NATIONAL HOUSING STRATEGY | STRATÉGIE NATIONALE SUR LE LOGEMENT

Canada

Améliorer le bien-être de la communauté grâce au logement : Comprendre les liens entre le logement et le bien-être individuel, familial et communautaire dans la Nation crie d'Eastmain

RÉSUMÉ

La Nation crie d'Eastmain est aux prises avec une pénurie de plus de 50 logements. La Nation considère que cette pénurie de logements et la mauvaise qualité des logements dans la communauté minent le bien-être et le développement social et économique local, tout en aggravant la situation des groupes vulnérables de la population. Pour améliorer les conditions de logement, la Nation crie d'Eastmain met en œuvre un ambitieux plan de développement du logement et de la communauté. Ce plan cible tous les secteurs du marché de l'habitation en offrant des logements subventionnés pour les familles à faible revenu, des logements pour personnes non autonomes et des logements accessibles pour les aînés et les personnes ayant des problèmes de mobilité, des maisons pour jeunes adultes et familles accédant à la propriété et des logements privés. Pour évaluer et réévaluer les besoins en matière de logement dans la communauté et ajuster sa réponse en conséquence, la Nation crie d'Eastmain entend élaborer une plateforme de recherche durable axée sur la communauté et dirigée par elle afin de mesurer les répercussions de son plan de développement du logement et de la communauté sur le bien-être. Avant d'élaborer la plateforme, la Nation crie d'Eastmain a déterminé que des recherches préliminaires étaient nécessaires pour comprendre l'incidence qu'a le logement sur le bien-être de la communauté.

Ce rapport présente les résultats de la consultation avec des membres de la Nation crie d'Eastmain. On y documente les liens entre les conditions de logement et le bien-être dans la communauté. Huit cercles de discussion avec 30 membres de la Nation crie d'Eastmain ont permis d'explorer ces liens. Six thèmes principaux sont ressortis de la consultation : le désir d'avoir un plus grand contrôle sur le logement et la capacité de faire des choix; une plus grande intégration de la culture dans la conception, les matériaux et les typologies des maisons; l'amélioration des programmes de logement et des services communautaires; l'entretien et l'abordabilité du logement; l'importance du logement pour des relations familiales saines; la dimension culturelle et sociale d'une maison par rapport à un chez-soi, et l'accession à la propriété. Dans l'ensemble, les résultats indiquent que pour que les habitations contribuent au bien-être de la communauté, elles doivent être adaptables et sûres. Elles doivent également refléter les valeurs culturelles et être adaptées au climat. Ce rapport a permis de trouver de nouvelles façons de concevoir, de construire et d'entretenir les habitations de manière à favoriser le bien-être personnel et communautaire, tout en préservant l'identité culturelle. Les résultats de ce projet contribueront à éclairer les futurs travaux dirigés par la Nation crie d'Eastmain pour documenter et évaluer les répercussions sociales, économiques et sur la santé du plan de développement du logement dans la communauté.

FINAL REPORT

Improving community well-being through housing: Understanding the links between housing and individual, family and community well-being in the Cree Nation of Eastmain

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June 2021

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SUMMARY

The Cree Nation of Eastmain (CNE) is facing a shortage of more than 50 housing units. The CNE views this housing shortage, and the poor housing quality in the community, as compromising well-being, and local social and economic development, while also compounding the situation of vulnerable groups in the population. To redress the housing situation, the CNE is implementing an ambitious housing and community development plan. This plan is targeting every sector of the housing market, providing subsidized housing for low-income families, assisted living and accessible housing for elders and people with mobility problems, starter homes for young adults and families, and privately-owned homes. To assess and reassess the housing needs in the community and adjust its response accordingly, The CNE aims to develop a community-based and community-led sustainable research platform to assess the impacts on well-being of its housing and community development plan. Prior to developing the platform, the CNE identified that preliminary research was required to understand how housing relates to well-being in the community.

This report presents results of consultation with members of the Cree Nation of Eastmain documenting the connections between housing conditions and well-being in the community. These were explored through eight talking circles with 30 members of the CNE. Six main themes emerged from the discussion: the desire for having greater control over housing and the ability to make choices; greater integration of culture in design, materials and house typologies; improvements in housing programs and community services, housing maintenance and affordability; the importance of housing for healthy family relationships; the cultural and social dimension of house vs. the home; and homeownership. Overall, results indicate that for houses to contribute to community well-being, they must be adaptable, safe, reflect cultural values, and be appropriate to the climate. This report has identified new ways to conceive, build and maintain houses in a way that generates personal and community well-being, while preserving cultural identity. Results of this project will contribute to inform future work led by the CNE to document and assess the social, economic and health impacts of housing development plan in the community.

INTRODUCTION

The Cree Nation of Eastmain (CNE) is a First Nation community in Eeyou Istchee, the Cree region in Northern Quebec; it has population of 866. Like many First Nations across Canada, the CNE provides housing to its members. The community is facing a shortage of more than 50 housing units, a significant number for the community. The CNE views that housing shortage, and housing in poor and inadequate condition, is compromising well-being, and the social and economic development of the community, while also compounding the situation of vulnerable groups in the population. To redress the housing situation in the community, the CNE is implementing an ambitious housing and community development plan to reduce the housing backlog by 50% over a period of five years.

With its Net Zero Energy (NZE) Housing Program, the CNE plans to design and construct five culturally appropriate 6-unit NZE multi-family buildings, and four culturally appropriate NZE single-family private units. The NZE multi-family buildings will contain two social units for low-income occupants, two rent-to-own units, and two units for first-time homeowners. To improve housing accessibility for vulnerable people, the CNE has built an Accessible House and is planning to build an Elders' House that will be fully accessible and Starter Homes. In addition, 25 houses will be retrofitted over the 5-year period. The community is also planning for a new neighborhood development that will see the construction of 12 new houses. The CNE's housing program is targeting every sector of the housing market, providing subsidized housing for low-income families, assisted living and accessible housing for elders and people with mobility problems, starter homes for young adults and families, and privately-owned homes.

The CNE aims to develop a community-based and community-led sustainable research platform to assess, over time, the impacts of the housing program on well-being at the individual, family, and community levels. Prior to developing the platform, preliminary research is required to understand how housing relates to well-being in the community. This report presents results of consultation with members of the Cree Nation of Eastmain documenting the connections between housing conditions and well-being in the community.

