts: health; durability; energy efficiency.

Developing a **long-term plan for funding** to optimize the construction based on each situation and **social reality of the community**.

6.2 NEWS ARTICLES

In small groups, participants developed news headings and articles for 2023 or 2028 that described the outcomes of successfully implemented Northern housing solutions / best practices.



Common themes across the news articles were:

- Community-led approaches to design, construction, and maintenance
- Sustainable design and construction, with quality materials and flexible builds (e.g. lego houses)
- Supportive housing leading to increased health and wellness
- Local training and skills development for construction and maintenance
- Local labour
- Public-private partnerships and collaboration

7 Forum Reflections

Several participants provided their reflections following the forum. A sample is provided below.

The Northern Housing Forum highlighted the differences, and similarities in the challenges faced across the north and at the same time provided an opportunity to share best practices and innovative solutions with other jurisdictions.

- Alana Mero, District Director, Beaufort Delta, NWT Housing Corporation

Networking to share ideas, best practices and prior failures is paramount to success.

- David Lintaman, Project Manager, Qikiqtaaluk Business Development Corporation

Housing is the number one issue in the north. These meetings are critical to even begin to understand the depths of the issues and potential solutions for northern housing. It gave me a much greater appreciation of the social, cultural, and technical sides of northern housing, and how they are not being addressed.

- Juergen Korn, Yukon Housing Corporation

Thank you for the opportunity to attend the Housing Forum in Yellowknife. The experience was great and very educational. With many great minds meeting together to talk about the Housing issues that face Northern Canadians, I hope that we have accomplished something that can be brought forward and built upon. I look forward to the next gathering.

- Derek K. Elias, Business Development Officer, Kitikmeot Inuit Association

Anyone who attended this forum is very passionate about their work helping people in need. This showed in the presentations and discussions. Also included Polar staff. What made this special was constantly changing tables and talking to different people about their situations.

- Leon Nason, Technical Advisor, South Slave District Office

Appendix A – Agenda

Northern Housing Forum - Agenda

May 1st – May 3rd, 2018
Explorer Hotel
4825 49th Ave, Yellowknife, NT



Forum Objectives:

- To strengthen collaboration across disciplines to focus on holistic approaches to northern housing challenges.
- To gather and build upon existing best practices from across the North to provide solutions to technical, social and financial northern housing barriers.
- To provide realistic recommendations to governments, housing corporations and northern communities to inform their next-generation housing design and implementation decisions moving forward.

Monday, April 30th, 2018

Time	Agenda Item
5:30 – 7:30	Ice Breaker Event at the Black Knight Pub, 4910-49 Street (food provided)

Tuesday, May 1st, 2018

Time	Agenda Item
	<i>Note: After the breakfast at the Explorer Hotel, the first morning session will be held at the Prince of Wales Northern Heritage Centre, Museum Auditorium, 4750 48 St. This is across the street from the Explorer Hotel and is a 10-15-minute walk. Please allow enough time for you to have breakfast and walk over for a start time of 8:30. Please, note that the registration will be held at the Prince of Wales Northern Heritage Centre, Museum Auditorium.</i>
7:00 – 8:15 Explorer Hotel - Janvier Room	Continental Breakfast
7:30 – 8:30 Prince of Wales Northern Heritage Centre	Registration <i>Please note that food and drinks are not permitted within the Museum.</i>
8:30 – 9:30 Prince of Wales Northern Heritage Centre	Introductory Remarks <ul style="list-style-type: none"> • Welcome Remarks – Jennifer Sokol, Polar Knowledge Canada • Drumming Prayer – Chief Sangris, Yellowknives Dene First Nation & Yellowknives Dene Drummers • Welcome Remarks – David Scott, Polar Knowledge Canada • Welcome Remarks – His Worship Mark Heyck, Mayor of Yellowknife • Opening Remarks – Tom Williams, NWT Housing Corporation (TBC) • Overview of the day and Housekeeping – Facilitators
9:30 – 10:00 Prince of Wales Northern Heritage Centre	Plenary Presentation – Holistic Approach to Sustainable Northern Communities (Jackie Schaeffer, Alaska Native Tribal Health Consortium)
10:00 – 10:30	Health Break
10:30 – 11:00	Plenary Presentation – Nunatsiavummi Illunittânik (Janine Lightfoot & Rudy Riedlsperger, Nunatsiavut Government)
11:00 – 11:30	Plenary Presentation – 5-plex Design as Best Practice in Nunavut (Gary Wong, Nunavut Housing Corporation)
	<i>Note: The Social and Financial Working Groups will walk back to the Explorer Hotel at this time and remain there for the duration of the day. Health breaks and lunch for these groups will be at the Explorer Hotel. The Technical Working Group will remain at the Prince of Wales Northern Heritage Centre and have breaks and lunch upstairs at the Museum Café.</i>
11:30 – 1:00	Lunch (provided in both locations)
1:00 – 2:30	Technical thematic group meeting 1 Presentations: <ul style="list-style-type: none"> • Building envelope design best practices and challenges for mould mitigation (Jeff Atchison, Dillon Consulting) • Strategies to reach passive house and near-net-zero homes in Canada’s far North (Elyse Henderson, RDH Building Science Inc.) • Tiered energy codes (Rizwan Ullah, National Research Council)
1:00 – 2:30	Social thematic group meeting 1 Presentation:

