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COMMENTARY

Public health should promote co-operative housing and cohousing

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Abstract

In promoting healthier built environments, attention worldwide has focused largely on streetscapes and recreational spaces, with less regard given to housing form, in particular to the health effects of communal housing. Research demonstrates that communal housing models, such as cohousing and co-operative housing, promote social inclusion, and increase the perceived well-being and mental and physical health of residents, particularly of seniors. In Canada, relative to other countries, there is a paucity of evidence for the health effects of co-operatives and cohousing. Historically, some Indigenous communities constructed long-houses, connected dwellings situated around common areas, a form which may still be useful in promoting healthy communities. In this commentary, we suggest that improving access to co-operative and communal housing is an important area for public health involvement.

Résumé

Partout dans le monde, les efforts de promotion d'environnements bâtis plus sains se sont concentrés en grande partie sur le paysage des rues et les espaces récréatifs, et moins sur les formes d'habitation, en particulier les effets des habitations communautaires sur la santé. Des études ont montré que les modèles d'habitation communautaire, comme la cohabitation et les coopératives, favorisaient l'inclusion sociale et amélioraient la perception du bien-être et de la santé mentale et physique des résidents, surtout les personnes âgées. Au Canada, comparativement aux autres pays, les effets de la cohabitation et des coopératives sur la santé ne sont pas suffisamment documentés. Autrefois, certaines collectivités autochtones construisaient des longues maisons, c'est-à-dire des unités d'habitation connectées autour d'aires communes, une structure qui pourrait s'avérer utile encore aujourd'hui dans la promotion de collectivités saines. Dans ce commentaire, nous suggérons que les services de santé publique devraient s'investir dans l'amélioration de l'accès aux coopératives et aux habitations communautaires.

Keywords Social isolation · Housing · Indigenous · Social connections

Mots-clés Isolement social · Habitation · Autochtone · Liens sociaux

> "The connection between health and the dwelling of the population is one of the most important that exists." - Florence Nightingale (Hood, 2005)

There is increasing interest among public health practitioners on how the built environment influences physical and mental well-being. While the promotion of equitable access to safe and welcoming common spaces has been a feature of public health interventions, there has been little comprehensive assessment of the health impacts of communal living arrangements. The organization of housing offers opportunities for health practitioners to bring social isolation into the conversation about healthy built environments. Case studies demonstrate that when communal spaces are shared by close neighbours, a common sense of belonging, ownership, and the facilitation of regular interaction reduces social isolation (Chile et al., 2014; Carstens, 1993; Bay, 2004). Advocating for housing forms that promote social inclusion/community would allow public health practitioners to spur the creation of more holistically healthy communities.

Here, we review assessments of the health effects of three models of housing: co-operative; cohousing; and Indigenous

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communal housing, and provide a guide to how they can be promoted as public health actions for healthier built environments. Although examples are mainly given for British Columbia (BC), the rationale for co-operative housing and cohousing can be applied across Canada.

Cohousing and co-operative housing

Why housing?

That housing forms may affect social isolation is of increasing interest to scholars. In particular, cohousing and co-operative housing have been cited as forms that facilitate social cohesion. Residents of both cohousing and co-operative housing may be nuclear families, single persons, elderly, friends, and multigenerational families (Kehl & Then, 2013; Wardle, 2013a). Droste defines cohousing as self-organized building collaboratives, traditional and new co-operatives, and community-driven housing, in which citizens either rent or own the property (Droste, 2015). The defining feature of these complexes is that residents plan and manage their communities collaboratively to build social support networks (Droste, 2015; Williams, 2008). In northern Europe, many new developments are built with cohousing principles in mind (Williams, 2005). Further, both cohousing and co-operative housing can be of lower cost compared to regular market housing. In some municipalities, such as Vancouver, BC, the high cost of housing limits the ability of low income people, such as newcomers to Canada, seniors, or young people, to participate in community activities due to lack of funds (Canadian Cohousing Network, 2017; Co-operative Housing Federation of British Columbia, 2017; Tavakoli & Craig, 2017; Schwartz & Wilson, 2008).