The Cree Nation of Eastmain

The Cree Nation of Eastmain is one of the communities in Eeyou Istchee 'the People's land' in Northern Quebec. Eeyou Istchee comprises 11 Cree communities and over three hundred traplines, meaning traditional family hunting and trapping grounds. Eeyou Istchee covers an area 400,000 km^2 on the eastern shore of James Bay and south-eastern Hudson Bay in Northern Quebec. There are currently nine Cree communities incorporated into a Treaty- the James Bay and Northern Quebec Agreement (with two additional communities recognized by the Cree Nation Government). Eeyou Istchee is home to over 18,000 Eeyou (Cree Nation Government, 2020). Each Eeyou community has its own distinct history, yet all share common interests, cultural values, and language. Local governments independently administer each community. Meanwhile, to address common Cree nation issues, each town elects a Chief to sit on the Board of Directors of the Grand Council of the Cree's and on the Council of the Cree Nation Government.

Eastmain is located on the shore of the Eastmain River on the east coast of James Bay; it is home to approximately 866 residents (Cree Nation Government, 2020). Eastmain community was greatly affected by the James Bay Project, which in 1980 diverted 90% of the Eastmain River to the La Grande River. It was also impacted by Hydro Quebec's project in 2010, which diverted the Rupert River creating two hydroelectric plants, the Eastmain A-1 and La Sarcelle. Hydroelectricity development projects have had a tremendous impact on the rivers' ecosystem, the traditional pursuits of fishing and hunting and of living conditions.

For generations, Eeyou built their own housing based on their own creativity, resourcefulness and local materials. Today the housing landscape is characterized by Euro-Canadian housing style of square or rectangular wood-frame, pre-fabricated and trailer houses that started to be built in the community in the 1960s. While housing construction in remote regions has always been more expensive, transport of material for Eastmain is facilitated by an accessible all-season road from Val d'Or. Funding for housing is received from the Federal and Provincial Governments (a majority of the funding being from the Canada Mortgage and Housing Corporation [CMHC]).

Eastmain's Housing Program is established under the authority of CNE's Chief and Council. It serves as a framework for the Housing Department, Housing Committee members, and Councillors to jointly administer the Housing Program in the community. The Housing Department is responsible for managing the program and its day-to-day operations. The Housing Committee represents the community on all housing matters. It collaborates with the Housing Department while being

independent of it. Additionally, the Housing Department, in partnership with the First Nations Market Housing Fund and Bank of Montreal, assists members wishing to build, purchase, renovate or refinance their own homes. At the present time, there are 30 private housing using in the community. The Housing Department manages 51 CMHC-units and 120 Band-owned rental units. Rental units (CMHC or Band-owned) range from single-family homes to apartments in multi-unit complexes. Of these, 135 are single and detached, 40 are semi-detached, 15 are apartment in duplexes, and five are row houses. The community is served by many amenities and services (see Box. 1).

Box 1. Public amenities in the Cree Nation of Eastmain

- Airport
- Art Hive, Youth Centre, Gymnasium, Fitness Centre, Arena, Swimming Pool
- Clinic - Miyupimaatisiiun Health Centre
- Cree Trappers Association
- Cree Nation of Eastmain Administrative Office Building
- Eneyaauhkaat Lodge
- Eeyou Eenou Police Force and First Responders Building
- Fire Hall and Public Safety Building
- Garage school board
- GZ Sports
- Grocery Store
- Mark's Pizza
- Multi-Service Day Centre
- Public Works Building and Garage
- StaJune Gas Bar

- StaJune Mamougoomg Arena Complex: occupies the Sports, Recreation and Cultural Offices
- StaJune Construction Building
- S.G. Video Depanneur
- Sabtuuan Adult Education Services building
- Sunrise Amusement Centre
- Waseyapin Childcare Centre
- Wabannutao Eeyou School
- Wabannutao Eeyou Development Corporation building (occupies the WEDC Administrative offices), WEDC Bell Store, Canada Post Office
- Water Treatment Plant
- Wellness Centre
- WETA Radio Station

For the CNE, developing culturally suitable housing is an urgent issue that requires the attention from all levels of governments and from those in charge of the design and construction for housing to meet residents' needs. Inadequate housing characterized by overcrowded, poorly designed and damp houses is a source of health and well-being concerns for the community.

METHODS

This community collaborative research project emerged through discussion between the CNE and the Canada Research Chair in Housing, Community and Health at McGill University. The objective is to explore how housing, its settings and support systems, promotes and facilitates community well-being. The project is built on Cree understandings of housing and well-being, with the research team composed of two Cree researchers and three non-Indigenous scholars. All worked collaboratively at all steps of the research project, from setting out the objectives to writing the report and disseminating results. The CNE is the proponent of the project.

Data collection

Data was collected using *talking circles*. Talking circles, an Indigenous foundational approach to pedagogy and research, stem from processes employed for several millennia for discussing important issues, seeking resolution, problem-solving, and as a method for teaching and sharing traditional knowledge. The talking circle places equal value on every participant and the story they share within the gathering space (Healy Akearok et al., 2019; Haozous et al., 2010; First Nations Pedagogy, 2009). Each group sat in a circle around a large conference room.

Eight talking circles were held over a four-day period in December 2019. At the beginning of each talking circle, the researchers and participants introduced themselves, and researchers explained the study and the reason for the gathering. Seven talking circles were held in English with some Cree spoken and directly translated and one circle was entirely conducted in Cree. Talking circles took place in a meeting room at the Band Office building. Following participants' informed oral consent, the talking circles were digitally recorded.

The questions guiding the discussion (see Box 2) were projected on a screen to facilitate discussion. Participants were invited to share on the meaning of well-being and their housing experiences; how housing conditions might influence their well-being and the well-being of the community; the ways in which culturally appropriate housing design and community-led planning can better foster relationships with the family, extended family and beyond. Each talking circle lasted about three hours and included a fifteen-minute break at the half way point. Participants were provided with tea/coffee and food and moved around the room as desired.

Box 2. Questions for discussion in the talking circles

- How do you experience your own housing? How are housing conditions important for well-being?
- What sort of improvements do you think might lead to a better sense of individual or community's well-being? Is there a distinction between house and home?
- How does housing quality foster (or not) relationships within the family, within the extended family, within the community and with the land?
- How can housing design and community planning better foster these relationships?