Time	Agenda Item
	<ul style="list-style-type: none"> Why research matters? Methodology as best practice in understanding hidden homelessness (Deatra Walsh, Government of Nunavut, Department of Family Services)
1:00 – 2:30	Financial thematic group meeting 1 Presentations: <ul style="list-style-type: none"> Improving credit ratings: A new approach (Murray Rowe, Forrest Green RMC) Financial capacity skills: The future of work and the future of finance (Meaghan Daly, Forward Vision Games)
2:30 – 3:00	Health Break
3:00 – 5:00	Technical thematic group meeting 2 Presentations: <ul style="list-style-type: none"> Illustrated retrofit guide (Graham Finch, RDH Building Science Inc.) Mould root cause analyses and indoor air quality: Results in residential housing units across Nunavut (Tyler Barkhouse, Dillon Consulting)
3:00 – 5:00	Social thematic group meeting 2
3:00 – 5:00	Financial thematic group meeting 2

Wednesday, May 2nd, 2018

Time	Agenda Item
7:30 – 8:30 Explorer Hotel - Katimavik Room B	Light Breakfast, Networking
8:30 – 8:45	Overview of Day 2 Agenda and Summary of Day 1
8:45 – 10:15	Technical thematic group meeting 3 Presentation: <ul style="list-style-type: none"> Into the wild: Implementing weatherization projects in rural Alaska (Dan Berube, Fairwinds Energy Alaska)
8:45 – 10:15	Social thematic group meeting 3 Presentation: <ul style="list-style-type: none"> Northern homelessness, northern solutions: Identifying best practices in addressing homelessness and housing insecurity in the Canadian North (Julia Christensen, Memorial University)
8:45 – 10:15	Financial thematic group meeting 3
10:15 – 10:30	Health Break
10:30 – 11:15	Thematic groups report back to plenary – Best practices and recommendations for identified challenges <ul style="list-style-type: none"> Technical theme Social theme Financial theme
11:15 – 12:30	Multidisciplinary group breakout sessions – Financial WG Best Practices
12:30 – 1:30	Lunch (provided)
1:30 – 2:30	Report back and plenary discussion on Financial Best Practices
2:30 – 2:45	Health Break
2:45 – 4:00	Multidisciplinary group breakout session – Technical Best Practices

Time	Agenda Item
4:00 – 5:00	Report back and plenary discussion on Technical Best Practices