What is cohousing?

In Denmark, Sweden, and the Netherlands, cohousing began in the 1970s, with a small wave of cohousing in other western countries starting in 1988 (Ruiu, 2016). Cohousing is the fastest growing type of intentional community in the United States; cohousing has also come to Canada (Co-operative Housing Federation of British Columbia, 2017; Sanguinetti, 2014). Cohousing has been said to be characterized by six features: (1) a participatory development process (although some cohousing is retrofitted into existing buildings); (2) neighbourhood design; (3) resident management; (4) common facilities; (5) non-hierarchical structure and shared decision-making; and (6) residents/family do not support the community through a shared economy (contrary to a kibbutz, where all labour, all money, and assets are managed collectively) (Canadian Cohousing Network, 2017). Cohousing is a collection of houses, which are typically smaller than most condominiums to allow for more shared space, arranged in such a way to allow for physical contact between members, with good visibility into all communal spaces, a gradual transition between public and private spaces, semi-private outdoor areas for socializing close to private units, and access points to communal walkways. Cohousing typically includes communal spaces such as a shared kitchen/dinner/entertainment area, a laundry room, a gym and/or hobby room, a guestroom, as well as shared and/or private garden and storage space (Williams, 2005; White-Harvey, 1993).

Cohousing establishments build social capital from their inception, as residents often participate in designing and building their homes, and social capital increases as cohousing develops (Sanguinetti, 2014). Decision-making by consensus promotes a sense of belonging and shared identity (Williams, 2005; Ruiu, 2016; Sanguinetti, 2014). Most cohousing establishments are designed to facilitate a supportive community where residents can access various forms of help, including cooking and sharing communal meals, gardening, maintenance, and childcare (Ruiu, 2015; Berggren, 2017). People living in cohousing report feeling safe in their communities, likely due to layouts that allow for surveillance of the common space (Droste, 2015; Torres-Antonini, 2001). Cohousing residents report high levels of belonging, self-esteem, and self-actualization (Torres-Antonini, 2001).

Cohousing has been suggested as a supportive environment for older people to age in place, with neighbours' help allowing residents to remain in their homes approximately 8 to 10 years longer than people in more typical community settings (Kehl & Then, 2013; Wardle, 2013a). A review of international studies compared the health and well-being of multigenerational cohousing residents with residents of nearby neighbourhoods (Wardle, 2013a). Overall, only 13% of persons who lived in cohousing were in need of care that would necessitate moving from their home to more formally supportive housing, versus 22% of residents in the surrounding area. Among people aged 50 or older, only 16% of those living in cohousing were in need of care, compared to 33% of people living in the nearby traditional housing area (Wardle, 2013a). Those living in cohousing also had a lower incidence of chronic disease and unspecified impairments. People of all ages received more social support and health benefits in cohousing compared to neighbouring residents; however, the effect on health was more pronounced for older people (Wardle, 2013a). It is possible that people who choose to live in these communities have pre-existing, prosocial personality traits which are health promoting (Brown & Brown, 2015); it is also possible that those who have lower levels of community-mindedness experience better health as they move to communal housing and develop community (Sanguinetti, 2014).

In North America and the United Kingdom, cohousing may appear to exclude those of low socio-economic means, as its creation is often financed by members (Ruiu, 2015);

however, there is some movement from the non-profit sector to include public or private housing associations in the creation of cohousing, with approximately 50% of units being allocated as social housing to people who receive income assistance and would like to partake in collaborative living (Williams, 2008; Ruiu, 2015). Further, municipalities, e.g., North Vancouver, BC, work with cohousing communities to provide density bonuses, the proceeds of which may finance units as affordable for-purchase or as rental housing guaranteed to be 20% or more below market value.[1] Retrofitting cohousing into existing structures is another option for those who would like to be involved in cohousing but do not have the means to build new dwellings (Droste, 2015). If cohousing is seen as exclusive, backlash from the wider community may occur (Droste, 2015); therefore, groups and associations must consult with citizens outside their group throughout the development process. Furthermore, many cohousing groups open their shared facilities, such as green spaces, which may function as small parks, garden allotments, and/or communal spaces for meeting rooms to groups and persons who are not members, which can increase social capital in the wider neighbourhood (Droste, 2015; Williams, 2005; Sherwood, 2014).