Recruitment of participants

There were eight talking circles with a total of 29 participants. The authors tried to create homogenous groups: Theses talking circles consisted of constructive engagement from different societal groups such as Leaders, elders, women, men and youth and other stakeholders. Participants were purposefully recruited by the Cree researchers using posters in local venues, social media, radio advertisements, and by direct contact (telephone or in person). Of 74 people invited, 29 agreed to participate to the project and provided oral consent. The participants were aged between 16 to 91 years old (mean of 49 years old), and were from different groups of the population: Elders, Leaders, men, women, youth (aged 16 years and older), people with disabilities, home owners vs. renters, and people experiencing overcrowding. Certain participants worked for the band council, others for the public or private sector, or were unemployed, casual/seasonal workers, or retired. About half of these were women. The vast majority of participants lived in band council housing for most of their lives; the others owned their house. Of the 30 participants, one withdrew before the completion of the data collection.

Data analysis

All talking circles were transcribed verbatim by two Cree researchers and two non-Cree researchers. Transcripts form talking circle conducted in Cree was translated to English by the two Cree researchers. Data analysis and coding was conducted independently by two researchers to identify and organize emerging themes, highlighting key statements from participants. This coding was then shared, compared and discussed between four researchers in order to produce a classification and organization of emerging themes.

Ethical approval

The project was presented to the Annual General Assembly of the CNE in the Fall 2019; the Chief and council of the Cree Nation of Eastmain approved the project. The project was also reviewed and approved McGill University's Research Ethic Board (#181-1019).

RESULTS

When considering how well-being relates to housing in Eastmain, several dimensions, or themes, emerged from the data analysis. These are:

1. Having control and making choices
2. Integrating cultural design, materials and house types
3. Housing programs and community services, maintenance and affordability
4. Family relationships and housing
5. Cultural and social dimension of house vs. Home
6. Homeownership

These themes are detailed below. While presented separately, there is significant overlap and interconnection among them.

THEME 1. Having Control and Making Choices

"The people who were paying their houses were the ones that were going into the bush. They were making sod houses, the way they lived long ago. You take the materials from what's around you, you use the bows, you use the trees. Now pushed onto us now, the government's square houses and we pay them, because we need a roof over our heads in the summer."

Salient among themes connecting housing to well-being is the element of control and the ability to making choices. Participants say they would achieve a greater sense of well-being if they could be making their own decisions — expressing preferences in several housing domains such as design, construction, placement, size, and payment options.

Extensive academic evidence shows the human need for control is biologically motivated and contributes to health. Recent research conducted by the FNQLHSSC shows that mastery – the sense of control one has over the life, is higher for members of First Nations living in better quality houses (FNQLHSSSC, 2020). The need to choose and to have a sense of control over housing is overwhelming in statements such as "*We are never part of the decision making process*", "*we are cramped and we do not decide our lots*", "*we do not have a say on how much space we get*", "*people have very few options if any*", "*there should be an alternative that could be given, not an architect coming or engineer telling us how it should go*".

Several community members referred to homes they had built themselves. These structures were made from materials "of the land". Several participants saw an incongruity with the materials used to build the houses in the community. Existing basements were highlighted as being "damp" and "impractical". All appreciated the comfort and convenience of contemporary living but questioned the quality of interior and exterior building materials. Several participants wanted greater use of traditional materials, wood for example to build log houses. The use of traditional materials also conjured a cultural affinity with the way houses were built before the forced the settlement of communities.

For some, the idea of choice went beyond selecting housing materials that reflected their cultural identity. Participants also wanted involvement in the construction of their houses. They found building 'out on the land' their only true feeling of "home". "*Feeling at home is feeling at your own place*". All the more, some wanted to design, build and locate their own houses: "*I want to build my house on the road that goes to the lagoon. I would build it there. I would see the river every time I look out my window. I used to see the river and that feels good.*" They question outsiders' ability to choose the best

siting for their houses. Currently, the houses are exclusively built using specifications coming from the South: "*It's all coming from the engineers. It's the engineers calling all the shots*".

Statements such as these reveal the importance of the "sense of control" and "making choices" as a determinant that affects or hinders the participant's sense of well-being. "*Why you don't give that option, to us, to design our home!*". "*I think it affects everyone's mental health in some way. It's frustrating. I'm not in balance. So, it's been hard. It's stressful and it affects everyone in some way.*" The choices solicited and expressed in the talking circles would allow people to exert control over their own environment. Therefore, one would expect that the opportunity to choose would be desirable, in and of itself. Moreover, it would limit the number of people "*having to leave the community for better housing*".

As a way to increase their sense of control, participants suggested to consult and integrate users' needs and perspectives into housing plans prior to building houses, or to discuss possible housing plan alternatives with people from the community who best understand the cultural landscape--climate, the land, the geography and cultural practices: "*There should be an alternative to an architect or an engineer always telling us how it should go*". A participant even suggested replacing housing laws imposed by the provincial and federal levels with community governance initiatives based on local customs, laws and traditions.

Interestingly, humans in general "demonstrate a preference for choice over non-choice, even when that choice affords no improvement in outcome reward" (Leotti, 2010). Participants expressed more than just a form of longing for participation in the design and decision making process, as illustrated in statements such as: "*We do not have a say on how much space we get*"; "*People have very few options if any* [in housing types]"; "*We are never able to take part in the decision making process*"; " *We are caught having to pay for a square house because we need shelter*"; "*We are not able to contribute to the design*"; "*We're kind of forced to live in there, like I'm old, I'm used to the bush and so forth. And I come home back to a square house*"; "*There should be an alternative that should be given*". Participants appear to be yearning for a different type of housing that would promote greater control over housing design and construction in the community, as well as for opportunities for new educational and employment opportunities and greater social inclusion.

THEME 2. Integrating Cultural Design, Materials, and House Types

> *"We definitely need different types of housing, different sizes, based on bigger families, bachelors' unit [...] we need different type of housing to accommodate whatever the needs are. Right now, we don't really have an elderly home in our community. And we just modify the existing homes, making modification based on their needs, easier access, ramps, we modify washrooms to accommodate the accessibility. [...] If we have like a variety of homes, an apartment, a bachelor units or even tiny homes, elderly homes, that would probably accommodate some of the needs our people have where we can just shuffle people as we're slowly building houses. It's just, right now we don't have enough resources to accommodate all those needs."*

The theme of integrating cultural design, materials and new house types (or typologies) encompasses the notions of construction quality and housing shortage, location and landscape and self-building, which is reflected in statements pertaining to the construction, safety, design and cultural relevance of the housing. While most agree that family is a main source of well-being and make the clear distinction between the physical space "*it's a house*", they recognize that *"the family is the home".* This strong connection to family is far reaching in Cree views of the social, emotional, physical, mental and environmental components of well-being. Additionally, participants not only voiced concerns about construction quality, but quantity as well. The housing shortage meant that some were opting to leave the community to find suitable housing. The scant attention paid to Cree cultural values in housing design, construction and layout emerged as a common concern. Strict conformation to southern design principles — with no consideration of a house's physical situation into the landscape — is considered a 'quality control' issue.