Thursday, May 3rd, 2018

Time	Agenda Item
7:30 – 8:30 Explorer Hotel - Katimavik Room B	Light Breakfast, Networking
8:30 – 8:45	Overview of Day 3 Agenda and Summary of Day 2
8:45 – 9:15	Plenary Presentation – Sustainable Northern Shelter: Combining Traditional Wisdom with 21st Century Technology (Bruno Grunau, Cold Climate Housing Research Centre, Alaska)
9:15 – 10:15	Multidisciplinary group breakout session – Social Best Practices
10:15 – 10:30	Health Break
10:30 – 11:30	Report back and plenary discussion on Social Best Practices
11:30 – 12:30	Lunch (provided)
12:30 – 2:00	Mobilizing Best Practices for Operationalization <ul style="list-style-type: none"> • Discussion of proposed best practices to decision-makers • Challenges and opportunities in mobilizing Forum’s recommendations
2:00 – 3:00	Closing remarks & Reflections <ul style="list-style-type: none"> • Report back • End of day remarks and outlining of next steps – Facilitators • Closing remarks – Jennifer Sokol, POLAR

Discussion Questions – Concurrent Sessions

1. What is the best practice / solution?
 - a. Describe the best practice / solution in 1-2 sentences
2. What barrier does the best practice / solution address?
3. Where has the best practice / solution been applied? What were the factors that led to its success / adoption?
4. In what regions would this best practice / solution work well? In what regions would it not work well, and why not?

Discussion Questions – Multidisciplinary Break Out Groups

1. Who are the actors who must be involved? For example, who would be responsible for implementing the best practice/solution? Who would need to be consulted or involved in its development and/or implementation?
2. What is already in place that can be leveraged?
3. What resources (e.g. funding, capacity) are required to implement this best practice? Who could pay for or share in the cost of this solution?
4. What are the barriers to implementing this best practice (e.g. buy-in) and what potential solutions could overcome these barriers (e.g. training, involving the right people)?

Appendix B – Participant List

Name	Affiliation
Alana Mero	NWT Housing Corporation
Adla Itorcheak	Nunavut Tunngavik Inc.
Alexandra Giroux	Arctic Energy Alliance
Andreas Meyer	NWT Housing Corporation
Andrée Mailloux	Crown-Indigenous Relations and Northern Affairs
Andrew Williams	ESDC Employment and Social Development Canada
Anne Barker	National Research Council of Canada
Audrey Zoe	Dene Nation
Barry Pottle	Inuit Tapiriit Kanatami
Boualem Ouazia	National Research Council Canada
Bree Denning	Yellowknife Women's Society
Bronwyn Rorke	Government of the Northwest Territories, Dept. of Infrastructure
Bruno Grunau	Cold Climate Housing Research Center
Caroline Nochasak	Nunatsiavut Government
Carsen Banister	National Research Council Canada
Celeste MacKay	Government of the Northwest Territories, Dept. of Infrastructure
Chris Darcy	Polar Knowledge Canada
Christopher C. Clarke	Government of the Northwest Territories, Dept. of Health and Social Services
Conrad Baumgartner	Natural Resources Canada
Dan Berube	Alaska Community Development Corp
Dan Hunter	NWT Housing Corporation
Dan Morehouse	Dillon Consulting
Daniel Aubin	National Research Council Canada
David Lintaman	Qikiqtaaluk Business Development Corp.
David Stockley	Hamlet of Gjoa Haven
Deatra Walsh	Government of Nunavut
Denise Pollock	Alaska Institute for Justice
Dennis Basudde	Crown-Indigenous Relations and Northern Affairs
Derek Elias	Kitikmeot Inuit Association
Donna Sinnett	NAC Climate Change Preparedness in the North
Doug Klassen	Crown-Indigenous Relations and Northern Affairs
Edwin Erutse	K'asho Gotine Housing Society
Elyse Henderson	RDH Building Science
Erin Shea	GNWT/ NWT HC - Homelessness
Esther Combs	Zho-Tse, Inc. Village Corporation
Gary Collins	Nunavut Housing Corp.
Gary Wong	Nunavut Housing Corp.
Graham Finch	RDH Building Science
Grant Sullivan	Gwich'in Council International
Hannah McDonald	Yukon Housing Corporation
Iria Heredia	Polar Knowledge Canada
Jackie Qatalina Schaeffer	Alaska Native Tribal Health Consortium
James Caesar	Nerahten Developments Ltd. Fort Good Hope
James Lascelle	Polar Knowledge Canada
James Ross	Hamlet of Fort McPherson
James Wigmore	Government of Yukon
Janine Lightfoot	Nunatsiavut Government
Jeffrey Atchison	Dillon Consulting Limited
Jennifer Sokol	Polar Knowledge Canada
Jessica Metuzals	Polar Knowledge Canada
John D. Watson	Nunavut Housing Corporation
John Kivi	NWT Housing Corporation
Joyce Taylor	NWT Housing Corporation