What is co-operative housing?

Compared to cohousing, co-operative housing (co-ops) are often run or overseen by non-profit organizations as a form of social housing. The Co-operative Housing Federation of BC states that co-op communities are made up of people who are socially, ethnically, and economically diverse (Co-operative Housing Federation of British Columbia, 2017). Some co-ops are established specifically for socially excluded citizens, e.g., those with mental or physical disabilities under financial hardship (Thériault et al., 2010). Co-ops are more likely to be run by a board of elected representatives, rather than having all residents take part in decision making as occurs in cohousing situations (Co-operative Housing Federation of British Columbia, 2017; Thériault et al., 2010). Much like cohousing, co-op residents undertake maintenance of common areas, caregiving including delivery of food or packages, and/or gardening. In one study of co-ops in Atlantic Canada called Tannery Court, residents who came to the dwellings from homelessness or other distressed housing reported a significant improvement in their general well-being and perceived safety, often citing the importance of feeling helpful to other members of the community (Thériault et al., 2010).

In several European countries, governments have established neighbourhood-based initiatives to renew distressed areas on a foundation of self-governance and broad participation (Flint & Kearns, 2006). Bringing disparate groups together in decision-making builds trust and social capital. Registered social landlords (RSLs) are housing associations and co-ops that provide lodgings to vulnerable people, such as the homeless, those with mental or physical disabilities, as well as asylum seekers and refugees. In neighbourhoods where there is a great deal of social housing, RSLs mediate resident disputes and act as a catalyst for resident involvement in improving dwellings and upgrading community environments (Flint & Kearns, 2006). Social housing and co-ops tend to be most effective when residents have access to transit, services, and shops, which helps to alleviate social exclusion (Thériault et al., 2010).

Potential for First Nations cohousing

In Canada, Indigenous populations have been identified as at high risk for social isolation (Canada Parliament Senate Standing Senate Committee on Social Affairs Science and Technology, 2013). There are major housing shortfalls for Indigenous people on and off reserve. Since the colonization of North America, housing, particularly on reserve, has resembled the individualistic housing forms familiar to colonizers, which may or may not suit First Nations' needs (White-Harvey, 1993). White-Harvey (1993) suggests that the concept of cohousing in the form of First Nations' longhouses pre-dates Europeans' arrival in Canada (White-Harvey, 1993). Longhouses have been used by nations including the Iroquois League, Huron, Petun, Neutral, Erie, and Susquehannock peoples. Similar to cohousing developments, longhouse designs vary but typically consist of two rows of houses facing each other and a common area in between, sometimes covered, depending on the climate, providing space for multiple families and generations to live in close proximity without overcrowding. Overcrowding and the need for privacy in on-reserve housing is a problem, especially, but not only, for younger generations (Tester, 2009).

Many Indigenous Canadians suffer the mental and physical scars, as well as community fragmentation, that are the aftermath of colonialization (Canadian Institute for Health Information, 2009). Longhouses, or cohousing, could provide structure for intergenerational support, facilitating shared meal preparation, childrearing, as well as potentially alleviating loneliness in adults, and enhancing the passing of traditions to subsequent generations (White-Harvey, 1993). Furthermore, the lowest income members may benefit the most from shared nutritious meals and the inclusion that comes from sharing food in a common cooking area. Shared spaces, such as craft rooms, libraries, or computer areas, may offer spaces to pursue fledgling in-home businesses. Participating in the building and design of dwellings allows Indigenous communities to incorporate cultural and traditional designs, and provides them a sense of control over their

[1] Interview with Kathy McGrenera, Quayside Village Cohousing (Amy Lubik, Nov 9, 2017)