Eastmain's existing housing stock has no connection to its unique history and traditional way of life. Activities such as moose hunting, fishing, harvesting, butchering, crafts, caring for family, community gatherings and even traditional children's games are not supported or enabled by current house designs. As one participant put it: "*A dream house would have an extended area for storing coats and hunting gear by the entrance.*" Overcrowding impedes on some of the vital cultural practices central to the Cree identity and livelihood and contributes to the lack of privacy, strained family dynamics, and overcrowding.

Construction quality

> *"No one complained of the cedar houses that breathe and are more comfortable. That's why our ancestors were so healthy. Fresh air came in there all the time. Moisture and condensation due to poor ventilation is causing terrible mold."*

Participants have specific examples with the condition of their housing, some needing repairs but others needing substantial fixes and/or remodeling. Issues identified ranged from being too small, condensation occurring, having non-ventilated and cracked basements causing mold, insufficient storage space, ventilation systems that were impossible to clean, and houses that were simply not adapted to their needs. The type of needs included accessible housing for individuals (old and young) needing special care, and having enough space to house family members. Being unable to fill these needs caused some participants to feel frustration, stress and upset.

Participants spoke about poor construction quality resulting in poor ventilation and in an important need for major and minor repairs to houses. Participants voice that construction is too often substandard, "*what we've found with the houses, in the past, they used cheap materials they had to replace them sooner than they would have to, which costed money*" and insufficient insulation both for sound and heat "*a lot of the material that they use in the houses is not fit for the winters and is not sound proof*". Today, "*there is bad engineering causing basements to crack and we only have two-foot footings*", which creates damp quarters sometimes making them unusable spaces. There are "*Humidity problems in the basements causing mold, smells and allergic reactions—High water table causing humidity in the basements—Bad soil conditions usually causing shifts, breaks, and dampness*". "*Air exchangers picks up a lot of dust and the entire ventilation system is not easy to clean.*" "*Air quality is really ruining our homes with mold*". Addressing substandard housing conditions require significant resources to support the repairs and maintenance, which undercut the community's ability to fund necessary infrastructure including new housing.

Temporary accommodations such as trailers often become permanent solutions: "*The materials used in trailers is so poor and the pipes would crack and the floor would get damaged.*" Even the prefabricated houses are problematic. Participants voice the need for *"better materials, better sidings, [be]cause the prefab houses are different, they're not really insulated"*. Participants identify shortcomings clearly, *"a lot of the material that they use in the houses is not fit for the winters"* as they recognize that "*there is material now that's available that's fire resistant, condensation, there's also a material that's water resistant as well and that's it, houses can be built in a way they can eliminate*

condensation. People buying substandard houses is a waste of money". Participants voiced yet again their longing for the log houses built from the surrounding forests "*I miss the cedar houses*", while at the same time suggesting radical views of achieving healthy housing "*We got to all burn it down and start from scratch*".

Housing shortage

> *"It's very stressful for people if they cannot have their own house. There is a housing shortage and a need for greater types or models of affordable houses. The lots that come with the houses are too small. We are cramped and we do not decide our lots. We have no say on how much space we get."*

Amidst a growing population, participants describe a desire to have more space available to them, both in terms of new housing typologies and greater public and private spaces amenable to their daily life and traditional practices. They voiced a need for a greater number of differing house configurations, "*different models, they need different models. The housing they build, it's all the same models, they need to adapt to housing needs*". The number of private spaces is also at stake: "*they need five-bedroom units. They build three bedrooms and two bedrooms and that's not big enough.*" Community members describe typologies that might better fit the changing community needs and the existing needs of elders and their aging parents. Some participants even argue that "*it's better to make houses for the elders, with one floor, so they don't have to go downstairs*" and afford to make their bathrooms accessible to them - on the same floor as their living and sleeping spaces to avoid stairs all together. Suggestions such as *"they could have their own little house, elders, cause I'm sure they want to be alone and privacy or I want quietness and privacy. I don't want my neighbors, like in a duplex, making noise when I'm trying to sleep. So, I wouldn't mind having a separate home with sound-proof walls". "Duplexes, aging occupants have difficulty going up and down the stairs, they only have one bathroom upstairs. Yeah, I don't think duplex houses are suitable for us, if one house burns the other is affected by the fire even if it doesn't burn. We need a bathroom downstairs and we need a bathroom upstairs, shower."* Suggestions for additional work space requirements are also common place such as *"a place where I can bring in a moose, makes cabinets."*

These statements reflect specific desires, and while the requests are straightforward, they are anchored in practical and environmental reasons, for example, a *"ranch style house with lots of trees, quite big, with a shed*" for storage or houses that they have seen in other communities such as

Maniwaki where *"I saw this home there, that's so nice, like, I always dream of having that kind of house"*. People are comparing their houses with other communities and request more space when needed with simple storage sheds and landscapes surrounding the houses filled with trees to absorb some of the ground water penetrating their foundations. "*I remember one guy who came here to do a workshop, and he talked about the houses like the basements flooding, the reason why they're flooding is because there's no trees around the houses. He says the water there, trees drink the water, when there's no trees it goes into the basement.* […] *So, we want trees, we want to plant trees*".

Location and landscape

> *"In Chisasibi there. I like the way it's set up in Chisasibi, they have clusters, and in the cluster a whole family lives there. That way, when you go visit your family you don't have to go halfway across town. So, clusters would be good too. A community where everybody can live around as a family, in different houses."*

Participants complain about lot sizes and location and have specific ideas of what they want if they had a choice: "*I wanted to build my house, I was planning on the road that goes to the lagoon. I would build it there. I would see the river every time I look out the window first thing in the morning, for the views. I used to see the river and that feels good!"*

Current housing developments do not consider location, landscape, and lot configuration and do not provide the necessary space for teepees, even shared ones for the ceremonial gathering space (typically constructed in the yard). One participant's vision of well-being consisted of "*a bear feast in a teepee, a cluster of houses and one common teepee*". Another says: "*In my imagination, we have our cluster, we have our houses, and we have one common area of a teepee. Separate houses, yeah, with their family all around, a teepee at the center, in a cluster. In the middle of our own cluster of our house, our own space! Separate houses, Ya! with their family.*" Because of the limitation in gathering places in the community, some culturally significant activities take place in the Band office and the gym. At times, spaces within the homes would be crowded to support social activities such as larger family gatherings, feasts, and games. Although there are admissions such as *"the technology that we have seems to strip away our relationships. We have no walls, we talk, less time for PS4 or TV. When there are walls, hardly see them. They are on I-pads and less family time. We turn off the lights, sharing circle in the teepee. This doesn't happen in the community."*