Juergen Korn	Yukon Housing Corporation
Julia Christensen	Memorial University
Julia Purdy	Natural Resources Canada Canmet ENERGY
Kala Pendakur	The Standards Council of Canada
Larry Jones	NWT Housing Corporation
Lauren Gostick	Yellowknife Housing First Program
Leon Nason	NWT Housing Corporation
Luc Brisebois	Qikiqtani Inuit Association
Mandee McDonald	Dene Nahjo
Marie-France Brisson	Kativik Municipal Housing Bureau
Marijo Cyr	Crown-Indigenous Relations and Northern Affairs
Maxime Paquet	Kativik Regional Government
Meaghan Daly	Forward Vision Games
Michael Goodwin	Arctic Energy Alliance
Michael Murphy	Nunavut Housing Corporation
Mike Ellis	City of Whitehorse
Miki Ehrlich	NWT Association of Communities
Murray Rowe, Jr.	Forrest Green
Neil Phillips	NWT Housing Corporation
Oana Spinu	Inuit Tapirlit Kanatami
Patricia Hurd	Crown-Indigenous Relations and Northern Affairs
Patrick Barthold	Crown-Indigenous Relations and Northern Affairs
Paul Andrew	Dene Nahjo
Paul Betsina	Det'on Cho Corporation
Raphael Tixier	Makivik Corporation
Rizwan Ullah	National Research Council
Rena J.C. Squirrel	Durable Building Solutions Inc.
Renée Lazarowich	Natural Resources Canada
Revi Lau-a	NWT Housing Corporation
Robert Hardisty	NWT Housing Corporation
Robert Voudrach	NWT Housing Corporation
Rudy Riedlsperger	Nunatsiavut Government
Ruth McKeown	NWT Housing Corporation
Sami Tannoury	EVOQ ARCHITECTURE
Scott Reid	GNWT
Shailyn Drukis	Council of Yukon First Nations
Stephan Bowman	Crown-Indigenous Relations and Northern Affairs
Stephan Folkers	NWT Housing Corporation
Steve Outlet	Arctic Energy Alliance
Tai Nguyen-Ha	NWT Housing Corporation
Taylor Speed	NWT Housing Corporation
Terry Piwowar	NWT Housing Corporation
Tina McCallum	Kativik Regional Government
Tyler Barkhouse	Dillon Consulting Limited
Yves Thériault	Crown-Indigenous Relations and Northern Affairs
Zoë Martos	Gaujigiartiit Health Research Centre

Appendix C – Presentation Summaries

Plenary Presentations

There were four plenary presentations over the course of the three days.

Topic	Holistic Approach to Sustainable Northern Communities
Presenter	Jackie Qataliña Schaeffer, Alaska Native Tribal Health Consortium (ANTHC)
Key Message	ANTHC is committed to adapting its approach to design to assist people in a holistic manner that allows for a sustainable, healthy future with appropriate technologies, innovative options, and climate-designed engineering. Best practices for holistic approaches to sustainable northern communities include: continual community engagement; use of design charrettes and integration of lifestyles into design; healthy in-door air; energy-efficiency practices; sanitation and water use practices; homeowner education; human behavioral observations and practices; local, regional and state-level support networks, resources and collaboration; appropriate technologies and options; climate forecasting for adaptability; reporting out on “lessons learned” for future adaptation; integration of culture for healthy living (subsistence and gathering for better mental and behavioral health).