Table 1 Possible interventions for health professionals/ municipalities

Cohousing/co-op housing	• Incorporate social needs into the physical and economic definition of housing standards (Pinquart & Duberstein, 2010). • Identify and change barriers that impede planning and regulation of alternative forms of housing (Pinquart & Duberstein, 2010). • Incentivize cohousing and co-ops by subsidizing or providing city land for their use (Wardle, 2013a; Pinquart & Duberstein, 2010). • Allow more density in cohousing in order to subsidize some units for purchase or rental below market value. • Facilitate partnering with non-profit organizations to support the creation of cohousing and co-ops (Kehl & Then, 2013).

community; many culturally diverse communities utilizing cohousing find participating in the design of their homes creates a greater sense of pride and ownership (Williams, 2005; White-Harvey, 1993; Sanguinetti, 2014; Ruiu, 2015). Community empowerment has been seen to support mental health and well-being in First Nations communities (Kirmayer et al., 2003).

Longhouses are not part of all First Nations' traditions; further, communities are culturally and economically diverse. Many Indigenous communities experience chronic poverty, while others, mainly urban and some rural and remote communities, fare better both economically and socially. As with any potential housing strategy, there is no perfect approach. Any initiatives would have to be undertaken in a culturally safe and respectful manner with input and guidance from communities, understanding that First Nations cultures and negotiated and to-be-negotiated treaties have adapted to changing social, political, and economic circumstances; therefore, models must be flexible. For some communities, investment in any sort of housing and training in financially viable careers, such as building trades, may be lacking, and budgets may hinder more creative and socially/environmentally sustainable housing. On reserve, housing options involving individual home ownership outside of band holdings have been explored in Australia; however, this can be complicated when deciding whether families own their house and the land it sits on, or simply the home itself. Findings indicate that families generally are more concerned with having stable housing, that is not overcrowded, to pass on to their children, compared to outright ownership (Moran et al., 2002). Examples of First Nations cohousing are not readily available; however, a pilot project of tiny home cohousing, not longhouses, is underway in Vernon, BC, funded by the City's First Nations Friendship Centre.

Conclusion

Social isolation does not receive a great deal of attention in Canada, but it has been associated with negative health outcomes, such as depression, anxiety, and cognitive decline among those with dementia, as well as worse cardiovascular and cancer outcomes (Bunker et al., 2003; Pinquart & Duberstein, 2010; Stewart et al., 2008; Nicholson, 2012). Studies of health impacts of co-operatives and cohousing are limited in extent, and largely exclude Canada; research has come almost entirely from self-reported studies. However, studies do show both mental and physical health benefits, including avoiding or delaying need for medical care through neighbour support, increasing mental stimulation through community involvement, and increasing feelings of efficacy and self-esteem that come with helping other community members. It is also suggested that traditional communal housing models, such as longhouses, may build social capital in Indigenous communities where much of the current housing stock is stand-alone dwellings reflective of a colonial regime. Longhouses may provide spaces for intergenerational sharing of teachings and other resources, as well as food sharing, which would likely most benefit the underprivileged.

The majority of the literature supports the health benefits of co-operative housing models; however, it is important to recognize that publications generally have a bias for positive results. These models may not benefit everyone, as not all people are suited to these arrangements and not all forms of cohousing suit all residents; it takes time to form social bonds, and a few studies have demonstrated that some residents opt out of communal living or home-sharing in less than a year, citing either too much or not enough social planning/ interaction (Wardle, 2013b). Despite these shortcomings, one study has shown higher levels of social capital in community-led co-operatives compared to similar professional organizations, such as stratas (Lang & Novy, 2014).

Experiential evidence on conditions and policies that facilitate the development of these inclusive housing models, especially for persons with low incomes, is not readily available; however, we have compiled possible interventions for municipalities and public health jurisdictions (Table 1).