One participant simply suggests "*houses suited for hunters and spaces to craft and work at home*", while another takes a pencil and begins to draw a plan: "*We had everybody build the big teepee there, and everybody would have their connections there, where they are sleeping in their area and still have their space, they would have their connections, everyone cooked in their own area.*"

Landscaping is an important factor ignored by housing developments. Houses are still built on gravel pads which means all existing landscaping — including trees — is removed pre-construction. "*So, we want trees, we want to plant trees.*" One participant's ideal surrounding was: "*Way, way over there in the trees, somewhere where there's trees and grass. […] I just want to have trees in the backyard and a couple more in the front. […] I would like to have a fence all around it. [she draws a fence all around the back yard on the large paper] And there would be the fence for the dogs. […] I don't like to see other people's dogs come and pee in my yard.*"

Self-Building

"*If people build their own homes, it would cost much less. There should be an alternative that should be given, not an architect coming or an engineer telling us how it should go. If one builds his own house, it becomes a home.*"

"*That's the most important thing—Building your shelter.*"

In this section, the primary voiced statements are related to the opportunity to build themselves for themselves with the ability to choose a building site. Some assertions focus on designs and constructions even if they require more maintenance "*Well-being is making a sod house in the bush. You use the materials around you and it keeps you warm.*" Participants felt they should be fully involved in the design and construction and divulged simple requests: "*Not a big list, good air quality, heat, affordable*"; "*payments that does not get you stressed out, where all people can have shelter, where ever the families are. When people lived in tents and teepees, no one would tell them you can't build there. Today people don't, it's like a restriction. I would build on the road to the lagoon but there are restrictions. Seeing the river is part of my well-being*".

Another voiced interest related to the overall dimension of the building sites "*If you have a lot, it's not 131' x 75' that you need, you need 3 or 4 times the regular lot size to feel your place and your area. The amount that is being funded to the lot, it comes down to cost, they would charge a higher user fee. No choice on these things.*" "*We don't understand why we can't build our own houses, we are not given the opportunity.*" "*We must satisfy our needs*".

Many participants compared the current square houses to their cabins and affirmed the importance of spaces that support cultural activities such as hunting and fishing and storing traditional foods. "*Going out on the land would be a critical aspect of well-being in Eastmain.*" A number of participants made the clear distinction between 'house and home' and for most, 'home' could only be in their cabins out on the land. "*They feel more alive out there at the cabins in the bush, even the young kids know what to do to help out. It's all about survival*"; "*We pay them the square houses because in summer we have ours, but we need something to come back to. When people leave to go to the bush, they would have to build their shelter. We feel more alive out there, everyone is joyful going out on the land. We are forced to live in there, to come back to a square house. My camp (cabin in the bush) is my home.*"

THEME 3. Housing Programs and Community Services, Maintenance and Affordability

> *"If we were to have like community values and community based laws or customs or traditions, maybe those would probably work better instead of utilizing all these other laws that are imposed to us, like we don't have that sense of ownership to these laws or something, and if we were to create our own and have like a mutual understanding of how this law should govern, in certain areas, maybe that something that could probably be a much more useful tool for us."*

Participants identified the long-established backlog of social housing stemming from lack of new housing, overcrowding, and underfunding as immediate needs with no quick solutions. One frustrated participant said: "*I find it's just an excuse that they make, because they can find money to do stupid things, like spend so much money to go partying in Ottawa, you know, like why can't they find money to make houses, you know, that's just an excuse. You want something done; you have to set up rules. If someone doesn't follow rules, you need a penalty or something, you know.*"

Community members face an array of stressors because houses are too small for many families and are consistently standard three-bedroom units with one washroom shared by a multi-generational household. Longing for a larger house, another community member said "*I've been on a waiting list for five years and it also affects future plans and that too, like hmmm…, I want to stay here, I want to live here. This is where I want to live. Eastmain is my home but hmmm…, sometimes I think about leaving.*" In the community, members can remain in the waitlist for years because of insufficient number of social housing units available and too few constructed on a yearly basis. Hopelessness and frustration

underlined commentary throughout the sessions with many participants contemplating relocation. One said: "*There are times when I just want to get out from here and look for work elsewhere.*"

As mentioned, the allocation of social units is an imminent concern linked to overcrowding, *"So, one of the problems is that there are lots of people living in small houses, and at the same time some houses quite big, with three or four bedrooms, with only one or two people in them." "The housing committee is the one that decides, and the sad thing is, if you're not related to the housing committee, there's no way that you're going to have a house. Sorry to say that, but it's the truth."* Participants were not shy to voice their concerns and demanded that at the end of each construction, there should be a deficiency or to-do list, because they recognize there are many incomplete or outstanding issues that need to be resolved. Favoritism and lack of trust are recurrent key factors that upset and disappoint community members with housing allocation.

Rental arrears is another persistent issue. Several residents call for accountability: *"Tenants to pay their houses, so there will be more renovations, and there will be more houses for people."* In addition, leniency and lack of contracts play a huge part with non-payments. A participant brought up "Credit Agency" as part of the solution, along with implementing a contract between The Housing Department and the Tenant, an agreement that could state that the tenant could be requested to move if and when there is a unit that becomes available and suitable for their needs. With that, it would be easier to move families into a house that is readily available. Limited resources hinder action on these challenges.

Given differing housing needs, residents underlined the need for consultation on future developments. Said one, "*They need different models, housing, they build all the same models. They need to adapt to housing needs.*" Another said, "*emergency services have difficulty maneuvering stretchers through inadequate house designs*". Elders indicated a preference for one-level units in quieter neighborhoods that could accommodate their special needs (e.g. wheelchair accessible). They dislike duplexes. Parents of children with mobility issues expressed similar concerns. The younger families just want their own houses, to raise their own families. One participant said: "*If I have my own house, I wouldn't really care, you know. I'd be happy to have my own house, cause it's something I've been trying for so long. So, I wouldn't really care how it looks, at this point.*"

Additionally, if relatively high-income families are expected to be on track towards homeownership, the Housing Department must make it clear that social units are a means of transitional housing. Participants want to see improved communication between tenants and the Housing Department: "*Well, the way I see it, it's my point of view, you know, the way I see it, it's that*

the communication is lacking, you know, it's pretty much that. Lack of communication, yeah, it's about it, the way I see it."