Topic	NHC 5-plex Multi-Unit Residential Building (MURB) as a Best Practice in Nunavut
Presenter	Gary Wong, Nunavut Housing Corporation
Key Message	57% of Nunavut’s population is currently living in public housing, with an estimated gap of 3000 units to meet current housing needs, and an additional 90 units per year to keep pace with population growth. Many units from the 1970’s are still in use due to an overall housing shortage. Basic layouts have remained consistent, but unit area has increased and decreased over time. Multiplex designs allow for increased cost effectiveness (e.g. single roof and foundation), reduced coordination time, and centralized heating boilers and water tanks. There is a research gap in the functional use/issues of public housing, such as how are they being lived in, and what is the minimum adequate functional space needed?

Topic	Nunatsiavummi Illunittânik - Housing in Nunatsiavut
Presenter	Janine Lightfoot and Rudy Riedlsperger, Nunatsiavut Government (NG)
Key Message	Actions resulting from the 2012 Housing Needs Assessment included targeted research, a home repair program, an energy security strategy, a pilot multi-unit dwelling, and a housing strategy. As a follow-up, NG conducted a Housing Risk Assessment in 2014, which was an on-the-ground evaluation of existing homes in Nunatsiavut. The evaluation identified factors contributing to the relatively short lifespan of housing in the region, targeting the most pervasive housing issues, and providing design recommendations for how best to avoid these issues in the future. Findings from the assessment have informed the design of a sustainable multi-unit dwelling – the Nain sixplex. The sixplex targets elders and youth, and the public was engaged in its design.

Topic	Sustainable Northern Shelter: Combining Traditional Wisdom with 21st Century Technology
Presenter	Bruno Grunau, Cold Climate Housing Research Centre (CCHRC)
Key Message	The CCHRC promotes and advances the development of healthy, durable and sustainable shelter for the circumpolar region. CCHRC has created a housing development model whereby villages can help themselves; through the initial build, CCHRC teaches the local workforce, enabling community members to apply their new skills to additional builds. They require the owner of the home to be involved in the construction, with half of their pay toward the construction. CCHRC embraced traditional knowledge and combines it with modern building science in the design of houses - for example, in the shape of houses and the layout (including a cold storage for game, covered storage for skidoo, and warm rooms throughout the rest of the house). It also considered the environmental context, for example by building a foundation on sleds to move the house if necessary.

Technical Presentations

New Construction

Topic	Building envelope design best practices and challenges for mould mitigation
Presenter	Jeff Atchison, Dillon Consulting
Key Message	Options for mould mitigation include: Removing all thermal bridging; Relocating vapour barrier from interior to sheathing or utilize Spray Polyurethane Foam (SPF) for wall insulation; Venting of the roof assembly, while mitigating snow accumulation (e.g. filter medium at vents); Utilizing soffits on roof designs; For windows, use of a fixed unit at bottom and movable unit above.

Topic	Strategies to reach passive house and near-net-zero homes in Canada's far North
Presenter	Elyse Henderson, RDH Building Science Inc.
Key Message	Key research questions are whether near-net zero targets can be reached in the North, and what strategies could be put in place to reach the targets? Potential strategies include: development of new technology, such as high-performance windows, long-term energy storage, and more efficient HRV preheat; adaptation of targets; and, modification of designs, such as window placement).

Topic	Tiered Energy Codes
Presenter	Rizwan Ullah, Natural Research Council
Key Message	The energy code is under significant transformation from prescriptive to performance requirements. Stakeholder input is important, as there are several gaps to fill. Challenges and considerations include: unique construction challenges in the North and performance-based targets place bigger burdens on builders in colder climates; compliance verification in the absence of prescriptive requirements, requiring capacity development on energy modelling.