Municipalities have an array of options to support inclusive housing models. They can incorporate social needs into the physical and economic definitions of housing standards (Wardle, 2013a). Municipalities can also offer free meeting spaces for citizens interested in cohousing to gather and

design their projects, as well as meet with the general public to explain how their project fits broader municipal or regional plans. Because the planning, permitting, and rezoning application process can be lengthy and costly, having policies to expedite these projects, especially if they include social or below market housing, would encourage their development. In order to incorporate affordable housing, municipalities, such as North Vancouver, allow a greater density of units in exchange for having some units available either for ownership or rental at below market value. Municipalities may purchase units of a cohousing project and place covenants on the titles to restrict price appreciation, ensuring that the units continue to be affordable to future buyers (CitySpaces Consulting Ltd., 2015). Residents of cohousing facilities in Vancouver, BC, stated that having a planner who specialized in cohousing would have expedited and eased the planning and development of their residence (Tavakoli & Craig, 2017). Municipalities can lobby provincial and federal governments for funding for inclusive housing types, either individually or through municipal associations.

Municipalities can incorporate cohousing and co-ops in their master plans through zoning. Cities could allow variances for less parking availability for cohousing than is generally required for multi-residence dwellings. Less parking lowers costs and is often in line with cohousing values of social and environmental sustainability. Cities could consider applying "ecovillage" zoning, which would include various forms of cohousing as well as community farming (Cohousing, 2017).

Public health can lead the move toward communal housing by acting as the catalyst for dialogue and action. Public health can also work with municipal and city planners and other organizations to raise awareness about the linkage between housing and mental health outcomes, which are inconsistently included in health assessments of the built environment. Public health officials may also suggest municipalities designate municipal-owned land for co-op or cohousing in their community master plan or as they plan an affordable housing strategy, particularly for groups at risk of isolation, such as seniors or people in need of transition housing (Tavakoli & Craig, 2017). Leasing land to these developments and/or partner non-profit groups may also bring longer-term value to the municipality in rents as compared to selling land outright to a developer.

Public health working with municipalities to promote inclusive housing designs could move both housing provision and the health problems associated with increasing social isolation. Changing communities to create supportive environments that promote physical and mental health is challenging; however, evidence exists that co-operatives, cohousing, and longhouses promote intergenerational social inclusion, increase feelings of well-being and efficacy, and add social capital. Public health is well positioned to present inclusive housing to municipal planning; we offer this commentary as a way to prompt further dialogue and action about inclusive housing environments.

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References

Bay J-H. Sustainable community and environment in tropical Singapore high-rise housing: the case of Bedok Court condominium. Arch Res Quart. 2004;8(3–4):333. Available from: https://doi.org/10.1017/S135913550400034X.

Berggren, H. M. (2017). Cohousing as civic society: cohousing involvement and political participation in the United States. *Soc Sci Quart, 98*(1), 57–72 **Available from:** https://onlinelibrary.wiley.com/doi/pdf/10.1111/ssqu.12305.

Brown SL, Brown RM. Connecting prosocial behavior to improved physical health: contributions from the neurobiology of parenting. Neurosci Biobehav Rev 2015 Aug;55:1–17. **Available from:** https://www.ncbi.nlm.nih.gov/pubmed/25907371. Accessed date between September 2017 and March 2018.

Bunker, S. J., Colquhoun, D. M., Esler, M. D., Hickie, I. B., Hunt, D., Jelinek, V. M., et al. (2003). "Stress" and coronary heart disease: psychosocial risk factors. *Med J Aust, 178*(6), 272–276 **Available from:** https://www.ncbi.nlm.nih.gov/pubmed/12633484. Accessed date between September 2017 and March 2018.

Canada Parliament Senate Standing Senate Committee on Social Affairs Science and Technology. In From the margins, part II: reducing barriers to social inclusion and social cohesion Ottawa, ON: Government of Canada; 2013. Available from: http://www.parl.gc.ca/Default.aspx?Language=E. Accessed date between September 2017 and March 2018.

Canadian Cohousing Network Cohousing communities. Langley, BC: Canadian Cohousing Network; 2017; Available from: http://cohousing.ca/location/. Accessed date between September 2017 and March 2018.