Rental arrears and the lack of homeownership hinders services and proper maintenance. In addition, the following long-standing and on-going issues have been identified by participants as negatively impacting funding for housing because they require constant and costly maintenance: housing with no ventilation system; poorly installed and/or improper use of air exchangers; house located in swamp or clay conditions; long and cold winter conditions; low-grade materials used for renovations and retrofitting houses; insufficient inspections performed; landscaping lots left unrestored and not cleaned up by neighboring construction; emergent underground water leak works. The effects of poor construction or renovation causes cracking foundations, humidity issues and mold, shifting of houses, water table leakage and flooding, and faster wear down of materials. This leaves the Housing Department unable to address all those issues, especially because of arrears in rental fees which are used to maintain and renovate the housing stock in the community. There is no reserve account to fix houses.

Some participants ceased paying due to substandard conditions. *"As a living tenant I do not contribute to paying in the house I live in, because it's old. It doesn't do well for my well-being, like I had problems with my lungs and now, my daughter is developing the same issues that I had as a kid. So, I said I'm not paying for a house, that's not…good quality for us."* Another commented: *"It's like, a lot of people in the community, they can buy bingo cards every week, spend like 500 dollars on bingo, but they can't pay their rent. Plus, there's no penalty so they don't care. Community members know the band pays for everything, and this only enables non-payments*". Low incomes, difficulty or impossibility to save and manage finances are contributing factors to rental arrears. "*Well-being should be something that is affordable.*"

Some residents pointed to rent payment recovery plans (low initial payments steadily increased in line with payment capacity). Others suggested energy subsidies should optionally be directed towards housing and that rental contracts and housing programs should be controlled with strict policies and penalties. If change were possible, it was critical to address the persistent list of deficiencies. Community inclusion from all levels should be required.

While several participants complained about those who didn't pay their rents, others felt that after so many years, they had a right not to pay any longer especially after exceeding the value of the house. This situation underlines the sensitivity and complexity of the issue.

THEME 4. Family Relationships and Housing

Housing shortage and family relationships

The talking circles made clear that good family relationships are a necessary condition for "a sense of home". For instance, considering the distinction between "house" and "home", one participant stated: "*It's a house* [the dwelling place], *the family is the home*". In the same vein, another participant mentioned that "*it all comes down to the relationships of the family living in it. If they are not happy as a family, it's not an ideal nor a dream house*". From this perspective, a house's material comfort is no guarantee of its occupants' well-being.

This study also uncovered the impact of the housing shortage across age groups. One elder, forced to share a house with his daughter's family, spoke of the tensions such co-habitation can create: "*The arrangement… we thought was going to be temporary, but now it's going on for years, and I find now I'm in a situation where I'm intruding their space, their life, even though they're my immediate family. So, my wellbeing would be for any individual to have their own space where they can live… this is the situation I'm in now. So that's my wellbeing*". Another participant, in his thirties, stressed that forced cohabitation has put his relationship with his wife to the test: "*That affected me and that affected my relationship with my wife, we almost separated because the fact that, due to someone invading our privacy, and for us intruding someone else's privacy*".

Several young adults, many with children, also commented on the recurring tensions sparked by inter-generational overcrowding. Said one mother, "*Sharing a house where there's a lot of people, it's means you have to… whatever you buy it will get taken even if you ask politely you know, please do not touch this, this is for me, this is for my family. Sooner or later it's still going to be taken and that way you're not only providing for you own family, you're providing for everyone else and sometimes it's not fair.*" Waiting for a social housing unit, another young mother also highlighted the impact of a negative family environment on her daughter's well-being: "*The small living space that we have, it does affect us throughout the day because if someone has a bad day, we all have to hear it, we all have to go through it. And I have a daughter in a house where people are always mad and now my daughter is now the one acting that way too and she's only three.*"

Conversely, some young adults who managed to secure their own accommodation report better relationships with the rest of their families. The following quotes supports this view: "*I find that having my own space, in some ways I'm becoming more close to my immediate family even though I have my own house, because before, like with probably any family, there were internal fights, you know, just*

because an argument that just blew up out of nowhere that we don't know where it originated from". Another participant, forced to return to live in her parents' home because of significant mold problems in her own home, added, "*It was like that when I was living on my own. They didn't really… well, I would see them every day, and I would go home after. And nobody would tell me what time to go to bed. But now that I sleep there, I have no choice it's under their rules. They still treat me like I'm a thirteen-year-old.*"

Family life cycle and housing

> "*First thing to have personal space or being alone one time, by yourself, it's important to regenerate myself before a new day.*"

Several elders pointed out that once their children have left the family home, they would prefer to move into more modest accommodations adapted to the reality of their new family life. The following quote illustrates this point of view: "*Me I think that… it's very important like when you have a big family and then when all your children are grown up and moving out of your house. And we became Elders, there's only the two of us then we should have another place, where we can… a smaller place. Because as soon as you get older, you cannot do all the house chores and everything that you used to do before, and I think the Elders should have a more suitable place, a smaller place for them. Like the same, one main floor for everything…*" As one participant objected: "*We don't have small houses. Every house has three bedrooms.*" In this context, elders often find themselves living in housing that are too large and unsuited for their own needs. The effect of this situation is that housing availability for larger families is also reduced.

The mismatch between the housing stock and housing needs affects young singles as well. A participant pointed out how hard it can be for a single person, without children, to obtain accommodation: "*One time I asked for a house, and you know what I was told? You don't have kids…*". With no bachelor units in the community and given the ongoing housing shortage, the housing department is prioritizing families for the allocation of a three-bedroom unit.

Today, while there are many more singles and single-parent families than in the past, the housing stock has not evolved to respond to this reality. The mismatch between the housing stock and the housing needs of various family configurations is severe. Several participants observed that construction of small houses to house single people or childless couples could help optimize housing allocation.