Retrofit

Topic	Illustrated Guide for Northern Housing Retrofits
Presenter	Graham Finch, RDH Building Science Inc.
Key Message	The <i>Illustrated Guide for Northern Housing Retrofits</i> is a collaborative effort of federal and provincial organizations. It is intended to be an industry resource for achieving higher energy efficiency in existing homes, while maximizing utility cost savings and home passive survivability through lower energy use. Link to Guide: http://www.housing.yk.ca/pdf/pub_NorthernHousingRetrofitGuide.pdf

Topic	Nunavut Housing – Mould Root Cause Analysis, Air Quality Monitoring and SIP Performance Program
Presenter	Tyler Barkhouse, Dillon Consulting
Key Message	There is a direct correlation between relative humidity and CO ₂ , with CO ₂ levels demonstrating inadequate air circulation relative to the occupancy and activity in units. A lack of adequate air circulation results in increased relative humidity and creates an elevated potential for condensation, and hence mould growth. A combination of better building envelope design, better windows, and increased air circulation should address the issue of elevated CO ₂ and relative humidity, thermal bridging, and potential for mould growth.

Topic	Into the wild: Implementing weatherization projects in rural Alaska
Presenter	Dan Berube, Fairwinds Energy Alaska
Key Message	The key steps of the Weatherization Assistance Program are: outreach and intake; assessment and analysis; procurement; logistics; installation; inspection and verification. Services are provided at no cost to income qualified applications. It uses a whole house systems approach and energy modelling, with the installation of high-efficiency heating systems and controlled ventilation, while ensuring building airtightness. Budget restraints require the prioritization of retrofit measures. The single largest variable of a successful weatherization program is occupant behaviour.

Social Presentations

Topic	Why research matters? Methodology as best practice in understanding hidden homelessness
Presenter	Deatra Walsh, Government of Nunavut
Key Message	The definition of homelessness is different depending on how you calculate and how you define it. Understanding the extent of hidden homelessness is difficult because it's a mobile and hidden population. The Government of Nunavut has developed case studies of four Nunavut communities using a housing needs survey for population growth and social assistance caseload; residents are asked a set of questions such as: "Who slept here last night? Were any of those sleeping here temporarily? Do people sleep here temporarily?" etc. While this work is resource intensive, it is absolutely necessary to better understand and

	discuss the stress and issues faced by a vulnerable, homeless and/or at-risk population.
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Topic	Northern homelessness, northern solutions: Identifying best practices in addressing homelessness and housing insecurity in the Canadian North
Presenter	Julia Christensen, Memorial University
Key Message	Homelessness “looks” differently in northern communities, with a much more significant role played by hidden forms of homelessness. Northern homelessness is usually more chronic than episodic. Northern examples of housing first (a term used to describe a specific program model of housing with wrap-around supports based on consumer choice) include Bailey House and Hope’s Haven. There are uneven health and social service provisions and accessibility for those in urban versus remote communities. What might a housing first program look like in smaller communities? There is a need for more housing-health provision integration, and for culturally-safe, community-based health and wellness strategies (i.e. land-based wellness camps, community-led wellness strategies)

Financial Presentations

Topic	Improving credit ratings: A new approach
Presenter	Murray Rowe, Forrest Green RMC
Key Message	The evolution of financial markets and, in particular the credit system, have changed the landscape, both limiting the overall effect of similar programs and offering opportunities for the use of a different set of levers. There is a severe impact of poor credit scores on access to capital funds to build homes. Adding community housing rental payments to consumer credit reports can improve overall credit scores. Housing through Education program builds futures for indigenous youth through hands on training in the trades – this program is proven to work.

Topic	Financial capacity skills: The future of work and the future of finance
Presenter	Meaghan Daly, Forward Vision Games
Key Message	A focus on 21 st century financial skills, evidence and innovation will create significant economic outcomes in the new economy (i.e. can focus on Indigenous participation and capital to Indigenous projects). Cloud-based financial simulation games can teach this new financial world; users could be youth (grade 10+), Adults seeking job skills, First Nations Leaders. While access to products and pathways are increasing, skills and knowledge are not (i.e. large capacity for financial knowledge, yet little literacy of it). This lack of literacy affects a person’s understanding of debt and personal decisions. To address this, programming in personal financial stability, “Gig” economy, entrepreneurship and accounting and finance are offered. Have already developed a Financial Literacy Toolkit for Inuit Youth.