Canadian Institute for Health Information. Mentally healthy communities: aboriginal perspectives Ottawa, ON: Canadian Institute for Health Information; 2009. **Available from:** https://secure.cihi.ca/estore/productSeries.htm?pc=PCC502. Accessed date between September 2017 and March 2018.

Carstens, D. Y. (1993). *Site planning and design for the elderly: issues, guidelines, and alternatives*. New York: John Wiley & Sons.

Chile, L., Black, X., & Neill, C. (2014). Experience and expression of social isolation by inner-city high-rise residents. *Housing Care Support, 17*(3), 151–166 **Available from:** https://www.emeraldinsight.com/doi/full/10.1108/HCS-11-2013-0021.

CitySpaces Consulting Ltd. Housing policy alternatives research. North Vancouver, BC: City of North Vancouver; 2015. Available from: http://www.cnv.org/-/media/city-of-north-vancouver/documents/housing/cnvlive1332671v1housingactionplanhousingpolicyalternativesresearchpreparedbycityspacesconsulting.ashx?la=en. Accessed date between September 2017 and March 2018.

Co-operative Housing Federation of British Columbia. What is co-op housing? Vancouver, BC: Co-operative Housing Federation of British Columbia; 2017; Available from: http://www.chf.bc.ca/

what-co-op-housing. Accessed date between September 2017 and March 2018

Droste, C. (2015). German co-housing: an opportunity for municipalities to foster socially inclusive urban development? *Urban Res Pract, 8*(1), 79–92 **Available from:** https://www.tandfonline.com/doi/full/10.1080/17535069.2015.1011428. Accessed date between September 2017 and March 2018

Flint, J., & Kearns, A. (2006). Housing, neighbourhood renewal and social capital: the case of registered social landlords in Scotland. *Int J Housing Policy, 6*(1), 31–54 **Available from:** https://www.tandfonline.com/doi/abs/10.1080/14616710600585716.

Groundswell Cohousing. Our story. Chilliwack, BC: Groundswell Cohousing; 2017; Available from: http://groundswellcohousing.ca/our-story/. Accessed date between September 2017 and March 2018.

Hood, E. (2005). Dwelling disparities: how poor housing leads to poor health. *Environ Health Perspect, 113*(5), A310–A3A7 **Available from:** http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1257572/. Accessed date between September 2017 and March 2018

Kehl, K., & Then, V. (2013). Community and civil society returns of multi-generation cohousing in Germany. *J Civil Soc, 9*(1), 41–57 **Available from:** https://www.tandfonline.com/doi/abs/10.1080/17448689.2013.771084.

Kirmayer, L., Simpson, C., & Cargo, M. (2003). Healing traditions: culture, community and mental health promotion with Canadian aboriginal peoples. *Australas Psychiatry, 11*(sup1), S15–S23 **Available from:** https://onlinelibrary.wiley.com/doi/abs/10.1046/j.1038-5282.2003.02010.x.

Lang R, Novy A. Cooperative housing and social cohesion: the role of linking social capital. Eur Plan Stud 2014 Aug;22(8):1744–1764. Available from: https://doi.org/10.1080/09654313.2013.800025.

Moran, M., Memmott, P., Long, S., Stacy, R., & Holt, J. (2002). Indigenous home ownership and community title land: a preliminary household survey. *Urban Policy Res, 20*(4), 357–370. **Available from:**. https://doi.org/10.1080/0811114022000032591.

Nicholson, N. R. (2012). A review of social isolation: an important but underassessed condition in older adults. *J Prim Prev, 33*(2–3), 137–152 Available from: https://www.ncbi.nlm.nih.gov/pubmed/22766606. Accessed date between September 2017 and March 2018

Pinquart, M., & Duberstein, P. R. (2010). Associations of social networks with cancer mortality: a meta-analysis. *Crit Rev Oncol Hematol, 75*(2), 122–137 **Available from:** https://www.ncbi.nlm.nih.gov/pubmed/19604706. Accessed date between September 2017 and March 2018

Ruiu, M. L. (2015). The effects of cohousing on the social housing system: the case of the threshold centre. *J Housing Built Environ, 30*(4), 631–644 **Available from:** https://link.springer.com/article/10.1007/s10901-015-9436-7. Accessed date between September 2017 and March 2018

Ruiu, M. L. (2016). The social capital of cohousing communities. *Sociology, 50*(2), 400–415 **Available from:** http://journals.sagepub.com/doi/abs/10.1177/0038038515573473.