Family relationships, technology and access to the land

Another important aspect to consider when analyzing the links between housing and family is access to the land. Far from modern technologies, video games and Internet, moments shared in a cabin on the land offer the opportunity to reunite with family. One participant noted, for example, that *"the big difference between my camp and my home is the technology we have seems to strip away our relationships. We go into the bush* […]*, we're all living in a cabin that has no walls and we are all together, we talk... In the community, they have rooms, we hardly see them, they're on their phones, they're on iPads or they're watching TV in their rooms and it seems like there's less time spent together* […] *When we're at the camp there is more talking we go to bed turn off the lights and everybody starts talking. We don't do that at home. During the day, sometimes, there's a teepee in the middle of the camp and everybody sort of gathers there and there's nothing to do it's like a sharing circle and people start telling stories and sharing things* [and] *that usually don't happen in the community."*

Still, not everyone has access to a cabin. For those who don't, the harmful effect of overcrowding and unsuitable housing may thus be even greater. Facilitating the construction cabins for young families could thus be one remedial avenue worth exploring.

THEME 5. Cultural and Social Dimension of House vs. Home

"Well-being is tradition, culture — Culture is strength, helping one another, hunt all the time, ceremonies, be who you are."

For Cree families to feel secure and comfortable, maintaining a cultural environment is vital. Traditionally, the Cree were nomadic peoples. Shelters were made simple and temporary, and some materials were easily transported when it came time to follow seasonal pursuits. Building a shelter was vital. Today, needs have changed and people are accustomed to the lifestyle in fixed communities. Few ever sleep or reside in teepees and other traditional dwellings. Yet, participants love staying out on the land and some view their modern cabins as homes. One elder dreamed of living in a sod house. The cabin life fosters family togetherness and well-being. Participants report feeling more connected there than in the community where everyone is spread out within the walls of their house, with children having their separate bedrooms, and technology impeding on social relations. Older participants said that their housing 'norm' has always been sharing a house with multigenerational families. This is how

some cultural teachings, traditional knowledge and harvesting were learned and passed on: "*Teachings about taking care of a teepee translated into the [teaching about] modern home.*"

Overcrowded homes are widespread in Eastmain and virtually all young families yearn for a home of their own to raise their children. Yet time on waitlists can be very long. "*And the only solution that we find right now is either to move away and get our house somewhere else, but it's also sad because this is where we work, this is where we provide for our family*". Cramped spaces, sometimes exacerbated by hoarding, impact well-being. One participant said: "*Like when I worked in housing, like almost every house that we visited, the basement was all pile of stuff, storage, and maybe half of that stuff is no longer used. ... Cree people they have a, when you give something, an offering, a gift, something precious, they want to keep it, to show respect for that person who gave it.*"

Cree readily share their harvest and cultural values while not expecting anything in return. Unfortunately, many community members can't comfortably engage in their traditional ways due to unavailable space in houses for cleaning their more massive kills, such as moose, bear, and caribou. One participant explained, "*I don't want to leave the community. The other things I can't do is I cannot do my traditional...I did a lot of hunting, like traditional activities, I can't do that anymore because I don't have my space. I can't go hunting.*" As a result, they decide not to hunt and eventually hinders their traditional sacred ways, compromising well-being.

The loss of the river has greatly impacted traditional pursuits as well, and the life of the river itself, where fish were once bountiful. Several participants considered electricity fees unfair given the cultural price the community has paid for the hydroelectricity dam. Also mentioned is the dilemma of how Cree life has evolved, from a traditional to a modern way of life, some engaging in both, while others are left wondering "*Am I a Cree person, a Cree English person or...those kinds of things disrupt the mind and affects the family too.*"

The cost of living and limited economic opportunities further limit home ownership opportunities. As observed by one participant: "*But, it's...it's not very...realistic sometimes, because of the lack of jobs that are available in the community. Not everyone is fortunate to have a full-time job, even if you have a full-time job you still have to take care of your bills. So, it's...when someone dreams of having their own house...it's, maybe we're talking about 10-year plan to get to your budget, to afford a house.*" Even those with higher education face limited employment opportunities. One former student explained: "*A lot of people go down south and pursue their dream, what they want...study for, what they want to be. But then when they finish their school, they don't have opportunities in the community and that's a big problem in the Cree Nation, not only just in Eastmain but everywhere else.*"

Moreover, the 'value' ascribed to a house is a relative concept: "*In Cree world, one of the hardest things to do is to teach people the definition of value in terms of non-native terms, or economic terms. Value, no one really understands that. If you tell a Cree what's the value of something, for him it's more the moral value, and beliefs, that kind of stuff.*" Sense of ownership is closely tied to sense of home, as illustrated by statements such as: "*If one builds his own house, one tries to prevent all bad things from happening*" and "*I want my home to last and take pride in having it.*" "*For me it has to be safe*", added another participant.

Some residents miss their old cedar houses which could "*breathe and are more comfortable*". Another resident suggested family-center neighborhood development might promote individual, family, and community well-being. "*I have actually four brothers and four sisters. And my parents. So, one thing I was actually thinking, in my imagination, we have our own cluster, we have our houses, and we have one common area of a teepee in the middle of our own cluster, our own space!*"

Overcrowding profoundly impacts family life. Some parents complained the lack of space precluded sleepovers. Clothes dressers and other sorts of furniture are left in hallways outside of the bedrooms which are often too small to fit all necessary furniture. As one participant noted: "*My house affects my mental health because it is too small. I live in a trailer, it's stressful and it affects everyone someway.*" Participants also mentioned that socializing with friends was limited in their houses, due to small, cramped-up dining areas or living rooms turned into sleeping quarters. Embarrassment because of hoarding was another concern.

THEME 6. Homeownership

> "*Can it really be a home if the house is not owned? If people built their own homes, it would cost much less.*"

A favorable opinion for homeownership

While there are currently very few homes that are privately owned in the community, there is support across Eeyou Istchee to develop and strengthen the private housing market in the region. During the talking circles, most participants favored the development of homeownership in the community, an option offering a wider range of choices in comparison to social housing, especially with regards to building materials and housing design. One participant said that home ownership offers the possibility to get "*better materials, better sidings, 'cause the prefab houses are different, they're not really*

insulated". Buying a house is also seen as promoting individual control and autonomy: *"I could, like, be the boss of my own house. So no one is going to say, like, get out of the house, or something like that. It's my own house, and I would have my own privacy too.*" A homeowner in the community confirmed this perception: "*I fix my own house. I practically do what I want to do, not ordered by the establishment. And when something breaks, I tend to do it right away instead of waiting, waiting.*"

Although they do not consider it financially realistic given their limited retirement income, many elders still support the idea of homeownership. For some elders, young adults starting their professional lives should benefit from the new housing options that will be made available in the community. One participant noted that he would have taken the opportunity if the option had existed when he was young: "*Back when I used to work, if this option was available at the time, I would have been able to get home ownership. But after when I was not able to work, it was then I heard of this was option of home ownership. I would have immediately jumped at the opportunity for home ownership, but I didn't have money after retiring.*"

Some participants felt that residents who are not homeowners do not develop a sense of responsibility toward their accommodations, which may be the cause of the rundown state of some houses in the community: "*Yes, that's how I feel too, if you're given a house. It's just a house to you that… that you didn't design, that you're just borrowing it. So, I'm guessing that you would treat it like a house, but if you were to be a homeowner where you decide where you put your time and effort with it, I think that you take care of it. Just as much as you would take care of your child, because I do see residents that have housing that do not take care of their home. They damage the house… It would've been a different story, if they were the ones that own the house*".