Sanguinetti, A. (2014). Transformational practices in cohousing: enhancing residents' connection to community and nature. *J Environ Psychol, 40*, 86–96 **Available from:** http://www.sciencedirect.com/science/article/pii/S0272494414000450. Accessed date between September 2017 and March 2018

Schwartz M, Wilson E. Who can afford to live in a home?: a look at data from the 2006 American Community Survey. Suitland, MD: US Census Bureau; 2008. Available from: https://www.census.gov/housing/census/publications/who-can-afford.pdf. Accessed date between September 2017 and March 2018

Sherwood, H. (2014). Co-housing – a community-based end to human isolation? *100 Resilient Cities*.

Stewart, M., Reutter, L., Makwarimba, E., Veenstra, G., Love, R., & Raphael, D. (2008). Left out: perspectives on social exclusion and inclusion across income groups. *Health Sociol Rev, 17*(1), 78–94 **Available from:** https://www.tandfonline.com/doi/abs/10.5172/hesr.451.17.1.78.

Tavakoli A, Craig K. Supporting friendier, more neighbourly multi-unit buildings in Vancouver. Vancouver, BC: City of Vancouver; 2017. **Available from:** https://sustain.ubc.ca/sites/sustain.ubc.ca/files/GCS/2017_GCS/Final_Reports/Supporting%20friendlier%20more%20neighbourly%20multi-unit%20buildings%20in%20Vancouver_Tavakoli_%202017%20GCS.pdf. Accessed date between September 2017 and March 2018

Tester, F. (2009). Iglutaasaavut (our new homes): neither "new" nor "ours": housing challenges of the Nunavut Territorial Government. *J Can Stud, 43*(2), 137–158 **Available from:** https://utpjournals.press/doi/abs/10.3138/jcs.43.2.137.

Thériault L, Leclerc A, Wisniewski AE, Chouinard O, Martin G. "Not just an apartment building": residents' quality of life in a social housing co-operative. Can J Nonprofit Social Econ Res 2010;1(1):82. Available from: http://anserj.ca/index.php/cjnser/article/view/11/9. Accessed date between September 2017 and March 2018

Torres-Antonini M. Our common house: using built environment to develop supportive communities: Univesity of Florida; 2001. **Available from:** http://etd.fcla.edu/UF/UFE0000360/torres_m.PDF. Accessed date between September 2017 and March 2018

Wardle JL. Exploring the relationship between social isolation, loneliness and housing. Toronto, ON: Ryerson University; 2013a. **Available from:** http://digital.library.ryerson.ca/islandora/object/RULA:2731.

Wardle J. Exploring the relationship between social isolation, loneliness and housing. Toronto, ON: Ryerson University; 2013b. **Available from:** http://digital.library.ryerson.ca/islandora/object/RULA:2731. Accessed date between September 2017 and March 2018

White-Harvey, R. J. (1993). Cohousing: a Scandinavian longhouse, or a traditional approach to modern housing? *Can J Native Stud, 13*(1), 69–82 **Available from:** http://www3.brandonu.ca/cjns/13.1/White-Harvey.pdf. Accessed date between September 2017 and March 2018

Williams, J. (2005). Designing neighbourhoods for social interaction: the case of cohousing. *J Urb Design, 10*(2), 195–227 **Available from:** https://www.tandfonline.com/doi/pdf/10.1080/13574800500086998.

Williams, J. (2008). Predicting an American future for cohousing. *Futures, 40*(3), 268–286 **Available from:** https://www.sciencedirect.com/science/article/pii/S0016328707001103. Accessed date between September 2017 and March 2018