Homeownership is also seen by some as an income asset that can outweigh the lack of social housing in the community by promoting the development of an alternative housing market. Essentially, a participant stated that "*If someone would have a homeownership, and they pay and they're debt free, that way that house belongs to them, they have a choice to build another home […], they could rent that out for someone else that needs a house. So, I think, that's why it's important for people to try to get their own homeownership instead of depending on the band*". "*Homeownership brings a peaceful feeling*" voiced a participant. "*There is no overhang of people coming for your rent and all this*".

Obstacles and challenges to homeownership

Several participants, however, particularly young adults, said they lacked information to properly judge the pros and cons of buying a home. One participant said, for example, "*we don't have much knowledge about homeownership. I don't know how to explain anything about it.*" The problems that can arise with homeownership also quiets the enthusiasm of some: "*I believe that every homeownership has had problems, it's not perfect, which leads me to be hesitant to build my own house. I sort of step back, I don't want to build my own house because of all those problems reoccurring, these problems are still going.*" Some community members acknowledged that individual responsibility and financial risk are a challenge when it comes to homeownership.

In general, participants viewed income, financial means and budget planning as the biggest barrier to private property ownership. As one participant noted, "*not everyone is fortunate to have a full-time job, and even if you have a full-time job you still have to take care of your bills. So, it's… when someone dreams of having their own house… it's, maybe we're talking about 10 years plan to get to your budget, to afford a house.*"

In sum, while the opinion of the respondents is largely favorable to the development of a private real estate market, several members of the community do not have the financial means necessary to become a homeowner. Homeowners in the community could share their experience of homeownership with young adults.

DISCUSSION

This study seeks to uncover the links between culturally appropriate housing and well-being as a first step in establishing an independent, user-driven housing strategy. Until now, the interplay between housing-design and community well-being has been largely overlooked. To enhance human well-being, architecture must move beyond optimizing isolated parameters (e.g. improving heating systems, R-value, or indoor air quality) to more holistic approaches that encourage human behaviors that support well-being. The purpose is to find a local, user-driven approach to establish strategies which can increase housing diversity and adaptability. This is not to dismiss the significant effects of poor indoor environmental quality in certain homes and on certain residents but rather to add this dimension with strategies to improve well-being for the entire population.

Yet recording the user's experience of housing and well-being, ascertaining the added value of houses designed in consultation with the community, and readjusting housing planning, programming and management practices are all essential steps to improve housing conditions in Eastmain as well as in other northern Indigenous communities. While research has explored housing design's role in supporting cultural values as well as the links between design, health and well-being (Larcombe et al., 2020; Christensen, 2017). But little of this work has been applied to the actual design, planning, construction and maintenance of houses in indigenous communities.

Over the past 70 years, Euro-Canadian housing practices have negatively affected well-being in Eastmain. Substandard, culturally-inappropriate construction has led to a myriad of health issues — both physical and mental. Eeyou have little influence on the buildings that affect their well-being or their lives, opportunity to participate in choosing the types of houses, to influence the housing design, size and location, or the implementation of the houses (i.e. construction, materials and landscape). Building sites currently prioritize convenient access to roadways and infrastructure which results in long, linear streetscapes with house views directly into one another. Instead, many participants suggested creating clusters of houses around a communal teepee to be near family as another way of planning a Cree community.

To date, the primary source of funding for Band housing has been grant programs for the creation of projects that continue to conform to Euro-Canadian design principles. This study shows that for houses to contribute to community well-being, they must be adaptable, safe, reflect cultural values, and be appropriate to the climate. This report has identified new ways to conceive, build and maintain houses in a way that generates personal and community well-being, while preserving cultural identity. Houses designed and built by local builders using locally-sourced materials can be more than

simply a roof over one's head. They could be equipped for activities such as the processing of harvested foods, extended family gatherings, and maintaining social and family relationships while accommodating special needs. Architecture infused with local tradition contributes to a community's well-being in several ways. Developed over millennia, vernacular architecture is always well-suited to local climates and culture. In the case of the CNE, these cultural and environmental attributes stand in contrast to Euro-Canadian architecture, where housing practices, housing markets, and architectural standards have commodified housing and peeled away local intangible values from design priorities.

Conclusion

This study addressed several systemic housing challenges that impact the community's well-being. Results indicate that user-driven housing design and construction can respond to user needs and behaviors, offering choice and control over their environment and improve community well-being. Addressing economic, architectural and social issues when considering the diversity of housing needs is a relevant strategy to develop strong, thriving, sustainable and healthy communities. The housing and community development plan of the CNE aims to address several systemic housing challenges including the high cost of maintaining poorly built houses and the high cost of heating, factors that impact the community's well-being and economic autonomy. Integrating Cree perspectives into housing planning and development is relevant to reduce the housing crisis in the community and to achieve social and culturally appropriate housing that will foster community well-being. Regular evaluation and feedback about the impacts of the housing development plan on individual, family and community well-being is needed to ensure its feasibility and sustainability.

In order to do this, the next step of the project is to translate information produced in this report into the development of a community-based sustainable research platform that can be used by the CNE to monitor housing conditions, and changes in housing conditions brought about by the housing and community development plan, in relation to individual, family, and well-being. Based on some of narratives of participants, we developed two questionnaires to characterize the structural and the social dimension of housing and related well-being indicators. These questionnaires can be used to assess housing conditions and well-being prior to the implementation of the housing and community development plan (at baseline) and then be implemented at regular time interval to assess and reassess the critical needs in the community and adjust the CNE's response accordingly.

Results reported in the report contribute to filling knowledge gaps necessary to support the formulation and implementation of locally and culturally appropriate housing solutions and identify potential best practices. Future work aiming to documenting and assessing the social, economic and health impacts of housing development plan in the CNE will provide evidence that could be used to inform future housing development strategies in northern Indigenous communities.

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